Imperium Terminal Services Expansion Project

Draft Environmental Impact Statement – Volume 2



CITY OF HOQUIAM

DEPARTMENT OF ECOLOGY
State of Washington

August 2015

VOLUME 2

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Appendix A

Scoping Report

PUBLIC COMMENT EXCERPT-BY-ISSUE FINAL REPORT

WESTWAY AND IMPERIUM EXPANSION PROJECTS

SEPA ENVIRONMENTAL IMPACT STATEMENTS

PREPARED FOR:

City of Hoquiam
609 8th Street
Hoquiam, WA 98550

Department of Ecology, Southwest Regional Office
P.O. Box 47775
Olympia, WA 98504

PREPARED BY:

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710 Second Avenue, Suite 550
Seattle, WA 98104

MAY 23, 2014

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Introduction

The Westway Terminal Company and Imperium Renewables each propose to expand existing bulk liquid storage terminals located at the Port of Grays Harbor in the City of Hoquiam. The City of Hoquiam and the Washington State Department of Ecology entered into a memorandum of understanding (MOU) to work cooperatively as Co-lead Agencies for the completion of Washington State Environmental Policy Act (SEPA) Environmental Impact Statements (EISs), which are required for these projects.

On April 10, 2014, the Co-lead Agencies requested input from the public on the "scope" or content of the EISs. Public comments have been received via web form, mail, and handouts from scoping meetings. Today's report represents public comments received via the web form. As of June 3, 2014, 379 submissions have been received via the web form. Of these submissions 283 were identified as containing unique text and warranted a detailed analysis of their content. The 283 unique submissions are the subject of today's report. Of the remaining 96 submissions, 20 are duplicate submissions, 32 are not germane to the EISs, 12 are form letter copies, and 32 have not been analyzed.

ICF's process for analyzing public comments builds upon our commercial web-based CommentWorks® software product. As a first step, we created a web form to collect comments. Comments submitted via the web form were directly entered into CommentWorks. A hierarchical outline was developed to include key issues addressed by the commenters. Next ICF staff reviewed the comment letters, identifying the substantive excerpts within each submission ("bracketing"), and used the issue outline to associate each excerpt to the issue(s) to which it applies ("coding"). The end product of the bracketing and coding analysis is this "comment excerpt-by-issue report" – a report generated in CommentWorks that includes the *verbatim text* of substantive comment excerpts sorted by issue.

A note about the material presented in this report: Please keep in mind that this report includes verbatim comment excerpts as written by the commenters. The purpose of presenting this material in its verbatim form is to preserve the exact words of the commenter as they relate to each issue.

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000000003	Garrett Phillips
000000004	Environmental Services Directory for Washington State, Jeremy Mattox
000000005	Yovonne Autrey
000000006	John and Polly Wood
000000007	Michael Young
000000008	Vicki Johnson
000000009	David Perk
000000013	Libby Hazen
000000015	Garrett Phillips
000000016	Mr, Rodney Tharp
000000017	Northbeach Community Gruop, Lisa Riemer
000000018	Tom Crawford
000000019	Glen Anderson
000000020	Janis Duddles
000000021	Wendy Bartlett
000000022	University of Washington, Donald Gunderson
000000023	World Temperate Rainforest Network, Pat Rasmussen
000000024	Anne Elkins
000000025	Thomas Holz
000000026	Garry Dale
000000027	Indepent Artist/Disabled, Diane Hicks
000000028	Tori Kovach
000000029	Mary Meyers
000000030	Inga Carmack
000000031	Health Care for All-WA, Martha Koester
000000032	Friends of the Library, Oakville Community Hall Library (FOTL), Constance Holmes
000000033	Mark McFeely
000000035	Sandra Sterling
000000036	David Bishop
000000037	Daryl Johnson
000000038	Ms., Rod Tharp
000000039	Ms., Rod Tharp

Submission Number	Commenter
000000040	Demelza Costa
000000041	Gail Streicker
000000042	Jodi Tanner Tell
000000044	me and my kids, Dainela Brod
000000046	Friends of the Gorge, Gisela Ray
000000050	Arlene Eubanks
000000052	Sharon Rickman
000000054	Carol Rose
000000055	Charlotte Sahnow
000000056	Nick Lorax
000000059	US Citizen, John Eddy
000000060	Laura van Fleet
000000061	Kevin Drake
000000062	Rex Valentine
000000063	El Centro de la Raza, Estela Ortega
000000064	Wild Game Fish Conservation International, James Wilcox
000000067	Roy Vataja
000000070	Patricia Szot
000000071	Carol Brumfield
000000072	small business owner , Karen Grimstad
000000073	Jim Steitz
000000078	Sandy Wood
000000080	Sierra Club, Sharon Miller
000000081	Jana Wiley
000000082	Robert DeBuhr
000000083	Travis Heinze
000000084	Eric LaBrant
000000085	Eric LaBrant
000000086	Ronald Hawk
000000087	Herb Hethcote
000000088	Mr, Rodney Tharp
000000096	Mr, Rodney Tharp
000000098	Willam Ward
000000099	Robin Moore
000000100	Heather Haverfield
000000101	Patricia Holm
000000102	Duane Callos
000000103	Mr, Rod Tharp
000000104	Joel Carlson

Submission Number	Commenter
000000105	Allison Collins
000000106	Jan Verrinder
000000107	Marilyn Dungan
000000108	Raymond Shustak
000000109	David Linn
000000110	Denise Burke
000000114	Robin Moore
000000116	League of Women Voters of Washington, Kim Abel
000000117	A concerned citizen participating in the democratic process, Abby Brockway
000000118	a concerned citizen, Abby Brockway
000000119	none, Diana Gordon
000000123	Kristin Hermenegildo
000000125	Gregory Flood
000000131	Susan Sunshine
000000132	Teresa Harper
000000133	Francis Estalilla
000000134	larry bridenback
000000135	Larry Haaga
000000136	Bruce Rinnert
000000137	dale and MargRET VERMILLION
000000138	concerned citizen, Shawn Murray
000000139	Don Overby
000000140	Northern Plains Resource Council, Nancy McManus
000000141	Judy Staigmiller
000000142	CCA, William Kearse
000000143	lee wilder
000000144	AlterTone Music, Russell Blalack
000000145	Don Kiehn
000000146	Lynne Dixon
000000147	Peggy Miller
000000148	Grafix, Rich Clawson
000000149	Bob Young
000000150	Mr., Jim Davis
000000151	Robin Moore
000000152	Robin Moore
000000153	Paul Stormo
000000154	concerned citizen, Lydia Garvey

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000000155	Ms., Cate Campbell
000000157	Verne House
000000158	Robin Moore
000000159	Karen and Ronald Siebrass
000000160	Walter Appel
000000161	Chris Meyer
000000162	Howard Moe
000000164	Kelle Metz
000000166	League of Women Voters / Spokane Area, Ann Murphy
000000167	Bob Zeigler
000000168	Gig harbor puget sound anglers, Steve Ng
000000169	Gig harbor puget sound anglers, Steve Ng
000000171	Randy King
000000172	Anne Clark
000000173	Fred Pentt
000000174	Twin Harbors Fish & Wildlife Advocacy, Tim Hamilton
000000175	Grays Harbor County, Frank Gordon
000000176	FOGH (Friends of Grays Harbor), Arthur Grunbaum
000000177	Hans Mak
000000178	League of Women Voters of Grays Harbor, Shannon Vandenbush
000000179	Shannon Vandenbush
000000180	Shannon Vandenbush
000000181	Shannon Vandenbush
000000182	Shannon Vandenbush
000000183	Mary Holder
000000184	Verne House
000000185	Shelli Hopsecger
000000186	Shannon Vandenbush
000000187	Shannon Vandenbush
000000188	Chehalis River Council, Rob Schanz
000000189	Shannon Vandenbush
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000000192	Shannon Vandenbush

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000000193	Kevin McCarroll
000000194	Laura Reisdorph
000000195	Robin Moore
000000197	Janice Gegg
000000198	NORTH BEACH ASSOC., LEE RIENER
000000199	Tom Crawford
000000200	Roger Imes
000000201	G.W. "Bill" Osborn
000000202	frank huber jr
000000203	Monique Kovalenko
000000204	CCA, Gary Johnson
000000205	Pacific County Anglers, Gsary Johnson
000000208	Mr., Glen Anderson
000000209	none, Lyle Olmsted
000000210	Mr., Michael Beasley
000000211	Washington State Department of Transportation, Megan White
000000212	Surfers' Environmental Alliance, Jim Littlefield
000000213	Idaho Conservation League, Susan Drumheller
000000214	National Park Service, Christine Lehnertz
000000215	self, Max Vogt
000000216	Christopher Sauer
000000218	Benjamin Lucal
000000220	Kurt Heinz
000000221	Steve Iverson
000000222	James Heins
000000223	Independent, Jean Mullen
000000227	Julie Rabey
000000228	Ken Bedell
000000229	USDA Forest Service - CRGNSA, Robin Shoal
000000230	City of Hoquiam, Brian Shay
000000233	Gretchen Staebler
000000234	Polly Boyajian
000000235	Ms., Pam Borso
000000236	Involved Democracy, Brian Gunn
000000237	Matt Brady

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000000238	Citizen of Aberdeen, Jamie Judkins
000000239	Janet Bess
000000240	Shoalwater Bay Tribe, Douglas Davis
000000242	Penny Lightfoot
000000243	Tiffany Heroux
000000244	private citizen, mary holmes
000000245	Arnie Martin
000000246	Arnie Martin
000000247	Arnie Martin
000000248	Arnie Martin
000000249	Lewis County for Safe Rails, Larry Kerschner
000000250	Arnie Martin
000000252	Arnie Martin
000000254	Arnie Martin
000000255	Arnie Martin
000000256	Robin Moore
000000257	Arnie Martin
000000258	Arnie Martin
000000259	Arnie Martin
000000260	Arnie Martin
000000261	Arnie Martin
000000262	Arnie Martin
000000263	Arnie Martin
000000265	Arnie Martin
000000266	Arnie Martin
000000267	Arnie Martin
000000268	Charles Metzenberg
000000270	Ilene Silver
000000271	Mr., Michael Gary
000000272	Kelso resident, Roy Staples
000000273	Ron Figlar-Barnes
000000275	Citizens For A Clean Harbor, Mary Riley
000000276	Diana Gordon
000000278	Candace Milne
000000279	James Thomas
000000280	Karl Goeres
000000281	Cheri Goeres
000000282	William Brake
000000283	James George

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000000284	Marisa Salzer
000000285	Beth Kaeding
000000290	William Brake
000000292	Thomas Gordon
000000293	Louie Long
000000294	Brian Jonas
000000296	Steve Hallstrom
000000300	Diana Gordon
000000305	Judy Sherdahl
000000307	Pacific County, Steve Rogers
000000308	City of Vancouver, Eric Holmes
000000309	Westport Charters, Steve Westrick
000000310	Robin Moore
000000312	Bruce Hoeft
000000313	Robert Whitlock
000000315	Riverside Fire Authority, Richard Mack
000000316	OLympia F.O.R., Rozanne Rants
000000318	Councilmember City of Aberdeen, Alan Richrod
000000319	Bruce Hoeft
000000320	City of Washougal, Sean Guard
000000321	Carrie Larson
000000323	Karuna Johnson
000000325	City of Spokane, Ben Stuckart
000000326	Barbara Scavezze
000000328	Sherri Garland
000000329	citizen, Judy Carter
000000330	citizen, Judy Carter
000000331	citizen, Judy Carter
000000332	citizen, Judy Carter
000000333	citizen, Judy Carter
000000334	citizen, Judy Carter
000000335	Ms., Tammy Domike
000000336	Lillian Broadbent
000000338	John Larson
000000339	Dept of Natural Resources, Megan Duffy
000000340	Ms., Tammy Domike
000000341	Eric Sherdahl
000000342	Thomas Gordon

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000000343	Daniel Domike
000000344	Janet Strong
000000345	Clark County Fire & Rescue, Tim Dawdy
000000347	Private citizen, Brian Sterling
000000348	The Surfrider Foundation, Casey Dennehy
000000349	City of Westport, Michael Bruce
000000350	none, Beverly Bassett
000000351	Marsha Lovely
000000352	citizen, Albert Carter
000000353	Jefferson County, Carolyn Avery
000000354	City of Ridgefield, Steve Stuart
000000355	City of Chehalis Fire Department, Robert Gebhart
000000356	NOAA - Olympic Coast National Marine Sanctuary, Carol Bernthal
000000357	Friends of the Earth, Marcie Keever
000000358	Washington Dept of Fish and Wildlife, Michele Culver
000000360	Lynn Metzenberg
000000363	Washington State Legislature, Reuven Carlyle
000000364	Jude Armstrong
000000366	City of Ocean Shores, Crystal Dingler
000000367	St. Mark's Episcopal Church, James Campbell
000000368	Diana Gordon
000000370	Mike Petersen
000000371	Tahoma Audubon Society, Peter Hodum
000000373	Nancy Baker-Krofft
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000000282	William Brake
000000290	William Brake
000000375	William Brake
000000023	World Temperate Rainforest Network, Pat Rasmussen
000000005	Yovonne Autrey

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Section 1 - Earth

Comment Number: 000000064-11
Organization: Wild Game Fish Conservation International
Commenter: James Wilcox
Commenter Type: Organization

Comment Excerpt Text:
Petrochemical product spill recovery/mitigation effectiveness • Flood related damage to pipelines, rails, storage and port infrastructure • Stability of lands - mudslides • Climate change mitigation - flooding, sea level increases • Seismic activity /tsunami mitigation

Section 1.1 - Geology and soils

Comment Number: 000000054-4
Organization:
Commenter: Carol Rose
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
Our area is susceptible to land slides and earthquakes. We are now in the time frame of the "big one"! Our state's welfare, population and environment would never recover in our lifetime if that happens and we have hundreds of thousands of barrels of oil traveling throughout our state or in storage at Port of Vancouver, Port of Grays Harbor, etc. All oil trains will pass through Clark County. Please expand your environmental scoping for this project to cover all aspects possible. The very existence of our state may hinge on this.

Comment Number: 000000085-3
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 1.2 1.3
Comment Excerpt Text:
Additional potential for derailment, spill, or unburned vapor release in the event of power outage - Likelihood for derailment, spill, or unburned vapor release in the event of earthquake - Likelihood for derailment, spill, or unburned vapor release in the event of tsunami - Seismic review of the site and potential for rock slide or liquefaction - Potential increased chance of rock slide and/or liquefaction throughout Washington State due to increased rail traffic - Impact on Columbia Shoreline and Pacific coast due to increased rail traffic - Increased erosion due to increased rail traffic -

Comment Number: 000000176-12
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:

Discussion should include impacts from any alteration in landform or physical oceanographic change/habitat change (e.g., changes in nearshore currents);

Comment Number: 000000176-8
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
6. Physical oceanography and coastal processes including alteration of littoral drift. Changes due to dredging activities. Erosion potentials.

Comment Number: 000000262-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
The Facility Spill portion states tanks "will be built in accordance with the current API 650 standard for tank construction". The project site is located on soils derived from dredged materials that have a high liquefaction susceptibility factor. The site is rated as a seismic class D-E site. The Imperium proposal is not expected to increase the liquefaction potential. • The new storage tanks shall be constructed on a concrete slab supported by a series of grout driven piles which will be driven to an approximate depth of 75 feet into the ground. Existing tanks with piles driven to approximately 75 feet show no evidence of differential settling or settling beyond what was predicted by geotechnical engineers.

Comment Number: 000000262-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
• An analysis of soil suitability at the site was performed in 2006 and an additional analysis will be performed by GeoEngineers to confirm soil suitability for the project. No significant change is expected due to the material being uniform fill across the entire site. The applicant's SEPA checklist, dated February 22, 2013, section VII Appendix B Geotech Report dated June 13, 2006, under Project Description states: "The site is located approximately 100 miles from a potentially large subduction earthquake. The magnitude is estimated at 9.5 and the shaking would likely last two minutes. The estimated return period is 300 to 700 years. Based on previous nearby work, an earthquake of this magnitude would cause substantial liquefaction settlement and lateral spreading" And also states under Conclusions and Recommendations, General: "It is our opinion that the site improvements can be constructed generally as envisioned. The foundation design recommendations presented, both shallow and deep, are not intended to withstand a major subduction zone earthquake, which may be technically impossible."

Comment Number: 000000262-3
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:

The plans are to construct the storage tanks on a concrete slab supported by a series of grout driven piles which will be driven to an approximate depth of 75 feet into the ground. This design, which has worked successfully at the site since 2006, has never been tested by a subduction zone earthquake, and should not be a basis for design of such a large crude oil storage facility. Note that the Westway storage tanks, which are larger diameter, but have the same unit loading (the tanks are the same depth) are to hae their foundation pilings driven to a depth of 150 feet, which is below the layer of dredge fill. The GeoEngineers report cited above states “Based on previous nearby work, an earthquake of this magnitude would cause substantial liquefaction settlement and lateral spreading”. Please comment on the discrepancy of the piling designs between the two projects, and why the Imperium tank foundations should not use deeper pilings to reach the consolidated layers described in the GeoEngineers report.

Comment Number: 000000280-5
Organization:
Commenter: Karl Goeres
Commenter Type: Public

Comment Excerpt Text:
The rail line also runs under several unstable steep slopes which a proven to be prone to landslides. A landslide that pushes a train into the Chehalis river would be devastating and the probability of it happening is high.

Comment Number: 000000284-2
Organization:
Commenter: Marisa Salzer
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
Rail Safety - Due to the geography close to the flood plain, annual rainfall and moisture content of the soil, the increased traffic and weight may not be supported by the current rail infrastructure. There have been three slow speed derailments within 16 days, two blamed on water under the ties.

Comment Number: 000000305-2
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 1.2 1.3
Comment Excerpt Text:
2.Disasters: Evaluate potential damage from severe disasters such as an earthquake,tsunami, landslides and hurricanes.Discuss mitigation planned to prevent massive pollution.

Comment Number: 000000331-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 7.2 5.1 10
Comment Excerpt Text:
Noise and vibration: from operation of the Port Facility machinery, and increased train, truck and vessel traffic: Assessment of potential for increased land/mudslides and derailment due to more and longer trains and the associated increase in trains, and vibration; Impacts on marine life from significant increase in underwater noise associated with increase in vessels. Impacts and modeling of wake stranding due to vessels. Light pollution at night from Facility and vessels.

Comment Number: 000000339-3
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 1.2 1.3
Comment Excerpt Text:
Geologic Hazards
Per Washington State Department of Natural Resources' 2004 Liquefaction Susceptibility Map of Grays Harbor County, Washington, the projects are proposed in an area with moderate to high liquefaction susceptibility. What measures will be taken to avoid spills or overflows associated with earthquakes? What measures will be taken to make sure spills or overflows do not occur due to tsunami waves?
DNR recommends the EIS analyze the potential for geologic hazards at the site using the following methodology:

a) Identify both shallow and deep-seated landslide hazards using DNR's GIS Statewide Landslide database and then create a site-specific geologic map. In areas with no existing landslide inventory, create a shallow landslide database using historic aerial imagery and other spatial data in a GIS.
b) Evaluate riverbank sloughing and subaqueous landslide hazards using bathymetry or similar DEM data.
c) Identify potentially unstable slopes using DNR's Shalstab model or other comparable slope stability modeling program in a GIS.
d) Identify slope hazards associated with slope modification or vegetation removal at construction areas.
e) Evaluate earthquake hazards including earthquake-induced ground failures.
f) If dredging for port access, identify potential hazards to adjacent beaches and bluffs from loss of subaqueous buttressing, and
g) Identify tsunami inundation hazards from both local faults and a Cascadia subduction zone event, or through subaqueous or terrestrial landslides. Explicitly address increased risk of inundation resulting from climate change and sea level rise

Section 1.2 - Seismic events

Comment Number: 000000028-2
Organization:
Commenter: Tori Kovach
Commenter Type: Public

Comment Excerpt Text:
2) Many studies of the Cascadia Subduction Zone have been done, but will there be any to determine if the swarms of earthquakes resulting from fracking across western and mid-western states can precipitate a slip plain event along the northern Cascadia fault, an event that will impact crude oil tank farm sites in Hoquiam? (Like shaking the table until a plate falls off.)

Comment Number: 000000028-4
Organization:
Commenter: Tori Kovach
Commenter Type: Public
Other Sections: 1.3 15
Comment Excerpt Text:

4) The proposed Imperium expansion seeks an increase of 720,000 barrels of storage for volatile and heavily polluting fuels and other products. The proposed site is on fill material within the flood plain of the Chehalis River upstream of a highly productive estuary and a National Wildlife Refuge that is of international significance to bird species protected by international and tribal treaties. What provisions are being made to contain these fuels in the event of a) rupture of one of the multiple tanks b) earthquake c) tsunami d) storm surge e) terrorist assault?

Comment Number: 000000035-2
Organization:
Commenter: Sandra Sterling
Commenter Type: Public
Other Sections: 1.3
Comment Excerpt Text:
We think this is a horrible spot to put oil storage. It is has a Wildlife Preserve on one side, a baseball park and High School on the other side. A Middle School, and Kindergarten and 1st grade facility close. It is sitting on mud flats in the center of Grays Harbor bay. It would be a disaster waiting to happen if we had a Tsunami or Earthquake. Where they are talking about expanding the railroad tracks to is in a hill slide area. I vote no.

Comment Number: 000000036-1
Organization:
Commenter: David Bishop
Commenter Type: Public

Comment Excerpt Text:
If there is more Oil in the Port will not lessen the chance of a 9.2 Earthquake today or the mounting chance of it happening in the near future, with the recovery reaching to the point of impossible. Just saying !

Comment Number: 000000054-4
Organization:
Commenter: Carol Rose
Commenter Type: Public
Other Sections: 1.1
Comment Excerpt Text:
Our area is susceptible to land slides and earthquakes. We are now in the time frame of the "big one"! Our state's welfare, population and environment would never recover in our lifetime if that happens and we have hundreds of thousands of barrels of oil traveling throughout our state or in storage at Port of Vancouver, Port of Grays Harbor, etc. All oil trains will pass through Clark County. Please expand your environmental scoping for this project to cover all aspects possible. The very existence of our state may hinge on this.

Comment Number: 000000085-3
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 1.3 1.1
Comment Excerpt Text:
Additional potential for derailment, spill, or unburned vapor release in the event of power outage - Likelihood for derailment, spill, or unburned vapor release in the event of earthquake - Likelihood for derailment, spill, or unburned vapor release in the event of tsunami - Seismic review of the site and

potential for rock slide or liquefaction - Potential increased chance of rock slide and/or liquefaction throughout Washington State due to increased rail traffic - Impact on Columbia Shoreline and Pacific coast due to increased rail traffic - Increased erosion due to increased rail traffic -

---

Comment Number: 000000176-28
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 1.3
Comment Excerpt Text:
19. Ecological damage from a severe natural disaster such as an earthquake or tsunami – discuss mitigation planned to prevent massive pollution.

Comment Number: 000000176-35
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 1.3
Comment Excerpt Text:
(c) The review does not appear to take into consideration that the area is in a tsunami hazard zone and would be inundated by an event and subject to liquefaction. How will you account for the impacts due to tsunami and liquefaction?

Comment Number: 000000179-3
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
What provisions will be put in place to be able to respond to two, or three disasters that might happen in different areas of the County. For Example, if an earthquake damages the off loading equipment during transfer, causing oil to be spilled on water, high winds and currents begin to move the oil to the direction of the North Beach- while at the same time, the earthquake causes a train to derail and explode in downtown Aberdeen?In the event of equipment failure on any part or portion of multiple simultaneous disaster scenario, what do the proponents plan to do to mitigate the catastrophic effects of oil spill? What plans are in place to make a proper assessment of which disaster needs first response efforts and resources?

Comment Number: 000000183-4
Organization:
Commenter: Mary Holder
Commenter Type: Public

Comment Excerpt Text:

Impacts resulting from Seismic Events:The scope of the EIS must include a full analysis of the potential impact on the planned facilities from events such as a tsunami or an earthquake within the vicinity of the project. A full analysis of these impacts is particularly important in light of the project's handling of volatile Bakken crude.

Comment Number: 000000257-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.3
Comment Excerpt Text:
The SEPA checklist (20130222) states "The tanks would be encompassed by a berm designed in compliance with National Fire Protection Association (NFPA) 30 requirements and will contain 100 percent of the total volume of one tank plus an additional 6 inch allowance for precipitation." Building a berm (an earthen structure) adjacent to Fry Creek and separated from Grays Harbor by only the Port's peripheral rail loop is not sufficient to protect against the destruction of the berm by a tsunami resulting from a nearby subduction zone earthquake. It seems that the requirements for the containment wall for the storage tanks, 100% of the volume of the largest tank (80,000 Barrels) plus an allowance for rainfall (6") will not be adequate protection against a subduction zone earthquake. It is virtually impossible to accurately determine the area contained within the berm from the information in the Project 30359.00 Figure 2, revision A drawing, but a rough calculation indicates the area inside the initial 5-tank berm of approximately 83,600 ft² less the area of 4 tanks (4 x 7,088 ft² = 28,352 ft²) or 55,248 ft². As each tank is the same volume (453,645 ft3), the berm height necessary is 8.21 ft plus the 0.5 ft for rainfall, or 8.71 ft. The 5th tank (the leaking one) cannot empty to a depth greater than the oil depth within the berm, and its area (other than that of the tank sidewalls) need not be deducted. Looking at the Figure 2, revision A drawing, it seems obvious that there is not adequate area to build a sloping earthen berm with 1.5 width to height ratio (on each side, inside and outside) around the 5 tanks. The site is not adequate to contain such a wide earthen berm (28.13 ft including a 2 foot crest width). It appears that a concrete containment wall with an adequate foundation would be required to fit the site. The last major subduction zone earthquake (January 26, 1700) on the Cascadia fault resulted in a 2 meter drop in land elevation (USGS, Atwater, 2005). If the next major quake only resulted in a 1 meter (3.28 Ft) drop in land elevation, the ground elevation at the base of the containment wall would drop from the current approx 15 ft to approx 11.7 ft. Based on the height of the tsunami that resulted from the magnitude 9.0 Fukushima earthquake of 2011, which had an average wave height of 10 meters (the height of a 4-story building), assuming a wave height of 6.5 meters in Grays Harbor would seem conservative. A 6.5 meter wave (21.32 ft) would overtop the containment wall by (21.32 ft – (11.7 ft + 8.71ft) = 21.32 ft – 20.41 ft = 0.91 ft. Note that these results are made worse when the tide state is at a higher level. Now assume that the subduction zone earthquake results in the rupture of only one of the storage tanks. As seawater is denser than Bakken formation crude oil, the entire volume of the ruptured tank's crude oil confined within the wall (up to 80,000 barrels) would be displaced by the water and floated over the top into the Harbor. The result of such a tsunami would be the total destruction of most of the harbor's infrastructure, also such an oil spill would take the harbor to a unrecoverable ecological state for many decades. An earthquake of this magnitude would very likely cause a rupture in more than one of this project's ultimate number of 9 tanks. Please note that there is still crude oil being recovered from the 110,000 barrel Exxon Valdez spill which occurred over 40 years ago. Why does the proponent, Imperium, only have to meet a containment standard that has not been updated to reflect what Dr Atwater's research shows would happen in this coastal environment?

Comment Number: 000000258-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
The use of an earthen berm for storage tank spill containment, as mentioned in SEPA checklist 20130222 item 11, is unlikely to be adequate containment during and following a subduction zone earthquake. The

construction is based on a 1996 geotechnical report for an adjacent site. The section mentioning the possibility of soil liquefaction during an earthquake only mentions vertical settlement, ignoring the likely lateral spreading which may occur adjacent to Fry creek. Lateral spreading will cause the disruption of an earthen berm, resulting in loss of containment when it is absolutely required. Basing the necessary containment on a 1996 report based on test borings at an adjacent site is not adequate, and a new geotechnical report conducted on the actual site must be required. Please require that a reinforced concrete spill containment structure with a supporting structure designed by geotechnical and structural engineers will be required for this site, lessening the possibility of containment failure.

Comment Number: 000000261-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
The spill containment of railcars placed next to Fry Creek, as mentioned in SEPA checklist 20130222, item 11, is unlikely to be adequate containment during and following a subduction zone earthquake. No mention of railcar spill containment is made, other than that it will be "capable of containing the maximum volume of any single compartment of a tank car." Whatever type of railcar spill containment structure is used, due to its location next to Fry Creek, it will be subject to lateral spreading during a strong earthquake. The verbiage about a single compartment is in error, as the railcars that are used for transporting crude oil are not compartmentalized, each having a capacity of from 650 – 750 barrels (27,300 – 31,500 gallons). The footing under the railcar unloading tracks/containment area must be designed under the supervision of a geotechnical engineer, due to its location adjacent to the bank of Fry Creek, and, the fill material on which it is to be built being dredge spoils. Such fill material is subject to both vertical settlement and lateral spreading during a seismic event. Please require that there must be an engineered design, by licensed geotechnical and structural engineers, to prevent the tilting and or collapse of the unloading tracks during a seismic event, to avoid the possibility of track shifting which might cause the tipping of all railcars that are unloading or staged for unloading.

Comment Number: 000000262-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.1
Comment Excerpt Text:
• An analysis of soil suitability at the site was performed in 2006 and an additional analysis will be performed by GeoEngineers to confirm soil suitability for the project. No significant change is expected due to the material being uniform fill across the entire site. The applicant's SEPA checklist, dated February 22, 2013, section VII Appendix B Geotech Report dated June 13, 2006, under Project Description states: "The site is located approximately 100 miles from a potentially large subduction earthquake. The magnitude is estimated at 9.5 and the shaking would likely last two minutes. The estimated return period is 300 to 700 years. Based on previous nearby work, an earthquake of this magnitude would cause substantial liquefaction settlement and lateral spreading" And also states under Conclusions and Recommendations, General: "It is our opinion that the site improvements can be constructed generally as envisioned. The foundation design recommendations presented, both shallow and deep, are not intended to withstand a major subduction zone earthquake, which may be technically impossible."

Comment Number: 000000262-3
Organization:

Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.1
Comment Excerpt Text:
The plans are to construct the storage tanks on a concrete slab supported by a series of grout driven piles which will be driven to an approximate depth of 75 feet into the ground. This design, which has worked successfully at the site since 2006, has never been tested by a subduction zone earthquake, and should not be a basis for design of such a large crude oil storage facility. Note that the Westway storage tanks, which are larger diameter, but have the same unit loading (the tanks are the same depth) are to hae their foundation pilings driven to a depth of 150 feet, which is below the layer of dredge fill. The GeoEngineers report cited above states "Based on previous nearby work, an earthquake of this magnitude would cause substantial liquefaction settlement and lateral spreading". Please comment on the discrepancy of the piling designs between the two projects, and why the Imperium tank foundations should not use deeper pilings to reach the consolidated layers described in the GeoEngineers report.

Comment Number: 000000263-3
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
The referenced API 650 Standard for Welded Steel Storage Tanks, section E, Seismic Design of Storage Tanks provides the tank designer with the tools to protect the tank from failure due to earthquake. This section does not define what ground accelerations are used in the design of the tank, but does state: "The ground motion requirements in this appendix are derived from ASCE 7, which is based on a maximum considered earthquake ground motion defined as the motion due to an event with a 2% probability of exceedance within a 50-year period (a recurrence interval of approximately 2,500 years). Application of these provisions as written is deemed to meet the intent and requirements of ASCE 7." The USGS Hazards map for Washington-Oregon 2008 with 2% probability over a 50 year period (map attached) shows the lateral peak ground accelerations at the project site to be in the 0.69g to 0.83g range. Please consult with a competent structural engineer to set the criteria for lateral ground acceleration the tanks will be designed to withstand.

Comment Number: 000000305-2
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 1.1 1.3
Comment Excerpt Text:
2.Disasters: Evaluate potential damage from severe disasters such as an earthquake,tsunami, landslides and hurricanes.Discuss mitigation planned to prevent massive pollution.

Comment Number: 000000312-6
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 1.3
Comment Excerpt Text:
The EIS should seriously look at the safety of building oil storage and transport facilities on geologically unstable materials, and the likely impact of the type of earthquake that could happen here. Additionally, are the proposed sites reasonable given the likelihood of a tsunami event inside the harbor?

Comment Number: 000000321-6
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 1.3
Comment Excerpt Text:
Earthquake and tsunami danger to the proposed storage areas is also of concern, since our flatlands are pure fill, subject to liquefaction. What will be done to maximize safety in the event of natural disaster?

Comment Number: 000000331-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 1.3
Comment Excerpt Text:
Ecological damage from a severe natural disaster such as an earthquake or tsunami – discuss mitigation planned to prevent massive pollution.

Comment Number: 000000339-3
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 1.1 1.3
Comment Excerpt Text:
Geologic Hazards
Per Washington State Department of Natural Resources' 2004 Liquefaction Susceptibility Map of Grays Harbor County, Washington, the projects are proposed in an area with moderate to high liquefaction susceptibility. What measures will be taken to avoid spills or overflows associated with earthquakes? What measures will be taken to make sure spills or overflows do not occur due to tsunami waves?
DNR recommends the EIS analyze the potential for geologic hazards at the site using the following methodology:

a) Identify both shallow and deep-seated landslide hazards using DNR's GIS Statewide Landslide database and then create a site-specific geologic map. In areas with no existing landslide inventory, create a shallow landslide database using historic aerial imagery and other spatial data in a GIS.
b) Evaluate riverbank sloughing and subaqueous landslide hazards using bathymetry or similar DEM data.
c) Identify potentially unstable slopes using DNR's Shalstab model or other comparable slope stability modeling program in a GIS.
d) Identify slope hazards associated with slope modification or vegetation removal at construction areas.
e) Evaluate earthquake hazards including earthquake-induced ground failures.
f) If dredging for port access, identify potential hazards to adjacent beaches and bluffs from loss of subaqueous buttressing, and
g) Identify tsunami inundation hazards from both local faults and a Cascadia subduction zone event, or through subaqueous or terrestrial landslides. Explicitly address increased risk of inundation resulting from climate change and sea level rise

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Comment Number: 000000342-1
Organization:

Commenter: Thomas Gordon
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
I support the largest possible scoping for the EIS because I oppose the enlargement of these terminals. Two of my concerns revolve around possible earthquakes. If an earthquake off the coast occurred, a tsunami could wipe out the tank farms, spreading oil all the way up and down the coast. Another possibility concerns the tanks and their footing. Other tanks have failed due to poor footing in earthquakes, among other reasons, as seen in the report, "Review of Failures, Causes & Consequences in the Bulk Storage Industry." This report examines accidents worldwide, including one in Hertfordshire, UK, in 2005, that "resulted in what is widely regarded as the largest explosion in Europe since the Second World War."

Comment Number: 000000344-7
Organization:
Commenter: Janet Strong
Commenter Type: Public
Other Sections: 1.3
Comment Excerpt Text:
9. Capacity of oil storage tanks, loading and unloading facilities during trunamis, earthquakes and inevitable sealevel rise, all identified for this zone;

Comment Number: 000000348-5
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization
Other Sections: 7.1 1.3 14
Comment Excerpt Text:
4. In the event of a major oil spill, either by rail, ship, or transferring, what is the response plan? How much oil could be recovered under ideal circumstances? How much could be recovered under the worst circumstances such as an earthquake or tsunami? 5. How would the increase of rail transport impact the ability of first responders to answer public health emergencies, either due to congestion or derailment?

Comment Number: 000000352-3
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 7.1 1.3
Comment Excerpt Text:
Who will be libel for losses to existing industries should their be an oil spill. There should be clear language about who bears the responsibility in the event of a spill. Who compensate local investors in the event of an oil spill for loss of property values? Who will be responsible for maintaining, equipping local fire departments to combat an oil fire? All inspection reports on the status on rail infrastructure should be make public for an independent peer review. Who will be responsible for mitigation for increased noise, for air quality degradation, and for water degradation? Will the oil storage tanks be built to withstand and earthquake and the resulting tsunami? How much liability will the city of Hoquiam, Aberdeen, Montesano, Elma, Cosmopolis, Westport Oakvile and Ocean Shores bear in the event of an oil spill? Who will compensate the taxpayers for the cleanup expense and loss of investments.

Comment Number: 000000353-4
Organization: Jefferson County

Commenter: Carolyn Avery
Commenter Type: Agency
Other Sections: 1.3 7.4 7.1
Comment Excerpt Text:
3. The EIS consider potential failures, of structures or processes, that would cause oil to spill into the environment- such as derailments or other damage caused by earthquakes of various magnitudes, river flooding and associated debris, or tsunamis.
4. The EIS determine what additional infrastructure, plans, procedures and equipment should exist in order to minimize damage to the environment from a forecasted tsunami and to coordinate with the evacuation and other needs of the local population.

Comment Number: 000000358-2
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 7.4 1.3
Comment Excerpt Text:
The proposed increase in storage and associated systems for each of these projects will significantly increase the risk of an accidental oil release. In addition, the proposed volume of storage exponentially increases the impacts associated with any given release. Oil storage facilities can fail for a variety of reasons, including industrial accidents, unusual weather conditions such as severe stonns and flooding, and other natural disasters such as earthquakes and tsunamis-all of which pose a high risk.

Comment Number: 000000366-1
Organization: City of Ocean Shores
Commenter: Crystal Dingler
Commenter Type: Agency
Other Sections: 1.3
Comment Excerpt Text:
Storage of volatile commodities in our seismically active area is also of great concern. With the Cascadia Subduction Zone nearby, we are being encouraged by multiple federal and state agencies to plan for tsunami events.

Section 1.3 - Tsunami preparedness

Comment Number: 000000028-4
Organization:
Commenter: Tori Kovach
Commenter Type: Public
Other Sections: 1.2 15
Comment Excerpt Text:
4) The proposed Imperium expansion seeks an increase of 720,000 barrels of storage for volatile and heavily polluting fuels and other products. The proposed site is on fill material within the flood plain of the Chehalis River upstream of a highly productive estuary and a National Wildlife Refuge that is of international significance to bird species protected by international and tribal treaties. What provisions are being made to contain these fuels in the event of a) rupture of one of the multiple tanks b) earthquake c) tsunami d) storm surge e) terrorist assault?

Comment Number: 000000035-2
Organization:
Commenter: Sandra Sterling
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
We think this is a horrible spot to put oil storage. It is has a Wildlife Preserve on one side, a baseball park and High School on the other side. A Middle School, and Kindergarten and 1st grade facility close. It is sitting on mud flats in the center of Grays Harbor bay. It would be a disaster waiting to happen if we had a Tsunami or Earthquake. Where they are talking about expanding the railroad tracks to is in a hill slide area. I vote no.

Comment Number: 000000085-3
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 1.2 1.1
Comment Excerpt Text:
Additional potential for derailment, spill, or unburned vapor release in the event of power outage - Likelihood for derailment, spill, or unburned vapor release in the event of earthquake - Likelihood for derailment, spill, or unburned vapor release in the event of tsunami - Seismic review of the site and potential for rock slide or liquefaction - Potential increased chance of rock slide and/or liquefaction throughout Washington State due to increased rail traffic - Impact on Columbia Shoreline and Pacific coast due to increased rail traffic - Increased erosion due to increased rail traffic -

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Comment Number: 000000132-4
Organization:
Commenter: Teresa Harper
Commenter Type: Public

Comment Excerpt Text:
This just came into mind. We are in a tsunami and flood area. Go figure!!

Comment Number: 000000176-22
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
14. Grays Harbor Safety/ Geographic Response Plans – Plan is based on slack tide, what would happen and how would the plan be deployed in alternate tides, surge and weather conditions?

Comment Number: 000000176-28
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 1.2
Comment Excerpt Text:
19. Ecological damage from a severe natural disaster such as an earthquake or tsunami – discuss mitigation planned to prevent massive pollution.

Comment Number: 000000176-35
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 1.2
Comment Excerpt Text:
(c) The review does not appear to take into consideration that the area is in a tsunami hazard zone and would be inundated by an event and subject to liquefaction. How will you account for the impacts due to tsunami and liquefaction?

Comment Number: 000000257-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
The SEPA checklist (20130222) states "The tanks would be encompassed by a berm designed in compliance with National Fire Protection Association (NFPA) 30 requirements and will contain 100 percent of the total volume of one tank plus an additional 6 inch allowance for precipitation." Building a berm (an earthen structure) adjacent to Fry Creek and separated from Grays Harbor by only the Port's peripheral rail loop is not sufficient to protect against the destruction of the berm by a tsunami resulting from a nearby subduction zone earthquake. It seems that the requirements for the containment wall for the storage tanks, 100% of the volume of the largest tank (80,000 Barrels) plus an allowance for rainfall (6") will not be adequate protection against a subduction zone earthquake. It is virtually impossible to accurately determine the area contained within the berm from the information in the Project 30359.00 Figure 2, revision A drawing, but a rough calculation indicates the area inside the initial 5-tank berm of approximately 83,600 ft^2 less the area of 4 tanks (4 x 7,088 ft^2 = 28,352 ft^2) or 55,248 ft^2. As each tank is the same volume (453,645 ft3), the berm height necessary is 8.21 ft plus the 0.5 ft for rainfall, or 8.71 ft. The 5th tank (the leaking one) cannot empty to a depth greater than the oil depth within the berm, and its area (other than that of the tank sidewalls) need not be deducted. Looking at the Figure 2, revision A drawing, it seems obvious that there is not adequate area to build a sloping earthen berm with 1.5 width to height ratio (on each side, inside and outside) around the 5 tanks. The site is not adequate to contain such a wide earthen berm (28.13 ft including a 2 foot crest width). It appears that a concrete containment wall with an adequate foundation would be required to fit the site. The last major subduction zone earthquake (January 26, 1700) on the Cascadia fault resulted in a 2 meter drop in land elevation (USGS, Atwater, 2005). If the next major quake only resulted in a 1 meter (3.28 Ft) drop in land elevation, the ground elevation at the base of the containment wall would drop from the current approx 15 ft to approx 11.7 ft. Based on the height of the tsunami that resulted from the magnitude 9.0 Fukushima earthquake of 2011, which had an average wave height of 10 meters (the height of a 4-story building), assuming a wave height of 6.5 meters in Grays Harbor would seem conservative. A 6.5 meter wave (21.32 ft) would overtop the containment wall by (21.32 ft – (11.7 ft + 8.71ft) = 21.32 ft – 20.41 ft = 0.91 ft. Note that these results are made worse when the tide state is at a higher level. Now assume that the subduction zone earthquake results in the rupture of only one of the storage tanks. As seawater is denser than Bakken formation crude oil, the entire volume of the ruptured tank's crude oil confined within the wall (up to 80,000 barrels) would be displaced by the water and floated over the top into the Harbor. The result of such a tsunami would be the total destruction of most of the harbor's infrastructure, also such an oil spill would take the harbor to a unrecoverable ecological state for many decades. An earthquake of this magnitude would very likely cause a rupture in more than one of this project's ultimate number of 9 tanks. Please note that there is still crude oil being recovered from the 110,000 barrel Exxon Valdez spill which occurred over 40 years ago. Why does the proponent, Imperium, only have to meet a containment standard that has not been updated to reflect what Dr Atwater's research shows would happen in this coastal environment?

Comment Number: 000000263-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
There should be no doubt that these five 200,000 barrel capacity tanks are the greatest threat to the Harbor. Failure of one of these tanks with an accompanying tsunami, or the failure of more than one tank without a tsunami, would cause a containment failure and an uncontrollable oil spill. No booming or oil recovery equipment proposed can cope with a spill of more than 100,000 barrels in an area of twice-daily tides. An oil spill of this magnitude in the Chehalis River estuary would result in the near destruction of all the anadromous fish runs that have been the livelihood of the Quinault Nation and the Chehalis Tribe for millennia, and the commercial fishery for over a century, as well as destroying shellfish and crustacean harvests.

Comment Number: 000000305-2
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 1.2 1.1
Comment Excerpt Text:
2.Disasters: Evaluate potential damage from severe disasters such as an earthquake,tsunami, landslides and hurricanes.Discuss mitigation planned to prevent massive pollution.

Comment Number: 000000312-6
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
The EIS should seriously look at the safety of building oil storage and transport facilities on geologically unstable materials, and the likely impact of the type of earthquake that could happen here. Additionally, are the proposed sites reasonable given the likelihood of a tsunami event inside the harbor?

Comment Number: 000000321-6
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
Earthquake and tsunami danger to the proposed storage areas is also of concern, since our flatlands are pure fill, subject to liquefaction. What will be done to maximize safety in the event of natural disaster?

Comment Number: 000000331-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:

Ecological damage from a severe natural disaster such as an earthquake or tsunami – discuss mitigation planned to prevent massive pollution.

Comment Number: 000000332-1
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 12 6
Comment Excerpt Text:
Concerned about containment design, mitigation issues, "bathtub" effect of containment, sea level rise and projected rises, tsunami hazard zone, tsunami-caused flood inundation, effects of liquefaction, disruption of electricity for monitoring and safety components/emergency power resources; storage of spill containment equipment and location; treaty rights, consequences of ignoring treaties.

Comment Number: 000000339-3
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 1.2 1.1
Comment Excerpt Text:
Geologic Hazards
Per Washington State Department of Natural Resources' 2004 Liquefaction Susceptibility Map of Grays Harbor County, Washington, the projects are proposed in an area with moderate to high liquefaction susceptibility. What measures will be taken to avoid spills or overflows associated with earthquakes? What measures will be taken to make sure spills or overflows do not occur due to tsunami waves? DNR recommends the EIS analyze the potential for geologic hazards at the site using the following methodology:

a) Identify both shallow and deep-seated landslide hazards using DNR's GIS Statewide Landslide database and then create a site-specific geologic map. In areas with no existing landslide inventory, create a shallow landslide database using historic aerial imagery and other spatial data in a GIS.
b) Evaluate riverbank sloughing and subaqueous landslide hazards using bathymetry or similar DEM data.
c) Identify potentially unstable slopes using DNR's Shalstab model or other comparable slope stability modeling program in a GIS.
d) Identify slope hazards associated with slope modification or vegetation removal at construction areas.
e) Evaluate earthquake hazards including earthquake-induced ground failures.
f) If dredging for port access, identify potential hazards to adjacent beaches and bluffs from loss of subaqueous buttressing, and
g) Identify tsunami inundation hazards from both local faults and a Cascadia subduction zone event, or through subaqueous or terrestrial landslides. Explicitly address increased risk of inundation resulting from climate change and sea level rise

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Comment Number: 000000344-7
Organization:
Commenter: Janet Strong
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:

9. Capacity of oil storage tanks, loading and unloading facilities during trunamis, earthquakes and inevitable sealevel rise, all identified for this zone;

Comment Number: 000000348-5
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization
Other Sections: 7.1 1.2 14
Comment Excerpt Text:
4. In the event of a major oil spill, either by rail, ship, or transferring, what is the response plan? How much oil could be recovered under ideal circumstances? How much could be recovered under the worst circumstances such as an earthquake or tsunami? 5. How would the increase of rail transport impact the ability of first responders to answer public health emergencies, either due to congestion or derailment?

Comment Number: 000000352-3
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 7.1 1.2
Comment Excerpt Text:
Who will be libel for losses to existing industries should their be an oil spill. There should be clear language about who bears the responsibility in the event of a spill. Who compensate local investors in the event of an oil spill for loss of property values? Who will be responsible for maintaining, equipping local fire departments to combat an oil fire? All inspection reports on the status on rail infrastructure should be make public for an independent peer review. Who will be responsible for mitigation for increased noise, for air quality degradation, and for water degradation? Will the oil storage tanks be built to withstand and earthquake and the resulting tsunami? How much liability will the city of Hoquiam, Aberdeen, Montesano, Elma, Cosmopolis, Westport Oakvile and Ocean Shores bear in the event of an oil spill? Who will compensate the taxpayers for the cleanup expense and loss of investments.

Comment Number: 000000353-4
Organization: Jefferson County
Commenter: Carolyn Avery
Commenter Type: Agency
Other Sections: 7.4 1.2 7.1
Comment Excerpt Text:
3. The EIS consider potential failures, of structures or processes, that would cause oil to spill into the environment- such as derailments or other damage caused by earthquakes of various magnitudes, river flooding and associated debris, or tsunamis.
4. The EIS determine what additional infrastructure, plans, procedures and equipment should exist in order to minimize damage to the environment from a forecasted tsunami and to coordinate with the evacuation and other needs of the local population.

Comment Number: 000000358-2
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 7.4 1.2
Comment Excerpt Text:
The proposed increase in storage and associated systems for each of these projects will significantly

increase the risk of an accidental oil release. In addition, the proposed volume of storage exponentially increases the impacts associated with any given release. Oil storage facilities can fail for a variety of reasons, including industrial accidents, unusual weather conditions such as severe stonns and flooding, and other natural disasters such as earthquakes and tsunamis-all of which pose a high risk.

Comment Number: 000000366-1
Organization: City of Ocean Shores
Commenter: Crystal Dingler
Commenter Type: Agency
Other Sections: 1.2
Comment Excerpt Text:
Storage of volatile commodities in our seismically active area is also of great concern. With the Cascadia Subduction Zone nearby, we are being encouraged by multiple federal and state agencies to plan for tsunami events.

Section 2 - Air

Comment Number: 000000073-3
Organization:
Commenter: Jim Steitz
Commenter Type: Public
Other Sections: 7.2 9
Comment Excerpt Text:
Even before the climate impacts are considered, the immediate impacts to communities and landscapes between the oil sources and the departure point to the Pacific are numbing. The cities of Spokane and Grays Harbor would suffer an unacceptable diminution of their quality of life due to noise, air pollution, and the omnipresent eyesores of tankers and oil-loaded freight trains. Many other communities along the railroads further east would find additional hours of their day transformed into an acoustic and seismic barrage of rail traffic beyond anything they bargained for in joining that community.

Comment Number: 000000166-2
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization

Comment Excerpt Text:
• Maintaining the clean quality of air in the Spokane area. In reality, the local topography and air flow can result in temperature inversions over the populated area Spokane, thus trapping particulates. Poor air quality has an adverse effect on human health.

Section 2.1 - Emissions (including greenhouse gasses)

Comment Number: 000000006-2
Organization:
Commenter: John and Polly Wood
Commenter Type: Public

Comment Excerpt Text:

and because the mining and burning of this very dirty fuel is likely, if not curtailed, to put an end to the livability of the planet for so many life forms through the increase of global climate change.

Comment Number: 000000009-2
Organization:
Commenter: David Perk
Commenter Type: Public

Comment Excerpt Text:
My expectation is that the State, in the absence of a comprehensive carbon pollution policy at the federal level, will do its best to determine all impacts of a project or activity and act according to the best long term interests of its citizens. I applaud the state's inclusion of greenhouse gases caused by the consumption of fossil fuels in the scope of the Gateway and Millennium EISes. That standard should be applied to all activities and projects in the state that have the potential to emit significant quantities of greenhouse gases. I fully expect the definition of 'significant' to be debated initially, but ever smaller over the long term.

Comment Number: 000000009-5
Organization:
Commenter: David Perk
Commenter Type: Public

Comment Excerpt Text:
And the amount and effect of the greenhouses gases and other pollutants released through the production, transportation and consumption of the products. It is my hope that by applying a comprehensive scope to all carbon pollution related activities and projects the State of Washington will provide an example for other states and, eventually, the federal government. As the International Panel on Climate Change has acknowledged, our civilization can only afford to consume a fraction of the known carbon reserves. Our country needs to acknowledge this budget, decrease our consumption of carbon-based fuels and transition to a carbon-free energy system as quickly as possible. This is a matter not just of national interest, or in regards to our participation in the Copenhagen agreement, it concerns the right of all future generations on the planet to a stable climate, something that we are at risk of losing for millennia to come. Arguably, the expansion of all fossil fuel activity and infrastructure should be considered from a national, if not global, carbon budget perspective. It would be my preference to have the Westway and Imperium expansion projects evaluated in just that way.

Comment Number: 000000013-4
Organization:
Commenter: Libby Hazen
Commenter Type: Public

Comment Excerpt Text:
Perhaps most important, the effect of burning fossil fuels on global climate change must be considered.

Comment Number: 000000018-1
Organization:
Commenter: Tom Crawford
Commenter Type: Public

Comment Excerpt Text:
I urge the Department of Ecology to include in its scope of this EIS the global warming/climate change

impacts of burning the fossil fuels being transported. I would suggest modeling this impact under the assumption that if the fuel is not shipped, it will not be burned. Shipping the fuel is a necessary step to allowing it to be consumed, and greenhouse gases released into the atmosphere. I would further suggest modeling over the next century the consequences to Hoquiam and surrounding areas of increased temperatures predicted by the IPCC as the result of climate change, which of course is directly linked to burning of these fossil fuels. Going forward with this terminal would be part of a "business as usual" scenario, the consequences of which the IPCC has clearly described, and the University of Washington has further assessed for our region. So I would suggest incorporating all of this information--resulting in a "business as usual" picture of climate change impacts on Hoquiam and surrounding areas over the next 100 years--into the EIS for this project.

Comment Number: 000000019-1
Organization:
Commenter: Glen Anderson
Commenter Type: Public

Comment Excerpt Text:
THE WHOLE PURPOSE OF EXPORTING OIL IS SO IT WILL BE BURNED, so the EIS SCOPE must incude DAMAGE TO THE CLIMATE, because the carbon dioxide pollution would come back to us and hurt our climate.

Comment Number: 000000023-4
Organization: World Temperate Rainforest Network
Commenter: Pat Rasmussen
Commenter Type: Organization

Comment Excerpt Text:
Climate change is REAL. More oil exported leads to more CO2 in the atmosphere. We need to lessen greenhouse gas emissions, not increase them.

Comment Number: 000000024-2
Organization:
Commenter: Anne Elkins
Commenter Type: Public

Comment Excerpt Text:
2) The effects of burning even more fossil fuels is just accelerating global warming at a time we need to be aggressively pushing for sustainable alternatives.

Comment Number: 000000025-1
Organization:
Commenter: Thomas Holz
Commenter Type: Public

Comment Excerpt Text:
The EIS must include the ramifications of burning all of the fossil fuel that might be shipped. At this point in earth's history, that is the only issue of real interest.

Comment Number: 000000029-2
Organization:
Commenter: Mary Meyers

Commenter Type: Public

Comment Excerpt Text:
We are already beginning to feel the consequences of a human-induced warmer climate." Amen, indeed. We live in this world--it is up too each of us to save it. Use less of everything. Honor Nature over greed. Do the right thing.

Comment Number: 000000032-10
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
Air quality along the route suffers: fumes stagnate in closed valley areas like Oakville; fumes don't “go away”.

Comment Number: 000000041-1
Organization:
Commenter: Gail Streicker
Commenter Type: Public
Other Sections: 7 13.4 14
Comment Excerpt Text:
I strongly oppose the construction of crude oil terminals in Grays Harbor and the transport of oil by rail through communities in the Northwest. These proposals would negatively impact my community, the Columbia River Gorge National Scenic Area, Grays Harbor, and the Pacific Northwest in many ways, including: elevate rail and marine traffic congestion, increase the potential of oil spills and disastrous explosions, harm existing businesses, delay emergency responders, and put our communities, public health, and environment at risk. These terminals, and the transport of crude oil to and from these terminals, would damage terrestrial and aquatic ecosystems, endanger fishing grounds, and accelerate climate change. I urge you to include these impacts into the scope of the Environmental Impact Statement for both the Westway and the Imperium projects

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Comment Number: 000000042-1
Organization:
Commenter: Jodi Tanner Tell
Commenter Type: Public

Comment Excerpt Text:
Please do not allow the oil terminal expansions in Grays Harbor. The Columbia River Gorge is a national treasure and oil trains do not belong in the Gorge. Making oil any easier and cheaper to burn will only accelerate climate change, which is the greatest security and environmental threat facing our nation.

Comment Number: 000000044-1
Organization: me and my kids
Commenter: Dainela Brod
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
The bottom line for me is that the scope of the EIS need to include increased risk of disastrous oil spills in the Columbia River Gorge and Portland area and the climate impacts of releasing the coal transported versus keeping it in the ground or delaying it by (insert # yrs here for alternative route). Extra time would

give the country more time to develop a low-carbon energy policy and avoid a more costly response to Climate change impacts.

Comment Number: 000000046-5
Organization: Friends of the Gorge
Commenter: Gisela Ray
Commenter Type: Organization

Comment Excerpt Text:
Please think of all the negative impacts - including climate change, especially climate change! - this project would have.

Comment Number: 000000052-1
Organization:
Commenter: Sharon Rickman
Commenter Type: Public

Comment Excerpt Text:
The DOE should study the climate impacts from the end user emissions.

Comment Number: 000000063-5
Organization: El Centro de la Raza
Commenter: Estela Ortega
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
These terminals, and the transport of crude oil to and from these terminals, endangers our natural resources by damaging aquatic ecosystems, endangering fishing grounds, and accelerating climate change.

Comment Number: 000000073-2
Organization:
Commenter: Jim Steitz
Commenter Type: Public

Comment Excerpt Text:
The Washington State government has expressed an overall goal of moving toward a lower-carbon economy, and to avoid the worst impacts of global warming. If these goals are to have any meaningful policy expression within the agencies, tasked with carrying out a governor's policy, then the Department of Ecology cannot issue this permit. This oil export terminal would be linked by rail, and in turn link ravenous, inefficient economies overseas, to some of the largest carbon bombs in North America, namely the Canadian tar sands and the Bakken oil shales of the Dakotas. Human survival demands that this grave liability to our atmosphere remain securely underground. The Westway and Imperium terminals, and other proposals for fossil fuel infrastructure along the Pacific Northwest coast, would be especially and painfully ironic for a state that has otherwise made admirable and meritorious progress in shifting to clean energy and ecological sustainability more broadly. I can scarcely fathom the horrific reversal of ecological paradigm that The Westway and Imperium terminals would constitute for Washington State, whose role in the global energy infrastructure would invert from a leader in the low-carbon transition, to a conduit of death for the highest-carbon fuels on Earth. The State of Washington has already committed itself to regional greenhouse gas reduction initiatives, and even though the initiatives are not yet self-enforcing, the Westway and Imperium terminals' colossal volume of oil shale and tar sands would dwarf

any carbon reductions attained in those frameworks. It therefore is a contrary and irreconcilable public policy to Washington's goals.

Comment Number: 000000078-1
Organization:
Commenter: Sandy Wood
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
Continuing to approve increases in the use and transport of fossil fuels guarantees the end of the world as we know it. Climate change is already happening! Please study the environmental impacts of oil terminals of Skagit County, Vancouver, and any other location. The entire rail route from North Dakota to Grays Harbor needs to have ALL the impacts studied. The impact of CO2 emissions from the end users needs to be studied. We cannot allow our lives, communities, and planet destroyed to fill the pocketbooks of the oil and coal barons. We are fighting for our very lives!

Comment Number: 000000081-3
Organization:
Commenter: Jana Wiley
Commenter Type: Public

Comment Excerpt Text:
The reality of climate change is here now. Take a stand for the future generations.

Comment Number: 000000084-9
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Plans for ongoing monitoring of rail and marine fugitive emissions over the life of the project - Plans for ongoing monitoring of sitewide TAP/HAP emissions over the life of the project -

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Comment Number: 000000085-1
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Please consider the following in your EIS: - TAP and HAP emissions from all parts of the projects that would take place within the State of Washington - Fugitive emissions from non-pressurized railcars as they travel through Washington State - Fugitive emissions from storage tanks and fittings - Inerting gas and crude oil vapors released during the transloading process - Cumulative health and environmental impacts of TAP and HAP over the life of the project - Cumulative health and environmental impacts of TAP and HAP both at the project site and along the rail lines - Composition of the products transported - Potential for release of Carbon monoxide, Nitrogen dioxide, Sulfur dioxide, Hydrogen Sulfide, Diesel Engine Particulate, Arsenic, Beryllium, Cadmium, Cobalt, Copper, Fluorene, Manganese, Mercury, Selenium, Vanadium, Hexavalent Chromium, Naphthalene, Acrolein, Chrysene, Propylene, Formaldehyde, Toluene, Xylene, Hexane, Cyclohexane, Benzene, Isopropyl benzene, Ethylbenzene, Benzopyrene, Indenopyrene, Benzoanthracene, Benzofluoranthene, Dibenzoanthracene, 3-Methylchloranthrene, 1,3-Butadiene, and 7,12-Dimethylbenzanthracene. - In-depth analysis of Best

Available Control Technologies for TAP emissions without regard to potential costs - Impact of TAP/HAP fugitive vapors from non-pressurized railcars where the rail transport route intersects the Pacific Flyway and other bird migration routes - Cumulative impact of TAP/HAP on the Columbia River Wetland Mitigation Bank, the Ridgefield National Wildlife Refuge, and other natural areas along the transport route - The potential maximum concentrations of TAP/HAP in the event of precipitation, temperature inversion, air stagnation, and cloud mixing - Potential stormwater, groundwater, and seawater contamination due to TAP/HAP mixing with precipitation - Potential contamination of extended watersheds due to TAP/HAP contamination of rain throughout Washington - Impact of TAP/HAP on any inmates of jails or prisons near the project site or along the transport route -

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Comment Number: 000000088-1
Organization: Mr
Commenter: Rodney Tharp
Commenter Type: Public

Comment Excerpt Text:
Please include all effects of global warming and climate change due to the burning of this oil.

Comment Number: 000000100-3
Organization:
Commenter: Heather Haverfield
Commenter Type: Public
Other Sections: 13.3 7
Comment Excerpt Text:
My opinion is based on dangers of shipping explosive fuels by rail, through residential and commercial zones, as well as risks to the natural environment, and the consequences of burning ever more quantities of fossil fuel, especially as they are sourced through ever more and more extreme procedures. The risks are not worth the loss of a healthy environment.

Comment Number: 000000101-2
Organization:
Commenter: Patricia Holm
Commenter Type: Public

Comment Excerpt Text:
Please consider the effects of burning this fuel on Washington State. We live on one planet and fossil fuel burned anywhere will effect our State.

Comment Number: 000000103-1
Organization: Mr
Commenter: Rod Tharp
Commenter Type: Public

Comment Excerpt Text:
Please include the health and environmental damage caused by the off gassing of toxic fumes from the RR cars while in transit,and while in storage tanks as well as from transferring the crude to and from the cars to the tanks and then to the vessels as well as during ship transit.

Comment Number: 000000104-1
Organization:
Commenter: Joel Carlson

Commenter Type: Public

Comment Excerpt Text:
Fossil fuels must stay in the ground so we don't destroy our planet from global warming! 350 parts per million of carbon dioxide in our atmosphere is what many scientists, climate experts, and national governments are now saying is the safe upper limit for sustainable life on earth. For many thousands of years before human industrialization it was 180-280 parts per million. Because of our massive burning of fossil fuels, we are now at 400 parts per million and rapidly rising which will release huge amounts of frozen methane making things much worse. This is similar to the Permian period approx. 250 to 300 million years ago when huge volcanoes in what is now Russia raised the CO2 level to 900 ppm (parts per million) and the mean surface temperature 2 degrees C above modern level. Oceans rose significantly above modern levels, lost their oxygen and emitted deadly hydrogen sulphide gas. Nearly 90% of marine species and 70% of terrestrial species died out. It would take millions of years, well into the Triassic period for life to recover from this catastrophe. We are very near a tipping point where release of frozen methane in the oceans will create global warming destruction that we cannot reverse.

Comment Number: 000000106-2
Organization:
Commenter: Jan Verrinder
Commenter Type: Public

Comment Excerpt Text:
-Emissions from oil transfer and from oil cars “burping”.

Comment Number: 000000116-6
Organization: League of Women Voters of Washington
Commenter: Kim Abel
Commenter Type: Organization

Comment Excerpt Text:
-The likely impact on the global climate footprint of these proposals.

Comment Number: 000000116-8
Organization: League of Women Voters of Washington
Commenter: Kim Abel
Commenter Type: Organization

Comment Excerpt Text:
We suggest that policymakers at all levels of government need to be aware of the ever more urgent warnings of atmospheric scientists that there is no time to waste in reducing the carbon footprint if there is to be any hope of avoiding the most serious consequences of global climate change.

Comment Number: 000000123-3
Organization:
Commenter: Kristin Hermenegildo
Commenter Type: Public

Comment Excerpt Text:
2. Toxic vapors. I'm sure that crude oil trains will vent toxic vapors, especially during the summertime in the hot sun. This is not the kind of thing that we want going into our air around our homes and businesses.

Comment Number: 000000125-3
Organization:
Commenter: Gregory Flood
Commenter Type: Public

Comment Excerpt Text:
I also do not agree with the underlying philosophy that we should ship our precious limited fossil fuel resources out of country, nor that we should ship fuels that we do not consider suitable for use in the U.S. to other countries. Climate change is very real and we should not act as an enabler to other countries, especially when their adverse impacts will soon drift on the jet stream to Washington State. I urge you to include these impacts into the scope of the Environmental Impact Statement for both the Westway and the Imperium projects in Grays Harbor, Washington, as well as the Environmental Impact Statement for projects associated with shipping the product.

Comment Number: 000000131-2
Organization:
Commenter: Susan Sunshine
Commenter Type: Public

Comment Excerpt Text:
What if everything goes according to plan, no Lac Magentic, no leaking oil cars, no derailments as has just happened in twice in Aberdeen in the last week, no collisions on land or sea; perfect performance day after day at train crossing after train crossing, all the unsafe DOT 111A railcars replaced, every unloading and loading perfect, every ship captained and crewed by fail-proof professionals with full cooperation from the sea, the winds and all of the natural and human players in this scenario? What if the laws of probability are not only suspended but cancelled? Then will everything be OK? No. Nothing will be OK in spite of perfection in all the possible areas of calamity because: what happens to all that oil once if it safely reaches the refinery through more and more crowded shipping lanes and is safely shipped out through the more and more crowded shipping lands of Puget Sound? What happens is it gets burned and then it increases the planetary CO2 levels, and then it increases climate change, and then climate change brings melting polar ice, rising ocean levels, greater storm surges, diseases not yet known in Washington State, human refugees from areas affected even more adversely that relatively fortunate Washington. We can picture that scenario but no one wants to.

Comment Number: 000000132-3
Organization:
Commenter: Teresa Harper
Commenter Type: Public

Comment Excerpt Text:
Climate impacts related to the greenhouse gas emissions from cracking, transporting -both by rai and marine vessel - as well as the refining and burning of this crude oil. Here are county is spending millions or billions to prevent global warming which is affecting the salinity in our waters and know they are supporting the crude oil industry that will add to our environmental problems.

Comment Number: 000000141-1
Organization:
Commenter: Judy Staigmiller
Commenter Type: Public
Other Sections: 7 15
Comment Excerpt Text:

Please consider the impact of increased oil train traffic to Montana. Diesel emissions will lower the air quality and cause health problems. Infrastructure upgrades will be needed to mitigate the effects of noise for the families living near railroad right-of-way. You can bet the companies will not pay for this, we taxpayers will be stuck with it.

Comment Number: 000000143-1
Organization:
Commenter: lee wilder
Commenter Type: Public
Other Sections: 13.3 7.4
Comment Excerpt Text:
Expansion of the Imperium and Westway terminals will have a significant environmental impact on Montana and those effects must be taken into consideration as this proposal is evaluated. Rail traffic creates a diminution in air quality and the potential for derailments increases with more trains and longer trains. Derailments of trains carrying oil create a significant environmental risk. Derailments do happen and there have been too many spills of chemicals and oil.

Comment Number: 000000145-1
Organization:
Commenter: Don Kiehn
Commenter Type: Public

Comment Excerpt Text:
Looking at the big picture, there are several levels of deep concern. First, global warming is at the point of no return - we can no longer procrastinate by thinking in terms of "phasing out" or "phasing in" this or that action or energy source. We must take concerted and strong action now. Coal and crude oil are clearly the dirtiest energy sources on earth and China will burn it the dirtiest way possible. A multinational group of scientists, including Chinese, recently reported that pollution due to the heavy use of coal in northern China is cutting 6 years off the human lifespan in comparison to that in southern China where less coal is burned. We must ignore the highly exaggerated profit/jobs reasoning and do the right thing here, the moral thing, and "just say NO" to coal, yes - just leave it in the ground.

Comment Number: 000000146-2
Organization:
Commenter: Lynne Dixon
Commenter Type: Public

Comment Excerpt Text:
Increased oil train traffic from the projects would mean: An increase in airborne pollutants, specifically diesel emissions, which is linked to increased health problems and diseases;

Comment Number: 000000152-1
Organization:
Commenter: Robin Moore
Commenter Type: Public
Other Sections: 7.2
Comment Excerpt Text:
It is probable that there will be some noise and odor associated with these two expansion projects. Is there any mitigation plan for the loss of quiet and fresh air?

Comment Number: 000000166-11
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization

Comment Excerpt Text:
In addition to compromised emergency response, there needs to be an examination of the affect on air quality when the waiting traffic is idling while waiting at a crossing.

Comment Number: 000000166-7
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization

Comment Excerpt Text:
• The effects of diesel particulates from the additional trains on the air quality in the Spokane area (particularly given the air inversions that we experience).

Comment Number: 000000176-23
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
15. Air quality:
• From operation of Port Facility machinery;
• Due to associated train, truck, ship engine pollution; (include vehicles delayed by rail traffic)
• From fugitive air escape from crude from all aspects of operation including from rail transport, off-loading, storage, vessel loading and shipping – extent and impact to human health and to other creatures in natural environment, both terrestrial and fresh and salt water

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Comment Number: 000000176-4
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 6
Comment Excerpt Text:
3. Power used to operate Port Facility – amount and source. Backup sources for power outages similar to 2007 storm or greater. Air quality measures during operation.

Comment Number: 000000176-53
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(y) Human health, increased diesel fumes from trains, vessels and loading equipment. What preventive measures will be taken to eliminate or avoid these impacts? How will health issues that arise from this increase be addressed and paid for?

Comment Number: 000000176-55
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(af) Air Pollution. Studies assessing the potential impacts of international shipping on climate and air pollution demonstrate that ships contribute significantly to global climate change and health impacts through emission of GHGs (for example, carbon dioxide [CO2], methane [CH4], chlorofluorocarbons [CFC]), aerosols, nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO) and particulate matter (PM). Air quality impacts may result from the chemical processing and atmospheric transport of ship emissions. For example, NOx emissions from ships can combine with hydrocarbons in the presence of sunlight to produce ozone pollution, which can potentially affect visibility through haze, human and environmental health and has been associated with climate change effects. All classes of ocean-going marine vessels equipped with engines have the capacity to cause air pollution. Will there be facilities to allow the vessels to operate on cleaner energy while in port?
(ag) Because more than 50% of a ship's operating expense is generally the cost of fuel oil, most of the world's ship operators seek the cheapest fuels available; in which high levels of pollutants is the price of their cheaper cost rather than cleaner alternatives. Accordingly, the diesel engines that power the vessels are often significant mobile source emitters of pollution in terms of sulfur oxides, fine particulate matter, nitrous oxides and resultant low-level ozone. How will these be addressed and eliminated or minimized?

Comment Number: 000000176-57
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(ai) Increased global climate change and ocean acidity due to burning of the product. The global warming impacts of this facility would be significant, both on a local and global scale. The Westway facility alone would generate approximately 15,000 metric tons/year of CO2 equivalent from rail, marine vessel, automobile, and Marine Vapor Combustion. Further, 10 million barrels of new shipping capacity will expand a presently transportation constrained market, allowing for increased rates of extraction, refining and end-use consumption that will lead to significant global warming pollution. Increased production also threatens public health as there is little to no regulation on toxic pollution coming out of wells and facilities where hydraulic fracturing is the primary mode of extraction. The significant influx of rail, automobile and shipping transportation resulting from the crude-by-rail shipping facility also will have impacts on local air quality and will exacerbate traffic congestion. How will this affect global greenhouse gas emissions and efforts to control these issues? How will this meet the intent of Executive Order 14-04?

Comment Number: 000000181-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public
Other Sections: 9 7.2 13.1
Comment Excerpt Text:
How will the companies plan to mitigate the array of traumatic and depressive effects that residents will experience for having to look at the blight, hear the noise, smell the oil, and wait for rail cars to pass as they are blocked at the crossing? http://www.dshs.wa.gov/pdf/ppa/2013-15jan14/BHSIA.pdf http://www1.dshs.wa.gov/pdf/ms/rda/research/4/47/updated/graysharbor.pdf

Comment Number: 000000183-5
Organization:
Commenter: Mary Holder
Commenter Type: Public

Comment Excerpt Text:
Greenhouse Gas Emissions and Climate Change Impacts:The scope of the EIS must also include the climate impacts related to the greenhouse gas emissions from the fracking, rail and marine transport, and the refining and burning of the crude oil. This analysis must detail the impacts of ocean acidification and sea level rise (including the short and long-term impacts of sea level rise on the planned facilities, including the spillage or leakage of oil from storage facilities). In light of recent reports on climate change and the astonishing predicted collapse of a large part of Antarctica, can there any reasonable "purpose and need" for either or both of these two proposed crude oil export facilities? Rignot, E. May 17, 2014. The Guardian. Global warming: it's a point of no return in West Antarctica. What happens next? http://www.theguardian.com/commentisfree/2014/may/17/climate-change-antarctica-glaciers-melting-global-warming-nasa. Accessed May 19, 2014. The peer reviewed study for which Rignot is the lead author, Widespread, rapid grounding line retreat of Pine Island, Thwaites, Smith and Kohler glaciers, West Antarctica from 1992 to 2011. 2014. is available to EIS reviewers at Geophysical Research Letters: http://onlinelibrary.wiley.com/doi/10.1002/2014GL060140/abstract.

Other references for the review of climate change impacts include: 1.) IPCC 2014. Climate Change 2014: Impacts, Adaptation, and Vulnerability. IPCC Working Group II Contribution to AR5. Summary for Policymakers. Submitted by the Co-Chairs of Working Group II, Field, C. and V. Barros. http://ipcc-wg2.gov/AR5/images/uploads/IPCC_WG2AR5_SPM_Approved.pdf. Accessed March 31, 2014; 2.) Romero-Lankao, P., J. B. Smith, D. Davidson, N. Diffenbaugh, P.Kinney, P.Kirshen, P. Kovacs, L. Villers Ruiz. Ch. 26. North America. *In*: Climate Change 2014: Impacts, Adaptation and Vulnerability. Contribution of Working Group ll to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. Vol. 2. http://ipcc-wg2.gov/AR5/images/uploads/WGIIAR5-Chap26_FGDall.pdf. Accessed April 9, 2014; and 3.) Walsh, J., D. Wuebbles, K. Hayhoe, J. Kossin, K. Kunkel, G. Stephens, P. Thorne, R. Vose, M. Wehner, J. Willis, D. Anderson, S. Doney, R. Feely, P. Hennon, V. Kharin, T. Knutson, F. Landerer, T. Lenton, J. Kennedy, and R. Somerville, 2014: Ch. 2: Our Changing Climate. Climate Change Impacts in the United States: The Third National Climate Assessment, J. M. Melillo, Terese (T.C.) Richmond, and G. W. Yohe, Eds., U.S. Global Change Research Program, 19-67. doi:10.7930/J0KW5CXT. http://nca2014.globalchange.gov/report/our-changing-climate/introduction. Accessed May 20, 2014. The climate change impacts from these projects cannot be mitigated.

Comment Number: 000000191-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public

Comment Excerpt Text:
What are the long term cumulative impacts of off gassing caused by increased rail traffic? When the increased effects of off gassing have been added to other existing industrial chemical air waste in Grays Harbor, will there be additional risks to residents over the course of their lives? Could an increase in lead base neurotoxins in the air come as a result of off gassing from crude oil trains?

Comment Number: 000000199-1
Organization:
Commenter: Tom Crawford
Commenter Type: Public

Comment Excerpt Text:
The most important item to be included in the scope of this EIS is the project's impact on climate change that we are already experiencing here in the Western US, as well as world wide. This should be considered as a component of the cumulative effects of related oil extraction, transportation, and fuel consumption activities that a directly or indirectly related to this proposed project. In other words, the Department of Ecology and City of Hoquiam should take a very broad view of the likely climate impacts of this project. The unparalleled impact of "business as usual" extraction and burning of fossil fuels on the economy, health, and social institutions which are critical to our society should be considered..and considered broadly, not simply limited to the marginal additional effect from this project. Again, this project should be considered as part of a larger economic, political and social context. Implementing this project will enable and encourage additional extraction and consumption (burning) of fossil fuels. Rejecting the project will discourage those activities.

Comment Number: 000000200-1
Organization:
Commenter: Roger Imes
Commenter Type: Public

Comment Excerpt Text:
As a rational, thinking human being I must question why we are risking the quality of our lives, and of all life on this planet, when we already know of the dire consequences? This proposal is but one small part of a complex, interconnected threat that combined with others will release incredible new amounts of CO2 into our atmosphere.

Comment Number: 000000208-1
Organization: Mr.
Commenter: Glen Anderson
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
The EIS's scope must be REALISTIC, not biased by narrow economic interest. This means that the scope must be COMPREHENSIVE, all the way from the location where the oil is extracted (including all environmental and health effects resulting from drilling, hydrofracking, extracting, etc.), all the way along the rail lines or pipelines (including ecosystems affected along that route), all throughout the process of conveying the oil to ships, barges, etc., all along the oil's route to Asia and other destinations, and WHEN THE OIL IS ULTIMATELY BURNED AND CONVERTED INTO GREENHOUSE GASES THAT AFFECT THE WORLD'S ECOSYSTEMS, ENVIRONMENTS, AND CLIMATE. ANY SCOPE LESS THAN THIS IS DELIBERATELY TRYING TO AVOID REALITY IN ORDER TO SERVE NARROW ECONOMIC INTERESTS.

Comment Number: 000000213-7
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization

Comment Excerpt Text:

We also urge you to consider the climate impacts of these facilities, as well. The state of Washington is considering climate as part its review of coal export terminal proposals, and it is no less relevant in the case of these oil storage facilities.

Comment Number: 000000214-1
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 13.2 13.4
Comment Excerpt Text:
In general, in order to fulfill the requirements of Washington's State Environmental Policy Act, we believe the Imperium and Westway EISs should fully evaluate all direct and indirect effects of the bulk liquid distribution projects, including rail and marine shipment, port operations and climate change impacts associated with eventual fuel refining and combustion.

Comment Number: 000000214-5
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency

Comment Excerpt Text:
The 1977 Clean Air Act amendments include requirements to protect air quality in 156 mandatory Class I national parks and wilderness areas, including Glacier NP. The Clean Air Act also directs the NPS to protect air pollution-sensitive resources, including visibility, streams, lakes, vegetation, soils and wildlife in Class I areas. Accordingly, the EISs should evaluate the impact of train emissions on air quality in the park.

Comment Number: 000000218-3
Organization:
Commenter: Benjamin Lucal
Commenter Type: Public

Comment Excerpt Text:
As you are likely aware, it is now agreed upon by 97% of scientists that humans are causing, speeding, and exacerbating global warming, and that global warming has already begun to result in widespread famine, drought, super storms, outbreak of disease, and civil unrest. It’s crucial that we measure this proposal’s impact on our climate.

Comment Number: 000000218-5
Organization:
Commenter: Benjamin Lucal
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
In your research please take into account the effects of every step in the production that oil extraction, transportation, processing, and consumption will have on our eco-system as a whole, including but not limited to the greenhouse gases, pollutants, harm to families and individuals poisoned by pollutants,

livelihoods destroyed by spills and other accidents, animals harmed, and most importantly please study their effect on climate change.

Comment Number: 000000229-6
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency

Comment Excerpt Text:
The increase in rail traffic through the Gorge would bring with it an increase in diesel engine emissions that have the potential to negatively affect air quality and contribute to regional haze.

Comment Number: 000000236-1
Organization: Involved Democracy
Commenter: Brian Gunn
Commenter Type: Public
Other Sections: 7 11 12
Comment Excerpt Text:
Increased train traffic will have adverse affects on human health as well as on sensitive areas, especially wetlands. In addition to the risk of leaks and spills along the rail routes, diesel exhaust will increase and people living near or visiting parks along the rail lines will be exposed to these toxic fumes. Any oil terminal project will harm imperiled wildlife species and devastate critical habitat, interfere with recreational and tribal fishing, transform the region with rail congestion, and dramatically increase carbon pollution that is driving climate change.

Comment Number: 000000236-2
Organization: Involved Democracy
Commenter: Brian Gunn
Commenter Type: Public

Comment Excerpt Text:
Of particular importance are the climate impacts related to the greenhouse gas emissions from the fracking, transporting – both by rail and marine vessels – as well as the refining and burning of this crude oil wherever in the world these fuels are ultimately burned. In May of this year, the level of carbon in our atmosphere reached 400 parts per million, higher than at any time since human life began, a level that far exceeds any deviation that could possibly be attributed to a normal climate. In fact, the level of greenhouse gases now far exceeds periods of Earth's most catastrophic epochs of mass extinction. The rise average global temperature has already caused significant reductions in the size and extent of the Arctic polar ice cap. This means that more of the sun's heat is being absorbed by the oceans instead of being reflected back into space. This feedback loop is increasing the pace of atmospheric changes that result in devastating super storms and sea level rise, effects that are destructive to human communities as well as to habitat for many forms of wildlife. In addition, there is another risk that is causing climate scientists to be even more worried that the pace of climate change will continue to accelerate. As the oceans warm, underwater deposits of frozen methane are beginning to dissociate, a melting process that could release tons of this uber greenhouse gas into the atmosphere. As Arctic ice recedes, frozen tundra in Siberia is also melting, also releasing massive amounts of methane. Methane is even more efficient than carbon dioxide at trapping the sun's heat and warming the planet. If enough methane is released, corrective action will not be possible.

Comment Number: 000000243-1
Organization:

Commenter: Tiffany Heroux
Commenter Type: Public
Other Sections: 7.1 7
Comment Excerpt Text:
I want to see the scope include the surrounding areas of Longview/Kelso and look at what the impact will have on the quality of air from the train emissions. Also what impact it will have on the river? What if there is a spill, how will it be cleaned up? How will they affect the wildlife that live in and along the river?

Comment Number: 000000255-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
The National Research Council estimates (2010) that by 2050 there will be approximately 12 to 18 inches of sea level rise, based on conservative CO2 emission estimates. If all three proposed Grays Harbor crude oil export facilities are built and operated at their stated throughput rates, the combustion of their crude oil would generate CO2 emissions of 33% of the current total emissions of Washington State. We should not be assisting the oil companies in their efforts to export crude oil, making sea level increase worse than the current conditions imply. How are the proponents preparing to cope with sea level increases, considering that the site elevations of all of the projects are in the range of 12 to 15 feet currently? Will they be building sea walls around the port to protect their spill containment structures against higher tidal states?

Comment Number: 000000270-4
Organization:
Commenter: Ilene Silver
Commenter Type: Public

Comment Excerpt Text:
Finally, we breathe the polluted air from burning fossil fuels, and all of us (including animals and plants) are feeling the effects of climate change.

Comment Number: 000000272-1
Organization: Kelso resident
Commenter: Roy Staples
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
No Expansion should be permitted for the Port of Grays Harbor Terminal 1, because 1) it will increase the use of fossil fuels, and 2) the exploration of them based upon market conditions now, not in the future. First, with the devastating weather events we have witnessed in recent years, it is imperative for us to take seriously the phenomenon of global warming (also known as climate change). Ample scientific evidence shows that the effects on our atmosphere by burning fossil fuels. It is time now to convert our energy infrastructure to renewal energy sources and to explore ways to limit the use of fossil fuels. Creating new ways to export oil, natural gas, and coal all contribute to fossil fuel use. IT IS TIME TO REDUCE AND STOP USING FOSSIL FUELS!

Comment Number: 000000275-1
Organization: Citizens For A Clean Harbor
Commenter: Mary Riley

Commenter Type: Public

Comment Excerpt Text:
PETROLEUM PRODUCTS STINK I? am concerned about the fumes and odor from Bakken crude oil that travels by train. The rail cars belch, and no matter how efficient the? operation is, some will ooze through the joints. How will you protect our communities from the stench? How will you protect the people from the noxious fumes? How will you keep the oil from poisoning the air our children will breathe?

Comment Number: 000000276-1
Organization:
Commenter: Diana Gordon
Commenter Type: Public

Comment Excerpt Text:
One of the most important issues of our time is the changing climate. We can see one devastating storm after another, melting ice sheets, appalling wildfires, and other effects of climate change around us every day. I feel that your EIS should include the effects that the fossil fuel products shipped through these terminals will have on our climate. We know that they will add to our carbon overload and it is precisely at this time that we should NOT be building new infrastructure to promote the use of oil. This is the time to continue to move to renewables. New infrastructure will only encourage the extraction and use of fossil fuels.

Comment Number: 000000279-3
Organization:
Commenter: James Thomas
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
In addition, the EIS documents should consider the increased rail traffic and greenhouse gas emissions from all proposed oil terminal expansions and coal shipping terminals in Washington and Oregon.

Comment Number: 000000285-3
Organization:
Commenter: Beth Kaeding
Commenter Type: Public

Comment Excerpt Text:
Increased train traffic would mean an increase in the amount of airborne pollutants – particulate matter – from diesel engines. Medical studies have shown a clear link between these airborne pollutants and disease.

Comment Number: 000000294-1
Organization:
Commenter: Brian Jonas
Commenter Type: Public
Other Sections: 7 7.4 13.3
Comment Excerpt Text:
Please consider statewide and regionwide effects from the terminal expansions in the DOE's impact statement. Please look at the environmental effects of transporting the extra oil throughout Washington, including global warming effects and pollution effects, as well as possible spill effects. Consider the

safety of the many towns, including Spokane, which will have an increase of very dangerous, explosive trains going through that have been disastrous to other areas during derailments. Also consider the global warming effects of sending more oil out to be used.

Comment Number: 000000305-5
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public

Comment Excerpt Text:
6.Climate Impacts: Evaluate greenhouse gas emissions from the fracking,transporting-both by rail and marine vessels-as well as the refining and burning of this crude oil.

Comment Number: 000000320-4
Organization: City of Washougal
Commenter: Sean Guard
Commenter Type: Agency
Other Sections: 14 13.3
Comment Excerpt Text:
The City requests that the scoping of the EIS address the significant unavoidable adverse impacts to the City of Washougal , and other communities that these trains will travel through , including but not limited to impacts from; 1) vehicle emissions from idling vehicles at blocked at-grade crossings; 2) emergency response delays at blocked at-grade crossings; and 3) rail safety. The EIS should address ways to avoid, minimize and mitigate the effects of these impacts on our community.

Comment Number: 000000323-3
Organization:
Commenter: Karuna Johnson
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
How will these people be affected by the emissions from the oil tanker cars? What substances are found in the emissions from oil tanker cars? How many of those substances are known carcinogens? What is the incidence of cancer in GH County? How much is the incidence expected to increase due to exposure to oil and diluent emissions? What is the plan for protecting workers from emissions? What is the plan for taking care of workers who become ill from handling these materials? How many doctors specializing in industrial chemical exposure are working in GH County? In the State?

Comment Number: 000000329-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 6
Comment Excerpt Text:
Power used to operate Port Facility – amount and source. Backup sources for power outages similar to 2007 storm or greater. Air quality measures during operation.

Comment Number: 000000330-6
Organization: citizen

Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Air quality: from operation of Port Facility machinery; due to associated train, truck, ship engine pollution; (include vehicles delayed by rail traffic); from fugitive air escape from crude from all aspects of operation including from rail transport, off-loading, storage, vessel loading and shipping – extent and impact to human health and to other creatures in natural environment, both terrestrial and fresh and salt water

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Comment Number: 000000333-2
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Air Pollution. Studies assessing the potential impacts of international shipping on climate and air pollution demonstrate that ships contribute significantly to global climate change and health impacts through emission of GHGs (for example, carbon dioxide [CO2], methane [CH4], chlorofluorocarbons [CFC]), aerosols, nitrogen oxides (NOx), sulfur oxides (Sox), carbon monoxide (CO) and particulate matter (PM). Air quality impacts may result from the chemical processing and atmospheric transport of ship emissions. For example, NOx emissions from ships can combine with hydrocarbons in the presence of sunlight to produce ozone pollution, which can potentially affect visibility through haze, human and environmental health and has been associated with climate change effects. All classes of ocean-going marine vessels equipped with engines have the capacity to cause air pollution. Will there be facilities to allow the vessels to operate on cleaner energy while in port? Because more than 50% of a ship's operating expense is generally the cost of fuel oil, most of the world's ship operators seek the cheapest fuels available; in which high levels of pollutants is the price of their cheaper cost rather than cleaner alternatives. Accordingly, the diesel engines that power the vessels are often significant mobile source emitters of pollution in terms of sulfur oxides, fine particulate matter, nitrous oxides and resultant low-level ozone. How will these be addressed and eliminated or minimized?

Comment Number: 000000334-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Increased global climate change and ocean acidity due to burning of the product. The global warming impacts of this facility would be significant, both on a local and global scale. The Westway facility alone would generate approximately 15,000 metric tons/year of CO2 equivalent from rail, marine vessel, automobile, and Marine Vapor Combustion. Further, 10 million barrels of new shipping capacity will expand a presently transportation constrained market, allowing for increased rates of extraction, refining and end-use consumption that will lead to significant global warming pollution.

Comment Number: 000000334-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 13.1
Comment Excerpt Text:

The significant influx of rail, automobile and shipping transportation resulting from the crude-by-rail shipping facility also will have impacts on local air quality and will exacerbate traffic congestion. How will this affect global greenhouse gas emissions and efforts to control these issues? How will this meet the intent of Executive Order 14-04?

Comment Number: 000000334-7
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Finally, These Global Issues Must Be Addressed Increased presence of mercury in environment due to increased use of crude. Increased ocean acidification from burning more carbon. Climate change: Impacts such as sea level rise and greater erosion from more intense storms on the planet, and especially implications for dredge filled areas.

Comment Number: 000000339-19
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
The greatly increased ship activity has the potential to impact sediment quality. Diesel burning by the ships can create greenhouse gases, PAHs and dioxins, which can contribute to localized ocean acidification as well as contaminate the sediments in the area through atmospheric deposition, especially if diesel fuel is burned while the container ships are idling while at the terminal. The EIS should analyze the cumulative impacts of engine exhaust from the cargo vessels and tugs and upland machinery operations, and the potential for pollutants to the Chehalis River from atmospheric deposition, or from vessel machinery, or loading operations.

Comment Number: 000000339-9
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
Air
What is the potential for vapors associated with loading and unloading cargo to be discharged into the atmosphere and being deposited into surface waters? What is the potential for air pollution from normal tanker engine operations to be deposited into surface waters?

Comment Number: 000000344-3
Organization:
Commenter: Janet Strong
Commenter Type: Public

Comment Excerpt Text:
5. Effects of global warming and sealevel rise in Grays Harbor and tidally influenced rivers;

Comment Number: 000000357-6
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization

Comment Excerpt Text:
-Climate impacts related to the greenhouse gas emissions from the fracking, tar sands extraction, transporting -- both by rail and marine vessel -- as well as the refining and burning of this crude oil.

Comment Number: 000000358-10
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
g. The EIS include an analysis of the potential cumulative effects resulting from airborne pollutants from diesel engines from increased rail activity on the terrestrial and marine environment, including fish and wildlife.

Comment Number: 000000363-2
Organization: Washington State Legislature
Commenter: Reuven Carlyle
Commenter Type: Agency
Other Sections: 13.2 13.4 7.2
Comment Excerpt Text:
II. Impacts of additional rail and vessel traffic The Westway and Imperium expansion projects will significantly increase rail traffic along Washington rail lines and vessel traffic through Washington waterways, and the impacts of this additional traffic must be reviewed by the agencies.

Rail traffic will likely cause congestion at rail crossings, increased air and noise pollution along rail corridors, and increased rail maintenance and improvement costs. Out-of-state oil shipments are also likely to have an impact on the movement of key commodities within Washington, as the agriculture and aerospace industries, among many others, rely on rail to transport goods. Vessel traffic has the potential to interfere with marine wildlife, congest already busy shipping lanes, and impact local fisheries.

Comment Number: 000000364-1
Organization:
Commenter: Jude Armstrong
Commenter Type: Public
Other Sections: 3.1
Comment Excerpt Text:
In the EIS, please consider the following: Potential effect of air and water pollution associated with crude oil on the extremely productive areas of the estuary. The effect of terminal expansion on the surface water flow and composition of Frey Creek and the effects of even small amounts of crude into the microphytobenthic community of the bay. The effect of the air pollutants from the burping of the gases from the oil farms on the biosphere of Grays Harbor..

Comment Number: 000000370-4
Organization:
Commenter: Mike Petersen
Commenter Type: Public
Other Sections: 7.2 13.2 14 13.1
Comment Excerpt Text:
Giant unit trains of oil, like unit trains of coal, would impact existing rail infrastructure (with taxpayers paying for said impacts or needed improvements / expansion), increase health risks from diesel particulates, contribute to traffic congestion and slow emergency response, increase noise pollution, air pollution, environmental risks, and more.

Comment Number: 000000377-2
Organization:
Commenter: Laura Ackerman
Commenter Type: Public
Other Sections: 7.4 7.3 7 13.3 15 14
Comment Excerpt Text:
Please analyze the potential oil spills, fire from oil spills, diesel PM increasing, and the impacts to human health, especially those who live within a mile of the tracks, safety issues on increased railroad traffic, economics of communities paying for safety upgrades, impacts on rivers and other bodies of water, trails, parks, schools, hospitals and public facilities. Also analyze the impacts to wildlife.

Comment Number: 000000377-3
Organization:
Commenter: Laura Ackerman
Commenter Type: Public

Comment Excerpt Text:
Analyze how increased train traffic will potentially increase global warming and our greenhouse gas emissions which we are trying to reduce in this state.

Section 3 - Water

Comment Number: 000000009-3
Organization:
Commenter: David Perk
Commenter Type: Public
Other Sections: 13.2 13.3
Comment Excerpt Text:
Specifically, the scope of the Westway and Imperium EISes should include the following. Source-to-destination impacts of the method of transportation used to convey the products, including but not limited to: Methane and other gas emissions, groundwater contamination, waste products, and water consumption at the point of extraction; Diesel pollution, rail traffic displacement, road closures,

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Comment Number: 000000176-51
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:

(t) How will water resources, including fresh water, surface and groundwater be impacted? The DS does not consider water use at Facilities and pollution discharges.
(u) Salt water concerns: normal/permitted pollution from discharges including sewage/ballast/bilge/stormwater/petroleum products, solvents and other industrial substances including those unknown substances that are part of the crude oil fracking process; from accidents and from introduction of invasive species. How has the DS addressed these specific concerns?

Comment Number: 000000176-7
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
5. Water Resources:
• Fresh water, both surface and groundwater – for use at Imperium and Westway, define source and amount; normal/permitted pollution from discharges, stormwater runoff, from petroleum products and solvents and other industrial fluids and substances; from heavy metals from brakes; and from accidents;
• Salt water – normal/permitted pollution from discharges including sewage, ballast, bilge, stormwater, petroleum products and solvents and other industrial fluids and substances; from accidents and from introduction of invasive species.
• Aquatic Invasive Species: A Guide to Least Wanted – Washington; Aquatic Nuisance Species Committee Report to the 2012 Legislature
• Special attention to aquatic areas defined as "critical" under relevant Critical Areas Ordinances and to the Grays Harbor National Wildlife Refuge next to which the US Development Project will be located.
http://www.dnr.wa.gov/ResearchScience/News/Pages/nr09_105.aspx
http://www.fws.gov/refuge/grays_harbor/

Comment Number: 000000339-10
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
Water
Point and Nonpoint Discharges
Stormwater and wastewater discharges can carry heavy metals and other pollutants that may be harmful to fish and wildlife. The EIS should include a characterization of the source, quality and quantity, and potential impacts of all stormwater runoff generated by the projects that may enter state waters, whether treated or untreated. How will contaminated storm water runoff be prevented from entering surface waters? The EIS needs to identify a monitoring regime adequate to confirm design assumptions.

What are the cumulative impacts of stormwater, other pollutants, and any other wastewater discharges generated by the projects, when considering all other stormwater and wastewater discharges in the lower Chehalis River system? The EIS should include an ambient water toxicity study, using protocols accepted by Ecology and EPA to evaluate the cumulative effects of existing industrial wastewater and stormwater outfalls on species survival and water quality.

Biologic monitoring design should include studies of bioaccumulation of polycyclic

hydrocarbons (PAH), pentacholorophenol (PCP), and heavy metals in caged mussels. Future PAH, PCB, and heavy metal concentrations should be modeled based on the various alternatives being considered. The EIS should evaluate the ways in which hydrocarbons may escape the rail cars and enter the marine environment and Chehalis River, including wind, stormwater, and spills.

Comment Number: 000000339-12
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
Vessel Fueling and Pumpouts
Will vessels refuel at the site? The EISs should address the potential, adverse impacts of any fueling activities, potential spills, and the handling of sewage and gray water.

Ballast Water
The EISs should discuss ballast water management and examine impacts from potential discharges into the estuarine environment. Management of ballast water should be consistent with the Washington State Ballast Water Management Act.

Section 3.1 - Water quality

Comment Number: 000000017-6
Organization: Northbeach Community Gruop
Commenter: Lisa Riemer
Commenter Type: Organization

Comment Excerpt Text:
We need to protect our clean waters.

Comment Number: 000000023-5
Organization: World Temperate Rainforest Network
Commenter: Pat Rasmussen
Commenter Type: Organization

Comment Excerpt Text:
The Clean Water Act protects the Columbia River. Oil trains must be stopped from passing by the Columbia.

Comment Number: 000000032-3
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
FEMA didn't believe Oakville was a flood zone, was set to refuse listing it, until we had 2 huge floods several years ago—it was only listed under duress. How do they class this? Oakville during flood/storm

damage, can be land-locked. Last time, roads only opened in 3 days because PUD pitied our low-water situation—they'd planned on leaving us stranded for at least a week, otherwise.

Comment Number: 000000032-8
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
existing tracks are inadequate for so many, so heavy trains, flood zoned all along the route in GHC. WATER and FISHERIES would be near-permanently damaged if there's a derailment, spill or explosions.

Comment Number: 000000032-9
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
WATER tables in Western WA are shallow depth. Pollution's been found in 800' deep water tables, like those under San Jose, CA. WHERE shall we get clean water, once spills reach water in shallower tables here? WHAT happens when pollutants migrate to other water tables? We already have carcinogenic, teratogenic, and other chemicals polluting our environments, some known to be causing perinatal issues in some areas, for years.

Comment Number: 000000161-1
Organization:
Commenter: Chris Meyer
Commenter Type: Public
Other Sections: 13.2 15 7.4
Comment Excerpt Text:
Please include the impacts of rail traffic carrying the oil through Idaho in the scoping for your EIS. These trains will pass over critical groundwater areas for our community and the potential impacts of a spill must be evaluated in the reviews of the proposed new liquid storage terminals.

Comment Number: 000000166-1
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization

Comment Excerpt Text:
LWVSA has positions supporting • Maximum protection to the Spokane Valley-Rathdrum Prairie Aquifer. This sole source of drinking water is directly underneath the rail lines that are intended to carry the oil from North Dakota to Vancouver. The Aquifer intermingles with the Spokane River at multiple points through the Spokane Valley – with water from the river going into the aquifer water.

Comment Number: 000000166-4
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization

Comment Excerpt Text:

The League would like you to study: • Effects to the Spokane Valley-Rathdrum Prairie Aquifer and Spokane River from fugitive pollutants

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Comment Number: 000000188-4
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization

Comment Excerpt Text:
-Risks to Groundwater Supplies: The rail line crosses shallow alluvial and glacial outwash aquifers in the Chehalis, Black River, and Skookumchuck valleys that are important water sources for irrigation and other uses. Glacial outwash and coarse alluvial aquifers are particularly vulnerable because of rapid infiltration rates and limited attenuation of pollutants. The EIS should identify impacts of catastrophic spills and routine leakage to these water supplies and associated agricultural and domestic users.

Comment Number: 000000213-4
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization

Comment Excerpt Text:
The rail route also crosses the Rathdrum Prairie aquifer. This aquifer is a sole source aquifer that serves as a drinking water source for the Spokane Valley and Spokane. An examination of the potential risks of the increased oil train traffic to the aquifer is imperative.

Comment Number: 000000244-1
Organization: private citizen
Commenter: mary holmes
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
please consider the impact this would have on the river. just traveling along side it and if an accident should occur. also, in case of an accident, how/who would pay for the cleanup?

Comment Number: 000000271-3
Organization: Mr.
Commenter: Michael Gary
Commenter Type: Public
Other Sections: 5.1 11 7
Comment Excerpt Text:
There are many impacts from the proposed facilities. Reduced fishing, impacted recreation, reduced air quality, reduced water quality, and long-term health impacts to humans, just to name a few. These dangerous trains passing through my home area of Woodland, Washington will further damage the quality of life there.

Comment Number: 000000296-1
Organization:
Commenter: Steve Hallstrom
Commenter Type: Public

Other Sections: 7.4 7.2 5.1 8
Comment Excerpt Text:
Impacts that need to be considered relevant to agriculture in Grays Harbor County: Contamination of water in the event of a spill. Noise pollution and its affect on dairy, and on the farmers who work long hours year round. Destruction of shellfish beds due to dredging for larger ships in the harbor. Blockage of farm and field access due to increased rail traffic. Potential contamination of shellfish beds in event of a spill.

Comment Number: 000000307-1
Organization: Pacific County
Commenter: Steve Rogers
Commenter Type: Agency
Other Sections: 13.3 5.1
Comment Excerpt Text:
As a Pacific County commissioner and Willapa Harbor native, I am very concerned about the potential for a Grays Harbor oil-related disaster affecting the very clean waters of Willapa Bay. Recent derailments and an obviously shaky railroad infrastructure point to potential disaster. This is not good. We have worked hard for generations to take care of our bay and the potential for pollution from an outside source is very disheartening. We have a robust shellfish industry thanks to the folks who have treated our waters with respect for over a century. We have earned the right to have our waters respected.

Comment Number: 000000336-1
Organization:
Commenter: Lillian Broadbent
Commenter Type: Public

Comment Excerpt Text:
As the downstream recipient of any problems that might occur with the proposed project, I implore you to expand the scope of this project to include all upstream and downstream potential impact. As a resident and small business owner in Ocean Shores, we depend on the waters that surround us.

Comment Number: 000000364-1
Organization:
Commenter: Jude Armstrong
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
In the EIS, please consider the following: Potential effect of air and water pollution associated with crude oil on the extremely productive areas of the estuary. The effect of terminal expansion on the surface water flow and composition of Frey Creek and the effects of even small amounts of crude into the microphytobenthic community of the bay. The effect of the air pollutants from the burping of the gases from the oil farms on the biosphere of Grays Harbor..

Comment Number: 000000370-6
Organization:
Commenter: Mike Petersen
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
Please analyze the risk to the Spokane River and Hangman Creek, to the Rathdrum Prairie - Spokane

Valley Aquifer, the neighborhoods along the rail lines, and the increasingly bustling and economically attractive downtown Spokane core.

Section 3.2 - Runoff

Comment Number: 000000084-1
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 7.4 4 5 5.1
Comment Excerpt Text:
Please consider the following in your EIS: - Stormwater runoff from trains, marine vessels, and operations at project site - Impacts to plants due to increased emissions, rail traffic, and marine traffic - Impacts to land and marine-based plants and animals due to increased emissions, rail traffic, and marine traffic - Impacts to critical habitat due to increased emissions, rail traffic, and marine traffic - Impacts to listed and endangered species - Impacts to critical areas, shoreline, wildlife, marine life, and plant life in the event of an accidental release or spill -

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Comment Number: 000000176-5
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 7
Comment Excerpt Text:
4. Wetlands – loss from fill; stormwater runoff pollution including from rain or spray of water to tanks and piping at site and on loaded and empty cars; and mitigation. Setback from Fry Creek and other Critical Areas Ordinance (CAO) areas.

Comment Number: 000000188-7
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
Impacts of the Port Facility Construction: The EIS should identify all impacts associated with the construction of the facility, including short-term construction impacts, increases in stormwater runoff from impervious areas, wastewater discharges, and permanent impacts to wetlands and aquatic habitats on the facility grounds.

Impacts of Tanker Ballast Water:Tankers often carry ballast water to maintain stability before being filled. If this is to be discharged at the facility, identify how it will be treated and assess the impacts of ballast water discharge on water quality and the ecosystem of Grays Harbor. Identify risks of introduction of invasive nonnative species in ballast water to the harbor

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Comment Number: 000000329-5
Organization: citizen
Commenter: Judy Carter

Commenter Type: Public

Comment Excerpt Text:
Water Resources: Fresh water, both surface and groundwater – for use at Imperium and Westway, define source and amount; normal/permitted pollution from discharges, stormwater runoff, from petroleum products and solvents and other industrial fluids and substances; from heavy metals from brakes; and from accidents; and salt water – normal/permitted pollution from discharges including sewage, ballast, bilge, stormwater, petroleum products and solvents and other industrial fluids and substances; from accidents and from introduction of invasive species.

Comment Number: 000000332-8
Organization: citizen
Commenter: Judy Carter
Commenter Type:

Comment Excerpt Text:
What are the effects to the function and value of wetlands due to modification, or loss from fill, stormwater runoff pollution including from rain or wash down facilities and increased impervious surfaces and potential oil spill? How will water resources, including fresh water, surface and groundwater be impacted? The DS does not consider water use at Facilities and pollution discharges.

Section 4 - Plants

Comment Number: 000000017-4
Organization: Northbeach Community Gruop
Commenter: Lisa Riemer
Commenter Type: Organization
Other Sections: 5
Comment Excerpt Text:
We cannot afford to destroy our important ecosystem here in Grays Harbor.

Comment Number: 000000084-1
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 3.2 7.4 5 5.1
Comment Excerpt Text:
Please consider the following in your EIS: - Stormwater runoff from trains, marine vessels, and operations at project site - Impacts to plants due to increased emissions, rail traffic, and marine traffic - Impacts to land and marine-based plants and animals due to increased emissions, rail traffic, and marine traffic - Impacts to critical habitat due to increased emissions, rail traffic, and marine traffic - Impacts to listed and endangered species - Impacts to critical areas, shoreline, wildlife, marine life, and plant life in the event of an accidental release or spill -

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Comment Number: 000000176-11
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:

9. Animal and plant - The impacts of oil spills on marine mammals and seabirds are well documented. Direct mortality results from contact with the floating and/or sinking oil and long-term exposure to oil toxins residing in the spill-affected areas.
• Impacts on the following including identification of abundance status (e.g., there are over 50 species in the Grays Harbor and Washington Coast area determined either federally or state endangered or threatened, state sensitive or candidates for protection status or federal species of concern.

Comment Number: 000000176-16
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 5
Comment Excerpt Text:
Terrestrial Mammals, especially Long-eared Myotis, Long-legged Myotis, Keen's Long-eared Bat and roosting concentrations of Big Brown Bats, Myotis Bats, and Pallid Bats;

• Terrestrial and fresh and salt water plants including willow groves, old- growth trees, wetland species, eelgrass and phytoplankton species;

• Birds, especially Marbled Murrelet, Northern Spotted Owl, Brown Pelican, Western Snowy Plover, Brandt's Cormorant, Cassin's Auklet, Common Murre, Short-tailed Albatross, Tufted Puffin, Western Grebe, Great Blue Heron, Harlequin Duck, Trumpeter Swan, Bald Eagle, Golden Eagle, Peregrine Falcon, Osprey, Sooty Grouse, Band-tailed Pigeon, Yellow-billed Cuckoo, Vaux's Swift, Pileated Woodpecker, Oregon Vesper Sparrow, Western Red Knot, Streaked Horned Lark, Northern Goshawk, and Purple Martin;

• Terrestrial invertebrates, especially Great Arctic, Island Marble, Sand-verbena Moth, Taylor's Checkerspot and Valley Silverspot;

• Amphibians, especially the Western Toad; Cascades frog, Olympic torrent salamander, Tailed frog; Van Dyke's salamander

• Reptiles, especially the Sharptail Snake

Comment Number: 000000176-9
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 5
Comment Excerpt Text:
7. Coastal and nearshore ecosystem changes due to shading from docks and lingering boats, both as to vegeta- tive and animal habitat issues.

Comment Number: 000000229-7
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency

Comment Excerpt Text:

Invasive plant species are an ongoing issue in the CRGNSA, and the potential for further spread of existing infestations or new introductions would increase with increased rail traffic.

Comment Number: 000000329-8
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 5
Comment Excerpt Text:
Animal and plant - The impacts of oil spills on marine mammals and seabirds are well documented. Direct mortality results from contact with the floating and/or sinking oil and long-term exposure to oil toxins residing in the spill-affected areas. Impacts on the following including identification of abundance status (e.g., there are over 50 species in the Grays Harbor and Washington Coast area determined either federally or state endangered or threatened, state sensitive or candidates for protection status or federal species of concern. Discussion should include impacts from any alteration in landform or physical oceanographic change/habitat change (e.g., changes in nearshore currents); light changes (on land or at water, light pollution at night, changes in ability of light to penetrate water columns and to reach bottom such as shading from dock/lingering ships); noise pollution from operation of Port Facility or from vessels; from other pollution, both permitted and accidental, oil spills, ballast and bilge water or storm water discharges); and implications of expected changes in species composition, distribution and absolute numbers as a result of the above, including introduction of invasive species from hull fouling and ballast water discharge with special attention being paid to species in areas defined as “critical” under relevant Critical Area Ordinances. These should include, but not be limited to: terrestrial mammals, terrestrial and fresh and salt water plants, birds, terrestrial invertebrates, amphibians, reptiles, fresh and saltwater fish, marine mammals, marine invertebrates.

Comment Number: 000000339-8
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 13.4
Comment Excerpt Text:

Aquatic Vegetation
The EIS should analyze any potential for dock operations, and increases in vessel traffic to scour sediments or disrupt or harm riverine and estuarine vegetation or other benthic habitats.

How will impacts to riverine and estuarine vegetation damaged during construction or operations through displacement, shading, burial, and scour be avoided?

Comment Number: 000000354-3
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 5
Comment Excerpt Text:
Flora & fauna:
The trains will pass through and adjacent to the Ridgefie ld National Wildlife Refuge, with its mandate to provide wintering habitat for waterfowl, especially the dusky Canada geese. The EIS should study the impacts of increased train traffic to the variety of habitats, birds, and other species that make up the

Refuge.

Section 5 - Animals

Comment Number: 000000005-2
Organization:
Commenter: Yovonne Autrey
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
People depend on the shellfish beds to make their living and many families also depend upon the fisheries off the coast of the outlet of Grays Harbor. Grays Harbor is also a major stopover for migratory birds, as well as being host to myriad species native to the area, all of which would be severely impacted by an oil spill.

Comment Number: 000000017-4
Organization: Northbeach Community Gruop
Commenter: Lisa Riemer
Commenter Type: Organization
Other Sections: 4
Comment Excerpt Text:
We cannot afford to destroy our important ecosystem here in Grays Harbor.

Comment Number: 000000026-7
Organization:
Commenter: Garry Dale
Commenter Type: Public

Comment Excerpt Text:
Comments: We should carefully consider the impacts of the transportation of over 2 billion gallons of crude oil per year and the storage of up to 97.44 million gallons on the edge of Washington State's second largest estuary and next to Grays Harbor National Wildlife Refuge, which is designated as a Hemispheric Reserve of International Significance. Having over 700 additional transits per year over one of the most dangerous bars in the state and traveling along one of the most scenic and ecologically important parts of the coast, including the Olympic National Marine Sanctuary, should also be studied rigorously and comprehensively.

Comment Number: 000000050-3
Organization:
Commenter: Arlene Eubanks
Commenter Type: Public

Comment Excerpt Text:
3. There are four National Wildlife Refuge Systems in this area.
    1. Copalis National Wildlife Refuge
    2. Grays Harbour National Wildlife Refuge
    3. Willapa National Wildlife Refuge
    4. Black River Unite near Olympia, WA

There are all under the protection of Federal Government.

Comment Number: 000000084-1
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 3.2 7.4 4 5.1
Comment Excerpt Text:
Please consider the following in your EIS: - Stormwater runoff from trains, marine vessels, and operations at project site - Impacts to plants due to increased emissions, rail traffic, and marine traffic - Impacts to land and marine-based plants and animals due to increased emissions, rail traffic, and marine traffic - Impacts to critical habitat due to increased emissions, rail traffic, and marine traffic - Impacts to listed and endangered species - Impacts to critical areas, shoreline, wildlife, marine life, and plant life in the event of an accidental release or spill -

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Comment Number: 000000167-3
Organization:
Commenter: Bob Zeigler
Commenter Type: Public
Other Sections: 13.3 12 7
Comment Excerpt Text:
The EIS would need to discuss: 1. Risk increases to spill and those consequences to human health and safety, water quality and Chehalis River Fish and Wildlife and Native American Treaty Rights and impact to migratory birds stopping at Bowerman Basin. 2. Risks to people and natural resources and Treaty Rights along the entire train route from potential for accident and spill.

Comment Number: 000000176-15
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
from other pollution, both permitted and accidental, oil spills, ballast and bilge water or storm water discharges); and implications of expected changes in species composition, distribution and absolute numbers as a result of the above, including introduction of invasive species from hull fouling and ballast water discharge with special attention being paid to species in areas defined as "critical" under relevant Critical Area Ordinances.

Comment Number: 000000176-16
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 4
Comment Excerpt Text:
Terrestrial Mammals, especially Long-eared Myotis, Long-legged Myotis, Keen’s Long-eared Bat and roosting concentrations of Big Brown Bats, Myotis Bats, and Pallid Bats;

• Terrestrial and fresh and salt water plants including willow groves, old- growth trees, wetland species, eelgrass and phytoplankton species;

• Birds, especially Marbled Murrelet, Northern Spotted Owl, Brown Pelican, Western Snowy Plover, Brandt's Cormorant, Cassin's Auklet, Common Murre, Short-tailed Albatross, Tufted Puffin, Western Grebe, Great Blue Heron, Harlequin Duck, Trumpeter Swan, Bald Eagle, Golden Eagle, Peregrine Falcon, Osprey, Sooty Grouse, Band-tailed Pigeon, Yellow-billed Cuckoo, Vaux's Swift, Pileated Woodpecker, Oregon Vesper Sparrow, Western Red Knot, Streaked Horned Lark, Northern Goshawk, and Purple Martin;

• Terrestrial invertebrates, especially Great Arctic, Island Marble, Sand-verbena Moth, Taylor's Checkerspot and Valley Silverspot;

• Amphibians, especially the Western Toad; Cascades frog, Olympic torrent salamander, Tailed frog; Van Dyke's salamander

• Reptiles, especially the Sharptail Snake

Comment Number: 000000176-9
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 4
Comment Excerpt Text:
7. Coastal and nearshore ecosystem changes due to shading from docks and lingering boats, both as to vegeta- tive and animal habitat issues.

Comment Number: 000000187-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public

Comment Excerpt Text:
The Snowey Plover is on the Federal Endangered Species list, one of the challenges threatening this birds survival is the fact that the plover buries its eggs into depressions in the sand, making it easy for anyone to unknowingly step on the eggs. In the event of an oil spill on the North Beach, and the crew needs to walk through the nesting site to reach the spill, how will the crew manage to achieve cleaning the oil and protecting the Snowy Plover? How do you plan to mitigate the effects of an oil spill on the North Beach upon the adult snowey plover?

Comment Number: 000000214-6
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 13.3
Comment Excerpt Text:
Visitor and employee safety is a concern at Glacier NP because several high use and developed areas are adjacent to the railroad tracks and more rail traffic increases the likelihood of derailments: In addition, research has shown the current traffic level of about 30 trains per day affects wildlife movement and survival. For example, Ji'om 1998-2011, thirty-one out of 290 (11 %) confirmed deaths of threatened

grizzly bears in the Northem Continental Divide Ecosystem of Montana were due to collisions with trains. Train collisions represent the fomth most common form of human-caused mortality in the Northem Continental Divide Ecosystem grizzly bear population (U.S. Fish and Wildlife Service, 2013). Increased rail traffic could further restrict wildlife movement and increase mortality in and near the park.

Comment Number: 000000235-1
Organization: Ms.
Commenter: Pam Borso
Commenter Type: Public

Comment Excerpt Text:
I am writing to urge you to thoroughly study the environmental impacts of creating an oil terminal in an environmentally sensitive area such as Grays Harbor. This are is a major Pacific Flyway for migrating birds. Birds are very susceptible to oil spills and air quality that will be compromised due to diesel particulate matter by additional trains in the area.

Comment Number: 000000245-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
In 1990 the Grays Harbor National Wildlife Refuge was established to protect the shorebirds that migrate through the Harbor each spring and fall. Over half of the small population of the Western race of Red Knots (Calidris canutus roselaari) use the refuge (Buchanan). Because of the refuge use by these, and similar birds, in 1996 the refuge was designated as a site of Hemispheric Importance by the Western Hemisphere Shorebird Reserve Network. This means that over half of the population of a species of shorebird uses this refuge to sustain them on their migration to their Arctic breeding grounds. The next stop on the northward migration route is the Copper River Delta in Alaska. The previous stop on this migration is the areas around San Francisco Bay. Now the food source for these birds is threatened by the proposed use of Grays Harbor as a shipping point for crude oil to US refineries, and though un-stated, to Asian countries from Alberta tar-sands after the Bakken field production drops.

Comment Number: 000000245-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 7.4 7
Comment Excerpt Text:
This use of the Port of Grays Harbor sites will, without doubt, lead to a significant crude oil spill in the future. Someday a harried worker will shortcut an established procedure and a release of crude oil into the Harbor will result, most likely during vessel loading. The protection offered to the Refuge under the GRP is pre-booming, using the row of pilings that cross the opening of Bowerman Basin. It's too bad that not all of the pilings still remain, and it's also too bad that booming there, while mostly ineffective, will afford no protection to the rest of the Refuge mudflats which lie beyond the pilings. The tidal action will not allow skimming of collected oil except during a brief window of time, and if not swiftly completed the skimming boat may be stranded on the mudflats for many hours. Oil on the mudflats will, as seen during the Nestucca spill of 1988, cause the death of tens of thousands of shorebirds, should it happen during the spring migration. Less obvious will be the destruction of the food source for the shorebirds: the creatures that live in the mud, and the biofilm that covers the intertidal area. Recent studies show that the biofilm provides more than half of the nutrition for several of the species of shorebirds.that migrate

through the Harbor, and it is the principal source of nutrition for the shellfish that are farmed here. Until there is an effective means of protecting the all the refuge mudflats that are so necessary to the survival of the migrating shorebirds, this usage of the Port properties should not be permitted. There is no comparable tidal area that the shorebirds can use if the Harbor's mudflats are coated with oil. Remediation is not possible in this case, only prohibition provides the certain protection required.

Comment Number: 000000283-4
Organization:
Commenter: James George
Commenter Type: Public

Comment Excerpt Text:
4. The facilities are near one of the largest annual gatherings of shore birds.

Comment Number: 000000319-5
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 13.2 14 7.1 7.4
Comment Excerpt Text:
The EIS should identify the safety of the spur rail line from Centralia to Hoquiam, the capacity for local emergency response teams to deal with spills in the riparian areas, the impact spills would have on downstream and estuarine species, and who would pay for cleanups when spills occur. Presumably you are aware of the significance of the Grays Harbor Estuary to the survival of migratory shorebirds. An April spill could threaten extinction for certain populations, if not species. The EIS should quantify how many migratory bird species depend on a healthy estuary, what percent of the Western Flyway populations those numbers represent, the cumulative impact on avian health of incidental spills that will occur if one or all oil ports are constructed, as well as the impact on those birds should a catastrophic spill happen.

Comment Number: 000000329-8
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 4
Comment Excerpt Text:
Animal and plant - The impacts of oil spills on marine mammals and seabirds are well documented. Direct mortality results from contact with the floating and/or sinking oil and long-term exposure to oil toxins residing in the spill-affected areas. Impacts on the following including identification of abundance status (e.g., there are over 50 species in the Grays Harbor and Washington Coast area determined either federally or state endangered or threatened, state sensitive or candidates for protection status or federal species of concern. Discussion should include impacts from any alteration in landform or physical oceanographic change/habitat change (e.g., changes in nearshore currents); light changes (on land or at water, light pollution at night, changes in ability of light to penetrate water columns and to reach bottom such as shading from dock/lingering ships); noise pollution from operation of Port Facility or from vessels; from other pollution, both permitted and accidental, oil spills, ballast and bilge water or storm water discharges); and implications of expected changes in species composition, distribution and absolute numbers as a result of the above, including introduction of invasive species from hull fouling and ballast water discharge with special attention being paid to species in areas defined as "critical" under relevant Critical Area Ordinances. These should include, but not be limited to: terrestrial mammals, terrestrial and

fresh and salt water plants, birds, terrestrial invertebrates, amphibians, reptiles, fresh and saltwater fish, marine mammals, marine invertebrates.

Comment Number: 000000339-5
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 7.1
Comment Excerpt Text:
Grays Harbor Estuary is one of four major staging areas for shorebirds in North America and one of the largest concentrations of shorebirds on the west coast, south of Alaska. Shorebirds gather here in the spring to feed, store up fat reserves, and rest for the non-stop flight to their northern breeding grounds. Arctic-bound shorebirds come from as far south as Argentina and from June through October the shorebirds return to the estuary in lesser concentrations on their way south during the longer fll migration period. Thousands of shorebirds, primarily dunlin, stay for the winter. The EIS should identify potential, adverse impacts on storage and transport of crude oil on shorebirds and their habitat, with special emphasis on spill prevention and response.

Comment Number: 000000353-7
Organization: Jefferson County
Commenter: Carolyn Avery
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
7. The EIS describe in detail the direct and indirect effects of a major spill of 1). Crude oil from the Bakken Formation and its associated impurities (tracking chemicals) and 2). Canadian tar sands and associated impurities (synthetic crude and butimen with diluents) on the ESA-Iisted western snowy plover streaked horned lark and their designated critical habitats.

Comment Number: 000000354-3
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 4
Comment Excerpt Text:
Flora & fauna:
The trains will pass through and adjacent to the Ridgefie ld National Wildlife Refuge, with its mandate to provide wintering habitat for waterfowl, especially the dusky Canada geese. The EIS should study the impacts of increased train traffic to the variety of habitats, birds, and other species that make up the Refuge.

Comment Number: 000000358-12
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 7.2
Comment Excerpt Text:
e. WDFW has documented active bald eagle and great blue heron nests in the bay approximately one mile from the proposed site. The potential effects of construction noise should be addressed if it occurs during times that overlap with

the breeding season, and the impacts associated with increased barge and vessel traffic passing by these nests within relative close proximity to the colonies should be analyzed.

Comment Number: 000000358-5
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
Relative to wildlife, a wide variety of birds and marine mammals also frequent the Grays Harbor area, its tributaries, nearshore ecosystem, and offshore waters. Grays Harbor is an important foraging arid resting area for migratory shorebirds and waterfowl. Waterfowl concentrations occur from fall through spring, especially in North Bay. Grays Harbor is a shorebird site of world significance, supporting up to one million birds during the spring migration , as well as large numbers of fall-migrating and wintering shorebirds. The Oyhut/Damon Point area is one of only three nesting areas in Washington for the federally threatened Snowy plover. Bald eagles and great blue herons nest throughout the region and forage in the bay, and Peregrine falcons are common during peak shorebird abundance in spring. Migrating Gray whales commonly feed in the bay during the northward migration from about March through June. Occasional resident grays may also be seen, especially around the mouth of the bay. Grays Harbor is also home to thousands ofharbor seals and California Sea Lions from mid-spring through early fall, and is one of the largest seal pupping areas in the state. Pupping occurs throughout the bay with concentrations around Sand Island and in North Bay.
Sea otters are fairly rare in the immediate vicinity of Grays Harbor, but there is a recovering population living on the outer coast north of Point Grenville with a significant portion of this population found around Destruction Island. It is possible that a large spill in the Grays Harbor area could be transported by wind and currents to the north coast area where sea otters would be impacted. Sea otters are particularly susceptible to oil injury due to their reliance on dense fur, rather than blubber, for thermal protection ; once the pelt of sea otters is oiled, it los es most of its thermally protective qualities and the animal would likely succumb to hypothermia.

Southern Resident Orcas periodically utilize the offshore waters near Grays Harbor and the Columbia River entrance particularly in the winter and early spring where they prey on salmon and other fish. Orcas suffered high rates of mortality following the Exxon Valdez oil spill; the same would likely happen here if a s imilar sized spill occurred while they were present. ESA listed Southern Resident Orcas rely heavily on Chinook salmon for prey, and an oil spill in Grays Harbor would eliminate a large portion of these preferred prey items from the area.

Comment Number: 000000358-7
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:
Increased rail traffic also leads to potential increased train and wildlife interaction, including mortality from collisions. There are likely to be some hotspots for wildlife mortality along the rail and these are likely to correspond to adjace nt habitats, migration/travel corridors, and/or human caused funneling of

habitat. The loss of lactating females and adult nesting birds also often results in secondary mortality to dependent offspring, which should be considered.

Comment Number: 000000358-9
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:
6. The project proponent(s) monitor train/wildlife collisions and create appropri ate wildlife crossing structures to avoid collisions when and where hotspots for mortality are identified.

Section 5.1 - Marine life

Comment Number: 000000005-2
Organization:
Commenter: Yovonne Autrey
Commenter Type: Public
Other Sections: 5
Comment Excerpt Text:
People depend on the shellfish beds to make their living and many families also depend upon the fisheries off the coast of the outlet of Grays Harbor. Grays Harbor is also a major stopover for migratory birds, as well as being host to myriad species native to the area, all of which would be severely impacted by an oil spill.

Comment Number: 000000015-1
Organization:
Commenter: Garrett Phillips
Commenter Type: Public
Other Sections: 13.5 7.4
Comment Excerpt Text:
I live in Hoquiam. I regularly go out recreationally clamming on beaches between Ocean Shores and Quinault Reservation. I consider this to be an important part of my life. It is done of the reasons that I live here. I am concerned that ocean going vessels carrying crude oil from the proposed export facilities will malfunction or collide with other vessels, debris, or rocksm and leak oil into the marine environment, causing harm to razor calm communities on the beaches where I go clamming. Please study the potential impacts of these events occurring. Please do not simply quantify the probability of these events occurring. Rather, please study the actual impacts to my recreational clamming opportunities that would result from a marine oil spill. This study should include analysis of marine and near shore hydrology, the clams' habitat and ecological relationships, and the limits of best practices in oil spill cleanup. Please study what seasonal restrictions WDFW would have to impose for at least ten years following an oil spill to ensure public safety and sustainable clam populations, and what impact this would have on recreational clam harvest opportunities.

Comment Number: 000000017-5
Organization: Northbeach Community Gruop
Commenter: Lisa Riemer
Commenter Type: Organization

Comment Excerpt Text:
We need to protect our fish.

Comment Number: 000000022-1
Organization: University of Washington
Commenter: Donald Gunderson
Commenter Type: Organization
Other Sections: 8
Comment Excerpt Text:
The Grays Harbor, Willapa Bay, and Columbia River estuaries provide critical juvenile nursery habitat for Dungeness crab during their first two years of life. After migrating from these estuaries, these crabs eventually account for about 10-50% of the commercial catch landed in Grays Harbor, Willapa Bay, Ilwaco, Astoria, and Warrenton, depending on the year (see Armstrong, Rooper, and Gunderson, "Estuaries" 2003). Production from estuaries is relatively stable from year to year, while ocean production is more erratic, so that in some years the fishery is heavily dependent on estuarine production. The Grays Harbor estuary is the most productive of these three estuaries, and a substantial loss of revenue and jobs would result if this habitat were damaged. Particularly vital to young stages of crab are the smaller side channels that cross extensive intertidal flats where highest densities of crab are found. The adjacent tideflats are used for feeding during high tides when crab move from channels onto the flats (see Holsman, McDonald, Armstrong, "Marine Ecology Progress Series" 2006). Any damage to the Willapa Bay and Columbia River estuarine systems that might result during spills from barges transiting offshore waters should also be considered during the scoping process. The Grays Harbor, Willapa Bay, and Columbia River estuaries also provide critical habitat for English sole during their first two years of life. It is possible that most adult English sole captured by commercial trawlers off the coasts of Washington and Oregon come from estuarine nursery areas (Rooper, Gunderson, and Armstrong, "Estuaries", 2004).

Comment Number: 000000023-1
Organization: World Temperate Rainforest Network
Commenter: Pat Rasmussen
Commenter Type: Organization

Comment Excerpt Text:
The train routes are by the Columbia River which is home to threatened and endangered salmon and these fish are the food for endangered Southern Resident orca whales. The projects would put at risk these endangered species that we are spending millions of dollars to recover. This year and last the Southern Resident orcas have spent most of their time near the mouth of the Columbia because their preferred food is Chinook salmon and the Chinook runs have been larger from the Columbia. They are clearly relying more on Columbia River Chinook as salmon runs in Puget Sound have decreased.

Comment Number: 000000026-3
Organization:
Commenter: Garry Dale
Commenter Type: Public

Comment Excerpt Text:
Marine Resources: How would this project affect our marine resources including marine mammals, fish, birds, shellfish, crab and the entire marine ecosystem that supports them?

Comment Number: 000000026-6
Organization:
Commenter: Garry Dale

Commenter Type: Public

Comment Excerpt Text:
Salmon & Fisheries: How would the construction and operation of the terminal(s) in a near-shore environment and the crude oil transport vessels themselves affect and impact crab, shellfish and salmon fisheries?

Comment Number: 000000032-8
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization
Other Sections: 3.1
Comment Excerpt Text:
existing tracks are inadequate for so many, so heavy trains, flood zoned all along the route in GHC. WATER and FISHERIES would be near-permanently damaged if there's a derailment, spill or explosions.

Comment Number: 000000056-4
Organization:
Commenter: Nick Lorax
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
I would like to know how many terminals similar to the one proposed have had spillage in the past, what was the cost of clean up, how will the proposed terminal be avoiding these same accidents. How much money has been spent in the last 50 years on clean up of the Pacific Coast and Puget Sound in this region to restore salmon and other marine life. How much of this restoration could potentially be impacted by a serious spillage at the proposed export terminal.

Comment Number: 000000063-5
Organization: El Centro de la Raza
Commenter: Estela Ortega
Commenter Type: Organization
Other Sections: 2.1
Comment Excerpt Text:
These terminals, and the transport of crude oil to and from these terminals, endangers our natural resources by damaging aquatic ecosystems, endangering fishing grounds, and accelerating climate change.

Comment Number: 000000067-1
Organization:
Commenter: Roy Vataja
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
I want to go on record as opposing the shipping of crude oil out of Grays Harbor. The Harbor is home to razor clams, crab and a bird sanctuary. It takes only one spill to wipe out the fishing, crabbing and clamming industries

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Comment Number: 000000084-1
Organization:
Commenter: Eric LaBrant

Commenter Type: Public
Other Sections: 3.2 7.4 4 5
Comment Excerpt Text:
Please consider the following in your EIS: - Stormwater runoff from trains, marine vessels, and operations at project site - Impacts to plants due to increased emissions, rail traffic, and marine traffic - Impacts to land and marine-based plants and animals due to increased emissions, rail traffic, and marine traffic - Impacts to critical habitat due to increased emissions, rail traffic, and marine traffic - Impacts to listed and endangered species - Impacts to critical areas, shoreline, wildlife, marine life, and plant life in the event of an accidental release or spill -

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Comment Number: 000000116-4
Organization: League of Women Voters of Washington
Commenter: Kim Abel
Commenter Type: Organization

Comment Excerpt Text:
-Probable or possible impacts on marine waters, in the likely event that much of this product will be shipped by sea to distant destinations.

Comment Number: 000000133-1
Organization:
Commenter: Francis Estalilla
Commenter Type: Public

Comment Excerpt Text:
As a strong OPPONENT to allowing crude-by-rail development in Grays Harbor, my biggest concern is assessing the potential impacts on the basin's rich marine life, particularly the commercially and recreationally valuable fish and shellfish resources that define the lifestyle that drew many of us to the Harbor in the first place. As an avid angler, I worry about impacts to the estuarine nursery that sustains juvenile salmonids as well as vast shoals of forage fish. I am also concerned about devastating impacts to nearshore invertebrates, and the fish and the myriad shorebirds that rely on them for sustenance. This is a rich and diverse marine ecosystem that is particularly sensitive to the disruptive effects of toxic hydrocarbon discharges, whether intentional or accidental.

Comment Number: 000000135-1
Organization:
Commenter: Larry Haaga
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
As an avid fisherman in Grays harbor County, I am very concerned about the possible negative affects of a crude spill in the area on the fish and invertebrates which inhabit the the marine and estuary environment. I am strongly against the allowance of this chemical storage in the Hoquiam area.

Comment Number: 000000138-1
Organization: concerned citizen
Commenter: Shawn Murray
Commenter Type: Public
Other Sections: 13.3 7.4
Comment Excerpt Text:
I strongly OPPOSE crude by rail development in Grays Harbor. The potential for harming an already

fragile marine life ecosystem is far too great a risk. The tracks that these rail tankers would be utilizing are old and unsatisfactory. They follow all to closely the Chehalis River and Grays Harbor, the question of a spill is not if, but when.

Comment Number: 000000142-2
Organization: CCA
Commenter: William Kearse
Commenter Type: Public
Other Sections: 7 14 7.2
Comment Excerpt Text:
The negatives include a significant risk to public safety, potential disaster for the marine and freshwater species that define the Chehalis Basin, dangerous interruptions to EMS, fire, and police operations in towns with only at-grade crossings, increased noise,

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Comment Number: 000000168-1
Organization: Gig harbor puget sound anglers
Commenter: Steve Ng
Commenter Type: Organization
Other Sections: 13.3
Comment Excerpt Text:
No to oil transport via rail thru grays harbor .Too much at risk here , with salmon and steelhead streams so close to the rails, let alone human life in case of a derailment with dangerous loads,or oil container cars .

Comment Number: 000000169-1
Organization: Gig harbor puget sound anglers
Commenter: Steve Ng
Commenter Type: Organization
Other Sections: 13.3
Comment Excerpt Text:
No to oil transport via rail thru grays harbor .Too much at risk here , with salmon and steelhead streams so close to the rails, let alone human life in case of a derailment with dangerous loads,or oil container cars .

Comment Number: 000000172-1
Organization:
Commenter: Anne Clark
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
I strongly oppose the construction of crude oil terminals in Grays Harbor. Gray's Harbor mudflats are one of 5 major migratory shorebird staging sites in North America. For several species of shorebirds a very large proportion of the world's population pauses in their northbound flight from wintering grounds south of here en route to arctic breeding grounds to rest and feed on the extraordinarily rich marine environment of Grays Harbor and Bowerman Basin. These species include Western Sandpiper, Red Knot, Short-billed Dowicher, Least Sandpiper and Semipalmated Plover. Moving oil on ships or barges over the treacherous bar on entering or exiting Gray's Harbor has a real possibility of a significant oil spill. If such a tragedy occurred at a critical time with impact on the spring stopover of these birds it could decimate the world's population of several of these species. Grays Harbor is such a crucial and unique environment in the life-cycle of these species that risking this type of accident is unthinkable. I beg you to include the impact on

these shorebirds, as well as the rest of this key west-coast flyway habitat in the scope of the Environmental Impact Statement for both the Westway and Imperium projects.

Comment Number: 000000173-1
Organization:
Commenter: Fred Pentt
Commenter Type: Public
Other Sections: 7 7.4
Comment Excerpt Text:
Guess you people that are wanting to deliver oil here in Hoquiam do not live here! A spill on any of Grays Harbors waterways would be so harmful to and aquatic species we have here. I grew up next to the bay and have been fishing it for over 60 years. Back when a Hoquiam pulp mill was dumping toxins into Grays Harbor Bay there was many problems trying to get fish to return to the Wynoochee and Satsop Rivers. Now that it is gone these 2 rivers are doing quite well. Oil spill would bring us back to ground zero if, and when, it falls into our waterways and it will happen.

Comment Number: 000000174-2
Organization: Twin Harbors Fish & Wildlife Advocacy
Commenter: Tim Hamilton
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
The risk of spills at the Port during transfer or along the tracks that follow the Chehalis River from Centralia down to Hoquaim is significant, if not a certainty. Ecological damage to the Chehalis River system and the Grays Harbor estuary from a crude spill would be catastrophic.

Comment Number: 000000176-11
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 4
Comment Excerpt Text:
9. Animal and plant - The impacts of oil spills on marine mammals and seabirds are well documented. Direct mortality results from contact with the floating and/or sinking oil and long-term exposure to oil toxins residing in the spill-affected areas.
• Impacts on the following including identification of abundance status (e.g., there are over 50 species in the Grays Harbor and Washington Coast area determined either federally or state endangered or threatened, state sensitive or candidates for protection status or federal species of concern.

Comment Number: 000000176-17
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
• Fish especially Pacific Herring, Pacific Sand Lance/Longfin Smelt, Surfsmelt, Bull Trout/Dolly Varden, Coastal Resident/Searun Cutthroat, Salmon (Chinook, Chum, Coho, Pink, Sockeye), Rainbow Trout/Steelhead/Inland Redband Trout, Pacific Cod, Pacific Hake, Walleye Pollock, Eulachon, Rockfish (Black, Brown, Canary, China, Copper, Greenstriped, Quillback, Redstripe, Tiger, Widow, Yelloweye, Yellowtail), Spotted Ratfish, English Sole, Pacific lamprey and Rock Sole;

• Marine Mammals, especially Orcas Dall's Porpoise, Gray Whale, Harbor Seal, Pacific Harbor Porpoise, Northern Sea Otter, and Steller Sea Lion;

• Marine Invertebrates including Pinto Abalone, Geoduck, Clams (Butter, Native Littleneck, Manila, Razor), Olympia Oyster, Pacific Oyster, Dungeness Crab, Pandalid shrimp, Pteropods (especially "sea butterfly" and Zooplankton.

Comment Number: 000000176-3
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 12
Comment Excerpt Text:
2. Cultural, historical and archeological:
Native American Issues:
• Treaty fishing rights - loss/interruption of usual and accustomed fishing sites;
• Public's perception of negative effect on PNW totemic species: Salmon, Orca (cetaceans) and eagle.
• Shellfish and crab viability

Comment Number: 000000176-49
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(r) What are the short-term and long-term effects of negative impairment of totemic species, e.g., salmon, razor clams, Orcas and other cetaceans and migratory birds?

Comment Number: 000000176-54
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(z) Impacts to federally-listed or state-listed and concerned marine species, including but not limited to: changes to currents, alteration of landforms; light changes (on land or at water), light pollution at night, changes in ability of light to penetrate water columns and to reach bottom as shading from dock/lingering ships noise pollution from operation of Port. How will these issues be eliminated or averted?
(aa) Impacts to salmonid species, sea run cutthroat, bull trout, pacific sand lance, smelt, English sole, essential forage fish, shellfish, razor clams, oysters, etc. could be catastrophic and long-term. What preventions will be in place and what mitigation would in place if a problem occurred? Would those affected be compensated? Who would pay that compensation?
(ab) What would be the impacts due to increased vessel traffic to visiting whale, gray whale, harbor seals and other large animals?
(ac) Impacts to migratory birds. Grays Harbor is a hemispherically important stopping point for 500,000 – 1,000,000 migratory shorebirds. GH hosts over 50% of the western Red Knot population each year. What would be the effect of an incident on the mudflats and feeding grounds for the migratory bird population?

(ad) What are the hazardous materials on hand as part of operations and how are they protected from entering the waste flow on-site and off-site?
(ae) Vessel traffic increases and conflicts with existing marine resource uses such as crabbing, trolling and recreational fishing. How will these traffic flows be monitored and enforced? If the tide or fishing window is optimal for existing marine resource industries and a vessel is scheduled to depart, who will have precedence?

Comment Number: 000000176-58
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(aj) Wave and current impacts from increased ship activity. Dredging depths impact inner Harbor mudflats and sand islands. Decrease in lease values or elimination of oysterlands. How will increased vessel-oriented maintenance support current marine resources?

Comment Number: 000000176-7
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 3
Comment Excerpt Text:
5. Water Resources:
• Fresh water, both surface and groundwater – for use at Imperium and Westway, define source and amount; normal/permitted pollution from discharges, stormwater runoff, from petroleum products and solvents and other industrial fluids and substances; from heavy metals from brakes; and from accidents;
• Salt water – normal/permitted pollution from discharges including sewage, ballast, bilge, stormwater, petroleum products and solvents and other industrial fluids and substances; from accidents and from introduction of invasive species.
• Aquatic Invasive Species: A Guide to Least Wanted – Washington; Aquatic Nuisance Species Committee Report to the 2012 Legislature
• Special attention to aquatic areas defined as "critical" under relevant Critical Areas Ordinances and to the Grays Harbor National Wildlife Refuge next to which the US Development Project will be located.
http://www.dnr.wa.gov/ResearchScience/News/Pages/nr09_105.aspx
http://www.fws.gov/refuge/grays_harbor/

Comment Number: 000000177-1
Organization:
Commenter: Hans Mak
Commenter Type: Public
Other Sections: 13.3 7.4
Comment Excerpt Text:
In light of the recent derailments in the County I oppose the oil trains through the area. I come to the harbor to fish and gather shellfish. A crude derailment/ spill would be catastrophic to environmental and community resources. This is not a good fit with the amount of rain we receive in the area.

Comment Number: 000000178-2
Organization: League of Women Voters of Grays Harbor
Commenter: Shannon Vandenbush
Commenter Type: Organization
Other Sections: 15
Comment Excerpt Text:
If implemented, whether in part or their entirety, these projects would present a continual and unrelenting menace to the infrastructure of our existing fishing, shellfish and tourism derived economies. Our membership is requesting a broad based, explorative NEPA/ SEPA EIS review that will consider what impacts these projects will have on the diverse span of environmental, social, and transportation aspects that will affect the everyday life of the inhabitants of Grays Harbor.

Comment Number: 000000183-3
Organization:
Commenter: Mary Holder
Commenter Type: Public

Comment Excerpt Text:
Impacts on Fish and Wildlife and Their Habitats: The Westway and Imperium projects would cause significant adverse impacts on fresh and marine waters, wetlands, terrestrial areas, fish, shellfish, birds, and mammals and their habitats along the entire transportation route of the crude oil – from the area where the crude oil is extracted to the place to which it is exported. These impacts would result from air emissions, explosions and fires from rail accidents, oil spills from rail cars and vessels, and spillage at the storage facilities themselves.

Comment Number: 000000183-7
Organization:
Commenter: Mary Holder
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
The short and long-term impacts from rail, vessel, or storage tank accidents and operational incidents involving large and small oil spills must be studied in detail in the EIS process. The Grays Harbor National Wildlife Refuge (within only a few miles of the proposed projects), and the other areas in and near Grays Harbor that are critical for shorebirds and other bird species, must be studied in particular detail. See photograph of map of this area attached hereto. The Grays Harbor estuary is a biologically rich and productive ecosystem. The mudflats, saltmarsh, eel grass beds, and open salt water in the estuary provide essential habitat for fish and wildlife, including waterfowl, shorebirds, salmon, clams, and crustaceans. The estuary, which provides habitat for as many as 24 shorebird species, has designated by the Western Hemisphere Shorebird Reserve Network as a hemispheric reserve of international significance because it is visited by over 500,000 shorebirds annually. Sites in the Western Hemisphere Shorebird Network. http://www.whsrn.org/sites/map-sites/sites-western-hemisphere-shorebird-reserve-network. Accessed May 15, 2014. The Grays Harbor National Wildlife Refuge was established by Congress to protect this critical shorebird habitat. Hundreds of thousands of shorebirds use prey species in the Grays Harbor estuary to fuel their migration. Migrating shorebirds visiting the Grays Harbor area gain up to 30% of their body weight in fat before resuming their long journeys northward. Shorebird species in particular have experienced dramatic population declines over the last decades. The EIS analysis must take seriously the potential impacts on shorebirds dependent upon the health of the Grays Harbor estuary for their survival.

A recent accident in the Houston Ship Channel in Texas in which a ship collided with a barge carrying a large quantity of oil spilling the oil illustrates the potential catastrophic impacts on shorebirds, seabirds, and migratory bird species (as well as on fish and marine animals). U.S. Fish and Wildlife Service. National Wildlife Refuge System. April 21, 2014. Impacts at Texas Oil Spill. http://www.fws.gov/refuges/news/ImpactsAtTexasOilSpill.html. ("A total of 90 miles of shoreline were impacted by oil that drifted south."). Accessed May 15, 2014. The EIS must detail how large an area might be impacted by such an oil spill involving a vessel, oil tank car(s) or storage facility associated with the proposed projects and what fish and wildlife species may be impacted. The area studied must not be limited to Grays Harbor but must also include Willapa Bay and other areas into which oil my drift from Grays Harbor and/or that may be affected by an oil spill along the transportation route. The studies must not be restricted to shorelines but must also include impacts to the health of offshore kelp forests and other areas where birds, fish, and marine mammals feed.

The shorebirds that depend upon Grays Harbor are at particular risk from an oil spill. A number of the migratory shorebirds that stop over at the Grays Harbor estuary are considered species of highest conservation concern. U.S. Fish and Wildlife Service. Birds of Conservation Concern 2008. P. 24 https://www.fws.gov/migratorybirds/NewReportsPublications/SpecialTopics/BCC2008/BCC2008.pdf . Accessed May 15, 2014. Many of the shorebirds that stop over in the Grays Harbor estuary are en route to wintering grounds in Central or South America or breeding grounds in Alaska, Canada or the Russian Far East. An analysis of impacts on shorebird populations and their habitats in the EIS must take into consideration the fact that they are integral components of a greater hemispherical population of birds. Buchanan, J.B. 2000. Shorebirds: Plovers, Oystercatchers, Avocets and Stilts, Sandpipers, Snipes, and Phalaropes. *Pages* 20-1 – 20-48 *in.* E. Larsen, J. M. Azerrad, N. Nordstrom, editors. 2004. Management recommendations for Washington's priority species, Volume IV: Birds. Washington Department of Fish and Wildlife, Olympia,Washington, USA. pp. 20-3 and 20-11. http://wdfw.wa.gov/publications/00026/wdfw00026.pdf. Accessed May 17, 2014.

The impacts upon the individual species of shorebirds should be studied in detail rather than just "shorebirds" as a general category to determine whether given the status of a particular status and traits of a species impacts from an oil spill may be greater than upon others. As an example of one declining species in particular that must be studied closely is the Red Knot, *Calidris canutus roselaari*. The Red Knot is one of the rarest of the long-distance migrant shorebirds that use the Pacific Flyway. Red Knots undertake long flights during their migration that can span thousands of miles and breed on Wrangel Island, Russia and on tundra in far Northern and Northwest Alaska. They overwinter in Mexico or possibly further south. Buchanan, J.B. and L.J. Salzer, Washington Department of Fish and Wildllife. Red Knot (*Calidris canutus*) migration on the Pacific coast of the Americas. http://wdfw.wa.gov/publications/01547/wdfw01547.pdf. Accessed May 15, 2014. Grays Harbor is a vital migration stopover point for these birds that feed on bivalves and other benthic invertebrates in the Grays Harbor estuary [Bowerman Basin, Ocosta (Bottle Beach) and Grass Creek] to fuel their return trip to Arctic breeding grounds (Bowerman Basin, Ocosta, Grass Creek). Other declining shorebirds in addition to the red knot that must be studied closely by the EIS include, but are not limited to: black-bellied plover, semipalmated plover, whimbrel, ruddy turnstone, sanderling, semipalmated sandpiper, least sandpiper, and short-billed dowitcher. Like the Red Knot, some of these species saw significant population losses in the late 19th and early 20th centuries due to hunting and, more recently, from habitat loss. Buchanan 2000, pp. 20-8 and 20-12. These species are especially vulnerable to disastrous decline from oil spills.

Oil spills result in: 1.) direct mortality of shorebirds from plumage fouling and toxicity; 2.) reduced invertebrate food supplies; 3.) oil spill cleanup activity that disrupts foraging and roosting; 4.) reduced preening and foraging after a spill; and 5.) greater susceptibility to predation (Buchanan, p. 20-15). Shorebird species like the Red Knot that concentrate in large numbers in a single area during migration

are highly vulnerable to the loss of a critical staging area such as Grays Harbor. The impacts of an oil spill in Grays Harbor resulting in the extirpation of the Red Knot and other shorebird species from the Grays Harbor estuary could contribute to the extinction of this and other vulnerable species. The impacts of an oil spill on other bird species, including raptors, seabirds, and songbirds must also be analyzed in detail in the EIS.

Detailed studies must also be conducted on impacts on fish species including salmon, endangered green sturgeon, Pacific eulachon and bull trout from not only oil spills but also air emissions and lights and noise associated with the two projects. Significant adverse impacts from oil spills on marine mammal species such as the Southern Resident Orca Whales that annually migrate past Grays Harbor must also be fully analyzed. There can be no mitigation for the impacts of oil spills having the potential to destroy significant numbers of individuals of vulnerable species of fish and wildlife.

Comment Number: 000000188-3
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization
Other Sections: 7
Comment Excerpt Text:
-Risks to Rivers and Streams: The rail line often runs adjacent to the Chehalis and crosses many tributaries, including the Skookumchuck River, Scatter Creek, the Black River, Cloquallum Creek, the Satsop River, the Wynoochee River, the Wishkah River, and the Hoquiam River. The EIS should identify impacts of spills and leakage to salmon and other aquatic organisms, migratory birds, riparian ecosystems, agriculture, surface water supplies, and recreational uses of these rivers and streams.

-Risks to Wetlands: The rail line passes through or near numerous floodplain and tidal wetlands, including the Chehalis Surge Plain, a unique tidal wetland system that is partially protected within a DNR Natural Area Preserve. The EIS should identify impacts of spills and leakage on wetland ecosystems and the fish, mammals, birds, and amphibian populations they support.

Comment Number: 000000188-6
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
The EIS should identify impacts of this to:

-Shellfish, commercial fishing, and recreational fishing industries supported by the harbor. Oyster harvests in the basin are already threatened by water quality problems such as bacterial pollution and ocean acidification, and the industry may not be able to survive the impacts of a spill.

-Migratory bird populations. Bowerman Basin and estuarine wetlands in the harbor are known world-wide for migratory bird watching, and draw numerous visitors to the area.

-Salmon populations that use the estuary to transition into and out of rivers during migration.

-Marine mammals and other organisms that use the unique protected waters and food sources provided by the harbor.

Comment Number: 000000188-7
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization
Other Sections: 3.2
Comment Excerpt Text:
Impacts of the Port Facility Construction: The EIS should identify all impacts associated with the construction of the facility, including short-term construction impacts, increases in stormwater runoff from impervious areas, wastewater discharges, and permanent impacts to wetlands and aquatic habitats on the facility grounds.

Impacts of Tanker Ballast Water:Tankers often carry ballast water to maintain stability before being filled. If this is to be discharged at the facility, identify how it will be treated and assess the impacts of ballast water discharge on water quality and the ecosystem of Grays Harbor. Identify risks of introduction of invasive nonnative species in ballast water to the harbor

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Comment Number: 000000198-2
Organization: NORTH BEACH ASSOC.
Commenter: LEE RIENER
Commenter Type: Organization

Comment Excerpt Text:
The Co-Lead Agencies are requesting public input on the "scope" or content of the EISs. The scope identifies potential environmental impacts of this facility. I think that the potential impacts to the fresh water estuary are too great to allow this facility to be built on this location.

Comment Number: 000000198-4
Organization: NORTH BEACH ASSOC.
Commenter: LEE RIENER
Commenter Type: Organization

Comment Excerpt Text:
Also, our harbor gives our community fresh fish and oysters and clams. We as a community rely on these food stuffs for our survival. Many of us fish regularly in order to eat.

Comment Number: 000000205-1
Organization: Pacific County Anglers
Commenter: Gsary Johnson
Commenter Type: Public

Comment Excerpt Text:
To whom it may concern, I have no! Confidence in the Department of Ecology! We are no spraying toxic chemicals on our oyster beds in the Willapa Bay!

Comment Number: 000000213-3
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
These trains will also cross Lake Pend Oreille and trundle alongside the Kootenai River and Lake Cocolalla. The Kootenai River is home to endangered sturgeon and bull trout, while Lake Pend Oreille is home to bull trout, too. An oil spill in these waters would be catastrophic to our fisheries and our way of life. The city of Sandpoint, and many individual homeowners, draw their drinking water from Lake Pend Oreille. Derailments seem to be happening more frequently in North Idaho. The latest was last night along the Kootenai River in Boundary County. Fortunately the derailment did not result in contamination of the river, but if it had been an oil train, it most certainly could have been a major environmental disaster.

Comment Number: 000000214-11
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7.4 7 11
Comment Excerpt Text:
Lewis and Clark NHP

Lewis and Clark NHP encompasses seven sites totaling 3,400 acres in the lower Columbia River estuary and along the Pacific Ocean in Clatsop County, Oregon, and Pacific County, Washington. The park preserves a variety of ecosystems from coastal dunes, estuarine mudflats and tidal marshes to shrub wetlands, temperate rainforests and swmnps. Extensive wetlands in the park include fringing saltmarshes on the lower Columbia River, the tidally-influenced lower Lewis and Clark River and many low-gradient brackish sloughs and marshes. These wetlands provide valuable habitat for a diversity of mammals, birds, reptiles, amphibians and fish.

The Imperium and Westway EISs should evaluate the impacts of potential oil spills from marine vessels traveling south from Grays Harbor to California on natural resources and visitor use and enjoyment at Lewis and Clark NHP. In particular, the analysis should address the effect that oil spills in the lower Columbia River estuary would have on critical habitat for federally threatened and endangered species that rear in and migrate through NPS waters in the estuary including but not limited to: Pacific eulachon *(Thaleichthys pacificus),* coho salmon *(Oncorhychus kisutch),* Chinook salmon *Oncorhynchus tshawytscha),* chum salmon *(Oncorhynchus keta)* and steelhead *(Oncorhynchus myldss).* The analysis should also include potential impacts to water quality and the aquatic environment.

Comment Number: 000000214-12
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
Olympic NP
Olympic NP's 73-mile long wilderness coast is a rare treasure in a country where much of the coastline is prime real estate. The rocky headlands, beaches, tide pools, offshore sea stacks topped by nesting seabirds and wind-sheared trees are a remnant of a wilder America. The intertidal areas, where the Pacific Ocean

tides shape life, are also within the boundary of the Olympic Coast National Marine Sanctuary. The offshore islands with their colonies of nesting seabirds and rocky haul-outs for seals and sea lions, lie within the Washington Maritime National Wildlife Refuge Complex. The EISs should assess potential impacts of oil spills from marine vessels traveling north from Grays Harbor to refineries in Puget Sound on the coastal and offshore natural resources of Olympic NP. The analysis should include potential impacts on the park's seven anadromous fish species, many populations of which are listed as threatened under the Endangered Species Act: bull trout, steelhead, and chinook, chum, coho, sockeye *(Oncorynchus nerlra)* and pink salmon *(Oncorynchus gorbuscha).*

Comment Number: 000000214-13
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7.4 11
Comment Excerpt Text:
San Juan Island NHP
A key attraction for visitors at San Juan Island NHP is watching marine wildlife, including the iconic Puget Sound orcas. We are concerned about potential harmful effects on endangered orcas, as well as on anadromous fish species such as salmon and steelhead, from increased ship traffic, noise and potential oil spills. The park protects more than six miles of shoreline, and one of the best public beaches in the San Juan Islands. The analysis should include potential impacts to tourism.

Comment Number: 000000214-4
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7.4 8
Comment Excerpt Text:
Glacier NP
Glacier NP preserves more than a million acres of forests, alpine meadows, lakes, rugged peaks and glacial-carved valleys in the Northern Rocky Mountains. Its diverse habitats are home to nearly 70 species of mammals including the grizzly bear, wolverine, gray wolf and lynx. Over 270 species of birds visit or reside in the park, including such varied species as harlequin ducks, dippers and golden eagles. The park is named for its prominent glacier-cawed terrain and remnant glaciers descended from the ice ages of 10,000 years past. Bedrock and deposited materials exposed by receding glaciers tell a story of ancient seas, geologic faults and uplifting, and the movement of giant slabs of the earth's ancient crust overlaying younger strata. The result of these combined forces is some of the most spectacular scenery on the planet.

The BNSF railroad runs adjacent to, and at times forms the southern boundary of, Glacier NP. The rail line borders Bear Creek and the Middle Fork Flathead River, a designated wild and scenic river that is world-renowned for whitewater rafting and fishing. The railroad also crosses several park streams and well-established avalanche chutes. We are very concerned about potential impacts from oil spills and train derailments on gateway communities, as well as on park water quality and aquatic life--specifically the federally-threatened bull trout *(Salvelinus conjluentus)* and the wests lope cutthroat trout *Oncorhynchus clarkii lewisi),* a state species of concern. These impacts should be evaluated in the EISs for the Imperium and Westway projects.

Comment Number: 000000222-1
Organization:
Commenter: James Heins
Commenter Type: Public
Other Sections: 15 7
Comment Excerpt Text:
Jobs in the proposed area are very much needed. Along with those much needed jobs is the very much needed protection of the local environment, all of it. Fish in the area are very dependent on us humans doing the right thing. Please take all steps possible to protect the area. If this project is allowed, at least make the penalties of failure so so strong and deep that they wont allow it to fail.

Comment Number: 000000227-1
Organization:
Commenter: Julie Rabey
Commenter Type: Public
Other Sections: 12 15
Comment Excerpt Text:
Fish, shellfish, and aquatic plants are not only central to the lives and culture of the Quinault People, but also to all of our citizens who see the value of a strong sport fishery and clean environment in our county. Industry is not the only thing that adds value to our lives.The environment and clean air and water as well as safety of our citizens, contribute to quality of life. These things weighed against a few added jobs, win out in my mind. In fact, the economic impact of losing our clean waters and what is left of the fisheries, would impact the economy far more than adding oil to the mix. Therefore, the EIS needs to address the economics of the loss of our estuary. The EIS must address the impact to the Quinault Nation as well as sport fisheries.

Comment Number: 000000229-5
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
Environmental impact
sThe rail lines within the CRGNSA run essentially parallel to the Columbia River, and in many places are immediately adjacent to the river and associated lakes and wetlands. In the event of an oil spill, it is likely that crude oil would directly enter the river and/or the associated water bodies. The Columbia River provides critical habitat and migration corridors for many salmonids and other federally listed fish species, as well as habitat for numerous other wildlife species that would be adversely impacted by a crude oil spill. Oil spilled on land would negatively impact terrestrial plants and wildlife.

Comment Number: 000000237-1
Organization:
Commenter: Matt Brady
Commenter Type: Public

Comment Excerpt Text:
As a strong OPPONENT to allowing crude-by-rail development in Grays Harbor, my biggest concern is assessing the potential impacts on the basin's rich marine life, particularly the commercially and

recreationally valuable fish and shellfish resources that define the lifestyle that drew many of us to the Harbor in the first place. As an avid angler, I worry about impacts to the estuarine nursery that sustains juvenile salmonids as well as vast shoals of forage fish. I am also concerned about devastating impacts to nearshore invertebrates, and the fish and the myriad shorebirds that rely on them for sustenance."

Comment Number: 000000246-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
One of the richest areas of the Grays Harbor environment is the shoreline. The most productive organisms of the shoreline are the algae. The algal community nourishes the bio-plankton community, which also is the principal source supporting the mollusk and crustacean community. The avian community, particularly the shorebirds, directly depends on both the algal and bio-plankton communities. The shorebirds have been dependant on the algae for hundreds of millennia, and an oil spill would cause irreparable changes in the algal population; changes that cannot be undone in our lifetime. The Harbor's ecosystem cannot withstand a large oil spill, and the currently available spill remediation methods are not effective enough to significantly lessen the result.

Comment Number: 000000248-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 7.4 12 15
Comment Excerpt Text:
Any spill, but especially one of a car load or two, will at the minimum taint the fish, oysters, and crabs to the point where none of our native or commercial fishers will be able to sell their product. Remember what happened to the shrimp industry which was decimated by the recent Macondo Well blowout in the Gulf of Mexico. If there were a major spill, say of thousands of barrels of crude oil, all the marine resources would be destroyed for years, breaking the treaties with the Quinault and Chehalis tribal fishers, and ruining many of the businesses that the Port of Grays Harbor's prize Port of Westport depends on. This is just one more reason to not approve the permits for these two projects.

Comment Number: 000000263-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.3
Comment Excerpt Text:
There should be no doubt that these five 200,000 barrel capacity tanks are the greatest threat to the Harbor. Failure of one of these tanks with an accompanying tsunami, or the failure of more than one tank without a tsunami, would cause a containment failure and an uncontrollable oil spill. No booming or oil recovery equipment proposed can cope with a spill of more than 100,000 barrels in an area of twice-daily tides. An oil spill of this magnitude in the Chehalis River estuary would result in the near destruction of all the anadromous fish runs that have been the livelihood of the Quinault Nation and the Chehalis Tribe for millennia, and the commercial fishery for over a century, as well as destroying shellfish and crustacean harvests.

Comment Number: 000000271-3
Organization: Mr.

Commenter: Michael Gary
Commenter Type: Public
Other Sections: 11 7 3.1
Comment Excerpt Text:
There are many impacts from the proposed facilities. Reduced fishing, impacted recreation, reduced air quality, reduced water quality, and long-term health impacts to humans, just to name a few. These dangerous trains passing through my home area of Woodland, Washington will further damage the quality of life there.

Comment Number: 000000283-3
Organization:
Commenter: James George
Commenter Type: Public

Comment Excerpt Text:
3. Canadian tar sands are heavy crude - very heavy. Much of it will form a slurry with water and sink or hang between surfacing and sinking. This happened with some of the BP oil in the Gulf. It will kill the oystering industry.

Comment Number: 000000296-1
Organization:
Commenter: Steve Hallstrom
Commenter Type: Public
Other Sections: 7.4 3.1 7.2 8
Comment Excerpt Text:
Impacts that need to be considered relevant to agriculture in Grays Harbor County: Contamination of water in the event of a spill. Noise pollution and its affect on dairy, and on the farmers who work long hours year round. Destruction of shellfish beds due to dredging for larger ships in the harbor. Blockage of farm and field access due to increased rail traffic. Potential contamination of shellfish beds in event of a spill.

Comment Number: 000000307-1
Organization: Pacific County
Commenter: Steve Rogers
Commenter Type: Agency
Other Sections: 3.1 13.3
Comment Excerpt Text:
As a Pacific County commissioner and Willapa Harbor native, I am very concerned about the potential for a Grays Harbor oil-related disaster affecting the very clean waters of Willapa Bay. Recent derailments and an obviously shaky railroad infrastructure point to potential disaster. This is not good. We have worked hard for generations to take care of our bay and the potential for pollution from an outside source is very disheartening. We have a robust shellfish industry thanks to the folks who have treated our waters with respect for over a century. We have earned the right to have our waters respected.

Comment Number: 000000329-4
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Wetlands – loss from fill; stormwater runoff pollution including from rain or spray of water to tanks and

piping at site and on loaded and empty cars; and mitigation. Setback from Fry Creek and other Critical Areas Ordinance (CAO) areas.

Comment Number: 000000329-6
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Special attention to aquatic areas defined as "critical" under relevant Critical Areas Ordinances and to the Grays Harbor National Wildlife Refuge next to which the US Development Project will be located. Physical oceanography and coastal processes including alteration of littoral drift. Changes due to dredging activities. Erosion potentials. Coastal and nearshore ecosystem changes due to shading from docks and lingering boats, both as to vegetative and animal habitat issues.

Comment Number: 000000331-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 7.2 1.1 10
Comment Excerpt Text:
Noise and vibration: from operation of the Port Facility machinery, and increased train, truck and vessel traffic: Assessment of potential for increased land/mudslides and derailment due to more and longer trains and the associated increase in trains, and vibration; Impacts on marine life from significant increase in underwater noise associated with increase in vessels. Impacts and modeling of wake stranding due to vessels. Light pollution at night from Facility and vessels.

Comment Number: 000000332-7
Organization: citizen
Commenter: Judy Carter
Commenter Type:

Comment Excerpt Text:
What are the short-term and long-term effects of negative impairment of totemic species, e.g., salmon, razor clams, Orcas and other cetaceans and migratory birds?

Comment Number: 000000333-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Impacts to federally-listed or state-listed and concerned marine species, including but not limited to: changes to currents, alteration of landforms; light changes (on land or at water), light pollution at night, changes in ability of light to penetrate water columns and to reach bottom as shading from dock/lingering ships noise pollution from operation of Port. How will these issues be eliminated or averted? Impacts to salmonid species, sea run cutthroat, bull trout, pacific sand lance, smelt, English sole, essential forage fish, shellfish, razor clams, oysters, etc. could be catastrophic and long-term. What preventions will be in place and what mitigation would in place if a problem occurred? Would those affected be compensated? Who would pay that compensation? Impacts due to increased vessel traffic to visiting whale, gray whale, harbor seals and other large animals? Impacts to migratory birds. Grays Harbor is a hemispherically

important stopping point for 500,000 – 1,000,000 migratory shorebirds. GH hosts over 50% of the western Red Knot population each year. What would be the effect of an incident on the mudflats and feeding grounds for the migratory bird population? What are the hazardous materials on hand as part of operations and how are they protected from entering the waste flow on-site and off-site? Vessel traffic increases and conflicts with existing marine resource uses such as crabbing, trolling and recreational fishing. How will these traffic flows be monitored and enforced? If the tide or fishing window is optimal for existing marine resource industries and a vessel is scheduled to depart, who will have precedence?

Comment Number: 000000339-4
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 13.4 13.5
Comment Excerpt Text:
Plants and Animals
The project property is situated along the shoreline of Grays Harbor which is inhabited by riverine and estuary fish including Pacific salmon species, bull trout *(Salvelinus confluentus),* green sturgeon *(Acipenser medirostris),* and Pacific eulachon *(Thaleichthys pacificus).* Many fish species use Grays Harbor for migration, rearing, and foraging. Federally listed bull trout, green sturgeon, and eulachon are known to use the harbor for foraging and migration.
Spawning beaches for species of forage fish such as surf smelt, Pacific herring, and sand lance occur in the outer areas of Grays Harbor. The nearshore marine areas from the mouth of Grays Harbor north to the Washington/Canada border, and Grays Harbor is designated as critical habitat for the Southern DPS of green sturgeon (NOAA 2009). This includes coastal waters with depths less than 360 feet (110 meters) and bays and estuaries upstream to the extent of tidal influence. Portions of the Chehalis River and the marine waters of Grays Harbor are designated by the USFWS as critical habitat for the Coastal-Puget Sound bull trout. The EIS should analyze how vessels, including barges, propose to navigate or dock at the proposed facility, and how adverse impacts of the proposed alignment and vessel operations on eulachon, salmon, marine mammals, riverine and estuarine vegetation, and other biological resources and species will be mitigated. What are the potential impacts of vessel traffic, and increased risks of spills on these species and their habitats?

Comment Number: 000000339-6
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 7.2
Comment Excerpt Text:
Operational Noise
The EIS should analyze the amount of noise that will likely be generated during operation at full capacity. Both periodic and cumulative impacts of noise generated from this project on eulachon migratory and spawning behavior, salmon, sturgeon, marine mammals, shorebirds, and other species, during operation of the proposed terminal should be examined. How will any changes in noise be monitored over time to assure there are no adverse impacts to eulachon and other species?

Comment Number: 000000339-7
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Other Sections: 10
Comment Excerpt Text:
Artificial Lighting
The EIS should analyze impacts of any increase in lighti~g installations or time periods associated with project operations on aquatic species. A study should be conducted to investigate the potential changes in species abundance and dominance resulting from increased prey access under artificial lighting and address ways to reduce or eliminate any identified impacts.

Comment Number: 000000344-1
Organization:
Commenter: Janet Strong
Commenter Type: Public

Comment Excerpt Text:
Scoping must include effects analyses of 1. Effects on birds and economies of shore communities on Pacific Flyway of migratory birds from Tierra del Fuego to AK; 2. Effects on fish and all other aquatic organisms in Grays Harbor and tidally influenced reaches of all rivers entering it;

Comment Number: 000000348-2
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
Below are specific questions we believe need to be addressed for an adequate EIS. Marine Life The natural resources of Grays Harbor County and Washington's Pacific coast are world class and their protections should be a top priority when considering the proposed projects. These questions need to be thoroughly investigated: 1. How would native wildlife and vegetation (including fish, birds, amphibians, mammals, shellfish, benthic invertebrates, algae, plankton and wetland systems) be impacted in the event of a large oil spill? 2. How would native wildlife and vegetation be impacted by small cumulative oil leaks due to shipping and transport? 3. Can these projects guarantee there will be no impact to state and federally listed endangered species? If not, why should these projects be allowed to move forward?

Comment Number: 000000349-2
Organization: City of Westport
Commenter: Michael Bruce
Commenter Type: Agency
Other Sections: 15
Comment Excerpt Text:
2) The consideration of the risks of oil spills in our marine environment what the economic impacts of a spill, including to the shellfish, fishing, and tourism industries, would have on Westport, coastal communities, Grays Harbor County and our region.

Comment Number: 000000352-2
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 12
Comment Excerpt Text:

A full analysis of impacts to the fishing industry (both Tribal and non-tribal to include: impacts to all fish and shellfish beds and spawning areas. Loss of income, both current and future.

Comment Number: 000000352-5
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 12
Comment Excerpt Text:
Study the impacts of additional vessels traffic in Grays Harbor on existing fishing industries both Tribal and non-tribal. What will be the impacts to the bird population on Grays Harbor? Grays Harbor is an area of hemispheric significance for nearly a million shorebirds, study the impacts to the mudflats and feeding grounds of migratory birds.

Comment Number: 000000358-1
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 15
Comment Excerpt Text:
The project area of potential effect should be analyzed at three scales: . the project site, the project vicinity, and the broader project shipping prism. In addition, impacts to natural resources from the increase in rail transportation associated with the delivery of crude oil to the distribution terminal also must be addressed. These proposed projects will significantly increase the amount of oil transiting Grays Harbor and the surrounding areas by trains (1,188 new train movements per year), pipelines, and vessels/barges (428 new vessel/barge movements per year).
While WDFW recognizes that there are existing storage tanks, pipelines, and rail facilities bordering the Harbor now that pose potential threats to marine life, we are concerned about the greater risks associated with the dramatic expansion of this infrastructure, the increase in the amount of product being handled, and the additional rail activity that will occur in the area bordering the estuary and throughout the western Washington region.

Potential Impacts to the Marine Environment
WDFW has serious concerns about the potential impacts to marine life, which could occur during the transport of crude oil or other hazardous products via rail, shipping vessel, or pipeline, or at the bulk liquid storage facility adjacent to Grays Harbor.

Comment Number: 000000358-10
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 2.1
Comment Excerpt Text:
g. The EIS include an analysis of the potential cumulative effects resulting from airborne pollutants from diesel engines from increased rail activity on the terrestrial and marine environment, including fish and wildlife.

Comment Number: 000000358-11
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
f. The risks associated with potential train derailments, and resulting oil sp ills , to freshwater ecosystems along rail corridors and the likely impacts to the associated aquatic organism s; evaluations should keep in mind the specific physical characteristics associated with individual products being transported along the rail lines.

Comment Number: 000000358-13
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 13.4 7.4
Comment Excerpt Text:
d. The effects that increased barge and ocean going vessel traffic would have on fish , birds, and marine mammals. For example, gray whales are particularly susceptible to ship strikes, and the burrowing shrimp on which they feed are both susceptible to mortality from oil toxicity and would become vectors for delivery of sub-lethal doses of toxic compounds in oil to whales, green sturgeon, and other shrimp predators.

Comment Number: 000000358-16
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:

5. The EIS should include, at a minimum, the following analyses:
a. Short- and long-term impacts of oil spills on the sensitive marine habitats and wildlife resources found within the project area, including on: State and federally listed threatened and endangered species; resident and migratory birds and marine mammals; salt marshes, tidal flats , and other sensitive shallow water habitats; other WDFW-listed Priority Habitat and Species (PHS); the marine fish and shellfish species important to recreational and /or commercial fisheries and commercial aquaculture activities.

Comment Number: 000000358-17
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:
In general, WDFW recommends:
• Those entities with regulatory authority, both states and federal, consider the relative proximity to vulnerable and irreplaceable fish and wildlife resources and their habitats when considering project approval and siting determinations.

Comment Number: 000000358-20
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 15
Comment Excerpt Text:
More specifically, to address the concerns we have identified, WDFW strongly recommends:
1. A series of status determination studies for key fish and wildlife populations in the Grays Harbor and nearshore Pacific Ocean waters to establish a baseline prior to the expansion of these facilities. The key populations would include forage fish , such as anchovy, herring, and smelt; nearshore and juvenile rockfish; nearshore flatfish ; seabirds and shorebirds.

2. As a mitigation measure, should one or both of these projects move forward , we recommend adequate funding be provided to WDFW for ongoing annual monitoring studies for the populations listed in item # 1.

Comment Number: 000000358-3
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
Grays Harbor is an area particularly sensitive to the adverse effects of oil spills . Salt marshes and sheltered tidal flats are found throughout the harbor and are v ital to salmon, birds, and marine mammals. Grays Harbor is also an area vital to migrating shorebirds, supporting upwards of one million birds during their spring migration.
If there were to be a spill, the volume of product being considered for this project would likely lead to a catastrophic loss of habitat, and the potentially affected area could be much larger than just the Grays Harbor vicinity. Depending on the location and timing of the incident, the area affected by an oil spill could extend throughout the Grays Harbor estuary, its tributaries, and to offshore waters where the spill could reach a broad expanse the Washington coast and beyond.

As an illustration of this, the Nestucca Barge incident (1998) released -213 ,000 gallons of oil near the entrance of Grays Harbor. While the majority of the oil washed ashore near Ocean Shores, beaches as far away as Orego n and Vancouver Island , British Columbia were impacted.

Comment Number: 000000358-4
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 7.4

Comment Excerpt Text:
The habitats within Grays Harbor and the nearshore areas are particularly sensitive to oil spill impacts, notoriously difficult to clean of oil, and are likely to suffer years of degraded function followin g a spill event. Such an incident would cause irreparable harm to the marine fish , shellfish, wildlife, and greater ecosystem for decades. The estuary is important nursery and foragin g area for juvenile salmonid s including stocks of coastal cutthroat trout; winter and summer steel head; fall, spring, and summer Chinook; fall chum and coho salmon. Herring spawning areas occur in eelgrass beds at several locations within the estuary, and Grays Harbor is also nursery ground for sixgill and sevengill sharks. The nearshore Pacific Ocean waters are designated as critical habitat for species listed under the Endangered Species Act (ESA), such as the leatherback sea turtle, green sturgeon, and Eulachon, and as Essential Fish Habitat for West Coast salmon (including ESA-listed stocks), groundfish, forage fish, and coastal pelagic sharks. The adjacent nearshore waters are important areas for thresher sharks and juvenile and adult rockfish, including species that are under rebuilding plans, such as canary and yelloweye rockfish. These rockfish and pelagic sharks are long-lived, slowgrowing species with low productivity whose populations take decades to recover to healthy levels.
With regard to shellfish, the estuary is a major nursery area for juvenile Dungeness crab, which contributes significantly to the adult population along the outer coast. Portions of the estuary are under active commercial oyster culture. While much of tidelands and oysters are privately owned, commercial oyster beds provide much the same habitat benefits to native fish and shellfish as do natural beds. Eastern soft-shell clams, horse clams, Manila clams and cockles are also found at various locations throughout the estuary.

Comment Number: 000000358-6
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 13.3 7.4
Comment Excerpt Text:
Potential Impacts to the Upland and Freshwater Environments

Each of the proposed projects will significantly increase the number of train transits through the area. These additional trains would transit tracks from Centralia to Aberdeen passing adjacent to, or crossing, numerous salmon bearing waters including the Chehalis, Black, Satsop, Wynoochee and Wishkah Rivers as well as numerous other fish bearing creeks and streams.
There are 20 rail crossings of documented salmon spawning streams in Grays Harbor County alone. Loss of oil into the sea waters could have a significant impact on resident and anadomous fish runs. Additionally, there are no effective oil spill containment and collection procedures identified for these waterways. The uncontrolled release of even one tank car could cause oil impacts for many miles downstream.

Around ten years ago, grain cars derailed on the Wynoochee Bridge, spilling grain onto pasture lands adjacent to the Wynoochee River. Had this been oil instead of grain, the river would have delivered this oil to the Chehalis and the surge plain immediately below it. This surge plain is protected by the Washington Department of Natural Resources as a natural area, and is one of the largest preserved natural surge plain habitats on the west coast. Spilled oil would be impossible to remove from this critical habitat. This year , there have been three derailments over
the course of less than three weeks-one involved more cars immediately adjacent to the Chehalis River in Aberdeen and another was near the Wynoochee River. These recent incidents significantly reduce our

confidence in the safety of this form of oil delivery to Grays Harbor.

Comment Number: 000000364-2
Organization:
Commenter: Jude Armstrong
Commenter Type: Public

Comment Excerpt Text:
Effect on Migrating salmonids. Effect of Crude oil pollutions to the sir and water and how it would affect the 'nursery' for Grey Whale calves in the harbor Consider the interaction of crude oil and mudflat microphytobenthos, biofilm and diatoms, the base of the food chain. Potential changes in the mudflats of Bowerman Basin and the National Wildlife Refuge due to the altered surface water flow because of construction in the watershed of Bowerman creek. Potential devastating effect on the species of migrating shorebirds, in particular the red knot, of even a small oil spill entering Bowerman basin. This is its only mid-migration feeding and resting site for the knot.

Comment Number: 000000371-3
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization

Comment Excerpt Text:
(3) the ecological impacts that spills of varying sizes would have on downstream riparian/estuarine habitats and species, and

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Comment Number: 000000371-6
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization

Comment Excerpt Text:
The EIS must evaluate quantitatively the use of the estuary by migratory and resident marine and shorebirds. Population sizes, habitat use patterns, timing of movements, and impacts of any habitat modifications and/or loss must all be determined for species that depend on the estuary as part of their annual cycle. Such assessments also need to model different spill scenarios on bird populations if one or more of the proposed oil ports are constructed. These scenarios should include degradation to water quality through chronic low level spillage as well as large-scale catastrophic accidents. In addition to modeling impacts on the bird community, models should also be developed for marine mammals that use the estuary and key fish species, including salmon.

Comment Number: 000000371-8
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization

Comment Excerpt Text:
The EIS should also quantitatively assess the degradation of the ecological integrity of the estuary, including changes in a variety of ecosystem processes, due to channel dredging and shoreline alterations that would occur if tankers were to arrive and depart from the proposed ports in the estuary. If dredging

were to be necessary, the EIS should evaluate options to minimize the impact of the habitat alteration caused by the activity and determine the parties responsible for paying the costs to implement them.

Section 6 - Energy and Natural Resources

Comment Number: 000000176-4
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 2.1
Comment Excerpt Text:
3. Power used to operate Port Facility – amount and source. Backup sources for power outages similar to 2007 storm or greater. Air quality measures during operation.

Comment Number: 000000236-3
Organization: Involved Democracy
Commenter: Brian Gunn
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
All of this means that we must stop burning fossil fuels and transition now to cleaner, renewable energy sources such as wind, solar and geothermal. Moving away from reliance on fossil fuels is the best thing we can do for our economy and our planet. We should not listen to the old, tired argument that we cannot afford to impose more regulation on energy producers and other fossil fuel industries. The fact is that we cannot afford NOT to regulate in a way that will reduce pollution and encourage the development of clean, renewable energy sources. Other countries are already beginning to take the lead in developing wind turbines, solar panels, and electric vehicles. American workers are being denied the opportunities of this new green economy by our stubborn, and ultimately suicidal, continuance of policies that make fossil fuels economical.

Comment Number: 000000329-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
Power used to operate Port Facility – amount and source. Backup sources for power outages similar to 2007 storm or greater. Air quality measures during operation.

Comment Number: 000000332-1
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 1.3 12
Comment Excerpt Text:
Concerned about containment design, mitigation issues, “bathtub” effect of containment, sea level rise and projected rises, tsunami hazard zone, tsunami-caused flood inundation, effects of liquefaction, disruption of electricity for monitoring and safety components/emergency power resources; storage of spill containment equipment and location; treaty rights, consequences of ignoring treaties.

Section 7 - Environmental Health

Comment Number: 000000005-1
Organization:
Commenter: Yovonne Autrey
Commenter Type: Public

Comment Excerpt Text:
It is patently obvious that putting ANY oil terminals in the Port of Grays Harbor is a very bad idea. None of the towns through which these oil trains will pass have sufficient emergency response capability and resources to deal with a derailment and explosions like those that occurred all too frequently in 2013. Likewise, the state of Washington does not have the resources to deal with a large oil spill and the federal government does not have the money to throw at the problem. Any oil spill in Grays Harbor would be a tragedy for the environment as well as for the people of the communities surrounding Grays Harbor.

Comment Number: 000000006-1
Organization:
Commenter: John and Polly Wood
Commenter Type: Public

Comment Excerpt Text:
Our family is against shipping coal through the states of Oregon and Washington for combustion in any markets because of the immense pollution already documented in rail line waterways

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Comment Number: 000000007-1
Organization:
Commenter: Michael Young
Commenter Type: Public

Comment Excerpt Text:
The Columbia Gorge cannot afford the risk of possible accidents transporting oil thru the Columbia River. The risks of spills is too much to ask. I have seen the train explosions on the news. I know about the damage to rivers in Virginia. I hear the argument that I can't stop commerce but I believe you can stop it until these companies can assure us that the Columbia River will be safe. I am not so naive that I do not realize that dangerous materials are already on these rails but this coal/oil export project raises the risk considerably.

Comment Number: 000000008-1
Organization:
Commenter: Vicki Johnson
Commenter Type: Public

Comment Excerpt Text:
The passage of oil trains through our state is a potential environmental disaster waiting to happen. Already dozens of accidents with these trains have ruined entire ecosystems and left whole towns devastated by their damage.

Comment Number: 000000019-2
Organization:
Commenter: Glen Anderson

Commenter Type: Public

Comment Excerpt Text:
If you want a REALISTIC understanding of the environmental impact, you need the SCOPE to be VERY BROAD -- all the way from the points where the oil is extracted from the ground (including hydrofracturing "fracking") and all the way along the rail line, through the towns and cities where the highly flammable oil could explode and destroy property and kill people, and the lands and waterways where spills would seriously damage the environment and the fish, to the export facilities where it would be loaded onto ships.

Comment Number: 000000020-1
Organization:
Commenter: Janis Duddles
Commenter Type: Public

Comment Excerpt Text:
Many people will give you astute scientific reasons for opposing this port. My opposition is a no-brainer: what will you do when the oil spill happens. It will and it cannot be undone. NO OIL ON OUR WATERS. I am a tribal member. We have been taught to respect water and fish, as coastal people. But you don't have to be a Pacific NW Indian to know how fragile and precious our waterways are. It breaks my heart that this black slime has left the dry lands of America and is oozing its way onto our Snake River, Columbia River, Pacific shoreline, Grays Harbor. It makes me literally sick to my stomach.

Comment Number: 000000024-1
Organization:
Commenter: Anne Elkins
Commenter Type: Public

Comment Excerpt Text:
I am concerned about several things regarding oil trains and coal ports. 1) Washington State is one of the last relatively environmentally pristine areas in the country and I don't think these uses are appropriate here.

Comment Number: 000000024-5
Organization:
Commenter: Anne Elkins
Commenter Type: Public

Comment Excerpt Text:
The coal and oil companies don't care about our farmland, our beautiful state, the wildlife, the whales and other precious marine life, or the ultimate fact on our entire planet-they only care about profits. I don't care how much they talk about rules and spill responses and precautions, the fossil fuel industry has proved time and again in the last few years that they are not trustworthy, and they really don't care at all what harm they do. I can't imagine that we in Washington State are naïve enough to believe them! I believe that the scoping of both the oil cars and the coal ports must take into consideration the very real dangers that our entire way of life in most of Washington State could be altered forever, and not for the good, as well as the global impacts. We are the little people trying to fight a giant, but what we are fighting for is so important, that we must try.

Comment Number: 000000030-1
Organization:

Commenter: Inga Carmack
Commenter Type: Public

Comment Excerpt Text:
I am opposed to the proposed bulk liquid storage facility expansion at the Port of Grays Harbor. We should be leaders in conservation and energy alternatives rather than increasing the transport of fossil fuels. We shouldn't increase the risk to our land, waters and sea life. The increase of jobs should not overide the risk that oil spills could make to existing jobs and businesses. We are smart enough to find a better way with less possible damage to our ecosystem.

Comment Number: 000000040-1
Organization:
Commenter: Demelza Costa
Commenter Type: Public

Comment Excerpt Text:
If corporations do not STOP this ecological destructive insanity "we" will no longer have a planet which is supportive of life forms. Dhhh.....what don't you GET about this Reality?!!

Comment Number: 000000041-1
Organization:
Commenter: Gail Streicker
Commenter Type: Public
Other Sections: 2.1 13.4 14
Comment Excerpt Text:
I strongly oppose the construction of crude oil terminals in Grays Harbor and the transport of oil by rail through communities in the Northwest. These proposals would negatively impact my community, the Columbia River Gorge National Scenic Area, Grays Harbor, and the Pacific Northwest in many ways, including: elevate rail and marine traffic congestion, increase the potential of oil spills and disastrous explosions, harm existing businesses, delay emergency responders, and put our communities, public health, and environment at risk. These terminals, and the transport of crude oil to and from these terminals, would damage terrestrial and aquatic ecosystems, endanger fishing grounds, and accelerate climate change. I urge you to include these impacts into the scope of the Environmental Impact Statement for both the Westway and the Imperium projects

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Comment Number: 000000042-2
Organization:
Commenter: Jodi Tanner Tell
Commenter Type: Public

Comment Excerpt Text:
In addition, the increased rail traffic, train pollution, and potential for oil spills all create environmental degradation in the gorge. Please include the impacts on terrestrial and aquatic ecosystems, fishing grounds, and climate change into the scope of the Environmental Impact Statement for the Westway and Imperium projects. I very much oppose construction of crude oil terminals or transport of oil by rail through the Northwest's communities and scenic areas.

Comment Number: 000000054-2
Organization:
Commenter: Carol Rose
Commenter Type: Public

Comment Excerpt Text:
I worry about the rivers and harbor of Hoquiam. I worry about the trains traveling there through heavily populated areas of our state, including Clark County. Our beautiful Columbia is already at risk due to Hanford. The Columbia is one spill, one explosion away from being ruined for the foreseeable future. The number of proposed oil tanker cars is outrageous. Our state is one of the few pristine states in our country. Please don't take our state down this path. The consequences are too awful. The dangers too great. We all deserve better.

Comment Number: 000000060-1
Organization:
Commenter: Laura van Fleet
Commenter Type: Public

Comment Excerpt Text:
I am writing to oppose the construction of crude oil terminals at Gray's Harbor and the transportation of this highly-flammable and non-renewable fuel through the communities of the Northwest. This project would increase pollution in a cascading effect, through increased train traffic, the possibility of spills that would harm the Columbia River, and finally the combustion of this resource that is one of the leading causes of higher carbon in the world's atmosphere. This proposal is a lose/lose situation, with the potential for great damage to our unique ecosystem. Please include these effects in your Environmental Impact Statement for the Westway & Imperium projects.

Comment Number: 000000063-4
Organization: El Centro de la Raza
Commenter: Estela Ortega
Commenter Type: Organization

Comment Excerpt Text:
and putting our communities, public health, and environment at risk.

Comment Number: 000000063-6
Organization: El Centro de la Raza
Commenter: Estela Ortega
Commenter Type: Organization

Comment Excerpt Text:
The Westway and Imperium projects put our communities, our health and the beautiful natural resources of Washington State at risk.

Comment Number: 000000064-1
Organization: Wild Game Fish Conservation International
Commenter: James Wilcox
Commenter Type: Organization

Comment Excerpt Text:
Reliance on petrochemical products (foreign and domestic markets) comes with significant risks to public health and safety and to ecosystem security.

Comment Number: 000000064-12
Organization: Wild Game Fish Conservation International

Commenter: James Wilcox
Commenter Type: Organization
Other Sections: 15
Comment Excerpt Text:
Terrorism mitigation • Other impacts to public health and safety and to wild ecosystem security

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Comment Number: 000000071-2
Organization:
Commenter: Carol Brumfield
Commenter Type: Public

Comment Excerpt Text:
I also worry about the local wildlife and waterways in Grays Harbor County. An oil spill would ruin our beautiful environment and that cannot be measured by money.

Comment Number: 000000072-6
Organization: small business owner
Commenter: Karen Grimstad
Commenter Type:

Comment Excerpt Text:
Please test and research all along the rail line and learn what the rest of us know, we will all suffer and so will the environment.

Comment Number: 000000073-1
Organization:
Commenter: Jim Steitz
Commenter Type: Public

Comment Excerpt Text:
As a former resident of the Pacific Northwest, who retains great affection for my original home, I urge you to reject the proposal of Westway Terminal Company and Imperium Terminal Services to ship crude oil through Grays Harbor. The volume of oil to be handled by such terminals would constitute an unmitigated ecological disaster, in violent opposition to the state's objective of reducing carbon dioxide emissions.

Comment Number: 000000080-1
Organization: Sierra Club
Commenter: Sharon Miller
Commenter Type: Organization

Comment Excerpt Text:
However, in learning to the plans for companies (several foreign companies) to transport oil and coal throughout our region, I see the threat to this area. If these exports were needed and our only alternative, I would be more understanding. However, since we have begun to use renewable energies, I just do not see any reason to approve these export projects that jeopardize our natural resources and the health of our children.

Comment Number: 000000082-2
Organization:
Commenter: Robert DeBuhr

Commenter Type: Public

Comment Excerpt Text:
On the marine side, shipping this crud(e) via Grays Harbor itself brings it close to two National Wildlife areas, making any leaks from barges or tankers having an even great impact. Clean up is in question as well, will it be prepared for, will companies (not the people of the State of Washington) bare the costs? My understanding is that this crude from the North Dakota Bakken oil fields are much more volatile.

Comment Number: 000000084-8
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Environmental impact of any rail infrastructure improvements that will be made to service the project -

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Comment Number: 000000086-1
Organization:
Commenter: Ronald Hawk
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
y primary request is that you look beyond the impacts of these proposals on the environment of Greys Harbor County and consider all the impacts from transporting the oil through the state of Washington to the proposed storage sites. These transportation impacts include the following: 1. The impact of likely oil train explosions on cities and towns along the train route. 2. The impact of likely train derailments and oil leakage on nearby rivers and streams, including the impacts on anadromous fisheries. 3. The ability or lack of ability of local and state entities to respond to a major oil train catashrophe. 4. The impact of the additional oil trains on local traffic congestion and emergency vehicle response times in the communites through which the oil trains will pass through.

Comment Number: 000000100-3
Organization:
Commenter: Heather Haverfield
Commenter Type: Public
Other Sections: 13.3 2.1
Comment Excerpt Text:
My opinion is based on dangers of shipping explosive fuels by rail, through residential and commercial zones, as well as risks to the natural environment, and the consequences of burning ever more quantities of fossil fuel, especially as they are sourced through ever more and more extreme procedures. The risks are not worth the loss of a healthy environment.

Comment Number: 000000109-1
Organization:
Commenter: David Linn
Commenter Type: Public
Other Sections: 7.4 7.1
Comment Excerpt Text:
Bringing oil by train into Grays Harbor is an extremely bad idea. The Harbor is a fragile ecosystem and the risk of oil spills is far too great to allow oil to be transported and handled here. The recent spills of grain from rail cars in Aberdeen is clear evidence that the rail infrastructure is inadequate to handle to

traffic that this plan would generate. In addition, the rail operator, Genesse & Wyoming is prone to accidents such as the oil spill in wetlands in Alabama a few months ago. Neither the State of Washington, the City of Hoquiam, nor the oil companies are prepared to properly deal with and clean up an oil spill when is eventually will happen. Please stop this madness before our beautiful land and water are destroyed to satisfy the greed of a few.

Comment Number: 000000116-1
Organization: League of Women Voters of Washington
Commenter: Kim Abel
Commenter Type: Organization

Comment Excerpt Text:
-Impacts on human safety and infrastructure; air, soil and water pollution of an oil transporting rail car derailment, multi-car collisions, oil spills, explosions or fire.

Comment Number: 000000125-1
Organization:
Commenter: Gregory Flood
Commenter Type: Public

Comment Excerpt Text:
I also strongly oppose increased shipping of coal and oil through Washington State because such proposals negatively affect my community and, frankly, do not appear to agree with sound global environmental planning as endorsed by residents of Washington State. There is very little benefit to Washington State residents compared to the potential risk of damage to our environment. Shipments of oil and coal products to Washington State ports would require transport that directly exposes Washington State residents in our population centers to death and exposes our precious natural beauty and wildlife to catastrophic damage.

Comment Number: 000000132-1
Organization:
Commenter: Teresa Harper
Commenter Type: Public

Comment Excerpt Text:
I'm concerned that the possible threat of an oil spill whether it occurs during the transport on the rail or during off or on loading in the storage tanks or into the vessels that transport it out of the harbor in to the Pacific Ocean. The Westway and Imperium terminal proposals in Grays Harbor will have significant impacts on my community , our waterways and the future of our state. The Environmental Impact Statement for these projects should include an evaluation of: Risk of oils spills in our marine environment - increased vessel traffic and associated increased amounts of oil traveling through waterways mean a higher risk of oil spills, especially given the lack of tug escorts available to tankers. The EIS should also consider what the economic impacts of a spill, including to the shellfish, fishing and tourism industries, would have on Grays Harbor and the state. Our local sea life depends on excellent water and air quality for reproduction and development. We have enough issues right know that affect the fish, shellfish and crustaceans. Look to the future of the long term affect of this proposal coming in to our area. Environmental impacts,including threats to streams, wetlands, fishing areas, shellfish beds , crustacean breeding grounds and migratory bird habitats. These threats should be evaluated along the entire transport route of the crude oil - from possible areas where the crude oil is sourced to Grays Harbor to where the crude oil goes from Grays Harbor. This includes threat from oil spills, air emissions, accidents,and the infrastructure updates required to transport the crude oil on the environmental resources.

Comment Number: 000000136-1
Organization:
Commenter: Bruce Rinnert
Commenter Type: Public

Comment Excerpt Text:
I am requesting, as a resident of Montana, that you include an assessment of the health and environmental risks involved with increased rail traffic that will assuredly result if these projects are completed. Not only will more trains effect engine emissions but the potential for dangerous derailments will magnify.

Comment Number: 000000137-1
Organization:
Commenter: dale and MargRET VERMILLION
Commenter Type: Public
Other Sections: 7.2 14
Comment Excerpt Text:
DO NOT INCREASE TRAIN TRAFFIC BY MORE EXPORTS FOR OIL. RURAL CITIZENS LIKE US BEAR THE BURDEN OFCOAL DUST POLLUTION, NOISE, EMERGENCY DISRUPTIONS AT CROSSINGS AND AN END TO OUR PEACEFUL LIFE IN RURAL SETTINGS.

Comment Number: 000000140-3
Organization: Northern Plains Resource Council
Commenter: Nancy McManus
Commenter Type: Organization

Comment Excerpt Text:
Please do not approve this these terminals. Our environment is already in huge danger.

Comment Number: 000000141-1
Organization:
Commenter: Judy Staigmiller
Commenter Type: Public
Other Sections: 2.1 15
Comment Excerpt Text:
Please consider the impact of increased oil train traffic to Montana. Diesel emissions will lower the air quality and cause health problems. Infrastructure upgrades will be needed to mitigate the effects of noise for the families living near railroad right-of-way. You can bet the companies will not pay for this, we taxpayers will be stuck with it.

Comment Number: 000000142-2
Organization: CCA
Commenter: William Kearse
Commenter Type: Public
Other Sections: 14 5.1 7.2
Comment Excerpt Text:
The negatives include a significant risk to public safety, potential disaster for the marine and freshwater species that define the Chehalis Basin, dangerous interruptions to EMS, fire, and police operations in towns with only at-grade crossings, increased noise,

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Comment Number: 000000144-1
Organization: AlterTone Music
Commenter: Russell Blalack
Commenter Type: Public

Comment Excerpt Text:
We don't need to be exporting oil, with all its messy, risky, and potentially disastrous side-effects.

Comment Number: 000000153-5
Organization:
Commenter: Paul Stormo
Commenter Type: Public

Comment Excerpt Text:
5. Impact on property, to include agricultural property in the Chehalis flood plain must be considered. Oil sludge spilled during normal winter rains would have significant long term impact on the local economy as well as the local ecology. 6. Full and comprehensive ecological impact for the full transport path must be considered, and evaluated in light of the recent rail disaster in Virginia.

Comment Number: 000000159-1
Organization:
Commenter: Karen and Ronald Siebrass
Commenter Type: Public
Other Sections: 13.3 7.3
Comment Excerpt Text:
My husband and I are very worried about our personal as well as environmental health and safety jeopardized by the transportation of oil and coal along the waterfront. We live on the bluff and already count multiple trains per day with well over 100 cars of uncovered,heaping coal and containers of oil. The possibility of derailment or explosion and the tons of coal dust distributed in our air are our primary fears. We live 100' above the tracks and listen to our glasses in our cabinets bump against each other as the passing train shakes the ground. The idea of another terminal with significantly more train traffic containing these hazardous materials is frightening. I am a Snohomish County Beach Watcher volunteer who has been trained in environmental impacts on our waterways. The more I learn, the more worried I am about our water quality, fish and habitat and the future of our beautiful area.

Comment Number: 000000162-1
Organization:
Commenter: Howard Moe
Commenter Type: Public
Other Sections: 7.4 13.3
Comment Excerpt Text:
Our current port commissioners have been making good choices in their selection of goods to be shipped from our port. It would be a very bad choice to add crude oil to this list of goods. The many recent explosions and derailments make it clear that the dangers associated with shipping crude oil far outweigh any possible advantages to our area. The damage done at Prince William Sound from the EXXon spill has still not dissipated entirely. Please say no to crude oil.

Comment Number: 000000164-1
Organization:
Commenter: Kelle Metz
Commenter Type: Public

Other Sections: 13.3
Comment Excerpt Text:
The only way to make absolutely sure that the people of Grays Harbor county are not caught in a cataclysmic oil train accident, is to ban all oil shipment via rail to the Port of Grays Harbor. I want clean water, clean air, and clean food--Bakken crude will deplete all three of those things, and can cause death and destruction along the way.

Comment Number: 000000167-3
Organization:
Commenter: Bob Zeigler
Commenter Type: Public
Other Sections: 13.3 12 5
Comment Excerpt Text:
The EIS would need to discuss: 1. Risk increases to spill and those consequences to human health and safety, water quality and Chehalis River Fish and Wildlife and Native American Treaty Rights and impact to migratory birds stopping at Bowerman Basin. 2. Risks to people and natural resources and Treaty Rights along the entire train route from potential for accident and spill.

Comment Number: 000000171-1
Organization:
Commenter: Randy King
Commenter Type: Public

Comment Excerpt Text:
I OPPOSE any and all oil or oil byproducts by rail into the Grays Harbor region. The entire ecosystem is at stake and not worth the few jobs it might produce.

Comment Number: 000000173-1
Organization:
Commenter: Fred Pentt
Commenter Type: Public
Other Sections: 5.1 7.4
Comment Excerpt Text:
Guess you people that are wanting to deliver oil here in Hoquiam do not live here! A spill on any of Grays Harbors waterways would be so harmful to and aquatic species we have here. I grew up next to the bay and have been fishing it for over 60 years. Back when a Hoquiam pulp mill was dumping toxins into Grays Harbor Bay there was many problems trying to get fish to return to the Wynoochee and Satsop Rivers. Now that it is gone these 2 rivers are doing quite well. Oil spill would bring us back to ground zero if, and when, it falls into our waterways and it will happen.

Comment Number: 000000174-4
Organization: Twin Harbors Fish & Wildlife Advocacy
Commenter: Tim Hamilton
Commenter Type: Organization

Comment Excerpt Text:
These two projects are simply described as “trying to put a round peg into a square hole”. The combination of the type of hazardous materials that will be shipped with the geographical location of the rail line to our rivers and streams and the infrastructure that will be utilized creates far to great a risk to the Chehalis Basin and Grays Harbor.

Comment Number: 000000175-4
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency
Other Sections: 13.3
Comment Excerpt Text:
I also strongly urge the Washington Department of Ecology and the Military Department Emergency Management Division, in collaboration with the Washington Department of Fish and Wildlife, the Coast Guard and local government emergency response entities, to assess the impact to public safety, the environment, the economy, and traffic of petroleum transport by rail through Grays Harbor County and the State of Washington.

Comment Number: 000000175-6
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency

Comment Excerpt Text:
I also request that any railroad company that operates rail lines adjacent to Grays Harbor rivers, streams, and wetlands consider restrictions on the shipment of petroleum products along those routes until adequate study by relevant state, local, and federal government agencies have determined that the transport of petroleum by rail meets established public safety and environmental protection standards.

Comment Number: 000000176-40
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(i) The EIS should adequately discuss sensitive area impacts and the duration of those impacts. What will be the impacts to these areas? How will short-term and long-term impacts affect these areas?

Comment Number: 000000176-43
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(l) Any oil spill would have devastating impacts to Grays Harbor, which contains unique wetlands and habitats and has been designated a shoreline of Statewide Significance. A spill would impact an Area of Hemispheric Importance for migratory birds, which are directly threatened by the presence of crude oil tanks, tankers, and railcars. Also at risk would be one of only two known glass sponge coral reefs and numerous threatened and endangered species. Placed at risk would be marine industries that account for 31% of the Grays Harbor workforce. How does the DS address the potential loss of function, value and workforce?

Comment Number: 000000176-5
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum

Commenter Type: Organization
Other Sections: 3.2
Comment Excerpt Text:
4. Wetlands – loss from fill; stormwater runoff pollution including from rain or spray of water to tanks and piping at site and on loaded and empty cars; and mitigation. Setback from Fry Creek and other Critical Areas Ordinance (CAO) areas.

Comment Number: 000000176-50
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(s) What are the effects to the function and value of wetlands due to modification, or loss from fill, stormwater runoff pollution including from rain or wash down facilities and increased impervious surfaces and potential oil spill?

Comment Number: 000000176-52
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(v) There are potential impacts to sensitive areas within the Harbor and on the open ocean coast. How will these areas be protected?
(w) Aquatic invasive species introduction due to increased freight traffic – rail and vessel are a significant probability. How will these issues be addressed and controlled?
(x) Nearshore changes due to increased shading from added vessels, including impacts to plants and animals. How will this be minimized or eliminated?

Comment Number: 000000188-3
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
-Risks to Rivers and Streams: The rail line often runs adjacent to the Chehalis and crosses many tributaries, including the Skookumchuck River, Scatter Creek, the Black River, Cloquallum Creek, the Satsop River, the Wynoochee River, the Wishkah River, and the Hoquiam River. The EIS should identify impacts of spills and leakage to salmon and other aquatic organisms, migratory birds, riparian ecosystems, agriculture, surface water supplies, and recreational uses of these rivers and streams.

-Risks to Wetlands: The rail line passes through or near numerous floodplain and tidal wetlands, including the Chehalis Surge Plain, a unique tidal wetland system that is partially protected within a DNR Natural Area Preserve. The EIS should identify impacts of spills and leakage on wetland ecosystems and the fish, mammals, birds, and amphibian populations they support.

Comment Number: 000000198-5
Organization: NORTH BEACH ASSOC.
Commenter: LEE RIENER
Commenter Type: Organization
Other Sections: 13.3
Comment Excerpt Text:
We cannot allow this potential accidental leak from the petroleum tanks, to destroy our lives here on Grays Harbor. I do not think for the health and safety of our community, that we can allow this facility to be built on this location. Also the impact of the trains, bringing in this oil is problematic. These trains will derail, sooner or later.

Comment Number: 000000201-1
Organization:
Commenter: G.W. "Bill" Osborn
Commenter Type: Public

Comment Excerpt Text:
NO TO OIL being shipped by rail to Aberdeen/Hoquiam. To many miles of wet lands, streams, rivers, and bays. The present railroad line goes thru many small community area. Any major mishappens could cause harm to human life, animals, fish, birds, and many others. No to shipping from Aberdeen/Hoquiam....any liquid materials that could cause any environmental impacts.

Comment Number: 000000203-1
Organization:
Commenter: Monique Kovalenko
Commenter Type: Public
Other Sections: 13.3 13.1
Comment Excerpt Text:
It is with concern over public and environmental health, as well as over whether or not our community in Spokane would have proper emergency response resources if an accident were to happen that I am writing. I urge decision makers to include in their scope environmental impacts as well as availability, or lack of, community resources in regard to potential accidents and transportation slow downs.

Comment Number: 000000204-1
Organization: CCA
Commenter: Gary Johnson
Commenter Type: Public
Other Sections: 13.3 7.4
Comment Excerpt Text:
To whom it may concern, I am OPPOSED to the oil trains coming through Grays Harbor. The track record and recent derailments send a clear message that this rail system is in horrific condition. If an oil spill occurs in Grays Harbor it with have a long standing impact on the economy. Fisheries in Westport, Humptulips, and the tributaries of the Chehalis basin will all be affected. Oil spills in this bay and tidal waters are hard to clean-up. Let's protect these valuable ecosystems that the area depends on and stop this madness!

Comment Number: 000000208-1
Organization: Mr.
Commenter: Glen Anderson
Commenter Type: Public
Other Sections: 2.1

Comment Excerpt Text:
The EIS's scope must be REALISTIC, not biased by narrow economic interest. This means that the scope must be COMPREHENSIVE, all the way from the location where the oil is extracted (including all environmental and health effects resulting from drilling, hydrofracking, extracting, etc.), all the way along the rail lines or pipelines (including ecosystems affected along that route), all throughout the process of conveying the oil to ships, barges, etc., all along the oil's route to Asia and other destinations, and WHEN THE OIL IS ULTIMATELY BURNED AND CONVERTED INTO GREENHOUSE GASES THAT AFFECT THE WORLD'S ECOSYSTEMS, ENVIRONMENTS, AND CLIMATE. ANY SCOPE LESS THAN THIS IS DELIBERATELY TRYING TO AVOID REALITY IN ORDER TO SERVE NARROW ECONOMIC INTERESTS.

Comment Number: 000000212-1
Organization: Surfers' Environmental Alliance
Commenter: Jim Littlefield
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
Expanding the Bulk Liquid Terminals at Gray Harbor Terminal 1 vastly increases the potential for major liquid spills into the waters. This event would cause huge damage to the environment and harm many sea creatures, including mammals.

Comment Number: 000000214-11
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7.4 5.1 11
Comment Excerpt Text:
Lewis and Clark NHP

Lewis and Clark NHP encompasses seven sites totaling 3,400 acres in the lower Columbia River estuary and along the Pacific Ocean in Clatsop County, Oregon, and Pacific County, Washington. The park preserves a variety of ecosystems from coastal dunes, estuarine mudflats and tidal marshes to shrub wetlands, temperate rainforests and swmnps. Extensive wetlands in the park include fringing saltmarshes on the lower Columbia River, the tidally-influenced lower Lewis and Clark River and many low-gradient brackish sloughs and marshes. These wetlands provide valuable habitat for a diversity of mammals, birds, reptiles, amphibians and fish.

The Imperium and Westway EISs should evaluate the impacts of potential oil spills from marine vessels traveling south from Grays Harbor to California on natural resources and visitor use and enjoyment at Lewis and Clark NHP. In particular, the analysis should address the effect that oil spills in the lower Columbia River estuary would have on critical habitat for federally threatened and endangered species that rear in and migrate through NPS waters in the estuary including but not limited to: Pacific eulachon *(Thaleichthys pacificus),* coho salmon *(Oncorhychus kisutch),* Chinook salmon *Oncorhynchus tshawytscha),* chum salmon *(Oncorhynchus keta)* and steelhead *(Oncorhynchus myldss).* The analysis should also include potential impacts to water quality and the aquatic environment.

Comment Number: 000000214-3
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency

Other Sections: 12 11
Comment Excerpt Text:

Specifically, we are concemed about potential project impacts on natural and cultural resources, visitor use and enjoyment, and employee and public safety at several areas managed or administered by the NPS. Washington Department of Ecology's website does not provide any details about the proposed rail or marine shipping routes. We, therefore, assume crude oil will be moved along rail lines from the Midwest, through the Columbia River Gorge to Vancouver,
Washington, north to Chehalis, then west to the Pmt of Grays Harbor. We further assume marine shipping could take place along the Pacific coast south to refineries in California or north to refineries in Puget Sound. Based on these assumptions, we have detetmined the following national park areas could potentially be affected by the Imperium and Westway projects: Glacier National Park (NP) in Montana; sections of the Lewis and Clark National Historic Trail (NHT), Oregon NHT and Ice Age Floods National Geologic Trail (NGT) along the Columbia River in Oregon and Washington; Fort Vancouver National Historic Site (NHS) in Vancouver, Washington; Lewis and Clark National Historical Park (NHP) near Astoria, Oregon; Olympic NP in northwest.Washington; San Juan Island NHP and Ebey's Landing National Historical Reserve (NHR) on Whidbey Island.

Comment Number: 000000218-4
Organization:
Commenter: Benjamin Lucal
Commenter Type: Public

Comment Excerpt Text:
Finally, please study the impact on the surrounding areas of future derailments, explosions, and other disasters involved with transportation of oil.

Comment Number: 000000218-5
Organization:
Commenter: Benjamin Lucal
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
In your research please take into account the effects of every step in the production that oil extraction, transportation, processing, and consumption will have on our eco-system as a whole, including but not limited to the greenhouse gases, pollutants, harm to families and individuals poisoned by pollutants, livelihoods destroyed by spills and other accidents, animals harmed, and most importantly please study their effect on climate change.

Comment Number: 000000220-1
Organization:
Commenter: Kurt Heinz
Commenter Type: Public

Comment Excerpt Text:
Why? For export. We should not be exporting our oil. National energy self sufficiency dictates keeping all oil home to used here only. Not export for profit. Oil and water don't mix and destroys estuaries. Zero support here for any expansion.

Comment Number: 000000221-2
Organization:
Commenter: Steve Iverson
Commenter Type: Public

Comment Excerpt Text:
• We already know these tanker trains will leak oil, emit fumes and unhealthy particulates. We also know prolonged exposure to crude oil fumes, droplets or skin contact causes birth defects; contains known carcinogens in significant amounts such as benzene (which causes leukemia); and may cause other short and long term health effects such as chemical pneumonia, headaches, irritation to the nose, throat and lungs.

Comment Number: 000000222-1
Organization:
Commenter: James Heins
Commenter Type: Public
Other Sections: 15 5.1
Comment Excerpt Text:
Jobs in the proposed area are very much needed. Along with those much needed jobs is the very much needed protection of the local environment, all of it. Fish in the area are very dependent on us humans doing the right thing. Please take all steps possible to protect the area. If this project is allowed, at least make the penalties of failure so so strong and deep that they wont allow it to fail.

Comment Number: 000000223-1
Organization: Independent
Commenter: Jean Mullen
Commenter Type: Public

Comment Excerpt Text:
Negative impact to the environment exists from extraction through shipping, storing and exporting. We can no longer susthain the level of damage that fossil fuels impose on the environment. If you take profits to individuals out of the equation, there is no reasonable argument left to continue this practice. They have enough money, we've sustained enough damage; refuse this proposal.

Comment Number: 000000227-2
Organization:
Commenter: Julie Rabey
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
This EIS must address the impact in all areas that could be effected by train derailments, fires, storage tank failures and tanker spills into Grays Harbor. Also the increased rail transits need to be addressed. Our rail infrastructure is poor and trains are already causing long waits at crossings as well as dangerous situations at these crossing due to derailment and lack of emergency access. Living in Grays Harbor and seeing the impact, I don't see how we can bear any more rail pressure. Therefore this issue needs to be addressed in the EIS. Can there be 100% guarantee that no oil will go into our precious Grays Harbor estuary? It is already impacted by the pulp mill. Are we willing to throw away our precious environment? These are the standards the EIS needs to speak to.

Comment Number: 000000229-2
Organization: USDA Forest Service - CRGNSA

Commenter: Robin Shoal
Commenter Type: Agency
Other Sections: 13.3
Comment Excerpt Text:
The Columbia River Gorge National Scenic Area (CRGNSA) lies between the mouth of the Sandy River and the mouth of the Deschutes River, spanning from Washougal to Wishram in Washington, and Troutdale to The Dalles on Oregon. The 1986 Columbia River Gorge National Scenic Area Act gave the US Forest Service and the Columbia River Gorge Commission responsibility for management of lands and resources within the Scenic Area. Across its 85-mile length, the CRGNSA encompasses 292,500 acres in Washington and Oregon, and contains thirteen urban areas and numerous other communities. As the only sea-level passage across the Cascade Mountains, the Gorge is a major regional transportation corridor for both motor vehicle and railroad traffic.

The Forest Service is concerned about environmental impacts, increased fire risk, and public safety issues associated with trains carrying crude oil through the Scenic Area. These effects are associated with both day-to-day railroad operations as well as the potential for derailment and other accidents involving trains carrying crude oil. Our concerns include public lands managed by the Forest Service as well as the other lands, urban areas, and communities within the CRGNSA boundaries.

Comment Number: 000000230-4
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 15 7.3 7.4
Comment Excerpt Text:
RESOLUTION NO. 2014 –
A RESOLUTION of the City Council of the City of Hoquiam, Washington, related to petroleum transport by rail and vessel through the City of Hoquiam, Grays Harbor County, and the State of Washington, urging regulatory agencies to study public safety, environmental, and economic impacts of petroleum transport by rail and vessel.

WHEREAS, the City of Hoquiam is committed to the protection of its citizens and protection of the environment, and is concerned about the potential economic impacts of petroleum transport by rail and vessel; and

WHEREAS, recent train derailments in Grays Harbor County, as well as other regions, together with spills, fires and explosions involving trains transporting petroleum illustrate the potential catastrophic impacts which could occur to our community and environment from the improper transport of petroleum by rail;

Comment Number: 000000236-1
Organization: Involved Democracy
Commenter: Brian Gunn
Commenter Type: Public
Other Sections: 2.1 11 12
Comment Excerpt Text:
Increased train traffic will have adverse affects on human health as well as on sensitive areas, especially wetlands. In addition to the risk of leaks and spills along the rail routes, diesel exhaust will increase and people living near or visiting parks along the rail lines will be exposed to these toxic fumes. Any oil

terminal project will harm imperiled wildlife species and devastate critical habitat, interfere with recreational and tribal fishing, transform the region with rail congestion, and dramatically increase carbon pollution that is driving climate change.

Comment Number: 000000238-1
Organization: Citizen of Aberdeen
Commenter: Jamie Judkins
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
I am also very aware of the effects of oil on a City, County and even neighboring counties who were built on the fishing and logging industries. The natural resources of our beautiful land are important to the livelihoods of our people. Not just our tribal people but ALL people and we need to remember that. There are many things that must be addressed prior to considering such a venture as bringing crude oil through our Cities and Towns via the rail road. First and most important is our environment. If a spill were to occur, our harbor would be devastated losing way more jobs and natural resources than this proposal could ever bring in! With the currents of our angry Pacific Ocean, a spill could devastate both the South shores of Shoalwater and Willapa Bay to the North shores of Quinault. Both shores, hugely reliant on natural resources.

Comment Number: 000000243-1
Organization:
Commenter: Tiffany Heroux
Commenter Type: Public
Other Sections: 2.1 7.1
Comment Excerpt Text:
I want to see the scope include the surrounding areas of Longview/Kelso and look at what the impact will have on the quality of air from the train emissions. Also what impact it will have on the river? What if there is a spill, how will it be cleaned up? How will they affect the wildlife that live in and along the river?

Comment Number: 000000245-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 7.4 5
Comment Excerpt Text:
This use of the Port of Grays Harbor sites will, without doubt, lead to a significant crude oil spill in the future. Someday a harried worker will shortcut an established procedure and a release of crude oil into the Harbor will result, most likely during vessel loading. The protection offered to the Refuge under the GRP is pre-booming, using the row of pilings that cross the opening of Bowerman Basin. It's too bad that not all of the pilings still remain, and it's also too bad that booming there, while mostly ineffective, will afford no protection to the rest of the Refuge mudflats which lie beyond the pilings. The tidal action will not allow skimming of collected oil except during a brief window of time, and if not swiftly completed the skimming boat may be stranded on the mudflats for many hours. Oil on the mudflats will, as seen during the Nestucca spill of 1988, cause the death of tens of thousands of shorebirds, should it happen during the spring migration. Less obvious will be the destruction of the food source for the shorebirds: the creatures that live in the mud, and the biofilm that covers the intertidal area. Recent studies show that the biofilm provides more than half of the nutrition for several of the species of shorebirds.that migrate through the Harbor, and it is the principal source of nutrition for the shellfish that are farmed here. Until there is an effective means of protecting the all the refuge mudflats that are so necessary to the survival of

the migrating shorebirds, this usage of the Port properties should not be permitted. There is no comparable tidal area that the shorebirds can use if the Harbor's mudflats are coated with oil. Remediation is not possible in this case, only prohibition provides the certain protection required.

Comment Number: 000000271-3
Organization: Mr.
Commenter: Michael Gary
Commenter Type: Public
Other Sections: 5.1 11 3.1
Comment Excerpt Text:
There are many impacts from the proposed facilities. Reduced fishing, impacted recreation, reduced air quality, reduced water quality, and long-term health impacts to humans, just to name a few. These dangerous trains passing through my home area of Woodland, Washington will further damage the quality of life there.

Comment Number: 000000279-1
Organization:
Commenter: James Thomas
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
Finally, the draft EIS reports should estimate the potential environmental and economic impacts from rail accidents in the Grays Harbor watershed.

Comment Number: 000000280-4
Organization:
Commenter: Karl Goeres
Commenter Type: Public

Comment Excerpt Text:
The potential negative ecological impact to the area is huge. The rail line runs along and across several rivers and streams and trough sensitive areas where a derailment and oil spill will be devastating.

Comment Number: 000000281-1
Organization:
Commenter: Cheri Goeres
Commenter Type: Public

Comment Excerpt Text:
I believe this poses a danger to the residents of Grays Harbor County and should NOT be allowed to go forward.

Comment Number: 000000284-1
Organization:
Commenter: Marisa Salzer
Commenter Type: Public
Other Sections: 13.2 7.2 13.1
Comment Excerpt Text:
Rail Traffic - Increased one-way traffic of 3.25 trains per day (Imperium 2 per day, Westway 1.25 per day). The increased noise, train emissions, blockage of traffic, potential release of hazardous chemicals within and in close proximity to wetlands, rivers, and creeks will affect quality of life issues of a rural

community. With the downtown core located within feet of the railroad tracks, Increased rail traffic may reduce tourist traffic when the main entrance to downtown is blocked by trains. Old Rail Bridges - Just outside my city, rail briddges over the Satsop and the Wynooche rivers (which flow to the ocean) and have been documented by local citizens of their apparent deteriorating condition, and create an environmental concern should a train derail and crude oil be spilled into those water ways.

Comment Number: 000000284-3
Organization:
Commenter: Marisa Salzer
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
Oil Spills - Not only are there multiple points of concern in which a train can derail and allow for crude oil to enter into the local waterways, the impact of such a spill would be catastrophic. Grays Harbor offers a rich environment, one that has been taken advantage of since it was developed for logging. Shellfish, fishing and wild game are just a few things that the Harbor depends on for its economy that would be impacted.

Comment Number: 000000285-5
Organization:
Commenter: Beth Kaeding
Commenter Type: Public
Other Sections: 13.3 15
Comment Excerpt Text:
Increased train traffic would mean a higher potential for derailments, which are especially dangerous and life-threatening when trains are carrying crude oil. Derailments may not be common, but they do happen, and with the increase in the number of trains, the potential for derailments will also increase. The risks to communities, citizens, and the environment of rail transport of crude oil as well as the related connected and cumulative consequences of the costs of preparedness, response, and clean-up of oil spills.

Comment Number: 000000293-1
Organization:
Commenter: Louie Long
Commenter Type: Public

Comment Excerpt Text:
I'm writing you to express my concerns and strong disapproval for the proposal to build this new oil terminal. Our environment has already been destroyed from either drilling or transporting crude oil but the people responsible and their stock holders continue to profit while the damage and pollution it causes will forever be there. I read that you don't have the power to stop this expansion but you know those that can and have their ear, please do your best to make the people who have the power stop this and understand what a negative impact this will make. The northwest is so beautiful with it's rain forests rivers and lakes, many generations have lived, hunted, fished and farmed here and it has to be protected for generations to come, there's a time and places for everything but this not the time and will never be the right place for oil trains or oil tankers at any cost. Please do your best to stop this.

Comment Number: 000000294-1
Organization:
Commenter: Brian Jonas
Commenter Type: Public
Other Sections: 2.1 7.4 13.3

Comment Excerpt Text:
Please consider statewide and regionwide effects from the terminal expansions in the DOE's impact statement. Please look at the environmental effects of transporting the extra oil throughout Washington, including global warming effects and pollution effects, as well as possible spill effects. Consider the safety of the many towns, including Spokane, which will have an increase of very dangerous, explosive trains going through that have been disastrous to other areas during derailments. Also consider the global warming effects of sending more oil out to be used.

Comment Number: 000000305-4
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public

Comment Excerpt Text:
5. Environmental Impacts: Threats to streams, wetlands, fishing areas, shellfish beds, and migratory bird habitats, oceans and all marine life. These threats should be evaluated along the entire transport route of the crude oil- from possible areas where the crude oil is sourced to Grays Harbor and beyond. This includes threat of oil spills, air emissions, accidents, and the infrastructure updates required to transport the crude oil on the environmental resources.

Comment Number: 000000305-6
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public

Comment Excerpt Text:
7. Public Health: Include the health risks from increased train traffic, air emissions from the diesel used in the trains,and the emissions from storage tanks and transfer of the oil. Evaluation should include a separate Health Impact Assessment, an objective evaluation of the potential health impacts and who will pay for a potential increase on the health care system.

Comment Number: 000000308-3
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency

Comment Excerpt Text:
Environmental Health: The EIS should review the following:

Exposure to toxic chemicals –

A full study of the impacts of the potential emissions on the population, including impact to those in poor health.

Comment Number: 000000309-1
Organization: Westport Charters
Commenter: Steve Westrick
Commenter Type: Public

Comment Excerpt Text:
I am not in favor of expanding liquid bulk storage terminals anywhere in Grays Harbor period. Please protect our fragile but vibrant coastal communities by not allowing any crude by rail projects to go forward.

Comment Number: 000000319-4
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public

Comment Excerpt Text:
The EIS should quantify the degradation to the health of the estuary, and the birds that depend on it, due to channel dredging that would occur if tankers are brought into the proposed ports, what steps can be taken to minimize that impact, and who would pay for those steps.

Comment Number: 000000323-2
Organization:
Commenter: Karuna Johnson
Commenter Type: Public

Comment Excerpt Text:
What are the health effects of substances used to mitigate a spill? Please list each substance and quantify the number of people that you project will be harmed by the residue of a spill and the substances used to clean it up. Please detail the neurological, respiratory, dermatological, reproductive, and other biological impacts of these poisons when they contact human life. How many children live along the rail route in GH County? How many elderly? How many immune compromised? How many are confined to home or nursing homes?

Comment Number: 000000323-3
Organization:
Commenter: Karuna Johnson
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
How will these people be affected by the emissions from the oil tanker cars? What substances are found in the emissions from oil tanker cars? How many of those substances are known carcinogens? What is the incidence of cancer in GH County? How much is the incidence expected to increase due to exposure to oil and diluent emissions? What is the plan for protecting workers from emissions? What is the plan for taking care of workers who become ill from handling these materials? How many doctors specializing in industrial chemical exposure are working in GH County? In the State?

Comment Number: 000000325-1
Organization: City of Spokane
Commenter: Ben Stuckart
Commenter Type: Agency
Other Sections: 13.3
Comment Excerpt Text:
We are deeply concerned about the potential danger these proposed terminals pose to the City of Spokane. This is an issue our City Council takes very seriously. In fact, the Council unanimously supported and adopted a resolution calling for stronger oil

transportation regulations and protections. This unanimous, public stance by Council came on the heels of the multiple explosions and derailments across North America. We worry that Spokane, as a regional hub, could be impacted significantly by these terminals.

Our city understands and values our nation's rail transportation system. We support our friends and colleagues utilizing our state harbor system in their effort to provide good, quality jobs to their citizens. We also support a businesses' right to conduct legal commerce and seek a profit. The bottom line is that we just want to know how it affects the citizens of our city.

We urge that you include the impacts to the City of Spokane in your Environmental Impact Statements for the Westway and Imperium Terminal projects.

Comment Number: 000000329-7
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Human Health impacts especially from increased industrial-type pollution and from crude oil.

Comment Number: 000000332-10
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 13.5 13.3
Comment Excerpt Text:
There are potential impacts to sensitive areas within the Harbor and on the open ocean coast. How will these areas be protected? Aquatic invasive species introduction due to increased freight traffic – rail and vessel are a significant probability. How will these issues be addressed and controlled? Nearshore changes due to increased shading from added vessels, including impacts to plants and animals. How will this be minimized or eliminated? Human health, increased diesel fumes from trains, vessels and loading equipment. What preventive measures will be taken to eliminate or avoid these impacts? How will health issues that arise from this increase be addressed and paid for?

Comment Number: 000000332-2
Organization: citizen
Commenter: Judy Carter
Commenter Type:

Comment Excerpt Text:
Any oil spill would have devastating impacts to Grays Harbor, which contains unique wetlands and habitats and has been designated a shoreline of Statewide Significance. A spill would impact an Area of Hemispheric Importance for migratory birds, which are directly threatened by the presence of crude oil tanks, tankers, and railcars. Also at risk would be one of only two known glass sponge coral reefs and numerous threatened and endangered species. Placed at risk would be marine industries that account for 31% of the Grays Harbor workforce. How does the DS address the potential loss of function, value and workforce?

Comment Number: 000000336-3
Organization:
Commenter: Lillian Broadbent
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
Our current infrastructure simply does not support this project as evidenced by the recent train derailments. Are we any better prepared for the shipping? I urge you to expand the scope of this determination to include all areas of potential impact. I urge you to require infrastructure improvements that will protect our rivers, beaches, wildlife and shellfish.

Comment Number: 000000341-1
Organization:
Commenter: Eric Sherdahl
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
The following needs to be discussed as areas of concern. Our home is located within the location of railroad tracks referred to as "the incineration zone". Study and specify all areas from the point of oil extraction to Hoquiam and super-impose them on a map, determining how and what can be done to mitigate public safety and loss of property and loss of life. Also, consider the devastating, destructive effects on public health and quality of life that these proposals will potentially cause, and who will pay for this? This includes air quality and water quality to sustain health for our families and communities.Increased safety concerns because of train traffic, derailment and potential explosions (actual and perceived).

Comment Number: 000000343-1
Organization:
Commenter: Daniel Domike
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
Above and beyond all the very real concerns about oil trains and safety, which I do not believe can be positively addressed by either the train or oil companies, there would be extreme life style changes for those of us who live in Grays Harbor County. My wife and I retired to Hoquiam because we believed it to be a quiet place, close to the ocean and forests we love. Trains, long trains, coming in and out of our town would be most disruptive to our way of life. They would destroy whatever rustic beauty we now enjoy. Even the promise of "jobs" is not enough to dissuade us to believe such a trade-off would be worth it. And, frankly, I do not begin to believe that the oil terminals would bring the county that many jobs. We feel that a lot of smoke is being blown. The oil and train companies main interests are profits and not for the safety and enjoyment of our chosen home.

Comment Number: 000000344-6
Organization:
Commenter: Janet Strong
Commenter Type: Public

Comment Excerpt Text:
8. Effects on land and waters currently conserved for fish and wildlife along the Chehalis, Hoquiam and other nearby rivers;

Comment Number: 000000349-1
Organization: City of Westport
Commenter: Michael Bruce
Commenter Type: Agency

Comment Excerpt Text:
The Environmental Impact Statement (EIS) for these projects should include an evaluation of: 1) The increased risks related to all these projects and the impacts they would have on Westport, coastal communities, Grays Harbor County and our region.

Comment Number: 000000349-5
Organization: City of Westport
Commenter: Michael Bruce
Commenter Type: Agency

Comment Excerpt Text:
5) The environmental impacts, including threats to streams, wetlands, fishing areas, shellfish beds, and migratory bird habitats.

Comment Number: 000000350-1
Organization: none
Commenter: Beverly Bassett
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
The scope of this extreme oil extraction and transport through the decrepit old unsafe rails in single walled DOT 111 rail cars is sure to result in derailments and oil spills onto wetlands and waterways eventually. Probably sooner rather than later. And then it will be burned in Asia--not even domestically to meet our own needs! Our lands and waters will be degraded by spills, fumes, and explosions that will endanger people within a quarter mile of the tracks--and that's a lot of people--even in Grays Harbor County. Our children will be impacted adversely for many generations--as many as there will be--considering that we are now in the 6th Great Extinction which will include humans, most other creatures, and most of the plants and animals in our current world. This is happening now and is irreversable--the only control we have is over the time frame. And at our current rate, it is likely to be within 100 years for 99+% of earth's populations... This project will hasten extinctions. Time for the Dept of Ecology to work on behalf of the people who pay the taxes and live in Washington and DISALLOW these terminals and the transport of these volatile/explosive filthy dirty extreme extraction fossil fuels through our precious lands!

Comment Number: 000000354-1
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency

Comment Excerpt Text:
The EIS should review the following:

Environmental Impacts
Exposure to toxic chemicals:
A full study of the impacts of the potential emissions on the population, including impact to those in poor health.

Comment Number: 000000357-5
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization

Comment Excerpt Text:
-Public health impacts. The EIS should include the health risks to communities from Spokane to Grays Harbor from increased train traffic, air emissions from the diesel used in the trains, and the emissions from storage tanks and transfer of the oil to oil tankers. Evaluation should include a separate Health Impact Assessment, an objective evaluation of the potential health impacts of the projects. - Environmental impacts, including threats to streams, wetlands, fishing areas, shellfish beds, and migratory bird habitats. These threats should be evaluated along the entire transport route of the crude oil -- from possible areas where the crude oil is sourced to Grays Harbor to where the crude oil goes from Grays Harbor. This includes threat of oil spills, air emissions, accidents, and the infrastructure updates required to transport the crude oil on the environmental resources.

Comment Number: 000000364-3
Organization:
Commenter: Jude Armstrong
Commenter Type: Public

Comment Excerpt Text:
The effect on the life style, health and happiness of the human community, including the introduction of fear of massive explosions and fire. How can we feel safe sending our children to school when danger is just across the street?

Comment Number: 000000366-2
Organization: City of Ocean Shores
Commenter: Crystal Dingler
Commenter Type: Agency

Comment Excerpt Text:
Adding oil spills or fires to already inadequate or impossible preparedness seems illogical. Washington has a lot to lose. Our environment provides human food sources such as shellfish, crab, cranberries, and more. It also feeds the animals and birds that live in and visit our byways and shorelines.

Comment Number: 000000373-1
Organization:
Commenter: Nancy Baker-Krofft
Commenter Type: Public

Comment Excerpt Text:
Dear Department of Ecology: I am familiar with the scoping hearing process in Washington, and am glad to have found out about another site that is in the process, as is Vancouver and Longview, which I attended. I am from Oregon, but the whole NW is affected by the disregard for out natural environment. When the permitting process goes forward, please remember that it is your and my children's future we are concerned with. Please do the right thing in refusing to subject Greys Harbor to a future polluted by the fossil fuel indstry, and not be short sighted in our decisions of today.

Comment Number: 000000377-2
Organization:
Commenter: Laura Ackerman
Commenter Type: Public
Other Sections: 7.4 7.3 2.1 13.3 15 14
Comment Excerpt Text:
Please analyze the potential oil spills, fire from oil spills, diesel PM increasing, and the impacts to human health, especially those who live within a mile of the tracks, safety issues on increased railroad traffic, economics of communities paying for safety upgrades, impacts on rivers and other bodies of water, trails, parks, schools, hospitals and public facilities. Also analyze the impacts to wildlife.

Comment Number: 000000378-1
Organization:
Commenter: Margaret Rader
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
I have a personal reason for thinking the oil trains are not appropriate for Grays Harbor county. They would come right by my front door, and I am concerned about the safety. I also am concerned about possible derailments and spills and how they could affect fish and wildlife. The Black River in Thurston county goes right by our houses, and crosses an old iron Railroad bridge. The bridge and its abbutments do not look strong enough to stand up to the increased hazardous traffice. I have attacked pdf files with pictures of our bridge at the end of Holm Road in Thurston County. Please include in the scope of the EISs the safety of bridges and other infrastructure.

Section 7.1 - Oil spill prevention, preparedness, response

Comment Number: 000000004-2
Organization: Environmental Services Directory for Washington State
Commenter: Jeremy Mattox
Commenter Type: Organization

Comment Excerpt Text:
We need to be diligent in protecting Washington and its citizens from the dangers presented by crude oil rail and marine transport.

Comment Number: 000000016-1
Organization: Mr
Commenter: Rodney Tharp
Commenter Type: Public
Other Sections: 13.2 13.3 7.3
Comment Excerpt Text:
Include in your EIS the impact on all the towns and cities that the oil trains will pass through or near. This should include public safety, safety from spills and exploding oil cars as well as accumulative rail congestion from all the increased train traffic of all state wide projects.

Comment Number: 000000039-1
Organization: Ms.
Commenter: Rod Tharp
Commenter Type: Public

Comment Excerpt Text:
The trains carrying this crude oil will pass over and along side many creeks,rivers, lakes and other water drainage systems. Every place needs to be surveyed and the impact of an oil spill needs to be determined and a plan for proper response needs to be filed and approved by any governmental agencies that will be called on in the event of a spill.

Comment Number: 000000061-1
Organization:
Commenter: Kevin Drake
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
I strongly support new oil terminals in Washington State, and I strongly oppose Washington States Department of Ecology's (DOE) role in the matter.Talk about a agency with a misguided mission, and a waste of State funds, duplicating Federal efforts. The DOE should let the Feds do their environmental overview and make their suggestions at that point, I don't know like maybe encourage the oil trains but do some much need infrastructure works, like vehicle overpass's over tracks, more train tracks so we can get better Amtrak service between Portland and Vancouver BC, oil spill repsonse network for the rivers and bays, the Railroads are just waiting for the Fed's to develop standards for rail cars, encourage that, but please lets support any industry that brings jobs, the sky is not going to fall.

Comment Number: 000000081-1
Organization:
Commenter: Jana Wiley
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
I do not believe that WA State is ready to deal with the potential hazards of this new version of crude oil. Already we have seen multiple other derailments and fires, where the only immediate remediation is to (1) Let it leak and burn until it is done, as it it too dangerous to approach and do anything, other than to evacuate and keep people away.

Comment Number: 000000096-1
Organization: Mr
Commenter: Rodney Tharp
Commenter Type: Public

Comment Excerpt Text:
The EIS should include a total analysis of the effects of an oil spill in Grays harbor. All sizes of spill need to be analyzed for effects on migrating birds, sea life, tourism, local fisheries. The cost of a clean up and rehabilitation of all effected ares should be included.

Comment Number: 000000099-1
Organization:
Commenter: Robin Moore
Commenter Type: Public

Comment Excerpt Text:
It is the pattern of the oil industry to oppose regulation. As seen by the behavior of BP in the Gulf oil spill, they also vigorously fight any financial responsibility to communities after an accident. Local

citizens and taxpayers are then left to struggle on their own. How will Imperium and Westway be any different in this regard? Are there any safeguards built into their permit applications that will protect me and my neighbors from bearing the cost of an accident? Would it be possible to require the companies to post a substantial cash bond to ensure they could not declare bankruptcy and avoid their responsibility?

Comment Number: 000000106-6
Organization:
Commenter: Jan Verrinder
Commenter Type: Public

Comment Excerpt Text:
-Lack of evacuation and emergency plans, agencies, facilities, budgets. -Difficulty of reliable, cooperative, comprehensive, and protective regulation.

Comment Number: 000000109-1
Organization:
Commenter: David Linn
Commenter Type: Public
Other Sections: 7 7.4
Comment Excerpt Text:
Bringing oil by train into Grays Harbor is an extremely bad idea. The Harbor is a fragile ecosystem and the risk of oil spills is far too great to allow oil to be transported and handled here. The recent spills of grain from rail cars in Aberdeen is clear evidence that the rail infrastructure is inadequate to handle to traffic that this plan would generate. In addition, the rail operator, Genesse & Wyoming is prone to accidents such as the oil spill in wetlands in Alabama a few months ago. Neither the State of Washington, the City of Hoquiam, nor the oil companies are prepared to properly deal with and clean up an oil spill when is eventually will happen. Please stop this madness before our beautiful land and water are destroyed to satisfy the greed of a few.

Comment Number: 000000118-2
Organization: a concerned citizen
Commenter: Abby Brockway
Commenter Type: Public

Comment Excerpt Text:
Please also study proper requirements to keep from potentially contaminating the river.

Comment Number: 000000118-3
Organization: a concerned citizen
Commenter: Abby Brockway
Commenter Type: Public
Other Sections: 13.5
Comment Excerpt Text:
Please consider the increased marine traffic and how to mitigate the traffic and how to respond to the potential chemical spills that will be an increased possibility due to the extra 400 trips per year. Please keep in mind the recent climate reports that show the danger to many disasters due to the carbon output that this project will contribute 30,000,000 more barrels per year.

Comment Number: 000000153-2
Organization:
Commenter: Paul Stormo

Commenter Type: Public

Comment Excerpt Text:
2. Given risk associated with the first issue noted, permanent, full-time emergency respondents with extensive training related to emergency triage related to spills and/or fire associated with hazardous petroleum and related products must be provided, with costs born by the benefiting corporations. Staff and location should provide for a maximum full response time of 30 minutes given the potential risk. Week or weekend long training for volunteer fire department staff are inadequate, as is reliance on volunteer staff.

Comment Number: 000000158-1
Organization:
Commenter: Robin Moore
Commenter Type: Public
Other Sections: 12
Comment Excerpt Text:
The Department of Ecology and the City of Hoquiam have already received comments from the Quinault Indian Nation expressing their opposition to these oil terminal expansion projects. Ignoring their views will be one more betrayal by the "white man." Is this still done at this point in history? As a matter of governmental and social responsibility, how can the usurping of native people's rights be allowed? When the spill happens, no mitigation plan will be adequate for the destruction of the Quinault's culture. Take this opportunity to follow your moral compass and deny these permits.

Comment Number: 000000175-2
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency

Comment Excerpt Text:
As a Grays Harbor County Commissioner, I strongly urge the State of Washington to adopt legislation requiring disclosure of the volumes, types of petroleum, petroleum products, and petroleum derivatives; transportation routes; and the frequency and duration of transfers of petroleum, so that the state and local communities can be fully informed of and plan for the risks posed by the transport of petroleum by rail.

Comment Number: 000000175-7
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency

Comment Excerpt Text:
I will work with the Grays Harbor County Emergency Management, and if needed, to update the County's incident response plans for the increasing risk imposed by the transport of petroleum by rail.

Comment Number: 000000176-33
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:

25. Specific Project Related Concerns
(a) The containment design does not appear to be adequate for a design-basis accident. It appears that a catastrophic accident which released 8,400,000 gallons of crude plus 6" of rain water is proposed to be contained by a single containment wall whose integrity would be suspect in a catastrophic accident. The mitigation does not reveal how this would be handled and cleaned up. How would this be handled? What is the "bathtub" effect of containment?

Comment Number: 000000176-37
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(e) The SEPA checklist states that there will be one terminal operator dedicated to the dock facility. Since the tank location is over 500 feet away from the dispensing tank, how will a single person be able to monitor the entire system, check for any leaks or spills, and make sure the equipment is functioning properly? Who else would be available to assist?
(f) Where will spill containment equipment be stored? Will there be a redundancy in equipment at the tank site and dispensing site?

Comment Number: 000000178-3
Organization: League of Women Voters of Grays Harbor
Commenter: Shannon Vandenbush
Commenter Type: Organization

Comment Excerpt Text:
We also hope that the studies would include the full range of existing disaster mitigation challenges that our area is host to, such as the fact that there is only one two-lane highway leading to and from the North Beach area. With that in mind, what plans are in place to mitigate the effects of a crude oil spill on water during a storm when over water booming proves insufficient to contain the sheer volume of the spilled oil? Will the efforts to clean the North Beach be hampered if there is a blocked highway during this type of scenario?

Comment Number: 000000179-3
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
What provisions will be put in place to be able to respond to two, or three disasters that might happen in different areas of the County. For Example, if an earthquake damages the off loading equipment during transfer, causing oil to be spilled on water, high winds and currents begin to move the oil to the direction of the North Beach- while at the same time, the earthquake causes a train to derail and explode in downtown Aberdeen?In the event of equipment failure on any part or portion of multiple simultaneous disaster scenario, what do the proponents plan to do to mitigate the catastrophic effects of oil spill? What plans are in place to make a proper assessment of which disaster needs first response efforts and resources?

Comment Number: 000000180-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public

Comment Excerpt Text:
What provisions will be put into place to transport emergency vehicles and equipment in the event that there is a disaster, and Highway 109 is blocked?

Comment Number: 000000182-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
If the Port of Grays Harbor is given the go ahead to host the currently proposed crude oil related projects, and, soon after, the US agrees to export oil to world markets- thereby centering the regulations under EU and international law, will that give us less regulatory power over these projects? If so, what plan is in place for proponants to respond to the spills? Will lifting the Jones Act ultimately result in Grays Harbor Residents paying a higher cost for oil?

Comment Number: 000000183-2
Organization:
Commenter: Mary Holder
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
http://online.wsj.com/news/articles/SB10001424052702304834704579401353579548592. Accessed May 6, 2014. There is no adequate mitigation for the risk and consequences of a rail accident involving crude oil. Impacts from Oil Spills:In addition to the numbers of trains transporting oil to the two proposed projects, the Westway project would result in five new storage tanks of 200,000 barrels each. The company's project would also add 198-238 oil barge transits of Grays Harbor per year. Imperium proposes nine new storage tanks of 80,000 barrels each. The company estimates 400 ship/barge transits through Grays Harbor per year. As an initial matter, the EIS must identify all of the types of oil that will be transported to, stored in, and transported from the facilities. Different types of crude oil exhibit vastly different volatility, viscosity, and toxicity characteristics when spilled. Accordingly, the difficulty in cleaning up various types of crude oil spills varies widely. The impacts of a toxic crude oil spill on fish, wildlife, and human health and the ability to clean up the oil spill differs depending on the type of crude involved. Washington State's Changing Energy Picture. Potential Impacts of Our Changing Risk. Presented by David Byers, Response Manager, Washington State Department of Ecology.

http://www.emd.wa.gov/hazards/documents/OilandCoalTransportationIssuesinWAState-DavidByers.pdf. Accessed May 15, 2014. These significant differences in impacts on human health and the environment and the ability to clean them up arising from the transportation and storage of various crude oils must be fully analyzed in the EIS.

The EIS must fully analyze impacts of spills on waterways and all types of landscapes all along the rail route to the two project sites and from increased vessel traffic in marine waters (and, for the latter, especially given the lack of tug escorts available to oil tankers). Applicants Westway and Imperium must specifically identify these routes as well as those responsible for transportation safety along these routes. As an example, there have recently been three derailments on the rail line owned by the Puget Sound and

Pacific Railroad over which crude oil would be transported to the new facilities. Q13Fox.com. Feds Investigating String of Train Derailments in Grays Harbor. http://q13fox.com/2014/05/16/feds-investigating-string-of-train-derailments-in-grays-harbor-county/#axzz320ppmdWq. Accessed May 18, 2014. Questions that must be answered in the EIS include: why have these derailments occurred and why might future derailments occur; what is the safety, maintenance, and enforcement history of the relevant rail lines and railroads; who is responsible for safety and operations; what training and equipment is provided to rail employees for accidents involving oil spills? These questions must also be answered for all ships/barges that would transport the oil. Additionally, where will the transfer or unloading of the oil occur? What safety precautions at those points would ensure that there is no spillage of oil? Promises to maintain and/or periodically update "safety manuals" are worthless to ensure safe transportation of volatile and toxic crude oil through our state's communities and environmentally sensitive areas, and must not be relied upon as a basis for issuing permits.

Comment Number: 000000185-1
Organization:
Commenter: Shelli Hopsecger
Commenter Type: Public
Other Sections: 7.3 7.4 13.3
Comment Excerpt Text:
This specific Environmental Impact Study should focus on the two projects that are being proposed by companies with proven records as good corporate citizens. Have the companies offered to invest in equipment and training for first responders? The Study should accurately weigh the risks -- what percentage of crude being shipped by rail has been leaked into the environment? What have been the affects - short-term and longterm on the environment? Were clean-up response plans in place? What can be learned from these outcomes to better position ourselves? What is the percentage of rail cars that have been involved in derailments, what type of car were involved, will these cars be allowed to move crude when these projects are approved? Given these percentages, what is the REAL likelihood of an accidental spill, derailment or explosion? While nobodies wants these things to happen we must be realistic in our assessment of risk.

Comment Number: 000000190-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public

Comment Excerpt Text:
Do you propose to keep equipment to respond to oil spills at the North Beach- at the North Beach? If so, what kind of equipment, and where do you plan to store that equipment? Considering the corrosive effects of salt air on metal, will you need to build a storage facility for the disaster response and if so, where will that facility be located?

Comment Number: 000000194-2
Organization:
Commenter: Laura Reisdorph
Commenter Type: Public

Comment Excerpt Text:
SPILL RESPONSE The oil industry should be required to provide local fire districts with the proper response kit. At the EIS Meeting in Centralia we learned that tools needed to respond are not readily

available (expensive) to most districts. Since the oil industry is creating the local need for this kit, the oil industry should pay for the procurement, not the local citizens who do not directly benefit from the company's profit.

Comment Number: 000000211-7
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency

Comment Excerpt Text:
The current proposals include running 3.25 additional trains per day that could be carrying volatile liquids. If a catastrophic event occurred and one or more of the rail cars were to rupture, we see the potential for a spill or explosion to impact WSDOT properly and highway operations near rail lines. We request that the project proponents work with WSDOT to develop an emergency spill prevention and response plan for what will happen to restore state highway operations in such an event.

Comment Number: 000000214-2
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency

Comment Excerpt Text:
Prior to completion of the projects, the companies and their contracted haulers should be required to work with local responders to develop robust mitigation and emergency response plans for the entire length of the supply and distribution lines. These plans should consider both winter and summer conditions and should provide a rapid response in the event of a train derailment or marine oil spill.

Comment Number: 000000216-2
Organization:
Commenter: Christopher Sauer
Commenter Type: Public

Comment Excerpt Text:
Furthermore, a system of booms, floats, suction and storage equipment, emergency boats with water containment equipment need to be in place, kept in working order and updated at all times for WHEN a spill happens. Any size spill must have plans in place in order respond to the spill anywhere it may happen within 1 hour if not a lot less. Boats on standby with floats and oil stopping equipment that can reach any spot where a spill might hit the Chehalis river system to prevent wide spread further damage to an ecosystem on already on the edge from pollution. Furthermore, some measure of clean up to the waters and adjacent lands that are already polluted should be addressed in some way to start to clean up Grays Harbor. The act of these multi billion dollar companies to start the process of rehabilitating the Harbor would go a long way to easing the minds of residents and also to lessen the impacts of the spill that will inevitably happen. A system of deployable floats with suction equipment that can be deployed within minutes should be easily installed above and below the loading and unloading docks. If I can imagine how to do it then your safety team should be able to do it easily. If not then drop me a line and I will explain how to do it and have it deployed with a couple minutes of any spill at the docks. Nothing can be taken for granted in Grays Harbor when it comes to maintaining the rails, the tracks, storage facilities and anything else involved with loading and unloading oil or any of the products of it. Grays Harbor residents will laugh at this proposal. They will not believe that a billion dollar industry cares enough to even

consider making this project the example of how it should be done. They will not believe that a company even cares to try. I challenge you to prove them wrong if you really want to bring the cause of the largest biological disasters in US history to the Shores of Grays Harbor. Some day, you might even get the residents to support a refinery saving you millions more in shipping costs. If you have no intention of trying to make sure that the fragile ecosystem of Grays Harbor is protected to the best of your ability and then another 15% then you can consider my support withdrawn. The recent accidents show that this project can not be done willy nilly. If anything they should be a direct reminder with what you are dealing with and be a stark realization that the project will take millions to ensure that it is successful and more important, safe.

Comment Number: 000000243-1
Organization:
Commenter: Tiffany Heroux
Commenter Type: Public
Other Sections: 2.1 7
Comment Excerpt Text:
I want to see the scope include the surrounding areas of Longview/Kelso and look at what the impact will have on the quality of air from the train emissions. Also what impact it will have on the river? What if there is a spill, how will it be cleaned up? How will they affect the wildlife that live in and along the river?

Comment Number: 000000244-1
Organization: private citizen
Commenter: mary holmes
Commenter Type: Public
Other Sections: 3.1
Comment Excerpt Text:
please consider the impact this would have on the river. just traveling along side it and if an accident should occur. also, in case of an accident, how/who would pay for the cleanup?

Comment Number: 000000246-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
One of the richest areas of the Grays Harbor environment is the shoreline. The most productive organisms of the shoreline are the algae. The algal community nourishes the bio-plankton community, which also is the principal source supporting the mollusk and crustacean community. The avian community, particularly the shorebirds, directly depends on both the algal and bio-plankton communities. The shorebirds have been dependant on the algae for hundreds of millennia, and an oil spill would cause irreparable changes in the algal population; changes that cannot be undone in our lifetime. The Harbor's ecosystem cannot withstand a large oil spill, and the currently available spill remediation methods are not effective enough to significantly lessen the result.

Comment Number: 000000256-1
Organization:
Commenter: Robin Moore
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:

Who owns the oil that will be brought to these facilities? It is not Imperium or Westway. It is not the rail line. It will not be the ships that carry the oil out of the port. Does the Department of Ecology, the Port of Grays Harbor, and/or the City of Hoquiam know the identity of the oil companies? Will the companies be able to be held to ultimate responsibility in event of an accident? This issue can be mitigated right now. Name the companies of ownership.

Comment Number: 000000258-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
The use of an earthen berm for storage tank spill containment, as mentioned in SEPA checklist 20130222 item 11, is unlikely to be adequate containment during and following a subduction zone earthquake. The construction is based on a 1996 geotechnical report for an adjacent site. The section mentioning the possibility of soil liquefaction during an earthquake only mentions vertical settlement, ignoring the likely lateral spreading which may occur adjacent to Fry creek. Lateral spreading will cause the disruption of an earthen berm, resulting in loss of containment when it is absolutely required. Basing the necessary containment on a 1996 report based on test borings at an adjacent site is not adequate, and a new geotechnical report conducted on the actual site must be required. Please require that a reinforced concrete spill containment structure with a supporting structure designed by geotechnical and structural engineers will be required for this site, lessening the possibility of containment failure.

Comment Number: 000000259-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
The final Imperium tank layout (9 tanks surrounded by a containment berm or wall) will have a problem in the event of a large (catastrophic) leak in one of the end tanks in the line of nine, or one of the two end tanks. A leak in an end tank will require a large level differential when the crude oil flows around the tanks, with the repetitive narrowing and widening creating an increase and decrease in the velocity of the flowing stream. This is not an obvious problem, but is one that I have seen in my work in water treatment plants that had large numbers of in-line sumps interconnected by pipes. The flowing stream of water (a relatively low—viscosity fluid) would overflow the sumps during a large flow from one of the end flow sources. The problem will be exacerbated by the relatively high viscosity of cool, or cold, crude oil, requiring a large differential in oil depth during a high flowrate leak situation from one of the end tanks in the string of tanks, defeating the containment, causing an overflow of the containment berm or wall. How will the containment structure or tank layout be modified in this constrained area to prevent having an overflow situation caused by leakage from one of the end tanks, or their neighbor tanks?

Comment Number: 000000260-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
On Imperium's SEPA checklist, 20130222, p29 item 2, The statement is made "Tanks shall be equipped with high and high-high alarms, over-pressure protection, floating roofs, foam blanketing fire protection, and emergency overflows into the containment area." This will offer some protection against over-filling

a tank from the rail unloading facility, but would not provide early warning of a minor tank leak occurring during tank filling. Such a leak would be detected if continuous level monitoring was implemented and the measured tank level was electronically compared to the expected level based on measured pump discharge flow. Another possible reduction of spills during vessel and barge loading could be implemented by measuring pump discharge pressure, and loading pump flow rate. A sudden decrease in discharge pressure or increase in pump flow rate would indicate a line break, or failure of gasketing between the rigid piping and the flexible loading hoses. Please comment on the implementation of these improvements in the tank filling and vessel and barge loading operations.

Comment Number: 000000261-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 1.2
Comment Excerpt Text:
The spill containment of railcars placed next to Fry Creek, as mentioned in SEPA checklist 20130222, item 11, is unlikely to be adequate containment during and following a subduction zone earthquake. No mention of railcar spill containment is made, other than that it will be "capable of containing the maximum volume of any single compartment of a tank car." Whatever type of railcar spill containment structure is used, due to its location next to Fry Creek, it will be subject to lateral spreading during a strong earthquake. The verbiage about a single compartment is in error, as the railcars that are used for transporting crude oil are not compartmentalized, each having a capacity of from 650 – 750 barrels (27,300 – 31,500 gallons). The footing under the railcar unloading tracks/containment area must be designed under the supervision of a geotechnical engineer, due to its location adjacent to the bank of Fry Creek, and, the fill material on which it is to be built being dredge spoils. Such fill material is subject to both vertical settlement and lateral spreading during a seismic event. Please require that there must be an engineered design, by licensed geotechnical and structural engineers, to prevent the tilting and or collapse of the unloading tracks during a seismic event, to avoid the possibility of track shifting which might cause the tipping of all railcars that are unloading or staged for unloading.

Comment Number: 000000263-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
The Facility Spill portion states tanks "will be built in accordance with the current API 650 standard for tank construction". Grays Harbor is an extremely critical area environmentally. Partial spill cleanup would be difficult at best, and full cleanup would be nearly impossible.

Comment Number: 000000266-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
Redundant control systems (systems which can still operate in the event of a CPU failure, input/output failure, power failure, etc.) must be required for this facility. Prevention of a control failure due to a single-point equipment failure must be mandated. Simple level switches are not adequate for the control of a system where a failure can result in the destruction of the livelihood of many hundreds that are involved in harvesting of marine resources. Level switches would offer some protection against over-

filling a tank from the rail unloading facility, but would not provide early warning of a minor tank leak occurring during tank filling. Such a leak would be detected if continuous level monitoring was implemented and the measured tank level was electronically compared to the expected level based on measured pump discharge flow and time that filling has been in progress. Another possible reduction of spills during vessel and barge loading could be implemented by measuring pump discharge pressure, and loading pump flow rate. A sudden decrease in discharge pressure or increase in pump flow rate would indicate a line break, or failure of gasketing between the rigid piping and the flexible loading hoses. Please comment on the implementation of these improvements in the tank filling and vessel and barge loading operations

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Comment Number: 000000268-1
Organization:
Commenter: Charles Metzenberg
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
Having oil from the mid-east has been costly in lives and dollars. Now that we can free ourselves from foreign oil, why do we need to export before we use these resources to rebuild the long overdue infrastructure and put more citizens to work and rebuild the middle class. Corporate greed has been well documented they gain and too many times the citizens are left with the degraded environment and clean up costs. Oil spills happen and cleanups are not that effective, oil fouled beaches in Alaska after 25 years and tons of crude oil sunk in the gulf of Mexico. The rewards go to a few and the risks go to many. My alternative to scope, is to use North American crude oil at home to reduce imported crude oil and oil products.

Comment Number: 000000278-1
Organization:
Commenter: Candace Milne
Commenter Type: Public

Comment Excerpt Text:
These projects worry me. Please include: 1. The clean-up cost and time estimates for small to large spills (at rail/roads, at storage facilities, at docks, on the river, in the harbor, in the ocean). 2. Who would pay for such clean-ups. 3. What clean-up equipment and personnel would be immediately available in the event of spillage.

Comment Number: 000000312-2
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
The EIS should identify the magnitude of the inevitable routine pollution that will happen with the proposed oil transport program, as well as the revenue loss that will follow due to the pollution. Who will pay for monitoring and clean-up? The EIS should identify the costs and loss of income that will occur when a catastrophic spill happens. The EIS should identify who pays for spill response and cleanup.

Comment Number: 000000312-4
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public

Comment Excerpt Text:
The EIS should identify the characteristics and risks of oil transport. Oil is not a wood product, nor is it like other bulk liquids with which the Port is familiar. The consequences of a spill are hugely different, and those consequences should be thoroughly examined. Is the Port prepared to deal with accidents in oil transport, such as those which have recently occurred with rail traffic from Centralia? Is the Port prepared to deal with accidents such as the one that happened in Lac Megantic, Quebec? Is the Port prepared to respond to oil spill in the estuary? If not, then what measures should be taken to establish adequate preparation, and who would pay for that? Do Westway and Imperium and the rail lines have adequate insurance to pay for the kind of accidents that may happen?

Comment Number: 000000318-1
Organization: Councilmember City of Aberdeen
Commenter: Alan Richrod
Commenter Type: Agency
Other Sections: 13.3 7.4
Comment Excerpt Text:
My overarching concern is for the safety and well-being of the city and county. I remind you of the 4 derailments between Aberdeen and Centralia over the last couple of weeks. With the first one, the train was sitting in the yard and simply tipped over spilling its contents. The rest were rolling trains. Thankfully, they were just grain. The railroad says it's because it rains here – to use their words. Is that not all the more reason not to bring volatile, poisonous crude oil here? There is no spill response for this area. If an oil spill happens east of town in the swamp land, no vehicle can get to it. There is no water passage, there are no roads. Imperium and Westway can store crude oil if they wish, just not here.

Comment Number: 000000319-2
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public

Comment Excerpt Text:
You should investigate the ability of local spill teams to respond effectively should a major accident occur, and who would pay for these measures.

Comment Number: 000000319-5
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 13.2 14 5 7.4
Comment Excerpt Text:
The EIS should identify the safety of the spur rail line from Centralia to Hoquiam, the capacity for local emergency response teams to deal with spills in the riparian areas, the impact spills would have on downstream and estuarine species, and who would pay for cleanups when spills occur. Presumably you are aware of the significance of the Grays Harbor Estuary to the survival of migratory shorebirds. An April spill could threaten extinction for certain populations, if not species. The EIS should quantify how many migratory bird species depend on a healthy estuary, what percent of the Western Flyway populations those numbers represent, the cumulative impact on avian health of incidental spills that will occur if one or all oil ports are constructed, as well as the impact on those birds should a catastrophic spill happen.

Comment Number: 000000321-2
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
Our County's limited emergency personnel and resources are not equipped nor prepared to handle potential spills or fires—how will this be addressed?

Comment Number: 000000321-5
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
In the event of a spill, who will be responsible for cleanup, how will it be paid for, and how will it impact fish and shellfish industries and tourism, and the families that rely on those jobs to make their livelihoods? How will it affect the health of all county residents?

Comment Number: 000000323-1
Organization:
Commenter: Karuna Johnson
Commenter Type: Public

Comment Excerpt Text:
"Washington has the lowest spill volume in the nation and we are continually striving for a rapid, aggressive and well-coordinated response to incidents with a goal of reaching 'Zero Spills' as stated in our Legislative direction." Washington DOE website How does Westway and Imperium plan to reach this goal? How many spills are likely to occur in the first year? Second year? 10th year? 50th year? Please provide a data analysis of the likelihood of a spill. Please include data from the massive number of spills and accidents over the past 36 months. With volumes of evidence that oil trains are not safe, explode, and derail, what realistic numbers do Westway and Imperium have to describe the risk of a derailment, an explosion, and a spill in our county, along the tracks, and at the waterfront? Please describe in excruciating detail how you plan to clean up a spill. Please describe how your spill mitigation plan will leave a residue that lasts for thousands of years. Please describe how that will affect the livelihood of marine and human life in our Harbor and rivers for the next seven generations. Please provide an analysis of the impacts for seven generations. In every analysis of the benefit of your plan, please include an analysis of the effects of your actions for seven generations hence. What substances do you plan to spray on the land and water to dissolve the oil after a spill?

Comment Number: 000000330-5
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
Grays Harbor Safety/ Geographic Response Plans – Plan is based on slack tide, what would happen and how would the plan be deployed in alternate tides, surge and weather conditions? Time to respond, training for first responders, time to respond for back-up responders if initial team is unavailable or inadequate to control the spill, impacts of response if not done in a speedy manner prior to tidal changes, and the subsequent damage to the surrounding environment due to the tides and inadequate response;

training concerns for response teams: is it adequate, are enough people trained, have they been able to train on the equipment and are they skilled with using the boom, and how will this impact the environment if all factors are not done in a smooth, quick and skilled manner.

Comment Number: 000000338-3
Organization:
Commenter: John Larson
Commenter Type: Public

Comment Excerpt Text:
Does adequate manpower, money, and equipment exist to handle crude oil contamination of these waterways in the event of a derailment or other spill? Has any consideration been given to establishing a special tax on the shipment of crude oil to be banked as an insurance fund to cover the broad costs of damages done by a spill or explosion? Is there even a way to accurately calculate what impact a crude oil catastrophe could have on Grays Harbor economically or environmentally? And if so, would the introduction of high-volume crude oil shipments have such a substantial net economic benefit to a large enough percentage of Grays Harbor's population to outweigh the ruin such a disaster could bring?

Comment Number: 000000339-11
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 7.4 13.3 13.5
Comment Excerpt Text:
Spills
The EISs should analyze the increased risk of Bakken, Tar Sands oil or other fuel spills that may occur during cargo loading and offloading, through vessel collisions that may result from the increase in vessel traffic at the river's mouth, along the coast, or through train collisions along the Chehalis River. Imperium's flange connection location has a 52 gallon catch basin per USCG requirements; is this sufficient to capture all potential spills? Imperium and Westway currently have no requirements for pre-booming due to speed of current and safety measures. Is there any way to design a pre-booming strategy to minimize chance of release should a failure occur during transfer? Westway currently has no spill response plan. How will spills be contained and prevented from spreading to sensitive areas, especially given the presence of hundreds of thousands of shorebirds nearby? What measures will be taken to ensure prevention and timely response to oil spills to avoid impacts to water and sediment quality, habitats, and species? What are the risks of oil spills associated with the need for vessel traffic maneuvering and queuing within and outside the harbor?

What are the risks of spills associated with increased rail transportation carrying crude oil and how will these risks be mitigated? The state's oil spill response program is funded through a crude oil tax on vessels that does not apply to rail. What is timeline for implementation in comparison to time line for crude oil transport operations to begin?

Comment Number: 000000339-14
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:

Built Environment
Environmental Health
Please refer to the earlier comment regarding hazardous substances associated with any rail corridor expansions. Any expansion of rail corridors on state-managed lands to support the project should analyze the potential for soil contamination and include mitigation measures that reduce and prevent the potential for short- and long-term impacts to ground and surface water, soil, and wetlands from cumulative hazardous material buildup.

Comment Number: 000000339-5
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 5
Comment Excerpt Text:
Grays Harbor Estuary is one of four major staging areas for shorebirds in North America and one of the largest concentrations of shorebirds on the west coast, south of Alaska. Shorebirds gather here in the spring to feed, store up fat reserves, and rest for the non-stop flight to their northern breeding grounds. Arctic-bound shorebirds come from as far south as Argentina and from June through October the shorebirds return to the estuary in lesser concentrations on their way south during the longer fll migration period. Thousands of shorebirds, primarily dunlin, stay for the winter. The EIS should identify potential, adverse impacts on storage and transport of crude oil on shorebirds and their habitat, with special emphasis on spill prevention and response.

Comment Number: 000000340-1
Organization: Ms.
Commenter: Tammy Domike
Commenter Type: Public

Comment Excerpt Text:
How are we to have any assurance that the rail company is able to clean up after a spill? We have seen the responsible rail company go bankrupt after the explosions in Lac-Megantic, leaving the community with $180M clean-up costs. Does Genessee Wyoming have deep enough pockets, or will we be in that same situation? "“There is not currently enough available coverage in the commercial insurance market anywhere in the world to cover the worst-case scenario,” James Beardsley, an executive with Marsh & McLennan Cos.' Marsh Inc. insurance brokerage unit, told the Wall Street Journal in January." (http://www.desmogblog.com/2014/03/17/record-year-oil-train-accidents-leaves-insurers-wary) Genessee Wyoming has a spill in Aliceville, AL that it still has not adequately cleaned up, months later. (http://www.paradisepost.com/news/ci_25352091/months-after-oil-train-derailment-crude-still-found.) What assurances do we have that Genessee Wyoming can or will be bothered to clean up Grays Harbor or Washington state? If you cannot find those assurances, will you deny this application?

Comment Number: 000000348-5
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization
Other Sections: 1.2 1.3 14
Comment Excerpt Text:
4. In the event of a major oil spill, either by rail, ship, or transferring, what is the response plan? How much oil could be recovered under ideal circumstances? How much could be recovered under the worst

circumstances such as an earthquake or tsunami? 5. How would the increase of rail transport impact the ability of first responders to answer public health emergencies, either due to congestion or derailment?

Comment Number: 000000349-3
Organization: City of Westport
Commenter: Michael Bruce
Commenter Type: Agency

Comment Excerpt Text:
3) The risks, resources needed to prevent spills, and response required related to the distribution and manufacturing of oils.

Comment Number: 000000352-3
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 1.2 1.3
Comment Excerpt Text:
Who will be libel for losses to existing industries should their be an oil spill. There should be clear language about who bears the responsibility in the event of a spill. Who compensate local investors in the event of an oil spill for loss of property values? Who will be responsible for maintaining, equipping local fire departments to combat an oil fire? All inspection reports on the status on rail infrastructure should be make public for an independent peer review. Who will be responsible for mitigation for increased noise, for air quality degradation, and for water degradation? Will the oil storage tanks be built to withstand and earthquake and the resulting tsunami? How much liability will the city of Hoquiam, Aberdeen, Montesano, Elma, Cosmopolis, Westport Oakvile and Ocean Shores bear in the event of an oil spill? Who will compensate the taxpayers for the cleanup expense and loss of investments.

Comment Number: 000000352-6
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 14 15
Comment Excerpt Text:
Study the impacts to current response plans? Who pays for updating of those plans? Study the cumulative impacts of all three projects being built out to completion. Study the impacts to the tourism and recreational industries. Study the impacts to the agricultural industries in Grays Harbor. In event of a spill who will compensate farmers for loss of production?

Comment Number: 000000353-4
Organization: Jefferson County
Commenter: Carolyn Avery
Commenter Type: Agency
Other Sections: 1.3 7.4 1.2
Comment Excerpt Text:
3. The EIS consider potential failures, of structures or processes, that would cause oil to spill into the environment- such as derailments or other damage caused by earthquakes of various magnitudes, river flooding and associated debris, or tsunamis.
4. The EIS determine what additional infrastructure, plans, procedures and equipment should exist in order to minimize damage to the environment from a forecasted tsunami and to coordinate with the evacuation and other needs of the local population.

Comment Number: 000000356-1
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency

Comment Excerpt Text:
The vast majority of shoreline habitat in the Grays Harbor estuary is characterized through the environmental sensitivity index as the shoreline type most severely impacted by an oil spill. Within Grays Harbor, highest priority should be placed on prevention, but rapid and effective containment and response capacity for a worst case spill is needed. This need is reinforced by the types of petroleum products associated with these terminal projects, Bakken crude and biofuels, which are difficult, if not impractical or impossible, to recover during spill response in estuarine or marine areas.

Grays Harbor Geographic Response Plan shows the area includes water bodies with a wide range of response classifications including shallow, calm and protected water, high current, open water, and open rough water (>6' wave height). According to the Region 10 Regional Response Team/Northwest Area Committee listing of regional spill response equipment, all the equipment available, with the exception of perhaps 2 small emergency response trailers, is owned and/or managed by one response organization, Cowlitz Clean Sweep. Response equipment in the immediate vicinity of Grays Harbor and the adjacent offshore area appears to be quite limited in both quantity and suitability for response under various conditions.

Comment Number: 000000356-2
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency
Other Sections: 13.1
Comment Excerpt Text:
Specific recommendations for this EIS scoping are:

• A vessel traffic risk assessment (similar to one completed in March 2014 by George Washington University for northern Puget Sound) is recommended because of the significant increase in commercial vessel traffic anticipated with these proposals. This study and analysis of spill response capacity and needs should be completed before permits are issued for these projects.

Comment Number: 000000356-4
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency

Comment Excerpt Text:
• The EIS should include analysis of the existing spill response capacity for the area and the required expansion of response capacity if each project is operational. This analysis must include both Grays Harbor and the adjacent outer coast of Washington. A professional and unbiased analysis will be required to determine if available equipment includes boom and response vessels appropriate for response in a variety of conditions and spill scenarios, including response to a spill near the estuary entrance or open

marine waters. It appears that existing response capacity for the area is minimal and certainly will require significant investment to match the expanded fuel transport scenarios anticipated with these projects.

Comment Number: 000000356-5
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency

Comment Excerpt Text:
• The EIS should include analysis of the response options associated with the different fuel types and probable fate of spilled materials for the full geographic
scope of the projects - at the facilities, within the estuary, and along the coast outside of the estuary.

Comment Number: 000000356-7
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency

Comment Excerpt Text:
• The proposed U.S. Development Corp project would also increase spill risk and can be considered a reasonably foreseeable project. Therefore, this project should be included in the vessel risk and response capacity analyses.

Comment Number: 000000357-2
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization
Other Sections: 7.4 15 7.3
Comment Excerpt Text:
-Risks of oil spills in our marine environment. Increased vessel traffic and associated increased amounts of oil traveling through waterways mean a higher risk of oil spills, especially given the lack of tug escorts available to tankers. The EIS should also consider what the economic impacts of a spill, including to the shellfish, fishing, and tourism industries, would have on Grays Harbor and the entire region. -Risks from crude oil. Putting in place this infrastructure would allow Bakken crude oil and oil from the Canadian tar sands to come to Grays Harbor. The EIS should include an evaluation of the risks, resources needed to prevent spills, and response required related to these different oils. Bakken shale crude oil has been shown to be more explosive, putting our communities and first responders at greater risks. Tar sands sink and make cleanup of any spills much more difficult and expensive.

Comment Number: 000000357-7
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
Of particular importance is the threat of oil spills and other accidents and the impact based on the type of crude oil -- Bakken shale or Canadian tar sands -- and how, based on the type of crude oil, a spills and accident would be prevented, and, in the case of an accident, cleaned up.

Comment Number: 000000371-2
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization

Comment Excerpt Text:
(2) the capacity for local emergency response teams to mitigate and clean up spills in riparian and estuarine habitats,

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Comment Number: 000000371-7
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization
Other Sections: 15
Comment Excerpt Text:
The EIS should also evaluate the capacity of local spill response teams to control and minimize impacts of spills of varying magnitudes and identify parties responsible to pay for clean-up efforts.

Comment Number: 000000379-1
Organization: Citizens For A Clean Harbor
Commenter: Mary Riley
Commenter Type: Public

Comment Excerpt Text:
We already have a good many polluted sites in Washington, that there is no money to clean up. In the event of a spill, who will pay to clean up Grays Harbor?

Section 7.2 - Noise

Comment Number: 000000013-3
Organization:
Commenter: Libby Hazen
Commenter Type: Public

Comment Excerpt Text:
Noise impact should also be studied.

Comment Number: 000000035-1
Organization:
Commenter: Sandra Sterling
Commenter Type: Public

Comment Excerpt Text:
Noise pollution. We live in a valley directly over the hill from where the trains will be connecting and disconnecting. We already notice how a wood processing plant that is on the port property there echos throughout our valley when it is running. I can't even imagine the noise from trains running constantly banging into each other as they lock up will sound.

Comment Number: 000000046-4
Organization: Friends of the Gorge
Commenter: Gisela Ray
Commenter Type: Organization

Comment Excerpt Text:
All that noisy disruptive traffic would also not be conducive to tourism, a mainstay of the people along the way. I and my husband do have a very important private interest in keeping the Columbia Gorge from being overrun by a pipeline on wheels.

Comment Number: 000000073-3
Organization:
Commenter: Jim Steitz
Commenter Type: Public
Other Sections: 2 9
Comment Excerpt Text:
Even before the climate impacts are considered, the immediate impacts to communities and landscapes between the oil sources and the departure point to the Pacific are numbing. The cities of Spokane and Grays Harbor would suffer an unacceptable diminution of their quality of life due to noise, air pollution, and the omnipresent eyesores of tankers and oil-loaded freight trains. Many other communities along the railroads further east would find additional hours of their day transformed into an acoustic and seismic barrage of rail traffic beyond anything they bargained for in joining that community.

Comment Number: 000000084-2
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Impacts of train horns at at-grade crossings along the rail routes due to increased rail traffic -

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Comment Number: 000000084-7
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 10
Comment Excerpt Text:
Light and noise pollution both at the site and along transport routes -

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Comment Number: 000000137-1
Organization:
Commenter: dale and MargRET VERMILLION
Commenter Type: Public
Other Sections: 7 14
Comment Excerpt Text:
DO NOT INCREASE TRAIN TRAFFIC BY MORE EXPORTS FOR OIL. RURAL CITIZENS LIKE US BEAR THE BURDEN OFCOAL DUST POLLUTION, NOISE, EMERGENCY DISRUPTIONS AT CROSSINGS AND AN END TO OUR PEACEFUL LIFE IN RURAL SETTINGS.

Comment Number: 000000137-2
Organization:
Commenter: dale and MargRET VERMILLION
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
RAILROADS SHOULD PAY FOR NOISE ABATEMENT BY INCREASING R.R. CROSSING ARMS SO TRAINS DO NEED TO BLOW 4 WHISTLES AT EACH CROSSING, OR DO OVERPASSES . CITIZENS SHOULD NOT SUFER THE IMPACTS OF TRAIN TRAFFIC NOR SHOU LD THEIR TAXES PAY FOR INFRASTRUCTURE! STOP EXPORT TO ASIA OR BE RESPONSIBLE BY MITIGATING IMPACTS. R.R'S ARE MAKING BILLIONS AND CAN AFFORD TO PAY THEIR WAY!

Comment Number: 000000142-2
Organization: CCA
Commenter: William Kearse
Commenter Type: Public
Other Sections: 7 14 5.1
Comment Excerpt Text:
The negatives include a significant risk to public safety, potential disaster for the marine and freshwater species that define the Chehalis Basin, dangerous interruptions to EMS, fire, and police operations in towns with only at-grade crossings, increased noise,

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Comment Number: 000000152-1
Organization:
Commenter: Robin Moore
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
It is probable that there will be some noise and odor associated with these two expansion projects. Is there any mitigation plan for the loss of quiet and fresh air?

Comment Number: 000000153-3
Organization:
Commenter: Paul Stormo
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
3. Increased rail traffic and the associated noise pollution, as well as local travel restrictions must be remediated. Tactics such as automated crossing gates along with the related reduction in audible warning 'bells' are appropriate. (Even current train traffic reduces sound sleep for me, 1.5 miles from the tracks.) Cost should be shared by the benefiting corporations (rail as well as petroleum corporations.)

Comment Number: 000000176-14
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
noise pollution from operation of Port Facility or from vessels;

Comment Number: 000000176-24
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
16. Noise and vibration:
• From operation of the Port Facility machinery;
• From increased train, truck and vessel traffic:
• Assessment of potential for increased land/mudslides and derailment
o due to more and longer trains and the associated increase in trains
o vibration;
• Impacts on marine life from significant increase in underwater noise associated with increase in vessels. Impacts and modeling of wake stranding due to vessels.

Comment Number: 000000176-30
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 8
Comment Excerpt Text:

21. Recreational parks and facilities, e.g., Morrison Park
• Accessibility for people attending events at these destinations
• Noise disruption during the event due to increase train traffic
• Community loss of these public venues for events, due to access, noise, safety and the impacts upon a sense of place and community heritage
• Increased safety concerns because of train traffic, train derailment (actual and perceived)
• Access of first responders to any emergencies at the events. We have had emergencies at past events and this is a significant concern to mitigate

22. Business entities rely upon the easy and safe access to their places

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Comment Number: 000000181-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public
Other Sections: 9 2.1 13.1
Comment Excerpt Text:
How will the companies plan to mitigate the array of traumatic and depressive effects that residents will experience for having to look at the blight, hear the noise, smell the oil, and wait for rail cars to pass as they are blocked at the crossing? http://www.dshs.wa.gov/pdf/ppa/2013-15jan14/BHSIA.pdf http://www1.dshs.wa.gov/pdf/ms/rda/research/4/47/updated/graysharbor.pdf

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Comment Number: 000000214-10
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 9 12 11

Comment Excerpt Text:
We are concerned the increased rail traffic for the Imperium and Westway projects could introduce visual and audible elements that might diminish the ability of visitors (including American Indians and Native Hawaiians) to make connections to the historic properties of the district, including in particular, aspects offeeling and setting. Views from inside and adjacent to the Fort, Village and Waterfront Complex may be disrupted, affecting the ability of the visitor to orient to the historical context of the site. Some of these sites may have a special significance to American Indian tribes. The increased rail noise will be a constant distraction that could further diminish the integrity of the setting and feeling of the Fort, Village and Waterfront. The EISs should address indirect effects associated with the increased rail traffic through Fort Vancouver NHS and its affiliated areas.

Comment Number: 000000221-1
Organization:
Commenter: Steve Iverson
Commenter Type: Public
Other Sections: 13.1 14
Comment Excerpt Text:
I OPPOSE new efforts by out of state interests to transport up to 5,250 crude oil tanker railcars per week through the heart of both Downtown and Residential Centralia and Lewis County to enormous new crude oil terminals along Grays Harbor! • Crude oil trains would substantially increase the amount of time traffic through Centralia is completely stopped due to train movement or lack of movement (up to or exceeding 12 hours per day). Crude oil tanker trains are louder than other trains. Horn blasts will occur at all grade crossings day and night. • Response time for Police, Fire and Emergency Medical Response services will increase exponentially due to tracks being blocked by these 1.5 mile long crude oil tankers.

Comment Number: 000000252-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
Both Imperium and Westway plan on 24 hour per day operation, which is a significant increase in the rail traffic hours above the current normal operations of the AGP and Pasha operations. The SEPA checklist, page 30, item B, 1 Noise states “Noises from the project are expected to be similar to Imperium’s current operation and are typical for the area.” The current operations infrequently take place at night, and if they do, only for a limited period. Switching operations to place railcars to be emptied and remove those that have been emptied, with the attendant engine notice and the railcar coupling noises will take place on a 24 hour per day, 7 days a week basis. The same switching operations will occur with similar frequency from the Westway project. What mitigations will be imposed to protect the nearby residents from the never-ending, unpredictable, jerks and clanks from the railcar switching noises?

Comment Number: 000000284-1
Organization:
Commenter: Marisa Salzer
Commenter Type: Public
Other Sections: 13.2 7 13.1
Comment Excerpt Text:
Rail Traffic - Increased one-way traffic of 3.25 trains per day (Imperium 2 per day, Westway 1.25 per day). The increased noise, train emissions, blockage of traffic, potential release of hazardous chemicals within and in close proximity to wetlands, rivers, and creeks will affect quality of life issues of a rural community. With the downtown core located within feet of the railroad tracks, Increased rail traffic may

reduce tourist traffic when the main entrance to downtown is blocked by trains. Old Rail Bridges - Just outside my city, rail briddges over the Satsop and the Wynooche rivers (which flow to the ocean) and have been documented by local citizens of their apparent deteriorating condition, and create an environmental concern should a train derail and crude oil be spilled into those water ways.

Comment Number: 000000285-4
Organization:
Commenter: Beth Kaeding
Commenter Type: Public

Comment Excerpt Text:
Increased train traffic would mean more noise.

Comment Number: 000000296-1
Organization:
Commenter: Steve Hallstrom
Commenter Type: Public
Other Sections: 7.4 3.1 5.1 8
Comment Excerpt Text:
Impacts that need to be considered relevant to agriculture in Grays Harbor County: Contamination of water in the event of a spill. Noise pollution and its affect on dairy, and on the farmers who work long hours year round. Destruction of shellfish beds due to dredging for larger ships in the harbor. Blockage of farm and field access due to increased rail traffic. Potential contamination of shellfish beds in event of a spill.

Comment Number: 000000305-1
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 13.1 14 15
Comment Excerpt Text:
1. Community Impacts: The effects of more trains causing traffic backups that will limit accessibility between homes, businesses, emergency resources, including police and fire fighters.Decrease in land and property values due to increased rail disruption, noise and vibrations. Increase in Home Owners Insurance for areas affected by the rail.

Comment Number: 000000308-4
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency

Comment Excerpt Text:
Noise –

There are at least 26 at-grade crossings within Vancouver city limits, and many of these are unsignalized crossings. Impacts from train horn, locomotive and rail car noise to nearby residents or employees should be studied in the EIS.

Comment Number: 000000331-1
Organization: citizen

Commenter: Judy Carter
Commenter Type: Public
Other Sections: 1.1 5.1 10
Comment Excerpt Text:
Noise and vibration: from operation of the Port Facility machinery, and increased train, truck and vessel traffic: Assessment of potential for increased land/mudslides and derailment due to more and longer trains and the associated increase in trains, and vibration; Impacts on marine life from significant increase in underwater noise associated with increase in vessels. Impacts and modeling of wake stranding due to vessels. Light pollution at night from Facility and vessels.

Comment Number: 000000339-6
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
Operational Noise
The EIS should analyze the amount of noise that will likely be generated during operation at full capacity. Both periodic and cumulative impacts of noise generated from this project on eulachon migratory and spawning behavior, salmon, sturgeon, marine mammals, shorebirds, and other species, during operation of the proposed terminal should be examined. How will any changes in noise be monitored over time to assure there are no adverse impacts to eulachon and other species?

Comment Number: 000000354-2
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency

Comment Excerpt Text:
Noise:
There are at three at-grade crossings within Ridgefield city limits adjacent to developed areas. Impacts from train horn, locomotive and rail car noise to nearby residents or employees should be studied in the EIS.

Comment Number: 000000358-12
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5
Comment Excerpt Text:
e. WDFW has documented active bald eagle and great blue heron nests in the bay approximately one mile from the proposed site. The potential effects of construction noise should be addressed if it occurs during times that overlap with the breeding season, and the impacts associated with increased barge and vessel traffic passing by these nests within relative close proximity to the colonies should be analyzed.

Comment Number: 000000363-2
Organization: Washington State Legislature
Commenter: Reuven Carlyle
Commenter Type: Agency
Other Sections: 13.2 13.4 2.1
Comment Excerpt Text:
II. Impacts of additional rail and vessel traffic The Westway and Imperium expansion projects will significantly increase rail traffic along Washington rail lines and vessel traffic through Washington waterways, and the impacts of this additional traffic must be reviewed by the agencies.

Rail traffic will likely cause congestion at rail crossings, increased air and noise pollution along rail corridors, and increased rail maintenance and improvement costs. Out-of-state oil shipments are also likely to have an impact on the movement of key commodities within Washington, as the agriculture and aerospace industries, among many others, rely on rail to transport goods. Vessel traffic has the potential to interfere with marine wildlife, congest already busy shipping lanes, and impact local fisheries.

Comment Number: 000000370-4
Organization:
Commenter: Mike Petersen
Commenter Type: Public
Other Sections: 13.2 14 13.1 2.1
Comment Excerpt Text:
Giant unit trains of oil, like unit trains of coal, would impact existing rail infrastructure (with taxpayers paying for said impacts or needed improvements / expansion), increase health risks from diesel particulates, contribute to traffic congestion and slow emergency response, increase noise pollution, air pollution, environmental risks, and more.

Section 7.3 - Risk of fire or explosion

Comment Number: 000000003-1
Organization:
Commenter: Garrett Phillips
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
I'm concerned that Washington residents who could be affected by oil trains, and who could be affected by marine oil ships will not have adequate opportunities to comment on and affect the scope of this EIS. The oil that is to be carried to the proposed terminals will travel across the entire state of Washington on trains. At least two additional scoping meetings should be held farther east along the proposed train route. While its true that residents of these central and eastern Washington communities can comment using mail service or the internet from the comfort of home,they should be provided more substantial opportunities for comment. Essentially they should be given actual scoping meetings. they should be given actual scoping meetings because their is real potential for substantial impacts to their communities. This is undeniable after the four recent explosive oil train crashes in Quebec, Alabama, New Brunswick and North Dakota. The extent of damage, and loss of life in the Quebec accident shows that even if there is low probability of such an event occurring, the potential impacts must be studied, and the people in communities along the real line need an opportunity to speak publicly to Department of Ecology and their peers about their concerns and about what they want the scope of the EIS to include. our of these trains

have recently blown up in derailments: Quebec (47 dead, the town a wreck), Alabama, New Brunswick and North Dakota.

Comment Number: 000000016-1
Organization: Mr
Commenter: Rodney Tharp
Commenter Type: Public
Other Sections: 13.2 13.3 7.1
Comment Excerpt Text:
Include in your EIS the impact on all the towns and cities that the oil trains will pass through or near. This should include public safety, safety from spills and exploding oil cars as well as accumulative rail congestion from all the increased train traffic of all state wide projects.

Comment Number: 000000024-4
Organization:
Commenter: Anne Elkins
Commenter Type: Public

Comment Excerpt Text:
And this lighter fuel is so much more combustible than others that the growth has sparked significant accidents and close calls. The Seattle times recently had an article about this which stated: "Last summer, an unattended oil train in Quebec rolled free and derailed, sparking fires that killed 47 people. Another oil train spilled 21 carloads of oil in fragile wetlands in Alabama, sparking fires. Another oil train exploded in North Dakota in December. “I think we’re taking bombs through our cities,” Ben Stuckert, the Spokane City Council president, told another legislative panel in Olympia after expressing his worry about elevated tracks bringing dangerous oil trains through his community." These risks are far too great and the burden will fall on the every day citizens who live here-it is our lives that will be ruined.

Comment Number: 000000028-3
Organization:
Commenter: Tori Kovach
Commenter Type: Public

Comment Excerpt Text:
3) What will be done to prevent explosions of rail cars as fumes from them off gas during a lightning storm while they are being unloaded or waiting to be unloaded in Hoquiam? What are the fire risks of standing crude oil trains in our communities?

Comment Number: 000000031-2
Organization: Health Care for All-WA
Commenter: Martha Koester
Commenter Type: Organization

Comment Excerpt Text:
Oil spills and train explosions are serious threats. Currently, there are 10 proposals in Oregon and Washington which would raise the capacity to 785,000 barrels per day with 11 loaded trains carrying this highly flammable fossil fuel.

Comment Number: 000000032-2
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes

Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
Oil refineries and the trains and tanker ships that feed them, have explosions and leaks annually, polluting the likes of the Bay Area, in CA—people there just live w/ it; far-reaching consequences ripple under everyone's radar daily, while corporations tell people nothing is wrong. WHY would anyone think it would be safer in Grays Harbor Co.? HOW MANY spills, explosions etc. must happen before industries, and by FEMA, think it's a problem?

Comment Number: 000000032-5
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
Blast zones in previous Bakken oil train explosions = 1/2 mile. Context: Oakville, or any town near a blast zone, would be obliterated. School, churches, businesses, citizens, would be dead or injured. The injured would be then a chronic cost to many systems; GHC has inadequate Emergency Services for this. HOW many people believe it's OK that industries consider people, their property and the environment, as “acceptable losses”?

Comment Number: 000000046-3
Organization: Friends of the Gorge
Commenter: Gisela Ray
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
Any accidents,spills, explosions would be a disaster to the communities, the Columbia and its fish and the Scenic landscape.

Comment Number: 000000052-2
Organization:
Commenter: Sharon Rickman
Commenter Type: Public

Comment Excerpt Text:
The Pacific Northwest is at the crossroads of becoming the largest transporter of dirty “fracked” oil from the Midwest. This is the same crude oil in the derailment and explosion in Lac-Megantic, Quebec that killed 47 people. The city of Seattle called for a statewide moratorium on new oil by rail infrastructure. It is time for all cities along the rail corridor to follow suit. I urge community leaders to join Seattle and pass a resolution for a statewide moratorium on oil by rail until the DOE can study the cumulative environmental and safety impact for all communities from North Dakota to Grays Harbor.

Comment Number: 000000054-1
Organization:
Commenter: Carol Rose
Commenter Type: Public
Other Sections: 13.3 7.4
Comment Excerpt Text:
I care for that region's welfare as well as for my own Vancouver. The cumulative proposed oil train cars traveling through our state is monumental. The potential dangers grow exponentially. Current rail cars are

inadequate. Even safer rail cars are not safe, simply less dangerous. This type of oil sinks and is more difficult, if not impossible to clean up. It is more volatile and explosive.

Comment Number: 000000071-1
Organization:
Commenter: Carol Brumfield
Commenter Type: Public

Comment Excerpt Text:
I have many concerns about the oil trains moving through my county. I worry about the possibility of an accident which would lead to an explosion. The tracks run right through my town and this would not be acceptable.

Comment Number: 000000073-4
Organization:
Commenter: Jim Steitz
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
These oil-freighted trains have compiled a poor safety record in recent months. Their load of heavy crude is known to be even more explosive than lighter-grade oils, and human life is placed at unacceptable risk by running these loads on a recurring basis immediately adjacent to rail-line towns.

Comment Number: 000000081-1
Organization:
Commenter: Jana Wiley
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
I do not believe that WA State is ready to deal with the potential hazards of this new version of crude oil. Already we have seen multiple other derailments and fires, where the only immediate remediation is to (1) Let it leak and burn until it is done, as it it too dangerous to approach and do anything, other than to evacuate and keep people away.

Comment Number: 000000087-1
Organization:
Commenter: Herb Hethcote
Commenter Type:
Other Sections: 13.3 7.4
Comment Excerpt Text:
The two proposed oil storage facilities would allow many oil trains with some old, unsafe oil tanker cars to cross our state. These trains have derailed over 6 times in the past several months and spilled volatile oil. There have been some explosions and some deaths.

Comment Number: 000000106-1
Organization:
Commenter: Jan Verrinder
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
My concerns about oil-- -Explosions, derailments, human error and the variety of reasons causing

multiple oil-by-rail catastrophes in 2013 and now in 2014. -Oil cars, to be replaced with safer designs, but operational until then—and the news that the safer ones are also failing.

Comment Number: 000000106-3
Organization:
Commenter: Jan Verrinder
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
-Fracked oil's increased combustibility and fracking's damage to the earth. -

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Comment Number: 000000117-1
Organization: A concerned citizen participating in the democratic process
Commenter: Abby Brockway
Commenter Type: Public

Comment Excerpt Text:
I am writing to request that you study the many impacts and aspects of expanding the proposed project Westway project dealing with volatile fracked oil that has been found to be a very unstable substance because of the chemicals added together to make the tar sands viscosity able to flow. This volatile solution has spontaneously combusted causing trains to derail weekly in many regions of the country. Please study and regulate the temperatures at which these products can be stored and transported. I would also ask that you study the impacts of the increased safety by pipeline safety carrying this unstable product.

Comment Number: 000000118-1
Organization: a concerned citizen
Commenter: Abby Brockway
Commenter Type: Public

Comment Excerpt Text:
I am writing to request that you study the many impacts and aspects of expanding the proposed Imperium project. This company has been dealing with renewables but is proposing to expand up to 9 storage tanks of many different chemicals. Please study the danger of mixing and contamination of the combination of volatile liquids. I request the study of the stability and safety requirements to transport and the possibility on mixing the chemicals. Please study the instability of the temperature at which some of these chemicals explode.

Comment Number: 000000123-2
Organization:
Commenter: Kristin Hermenegildo
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
Here are a few of my concerns. 1. The risk of derailment. If one of these trains were to derail, it could cause an explosion. These trains will be coming through our neighborhoods, and an explosion could cause fires structural damage to our homes and neighborhoods. There is also a possibility that an explosion could cause loss of life to some of Hoquiam's residents. There have been two recent derailments in Aberdeen within the last month alone. Derailment is a likely possibility and a huge risk for the city of Hoquiam.

Comment Number: 000000141-2
Organization:
Commenter: Judy Staigmiller
Commenter Type: Public

Comment Excerpt Text:
Crude oil is a dangerous thing to transport - not just in Washington but all along the rail route. With increased rail traffic there is a greater chance of derailment followed by explosions.

Comment Number: 000000146-4
Organization:
Commenter: Lynne Dixon
Commenter Type: Public

Comment Excerpt Text:
A higher potential for derailments, which can be explosive and life-threatening when trains are carrying crude oil;

Comment Number: 000000159-1
Organization:
Commenter: Karen and Ronald Siebrass
Commenter Type: Public
Other Sections: 7 13.3
Comment Excerpt Text:
My husband and I are very worried about our personal as well as environmental health and safety jeopardized by the transportation of oil and coal along the waterfront. We live on the bluff and already count multiple trains per day with well over 100 cars of uncovered,heaping coal and containers of oil. The possibility of derailment or explosion and the tons of coal dust distributed in our air are our primary fears. We live 100' above the tracks and listen to our glasses in our cabinets bump against each other as the passing train shakes the ground. The idea of another terminal with significantly more train traffic containing these hazardous materials is frightening. I am a Snohomish County Beach Watcher volunteer who has been trained in environmental impacts on our waterways. The more I learn, the more worried I am about our water quality, fish and habitat and the future of our beautiful area.

Comment Number: 000000174-1
Organization: Twin Harbors Fish & Wildlife Advocacy
Commenter: Tim Hamilton
Commenter Type: Organization

Comment Excerpt Text:
The oil would enter the port by train and transferred to ships and barges. In addition, highly flammable and toxic refined products such as naphtha, gasoline, and diesel would enter by ship or barge and exit the Port by rail as well. The three recent disrailments occurring on the “old and tired” rail system designed primarily for non-hazardous cargoes such as timber products is clear evidence the track system is not a safe route for high volumes of hazardous cargoes.

Comment Number: 000000174-3
Organization: Twin Harbors Fish & Wildlife Advocacy
Commenter: Tim Hamilton
Commenter Type: Organization
Other Sections: 13.1

Comment Excerpt Text:
The risk of fire and traffic problems that will effect all the towns and local residents whom live along the tracks present a clear and precise threat to the citizens health and welfare.

Comment Number: 000000175-1
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
The volume of petroleum-by-rail moving through Grays Harbor County is expected to significantly increase; and

The primary source of the petroleum anticipated to be transported by rail through Grays Harbor County is from the Bakken formation, which the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration has determined may be more flammable than traditional heavy crude oil; and

The rail lines that will carry this petroleum run through and by Grays Harbor communities, business and industrial areas, and along our waterfront, creeks, and other sensitive natural areas; and

Recent derailments, spills, and fires, such as the recent derailment and explosion in Casselton, North Dakota, illustrate the potential catastrophic impacts which could occur to our community and environment from the transport of petroleum by rail; and

As a County Commissioner of Grays Harbor, I am deeply concerned about the threat to life, safety and the environment of potential spills and fires from the transport of petroleum by rail,

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Comment Number: 000000175-3
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency

Comment Excerpt Text:
I strongly urge the U.S. Department of Transportation (DOT) to increase federal tank car design and operation regulations for petroleum product shipments and aggressively phase out older-model tank cars used to move flammable liquids that are not retrofitted to meet new federal requirements.

Comment Number: 000000176-41
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:

(j) There should be a discussion that all of the terminal areas have natural gas available. What would be the likelihood of crude oil igniting due to catastrophic incident that severs gas lines?

Comment Number: 000000185-1
Organization:
Commenter: Shelli Hopsecger
Commenter Type: Public
Other Sections: 7.1 7.4 13.3
Comment Excerpt Text:
This specific Environmental Impact Study should focus on the two projects that are being proposed by companies with proven records as good corporate citizens. Have the companies offered to invest in equipment and training for first responders? The Study should accurately weigh the risks -- what percentage of crude being shipped by rail has been leaked into the environment? What have been the affects - short-term and longterm on the environment? Were clean-up response plans in place? What can be learned from these outcomes to better position ourselves? What is the percentage of rail cars that have been involved in derailments, what type of car were involved, will these cars be allowed to move crude when these projects are approved? Given these percentages, what is the REAL likelihood of an accidental spill, derailment or explosion? While nobodies wants these things to happen we must be realistic in our assessment of risk.

Comment Number: 000000188-2
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization

Comment Excerpt Text:
-Unique characteristics of Bakken crude and Canadian Tar Sand oils: These types of crude oil have been shown to be more explosive, prone to sinking, and difficult to contain than oil from other sources.

Comment Number: 000000209-2
Organization: none
Commenter: Lyle Olmsted
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
Having helped to plan and then participate in an emergency exercise like the one that happened in eastern Canada several months ago, I, and a lot of other Centralia residents, do not want those trains coming through our City. We are not being told a whole lot about the contents and the hazards from those contents, but believe me, when you begin to study the effects of a train disaster in or near Centralia or Chehalis, it becomes a very scary situation. Either City could have the entire downtown and adjoining residential districts virtually wiped out. Casualties from explosions, fires, and poisonous gases would be horrendous, and property damage would be in the millions.

Comment Number: 000000215-1
Organization: self
Commenter: Max Vogt
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:

It is my understanding that there are 500+ railcar derailments in the US every year. It is also my understanding that oil cars can and will explode in a derailment and cannot currently be prevented. There is no way to guaranty that they won't explode. They are much more precarious and delicate to explosions than an average automobile. Would we allow these oil train cars on our freeways? In my opinion, given these facts, our state government would be committing criminal negligence as soon as we have a death in our state from an exploding railcar. We know it will happen. We just don't know how soon. Why would Washington State do this to us? How can the state allow this? If our State allows this, we need to hold a "death watch," to alarm citizens of what will happen and what is coming. We must be prepared and not surprised, when people die, as well as hold responsible those who think this is a cool idea.

Comment Number: 000000221-3
Organization:
Commenter: Steve Iverson
Commenter Type: Public
Other Sections: 7.4 13.3
Comment Excerpt Text:
• Crude oil spills by train are 2.7 times more likely to occur than those by pipeline. Rail accidents occur 34 times more frequently than pipeline accidents for every ton of crude shipped comparable distances. The crude oil trains proposed will be up to 1.5 miles/125 cars long, and as a result harder to control, increasing the risk of something going wrong. Our area's aging rail and bridge infrastructure, much of it built on often saturated flood plains, has not been sufficiently assessed for suitability to this additional rail traffic, with each tanker car weighing up to 143 tons. • This crude oil is classified as more highly flammable than gasoline by the NFPA, placing Centralia residents along the line at risk for both fire and explosion (Note neighboring Montesano has had two train derailments in recent years.). • A single crude oil spill could severely damage drinking water, groundwater and marine resources, as well as hunting, fishing, agricultural, commercial and recreational resources in Centralia and Lewis County.

Comment Number: 000000229-9
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency

Comment Excerpt Text:
Increased fire risk
The increase in rail traffic would increase the probability of new fire starts and wildfires. Over the past ten years the CRGNSA has responded to 61 fires that have started on or near the railroad tracks. These fires can result from sparks emitted by railcar brakes or engine turbochargers, or from rail grinding, welding, and other rail maintenance and repair activities. During dry and windy conditions these sparks can be blown for a considerable distance, igniting fires both within and well beyond the immediate vicinity of the tracks. The main fire season is typically June through mid-October. Within the Columbia River Gorge, the railroad companies try to conduct the great majority of welding and grinding outside of the primary fire season. However, the additional rail traffic associated with the Westway, Imperium Renewables and other oilhandling facilities proposals would probably increase grinding and welding work throughout the year, including during fire season.

When initial fire starts occur on lands managed by the Forest Service, the agency dedicates its resources toward initial attack to suppress these fires. This adds a burden to the financial and human resources of the agency and increases risks to human life, property, and other natural and cultural resources. Wildfires emit air pollutants, including smoke and greenhouse gases, which have known potentially harmful direct or indirect effects.

We request that the environmental analyses for the Westway and Imperium Renewables projects fully consider the increased fire start risk associated with the transport of oil to these facilities.

Comment Number: 000000230-1
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 7.4 13.1 13.2 14
Comment Excerpt Text:
NOW THEREFORE,

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF HOQUIAM, WASHINGTON, IN REGULAR MEETING DULY ASSEMBLED, AS FOLLOWS:

SECTION 1. The City of Hoquiam supports the creation of clear Federal guidelines to immediately implement safety regulations concerning older-model tank cars used to transport petroleum, train speeds, and other identifiable hazards associated with petroleum.

SECTION 2. The City of Hoquiam strongly urges the U.S. Department of Transportation to increase Federal tank car design and operation regulations for petroleum product shipments by rail and aggressively phase out older-model tank cars used to move flammable liquids that are not retrofitted to meet new Federal requirements.

SECTION 3.The City Council of the City of Hoquiam urges the State Department of Ecology and City of Hoquiam staff responsible for the permitting of petroleum terminals to address and study the following issues prior to the issuance of any permits:

· Potential impacts associated with oil spills athe project site or during transit by rail or vessel.
· Disruption to vehicle traffic during construction and after operation of the facilities commences, including the potential for increased emergency response delays.
· Vehicle safety at railroad crossings.
· Analysis of train and vehicle delays and safety issues.
· Potential for increased rail congestion and delays that would contribute to safety concerns including the potential for increased vehicle delays at railroad crossings.
· Analysis of safety considerations related to transport of petroleum associated with infrastructure, including an evaluation of trackage, railroad crossings, water crossings, and the safety of cars transporting oil.
· Analysis of effects on public transit, pedestrian access and parking within Hoquiam, and Grays Harbor County.
· Potential for and extent of increased risk of spills, fires, and explosions during rail transport, from infrastructure failing, accidents, or natural disasters.
· Evaluation of emergency response, including preparedness planning.
· Identification of responsible parties and required emergency response, including equipment and materials, to address worst-case scenarios.

Comment Number: 000000230-4
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 15 7 7.4
Comment Excerpt Text:
RESOLUTION NO. 2014 –
A RESOLUTION of the City Council of the City of Hoquiam, Washington, related to petroleum transport by rail and vessel through the City of Hoquiam, Grays Harbor County, and the State of Washington, urging regulatory agencies to study public safety, environmental, and economic impacts of petroleum transport by rail and vessel.

WHEREAS, the City of Hoquiam is committed to the protection of its citizens and protection of the environment, and is concerned about the potential economic impacts of petroleum transport by rail and vessel; and

WHEREAS, recent train derailments in Grays Harbor County, as well as other regions, together with spills, fires and explosions involving trains transporting petroleum illustrate the potential catastrophic impacts which could occur to our community and environment from the improper transport of petroleum by rail;

Comment Number: 000000239-1
Organization:
Commenter: Janet Bess
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
If the oil terminals come to town the town is doomed. I will put my home on the market and move out of here along with so many other people. I have stuck it out through the hard times and working at doing my part to improve this community but I won't stay if oil comes to town. It will be intolerable having the trains come through day and night, as it is I'm about 10 blocks away from the tracks and I am woken up almost nightly by the train horns, with the oil this will increase exponentially. The risk of explosion is far to great and you are putting my life in jeopardy so the oil company can line their pockets.

Comment Number: 000000249-2
Organization: Lewis County for Safe Rails
Commenter: Larry Kerschner
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
There are 10 rail terminals planned or under construction in Washington and Oregon. One Tesoro facility has been completed in Anacortes, WA. Others include: 2 in Anacortes; 2 in Ferndale; 1 in Tacoma; 3 in Hoquiam;1 in Vancouver; and 1 in Clatskanie, OR. If all terminals proposed for Washington are completed, it would mean approximately 12 loaded 100 car crude oil trains a day. That is 1,200 DOT-111 rail cars, which the National Transportation Safety Board has stated are unsafe, would carry 800,000 barrels of Bakken crude oil every day through the State of Washington. A large portion of these trains would run right through the middle of Lewis County. A recent safety alert from the U.S. Department of Transportation warned the public, emergency responders, and oil shippers of the particularly high volatility of crude oil from the Bakken oil patch in eastern Montana and western North Dakota. The officials from DOT declared that Bakken's light, sweet crude oil is prone to ignite at lower temperatures

that other crude oil due to the high percentage of inflammable vapors given off. Bakken crude oil has approximately three times the vapor pressure (evaporation rate of volatile compounds) of Louisiana Light Sweet crude from the Gulf of Mexico. The combination of a low flashpoint (the lowest temperature at which ignition can occur) and high vapor pressure of Bakken crude makes it highly likely to ignite and explode in the event of a punctured rail car. On July 6, 2013 a train carrying Bakken crude derailed in the small Canadian town of Lac Megantic, Ontario. The resulting fire and explosions killed 47 people, destroyed more than 30 buildings in the town center with a blast radius of 0.6 miles. Heat from the fire was felt over a mile away. Picture this happening in Vader, Winlock, Napavine, Chehalis or Centralia where the train tracks cross roads near schools. Would our local emergency management personnel be prepared for such a disaster? If the proposed terminals planned for Hoquiam are not built, it will significantly reduce the risk to people living in Lewis County. Contact all elected officials in our communities and tell them to bring whatever pressure they can to stop the terminal construction in Grays Harbor. There is no advantages only risk to Lewis County residents from these explosive trains moving like bombs through our communities.

Comment Number: 000000265-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
"Due to the flammable nature of Bakken formation crude oil, there is the possibility of a fire inside the terminal, requiring the response of both local fire departments to help bring the fire under control." The design of the Westway terminal, and the area constraints of the Port of Grays Harbor site will make it difficult to bring enough equipment to keep a fire in one storage tank in check. The nature of the crude oil makes it impossible to extinguish a tank fire. The combined resources of the Aberdeen and Hoquiam water supply are not sufficient to keep such a fire in control, preventing it from spreading to additional storage tanks. Additional water storage tanks, larger mains and pumps should be required to assure adequate volume and flow capabilities to prevent a fire from spreading to additional tanks. In the event of a small fire, the requirement of having foaming equipment in both cities that is compatible should be required. Both fire departments must be trained in foam equipment and its use Adequate supply of foaming agent containers for suppressing an 8 hour fire must be required, and their expiration dates monitored to assure the foamant is still usable.

Comment Number: 000000267-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 14 13.2
Comment Excerpt Text:
To date there has been no public display of the Westway Terminals Hoquiam five-tank layout, which is a change from the previous four-tank layout (attached). Access to the "northerly tanks", even in the four-tank layout would have been constrained. Adding the fifth tank will make the tank to tank spacing much less than with the four tanks. Access to the tanks if there were a fire will be difficult, as the access is blocked by the southerly tanks and the port rail loop tracks. Please address the emergency access constraints that are exacerbated by the addition of the fifth storage tank. If access cannot be maintained, the addition of the fifth tank must be denied.

Comment Number: 000000276-4
Organization:
Commenter: Diana Gordon
Commenter Type: Public

Comment Excerpt Text:
Further, the sweet, light crude that it produces is highly explosive and, therefore, unsafe to ship in ANY existing rail cars.

Comment Number: 000000279-2
Organization:
Commenter: James Thomas
Commenter Type: Public

Comment Excerpt Text:
The Imperium and Westway EISs should address explosive hazards of both oil transport involving oil from the Bakken shale formation as well as Alberta's tar sands.

Comment Number: 000000280-6
Organization:
Commenter: Karl Goeres
Commenter Type: Public

Comment Excerpt Text:
The rail line also runs through the center of several towns in the county. Explosions similar to recent events across the rest of the country could wipeout entire communities.

Comment Number: 000000283-1
Organization:
Commenter: James George
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
1. Primary concern is that there is no fire equipment adequate to fight a light crude fire. It could easily spread to most of Hoquiam. It seems totally unfair that we would have to buy such equipment to reasonable protect ourselves while others profit.

Comment Number: 000000283-2
Organization:
Commenter: James George
Commenter Type: Public

Comment Excerpt Text:
2. Sour crude exists in some North Dakota wells. The oil companies tried to ship it via pipeline but the pipeline engineers stopped them. A RR car full of that is unlikely to be caught by the RR because shipping oil is not their primary business. Sour crude has hydrogen sulfide which eats iron (must be processed in stainless steel to be safe). If the oil companies try to trick the pipeline they will easily trick the RR. It is highly poisonous and highly explosive. It will eat its way through valves.

Comment Number: 000000300-1
Organization:

Commenter: Diana Gordon
Commenter Type: Public
Other Sections: 13.2 13.3
Comment Excerpt Text:
One of the many concerns I have about the plans for the terminals in Grays Harbor is the cumulative effects that all this oil will have on the communities and the environment along the way. These terminals will increase rail traffic through the area by 3 or 4 unit trains per day. This oil contains a substantial amount of dissolved propane and is therefor rather explosive. If Grays Harbor were the only place this oil was going to, maybe we could live with the risk, however catastrophic. However, there are at least 10 other proposals including one for Vancouver which would be the largest oil terminal on the West Coast. These proposals together will transform the rail route into a fossil fuel corridor susceptible to spills and explosions on an unprecedented scale.

Comment Number: 000000305-3
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
3. Derailments: There have been three derailments in the last three weeks in Grays Harbor county. The April 29, 2014 was investigated and determined to be cause due to "heavy rain". Considering this area has some the highest rain levels in the continental United States,how will this be mitigated? 4.Public Safety:Increased safety concerns because of crude by rail, including,automobile and train collisions,derailment accidents and explosions (actual and perceived).

Comment Number: 000000308-5
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency
Other Sections: 13.3 14
Comment Excerpt Text:
Risk of Fire, Spills and Explosion –

Bakken crude oil is recognized as being highly volatile. The disaster at Lac-Megantic, Quebec, in which 47 lives were lost, demonstrates beyond question the danger posed by shipping this commodity through population centers. Analysis should include a review of the Federal Railroad Administration's "Operation Classification" undertaken due to its "specific safety concerns about the proper classification of crude oil being shipped by rail, the subsequent determination or selection of the proper tank car packaging used for transporting crude oil, and the corresponding tank car outage requirements." The Association of American Railroads [Footnote 2: The AAR is a trade association whose membership includes freight railroads that operate 82 percent of the line-haul mileage, employ 95 percent of the workers, and account for 97 percent of the freight revenues of all railroads in the United States.] recently commented to the Pipeline and Hazardous Materials Safety Administration on the need to revise and upgrade the standards for DOT-111 cars used to transport crude oil. [Footnote 3: See AAR comments submitted in Docket NO. PHMSA—2012—0082.] The EIS needs to identify the potential for the risks of explosion and if and how those can be mitigated to nonsignificant levels. The mitigation measures to be analyzed need to include the proper equipping of first responders.

Comment Number: 000000320-3
Organization: City of Washougal
Commenter: Sean Guard
Commenter Type: Agency
Other Sections: 13.3 7.4
Comment Excerpt Text:
In addition, there is the concern of safety. Since the train derailment and explosion in Quebec in July of 2013 there have been four other incidents of derailments or spills involving oil trains. In fact, there have been at least 10 instances since 2008 of freight trains hauling oil derailing and spilling nearly 3 million gallons of oil (twice as much as the largest pipeline spill in the U.S. since at least 1986) with most of the accidents touching off fires or catastrophic explosions.

Comment Number: 000000326-1
Organization:
Commenter: Barbara Scavezze
Commenter Type: Public
Other Sections: 15 13.1 13.3 14 7.4
Comment Excerpt Text:
Please consider the following: 1)climate change impacts caused by drilling, shipping and burning petroleum products and biofuels 2) the ability of train tracks to safely transport increased train traffic carrying very heavy loads 3) the impact on traffic congestion at railroad crossings in affected communities 4) the potential for deadly explosions, and the ability of emergency management personnel to handle them 5) the impact on Puget Sound and other waterways if any of the shipping containers or storage facilities leak.

Comment Number: 000000335-5
Organization: Ms.
Commenter: Tammy Domike
Commenter Type: Public
Other Sections: 13.3 14
Comment Excerpt Text:
Please consider this aspect raised by EarthIsland today: "...Yet, as a recent Earth Island Journal investigation found (read, “Warning, Highly Flammable”), despite the rapidly growing business of shipping crude by rail across North America, the railroad industry has been slow to provide even rudimentary information to local officials and emergency responders about shipments of Bakken crude." and "An air of secrecy has surrounded the booming oil by rail industry since last year’s devastating accident in Lac-Megantic. Since then trains carrying Bakken crude have derailed in Alabama, North Dakota, Pennsylvania, and now Lynchburg. No new regulations, other than the DOT’s recent emergency order, have been issued. The industry continues to argue that oil from the Bakken formation is no more dangerous than other forms of crude." How will responders be able to put out a fire if they are not informed as to what it is? How will we know how air is affected if we don't know what is in Bakken Crude? There simply are not enough regulations in place to safely approve this project going forward. Please do not assume the regulations will catch up afterwards

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Comment Number: 000000339-17
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
Fire Risk
The EIS should analyze additional wildlife risk for lands covered by DNR fire suppression responsibilities along existing rail rights-of-way that will anticipate increased traffic carrying crude oil. How will the increased volatility of Bakken crude oil be mitigated? Chapter 76.04, RCW and Chapter 332-24, WAC provide requirements regarding landowner and operator responsibilities related to fire prevention and fire hazard abatement. The EIS should identify all reasonable measures to prevent and minimize the start and spread of fire on forested areas adjacent to rail corridors. Construction site safety operating procedures should include compliance with the substantive requirements of Chapter 332-24-301, WAC (Industrial restrictions) and Chapter 332-24-405, WAC (Spark emitting requirements).

Analysis and proposed mitigation measures should be undertaken that will anticipate increased rail traffic associated with Bakken and Tar Sands oil. The EIS should analyze the potential increased risk of explosion and resulting wildfire from the additional train traffic through or adjacent to forest and grass lands.

Comment Number: 000000344-4
Organization:
Commenter: Janet Strong
Commenter Type: Public

Comment Excerpt Text:
6. Effects of train derailments, their increased frequency, explosive contents, massive fires and air pollution from such fires, communities' ability to respond, evacuate, treat, etc. citizens;

Comment Number: 000000345-1
Organization: Clark County Fire & Rescue
Commenter: Tim Dawdy
Commenter Type: Agency
Other Sections: 14
Comment Excerpt Text:
Fire District Concerns • The addition of trains carrying hazardous materials will compound fire and health risks to the residents of the fire district. • Access to remote sections of the rail line is problematic for the fire district. Provisions for fire district access should be made by BNSF. • Firefighting equipment access and Emergency Medical Service access must be provided. • Equipment for the transport of the sick and injured should be provided by BNSF. • Methodology for the rapid application of firefighting foam in these remote locations. The Fire District has no provision for the application of firefighting foam in these locations. BNSF should provide local foam resources to meet this need.

Comment Number: 000000347-1
Organization: Private citizen
Commenter: Brian Sterling
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
I believe that I can offer a somewhat different and technical perspective on the hazards of transporting crude oil by railroad. I am a degreed chemical engineer with many years of experience working in the petroleum refining, storage and transportation business. I was the General Manager of a 600,000 BPD (barrels per day) petroleum refinery in the US Virgin Islands for Hess Oil Virgin Islands Corp. I have

fought many major petroleum fires, where, as the Refinery Manager, I was the Incident Commander on site. As a result of my experience, I am quite familiar with the hazards of handling petroleum products, and particularly "wild" or high vapor pressure crude oil. I have personally witnessed boiling liquid, expanding vapor explosions (or BLEVEs) similar to the one that launched a rail car over 3600 feet in Murdoch, Illinois in 1983. I do not believe that our communities have the resources to fight large scale oil fires, which are much different than residential or commercial structural firefighting.Petroleum firefighting takes specialized training, specialized equipment, and massive quantities of firefighting foam concentrate to safely fight these fires. I know because I have done it. Without such equipment, our firefighters will put themselves at grave risk should a major fire occur. My question is, who will provide the necessary personnel and equipment to fight oil fires when (not if) they occur? And who will pay for it? Will the burden be placed on our local fire departments? If so, are our local fire chiefs aware of this? I request that these issues be addressed under the scope of the Environmental Impact Statement for the proposed projects. I would like to state my belief that Bakken crude oil is far too dangerous to transport in atmospheric rail cars such as the obsolete and fragile Type 111 cars that are prevalent. I do not want these in my town, or any other town. I want the people living along the rail lines, and the firemen that protect them, to understand how much risk this poses to them and their fellow citizens.

Comment Number: 000000354-5
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 7.4 14
Comment Excerpt Text:
Risk of Fire, Spills and Explosion:
Bakken crude oil is recognized as being highly volatile, as are all petroleum products that may be shippe d to the new term ina ls. The disaster at Lac-Megantic, Quebec, in which 47 lives were lost, demonstrates beyond question the danger posed by shipping this commodity through population centers. Analysis should include a review of the Federal Railroad Administration ' s "Operation Classification" undertaken due to its "specific safety concerns about the proper classification of crude oil being shipped by rail , the subsequent determination or selection of the proper tank car packaging used for transporting crude oil , and the corresponding tank car outage requirements ." The EIS needs to identify the potential for the risks of explosion and if and how those can be mitigated to nonsignificant levels . The mitigation measures to be analyzed need to include the proper equipping of first responders. The EIS must also identify the risks for sp ills and pot ential impacts
associated with release of petroleum products.

Comment Number: 000000355-1
Organization: City of Chehalis Fire Department
Commenter: Robert Gebhart
Commenter Type: Agency
Other Sections: 13.3 14
Comment Excerpt Text:
As the Interim Fire Chief in Chehalis my concern is the increase in rail traffic transporting crude oil and the possibility of a spill or fire. Chehalis has several crossings over the rail system that the fire department uses to access emergencies on the West side of the city. We do have an overpass that we can utilize so rail traffic cannot completely cut us off from the West side but can delay or slow our response. There have been numerous derailments throughout the US and Canada involving trains transporting crude oil. I am encouraged that the rail industry is in the process of providing specialized training to emergency responders on how to respond to these emergencies. . I would ask that the following be studied as part of the EIS: • An analysis of the fire and life safety risk and probability of error based on the volume of crude

oil and transport type, including risks to homes and businesses along the rail system. • An examination of the impacts on the fire department's ability to respond to emergencies and an identification of deficiencies and needed mitigations such as training or equipment. • An evaluation of the proposed fire and spill protection systems along the rail system.

Comment Number: 000000357-2
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization
Other Sections: 7.4 15 7.1
Comment Excerpt Text:
-Risks of oil spills in our marine environment. Increased vessel traffic and associated increased amounts of oil traveling through waterways mean a higher risk of oil spills, especially given the lack of tug escorts available to tankers. The EIS should also consider what the economic impacts of a spill, including to the shellfish, fishing, and tourism industries, would have on Grays Harbor and the entire region. -Risks from crude oil. Putting in place this infrastructure would allow Bakken crude oil and oil from the Canadian tar sands to come to Grays Harbor. The EIS should include an evaluation of the risks, resources needed to prevent spills, and response required related to these different oils. Bakken shale crude oil has been shown to be more explosive, putting our communities and first responders at greater risks. Tar sands sink and make cleanup of any spills much more difficult and expensive.

Comment Number: 000000377-2
Organization:
Commenter: Laura Ackerman
Commenter Type: Public
Other Sections: 7.4 2.1 7 13.3 15 14
Comment Excerpt Text:
Please analyze the potential oil spills, fire from oil spills, diesel PM increasing, and the impacts to human health, especially those who live within a mile of the tracks, safety issues on increased railroad traffic, economics of communities paying for safety upgrades, impacts on rivers and other bodies of water, trails, parks, schools, hospitals and public facilities. Also analyze the impacts to wildlife.

Section 7.4 - Releases or potential releases of toxic or hazardous materials

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Comment Number: 000000004-1
Organization: Environmental Services Directory for Washington State
Commenter: Jeremy Mattox
Commenter Type: Organization

Comment Excerpt Text:
I am extremely concerned about the dangers posed by the movement of crude oil and other hazardous liquids by trains and ships in the Pacific Northwest. Recent disasters in Quebec and North Dakota illustrate the risks of crude oil railroad movements, and the Exxon Valdez grounding illustrates the risks of crude oil transport by water.

Comment Number: 000000009-4
Organization:
Commenter: David Perk
Commenter Type: Public

Comment Excerpt Text:
and the risk of spillage or catastrophic derailment along all points of the route; Risk of spillage and response costs related to transportation adjacent to and across waterways, and whether existing response systems are adequate or should be enhanced; Impacts to communities, agriculture, species and the natural environment in the event of a spill at the point of extraction or along the route;

Comment Number: 000000013-2
Organization:
Commenter: Libby Hazen
Commenter Type: Public

Comment Excerpt Text:
The probability of spills and the effect on air and water quality and it's relation to human and marine life needs to be included.

Comment Number: 000000015-1
Organization:
Commenter: Garrett Phillips
Commenter Type: Public
Other Sections: 5.1 13.5
Comment Excerpt Text:
I live in Hoquiam. I regularly go out recreationally clamming on beaches between Ocean Shores and Quinault Reservation. I consider this to be an important part of my life. It is done of the reasons that I live here. I am concerned that ocean going vessels carrying crude oil from the proposed export facilities will malfunction or collide with other vessels, debris, or rocksm and leak oil into the marine environment, causing harm to razor calm communities on the beaches where I go clamming. Please study the potential impacts of these events occurring. Please do not simply quantify the probability of these events occurring. Rather, please study the actual impacts to my recreational clamming opportunities that would result from a marine oil spill. This study should include analysis of marine and near shore hydrology, the clams' habitat and ecological relationships, and the limits of best practices in oil spill cleanup. Please study what seasonal restrictions WDFW would have to impose for at least ten years following an oil spill to ensure public safety and sustainable clam populations, and what impact this would have on recreational clam harvest opportunities.

Comment Number: 000000024-3
Organization:
Commenter: Anne Elkins
Commenter Type: Public

Comment Excerpt Text:
3) As a resident of Skagit County, I am highly concerned about the danger of spills. We have precious farmland here, and blossoming organic farms, which would be destroyed forever by one catastrophic crash or spill.

Comment Number: 000000026-2
Organization:
Commenter: Garry Dale
Commenter Type: Public
Other Sections: 13.5
Comment Excerpt Text:
Questions that concern me, and which objective, rigorous and comprehensive studies should address

include: Oil risks: How will the marine vessel traffic increase collision risks with tankers, cargo and other commercial vessels in the area? What would be the effects to our region in the event of catastrophic oil spill?

Comment Number: 000000029-1
Organization:
Commenter: Mary Meyers
Commenter Type: Public

Comment Excerpt Text:
Spills are inevitable and destructive. ". . .[T]here is no safe way to extract or transport fossil fuels when the plan is, ultimately, to combust them.

Comment Number: 000000032-2
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization
Other Sections: 7.3
Comment Excerpt Text:
Oil refineries and the trains and tanker ships that feed them, have explosions and leaks annually, polluting the likes of the Bay Area, in CA—people there just live w/ it; far-reaching consequences ripple under everyone's radar daily, while corporations tell people nothing is wrong. WHY would anyone think it would be safer in Grays Harbor Co.? HOW MANY spills, explosions etc. must happen before industries, and by FEMA, think it's a problem?

Comment Number: 000000044-1
Organization: me and my kids
Commenter: Dainela Brod
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
The bottom line for me is that the scope of the EIS need to include increased risk of disastrous oil spills in the Columbia River Gorge and Portland area and the climate impacts of releasing the coal transported versus keeping it in the ground or delaying it by (insert # yrs here for alternative route). Extra time would give the country more time to develop a low-carbon energy policy and avoid a more costly response to Climate change impacts.

Comment Number: 000000046-3
Organization: Friends of the Gorge
Commenter: Gisela Ray
Commenter Type: Organization
Other Sections: 7.3
Comment Excerpt Text:
Any accidents,spills, explosions would be a disaster to the communities, the Columbia and its fish and the Scenic landscape.

Comment Number: 000000054-1
Organization:
Commenter: Carol Rose
Commenter Type: Public
Other Sections: 13.3 7.3

Comment Excerpt Text:
I care for that region's welfare as well as for my own Vancouver. The cumulative proposed oil train cars traveling through our state is monumental. The potential dangers grow exponentially. Current rail cars are inadequate. Even safer rail cars are not safe, simply less dangerous. This type of oil sinks and is more difficult, if not impossible to clean up. It is more volatile and explosive.

Comment Number: 000000056-4
Organization:
Commenter: Nick Lorax
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
I would like to know how many terminals similar to the one proposed have had spillage in the past, what was the cost of clean up, how will the proposed terminal be avoiding these same accidents. How much money has been spent in the last 50 years on clean up of the Pacific Coast and Puget Sound in this region to restore salmon and other marine life. How much of this restoration could potentially be impacted by a serious spillage at the proposed export terminal.

Comment Number: 000000063-2
Organization: El Centro de la Raza
Commenter: Estela Ortega
Commenter Type: Organization

Comment Excerpt Text:
increasing the potential of oil spills in fresh and marine waters

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Comment Number: 000000067-1
Organization:
Commenter: Roy Vataja
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
I want to go on record as opposing the shipping of crude oil out of Grays Harbor. The Harbor is home to razor clams, crab and a bird sanctuary. It takes only one spill to wipe out the fishing, crabbing and clamming industries

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Comment Number: 000000073-5
Organization:
Commenter: Jim Steitz
Commenter Type: Public

Comment Excerpt Text:
Moreover, the risk of a oil tanker spills in the precious waters of Grays Harbor and the Pacific Coast cannot be overstated. The coastline is a defining feature of both economic and aesthetic sustenance for Washington State, and no risk to its integrity should be contemplated.

Comment Number: 000000084-1
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 3.2 4 5 5.1

Comment Excerpt Text:
Please consider the following in your EIS: - Stormwater runoff from trains, marine vessels, and operations at project site - Impacts to plants due to increased emissions, rail traffic, and marine traffic - Impacts to land and marine-based plants and animals due to increased emissions, rail traffic, and marine traffic - Impacts to critical habitat due to increased emissions, rail traffic, and marine traffic - Impacts to listed and endangered species - Impacts to critical areas, shoreline, wildlife, marine life, and plant life in the event of an accidental release or spill -

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Comment Number: 000000084-10
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Plans for ongoing monitoring of product composition to ensure compliance with project's purpose - Plans for ongoing monitoring of product handling volumes to ensure compliance with project's stated volume - Plans for hazardous materials release and cleanup in the event of fire or explosion during marine or rail transport or at the project site

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Comment Number: 000000084-6
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Potential accidental release of crude oil vapors or hydrogen sulfide and their impacts on human health and the environment - Potential release of hydrogen sulfide while handling higher-sulfur crude oils such as Canadian oil sands crude - Comprehensive safety record of project proponent, the likelihood of accidental chemical releases over the life of the project, and the environmental impact of such releases - Return of site to its pre-project state and the impact of doing so -

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Comment Number: 000000085-2
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Potential environmental impacts along the Columbia River estuary in the event of a derailment and spill - The likelihood of such a derailment, given the extremely high volumes the project would handle - Potential damage to irrigation supplies in event of a Columbia River spill - Potential damage to fisheries in the event of a Columbia River spill - Potential damage to hydroelectric power plants in the event of a Columbia River spill, and the additional emissions from backup energy sources - Potential damage to the availability and quality of inland marine shipping capacity in the event of a Columbia River spill - Potential damage to the I-5 corridor in the event of a derailment - Potential environmental impacts along all of Washington's coastal areas in the event of a marine spill - Emissions from marine and rail transport while in Washington State - Increased emissions from rail idling due to increased rail congestion - Potential damage to the Columbia River Wetland Mitigation Bank, the Ridgefield National Wildlife Refuge, and other natural areas along the transport route in the event of an accidental release or derailment -

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Comment Number: 000000087-1
Organization:
Commenter: Herb Hethcote
Commenter Type:
Other Sections: 13.3 7.3
Comment Excerpt Text:
The two proposed oil storage facilities would allow many oil trains with some old, unsafe oil tanker cars to cross our state. These trains have derailed over 6 times in the past several months and spilled volatile oil. There have been some explosions and some deaths.

Comment Number: 000000106-5
Organization:
Commenter: Jan Verrinder
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
Oil possibly spilling into a river or the ocean. It could shut down water traffic, fishing, tourism, water supply projects and port jobs for years.

Comment Number: 000000109-1
Organization:
Commenter: David Linn
Commenter Type: Public
Other Sections: 7 7.1
Comment Excerpt Text:
Bringing oil by train into Grays Harbor is an extremely bad idea. The Harbor is a fragile ecosystem and the risk of oil spills is far too great to allow oil to be transported and handled here. The recent spills of grain from rail cars in Aberdeen is clear evidence that the rail infrastructure is inadequate to handle to traffic that this plan would generate. In addition, the rail operator, Genesse & Wyoming is prone to accidents such as the oil spill in wetlands in Alabama a few months ago. Neither the State of Washington, the City of Hoquiam, nor the oil companies are prepared to properly deal with and clean up an oil spill when is eventually will happen. Please stop this madness before our beautiful land and water are destroyed to satisfy the greed of a few.

Comment Number: 000000134-1
Organization:
Commenter: larry bridenback
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
a spill,one will happen sooner than later, we destroy the Chehalis river. the train travels within a 100 yards of elma elementary school. a derailment there could kill hundreds of kids.

Comment Number: 000000135-1
Organization:
Commenter: Larry Haaga
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
As an avid fisherman in Grays harbor County, I am very concerned about the possible negative affects of

a crude spill in the area on the fish and invertebrates which inhabit the the marine and estuary environment. I am strongly against the allowance of this chemical storage in the Hoquiam area.

Comment Number: 000000138-1
Organization: concerned citizen
Commenter: Shawn Murray
Commenter Type: Public
Other Sections: 5.1 13.3
Comment Excerpt Text:
I strongly OPPOSE crude by rail development in Grays Harbor. The potential for harming an already fragile marine life ecosystem is far too great a risk. The tracks that these rail tankers would be utilizing are old and unsatisfactory. They follow all to closely the Chehalis River and Grays Harbor, the question of a spill is not if, but when.

Comment Number: 000000143-1
Organization:
Commenter: lee wilder
Commenter Type: Public
Other Sections: 2.1 13.3
Comment Excerpt Text:
Expansion of the Imperium and Westway terminals will have a significant environmental impact on Montana and those effects must be taken into consideration as this proposal is evaluated. Rail traffic creates a diminution in air quality and the potential for derailments increases with more trains and longer trains. Derailments of trains carrying oil create a significant environmental risk. Derailments do happen and there have been too many spills of chemicals and oil.

Comment Number: 000000161-1
Organization:
Commenter: Chris Meyer
Commenter Type: Public
Other Sections: 13.2 15 3.1
Comment Excerpt Text:
Please include the impacts of rail traffic carrying the oil through Idaho in the scoping for your EIS. These trains will pass over critical groundwater areas for our community and the potential impacts of a spill must be evaluated in the reviews of the proposed new liquid storage terminals.

Comment Number: 000000162-1
Organization:
Commenter: Howard Moe
Commenter Type: Public
Other Sections: 13.3 7
Comment Excerpt Text:
Our current port commissioners have been making good choices in their selection of goods to be shipped from our port. It would be a very bad choice to add crude oil to this list of goods. The many recent explosions and derailments make it clear that the dangers associated with shipping crude oil far outweigh any possible advantages to our area. The damage done at Prince William Sound from the EXXon spill has still not dissipated entirely. Please say no to crude oil.

Comment Number: 000000166-5
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy

Commenter Type: Organization

Comment Excerpt Text:
as well as potential rail car derailments that could deposit oil on the ground and into the river. Additionally, the study should examine the effect of oil deposits on land by the rail tracks that could find its way to the Spokane River through run-off.

Comment Number: 000000166-8
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization

Comment Excerpt Text:
We understand that the some of the tanker cars are substandard– so, how much oil could escape? Please study the effect of superior upgrades on the cars and/or other methods of transport – ie. a pipeline.

Comment Number: 000000167-1
Organization:
Commenter: Bob Zeigler
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
The expansion of these facilities is for dramatic expansion of train traffic and transport of volatile fracked oils out of Washington ports There would be an increase of more than 450 trains a year traveling with oil to store and load onto more than 100 barges a year. There is very large increase in the potential for accident and spill with this proposal with potential to impact human life, health, safety and welfare.

Comment Number: 000000172-1
Organization:
Commenter: Anne Clark
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
I strongly oppose the construction of crude oil terminals in Grays Harbor. Gray's Harbor mudflats are one of 5 major migratory shorebird staging sites in North America. For several species of shorebirds a very large proportion of the world's population pauses in their northbound flight from wintering grounds south of here en route to arctic breeding grounds to rest and feed on the extraordinarily rich marine environment of Grays Harbor and Bowerman Basin. These species include Western Sandpiper, Red Knot, Short-billed Dowicher, Least Sandpiper and Semipalmated Plover. Moving oil on ships or barges over the treacherous bar on entering or exiting Gray's Harbor has a real possibility of a significant oil spill. If such a tragedy occurred at a critical time with impact on the spring stopover of these birds it could decimate the world's population of several of these species. Grays Harbor is such a crucial and unique environment in the life-cycle of these species that risking this type of accident is unthinkable. I beg you to include the impact on these shorebirds, as well as the rest of this key west-coast flyway habitat in the scope of the Environmental Impact Statement for both the Westway and Imperium projects.

Comment Number: 000000173-1
Organization:
Commenter: Fred Pentt
Commenter Type: Public
Other Sections: 7 5.1

Comment Excerpt Text:
Guess you people that are wanting to deliver oil here in Hoquiam do not live here! A spill on any of Grays Harbors waterways would be so harmful to and aquatic species we have here. I grew up next to the bay and have been fishing it for over 60 years. Back when a Hoquiam pulp mill was dumping toxins into Grays Harbor Bay there was many problems trying to get fish to return to the Wynoochee and Satsop Rivers. Now that it is gone these 2 rivers are doing quite well. Oil spill would bring us back to ground zero if, and when, it falls into our waterways and it will happen.

Comment Number: 000000174-2
Organization: Twin Harbors Fish & Wildlife Advocacy
Commenter: Tim Hamilton
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
The risk of spills at the Port during transfer or along the tracks that follow the Chehalis River from Centralia down to Hoquaim is significant, if not a certainty. Ecological damage to the Chehalis River system and the Grays Harbor estuary from a crude spill would be catastrophic.

Comment Number: 000000175-1
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency
Other Sections: 7.3
Comment Excerpt Text:
The volume of petroleum-by-rail moving through Grays Harbor County is expected to significantly increase; and

The primary source of the petroleum anticipated to be transported by rail through Grays Harbor County is from the Bakken formation, which the U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration has determined may be more flammable than traditional heavy crude oil; and

The rail lines that will carry this petroleum run through and by Grays Harbor communities, business and industrial areas, and along our waterfront, creeks, and other sensitive natural areas; and

Recent derailments, spills, and fires, such as the recent derailment and explosion in Casselton, North Dakota, illustrate the potential catastrophic impacts which could occur to our community and environment from the transport of petroleum by rail; and

As a County Commissioner of Grays Harbor, I am deeply concerned about the threat to life, safety and the environment of potential spills and fires from the transport of petroleum by rail,

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Comment Number: 000000176-10
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
8. Human Health impacts especially from increased industrial-type pollution and from crude oil.

Comment Number: 000000176-15
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 5
Comment Excerpt Text:
from other pollution, both permitted and accidental, oil spills, ballast and bilge water or storm water discharges); and implications of expected changes in species composition, distribution and absolute numbers as a result of the above, including introduction of invasive species from hull fouling and ballast water discharge with special attention being paid to species in areas defined as "critical" under relevant Critical Area Ordinances.

Comment Number: 000000176-18
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
10. Hazardous materials to be present at Facility, used or generated with disposal protocols and accident prevention and remediation measures in place.

Comment Number: 000000176-42
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(k) Lack of consideration for crude oil containing toxic chemicals, many of which are carcinogens: benzene, chromium, mercury, nickel, sulfur, toluene, lead, carbon monoxide, PAH's and VOC's. What considerations have been given to the introduction of these toxic chemicals?

Comment Number: 000000177-1
Organization:
Commenter: Hans Mak
Commenter Type: Public
Other Sections: 13.3 5.1
Comment Excerpt Text:
In light of the recent derailments in the County I oppose the oil trains through the area. I come to the harbor to fish and gather shellfish. A crude derailment/ spill would be catastrophic to environmental and community resources. This is not a good fit with the amount of rain we receive in the area.

Comment Number: 000000183-2
Organization:
Commenter: Mary Holder
Commenter Type: Public
Other Sections: 7.1

Comment Excerpt Text:
http://online.wsj.com/news/articles/SB10001424052702304834704579401353579548592. Accessed May 6, 2014. There is no adequate mitigation for the risk and consequences of a rail accident involving crude oil. Impacts from Oil Spills:In addition to the numbers of trains transporting oil to the two proposed projects, the Westway project would result in five new storage tanks of 200,000 barrels each. The company's project would also add 198-238 oil barge transits of Grays Harbor per year. Imperium proposes nine new storage tanks of 80,000 barrels each. The company estimates 400 ship/barge transits through Grays Harbor per year. As an initial matter, the EIS must identify all of the types of oil that will be transported to, stored in, and transported from the facilities. Different types of crude oil exhibit vastly different volatility, viscosity, and toxicity characteristics when spilled. Accordingly, the difficulty in cleaning up various types of crude oil spills varies widely. The impacts of a toxic crude oil spill on fish, wildlife, and human health and the ability to clean up the oil spill differs depending on the type of crude involved. Washington State's Changing Energy Picture. Potential Impacts of Our Changing Risk. Presented by David Byers, Response Manager, Washington State Department of Ecology.

http://www.emd.wa.gov/hazards/documents/OilandCoalTransportationIssuesinWAState-DavidByers.pdf. Accessed May 15, 2014. These significant differences in impacts on human health and the environment and the ability to clean them up arising from the transportation and storage of various crude oils must be fully analyzed in the EIS.

The EIS must fully analyze impacts of spills on waterways and all types of landscapes all along the rail route to the two project sites and from increased vessel traffic in marine waters (and, for the latter, especially given the lack of tug escorts available to oil tankers). Applicants Westway and Imperium must specifically identify these routes as well as those responsible for transportation safety along these routes. As an example, there have recently been three derailments on the rail line owned by the Puget Sound and Pacific Railroad over which crude oil would be transported to the new facilities. Q13Fox.com. Feds Investigating String of Train Derailments in Grays Harbor. http://q13fox.com/2014/05/16/feds-investigating-string-of-train-derailments-in-grays-harbor-county/#axzz320ppmdWq. Accessed May 18, 2014. Questions that must be answered in the EIS include: why have these derailments occurred and why might future derailments occur; what is the safety, maintenance, and enforcement history of the relevant rail lines and railroads; who is responsible for safety and operations; what training and equipment is provided to rail employees for accidents involving oil spills? These questions must also be answered for all ships/barges that would transport the oil. Additionally, where will the transfer or unloading of the oil occur? What safety precautions at those points would ensure that there is no spillage of oil? Promises to maintain and/or periodically update "safety manuals" are worthless to ensure safe transportation of volatile and toxic crude oil through our state's communities and environmentally sensitive areas, and must not be relied upon as a basis for issuing permits.

Comment Number: 000000183-7
Organization:
Commenter: Mary Holder
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
The short and long-term impacts from rail, vessel, or storage tank accidents and operational incidents involving large and small oil spills must be studied in detail in the EIS process. The Grays Harbor National Wildlife Refuge (within only a few miles of the proposed projects), and the other areas in and near Grays Harbor that are critical for shorebirds and other bird species, must be studied in particular detail. See photograph of map of this area attached hereto. The Grays Harbor estuary is a biologically rich

and productive ecosystem. The mudflats, saltmarsh, eel grass beds, and open salt water in the estuary provide essential habitat for fish and wildlife, including waterfowl, shorebirds, salmon, clams, and crustaceans. The estuary, which provides habitat for as many as 24 shorebird species, has designated by the Western Hemisphere Shorebird Reserve Network as a hemispheric reserve of international significance because it is visited by over 500,000 shorebirds annually. Sites in the Western Hemisphere Shorebird Network. http://www.whsrn.org/sites/map-sites/sites-western-hemisphere-shorebird-reserve-network. Accessed May 15, 2014. The Grays Harbor National Wildlife Refuge was established by Congress to protect this critical shorebird habitat. Hundreds of thousands of shorebirds use prey species in the Grays Harbor estuary to fuel their migration. Migrating shorebirds visiting the Grays Harbor area gain up to 30% of their body weight in fat before resuming their long journeys northward. Shorebird species in particular have experienced dramatic population declines over the last decades. The EIS analysis must take seriously the potential impacts on shorebirds dependent upon the health of the Grays Harbor estuary for their survival.

A recent accident in the Houston Ship Channel in Texas in which a ship collided with a barge carrying a large quantity of oil spilling the oil illustrates the potential catastrophic impacts on shorebirds, seabirds, and migratory bird species (as well as on fish and marine animals). U.S. Fish and Wildlife Service. National Wildlife Refuge System. April 21, 2014. Impacts at Texas Oil Spill. http://www.fws.gov/refuges/news/ImpactsAtTexasOilSpill.html. ("A total of 90 miles of shoreline were impacted by oil that drifted south."). Accessed May 15, 2014. The EIS must detail how large an area might be impacted by such an oil spill involving a vessel, oil tank car(s) or storage facility associated with the proposed projects and what fish and wildlife species may be impacted. The area studied must not be limited to Grays Harbor but must also include Willapa Bay and other areas into which oil my drift from Grays Harbor and/or that may be affected by an oil spill along the transportation route. The studies must not be restricted to shorelines but must also include impacts to the health of offshore kelp forests and other areas where birds, fish, and marine mammals feed.

The shorebirds that depend upon Grays Harbor are at particular risk from an oil spill. A number of the migratory shorebirds that stop over at the Grays Harbor estuary are considered species of highest conservation concern. U.S. Fish and Wildlife Service. Birds of Conservation Concern 2008. P. 24 https://www.fws.gov/migratorybirds/NewReportsPublications/SpecialTopics/BCC2008/BCC2008.pdf . Accessed May 15, 2014. Many of the shorebirds that stop over in the Grays Harbor estuary are en route to wintering grounds in Central or South America or breeding grounds in Alaska, Canada or the Russian Far East. An analysis of impacts on shorebird populations and their habitats in the EIS must take into consideration the fact that they are integral components of a greater hemispherical population of birds. Buchanan, J.B. 2000. Shorebirds: Plovers, Oystercatchers, Avocets and Stilts, Sandpipers, Snipes, and Phalaropes. *Pages* 20-1 – 20-48 *in.* E. Larsen, J. M. Azerrad, N. Nordstrom, editors. 2004. Management recommendations for Washington's priority species, Volume IV: Birds. Washington Department of Fish and Wildlife, Olympia,Washington, USA. pp. 20-3 and 20-11. http://wdfw.wa.gov/publications/00026/wdfw00026.pdf. Accessed May 17, 2014.

The impacts upon the individual species of shorebirds should be studied in detail rather than just "shorebirds" as a general category to determine whether given the status of a particular status and traits of a species impacts from an oil spill may be greater than upon others. As an example of one declining species in particular that must be studied closely is the Red Knot, *Calidris canutus roselaari*. The Red Knot is one of the rarest of the long-distance migrant shorebirds that use the Pacific Flyway. Red Knots undertake long flights during their migration that can span thousands of miles and breed on Wrangel Island, Russia and on tundra in far Northern and Northwest Alaska. They overwinter in Mexico or possibly further south. Buchanan, J.B. and L.J. Salzer, Washington Department of Fish and Wildllife. Red Knot (*Calidris canutus*) migration on the Pacific coast of the Americas. http://wdfw.wa.gov/publications/01547/wdfw01547.pdf. Accessed May 15, 2014. Grays Harbor is a vital

migration stopover point for these birds that feed on bivalves and other benthic invertebrates in the Grays Harbor estuary [Bowerman Basin, Ocosta (Bottle Beach) and Grass Creek] to fuel their return trip to Arctic breeding grounds (Bowerman Basin, Ocosta, Grass Creek). Other declining shorebirds in addition to the red knot that must be studied closely by the EIS include, but are not limited to: black-bellied plover, semipalmated plover, whimbrel, ruddy turnstone, sanderling, semipalmated sandpiper, least sandpiper, and short-billed dowitcher. Like the Red Knot, some of these species saw significant population losses in the late 19th and early 20th centuries due to hunting and, more recently, from habitat loss. Buchanan 2000, pp. 20-8 and 20-12. These species are especially vulnerable to disastrous decline from oil spills.

Oil spills result in: 1.) direct mortality of shorebirds from plumage fouling and toxicity; 2.) reduced invertebrate food supplies; 3.) oil spill cleanup activity that disrupts foraging and roosting; 4.) reduced preening and foraging after a spill; and 5.) greater susceptibility to predation (Buchanan, p. 20-15). Shorebird species like the Red Knot that concentrate in large numbers in a single area during migration are highly vulnerable to the loss of a critical staging area such as Grays Harbor. The impacts of an oil spill in Grays Harbor resulting in the extirpation of the Red Knot and other shorebird species from the Grays Harbor estuary could contribute to the extinction of this and other vulnerable species. The impacts of an oil spill on other bird species, including raptors, seabirds, and songbirds must also be analyzed in detail in the EIS.

Detailed studies must also be conducted on impacts on fish species including salmon, endangered green sturgeon, Pacific eulachon and bull trout from not only oil spills but also air emissions and lights and noise associated with the two projects. Significant adverse impacts from oil spills on marine mammal species such as the Southern Resident Orca Whales that annually migrate past Grays Harbor must also be fully analyzed. There can be no mitigation for the impacts of oil spills having the potential to destroy significant numbers of individuals of vulnerable species of fish and wildlife.

Comment Number: 000000185-1
Organization:
Commenter: Shelli Hopsecger
Commenter Type: Public
Other Sections: 7.1 7.3 13.3
Comment Excerpt Text:
This specific Environmental Impact Study should focus on the two projects that are being proposed by companies with proven records as good corporate citizens. Have the companies offered to invest in equipment and training for first responders? The Study should accurately weigh the risks -- what percentage of crude being shipped by rail has been leaked into the environment? What have been the affects - short-term and longterm on the environment? Were clean-up response plans in place? What can be learned from these outcomes to better position ourselves? What is the percentage of rail cars that have been involved in derailments, what type of car were involved, will these cars be allowed to move crude when these projects are approved? Given these percentages, what is the REAL likelihood of an accidental spill, derailment or explosion? While nobodies wants these things to happen we must be realistic in our assessment of risk.

Comment Number: 000000188-1
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization

Comment Excerpt Text:
The project will greatly increase the amount of oil transported by railroad between Centralia and

Hoquiam, and will introduce Bakken crude oil and oil extracted from Canadian Tar Sands to the area. The EIS should address the following risk factors that could arise from spills and leakage during rail transport:

-Vulnerability of the Rail Line between Centralia and Hoquiam: This rail line was not designed for this level of use, and includes numerous obsolete bridges, eroding river embankments, and flood-prone areas that greatly increase the risk of derailment and catastrophic spills.

Comment Number: 000000188-5
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization

Comment Excerpt Text:

Risks to Grays Harbor from oil storage, transfer, and tanker transport: The project will greatly increase the storage, transfer, and transportation of oil near or in the Grays Harbor estuary. Transfer of oil from trains to storage facilities and tankers creates risk of both catastrophic spills and routine leakage from connection points. Increased tanker traffic incurs risk of spills during accidents, as well as incidental leakage of oil from ships and machinery.

Comment Number: 000000188-6
Organization: Chehalis River Council
Commenter: Rob Schanz
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
The EIS should identify impacts of this to:

-Shellfish, commercial fishing, and recreational fishing industries supported by the harbor. Oyster harvests in the basin are already threatened by water quality problems such as bacterial pollution and ocean acidification, and the industry may not be able to survive the impacts of a spill.

-Migratory bird populations. Bowerman Basin and estuarine wetlands in the harbor are known world-wide for migratory bird watching, and draw numerous visitors to the area.

-Salmon populations that use the estuary to transition into and out of rivers during migration.

-Marine mammals and other organisms that use the unique protected waters and food sources provided by the harbor.

Comment Number: 000000192-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public

Comment Excerpt Text:
Will the propellants that have been added into the Bakken oil to make it more transportable also make the spilled oil fan out more quickly, and absorb more rapidly into soil and sand? If yes, will the propellents ultimately sink to a deeper level in the soil? If the propellents do cause the absorbtion of oil to be more fully ingrained in the soil, what effect will that have on our ability to use that area for safely growing edible food in the future? In the event of an ocean spill of Bakken crude oil using propellants, what will be the impacts, both short term and long range, of those propellants upon the full spectrum of ocean life?

Comment Number: 000000193-1
Organization:
Commenter: Kevin McCarroll
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
Oil trains are a serious risk to the health and safety of our communities. Present proposals are for Bakken crude oil (extremely explosive) fracked in North Dakota, but could be expanded to serve to transport Canadian Tar Sands. A safe method for transporting Bakken Oil has not been found. Derailment is a critical concern for our communities. In July of 2013 47 people with killed after a train derailed in Quebec, Canada. In November of 2013, 200,000 gallons of oil leaked into waterways in Alabama. A month later, in North Dakota, 400,000 gallons spilled forcing 1,400 people to evacuate, and Pennsylvania experienced the devastation of spills in January, February and April of this year.

Comment Number: 000000198-1
Organization: NORTH BEACH ASSOC.
Commenter: LEE RIENER
Commenter Type: Organization
Other Sections: 13.3
Comment Excerpt Text:
I am against these bulk liquid storage terminals. They will be located near the waters of Grays Harbor. I have lived in this area for over 30 years, and own a home. I think that it is only a matter of time before an accident, a leak occurs from this facility, that will effect Grays Harbor.

Comment Number: 000000204-1
Organization: CCA
Commenter: Gary Johnson
Commenter Type: Public
Other Sections: 13.3 7
Comment Excerpt Text:
To whom it may concern, I am OPPOSED to the oil trains coming through Grays Harbor. The track record and recent derailments send a clear message that this rail system is in horrific condition. If an oil spill occurs in Grays Harbor it with have a long standing impact on the economy. Fisheries in Westport, Humptulips, and the tributaries of the Chehalis basin will all be affected. Oil spills in this bay and tidal waters are hard to clean-up. Let's protect these valuable ecosystems that the area depends on and stop this madness!

Comment Number: 000000212-1
Organization: Surfers' Environmental Alliance
Commenter: Jim Littlefield
Commenter Type: Organization
Other Sections: 7

Comment Excerpt Text:
Expanding the Bulk Liquid Terminals at Gray Harbor Terminal 1 vastly increases the potential for major liquid spills into the waters. This event would cause huge damage to the environment and harm many sea creatures, including mammals.

Comment Number: 000000213-3
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
These trains will also cross Lake Pend Oreille and trundle alongside the Kootenai River and Lake Cocolalla. The Kootenai River is home to endangered sturgeon and bull trout, while Lake Pend Oreille is home to bull trout, too. An oil spill in these waters would be catastrophic to our fisheries and our way of life. The city of Sandpoint, and many individual homeowners, draw their drinking water from Lake Pend Oreille. Derailments seem to be happening more frequently in North Idaho. The latest was last night along the Kootenai River in Boundary County. Fortunately the derailment did not result in contamination of the river, but if it had been an oil train, it most certainly could have been a major environmental disaster.

Comment Number: 000000214-11
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7 5.1 11
Comment Excerpt Text:
Lewis and Clark NHP

Lewis and Clark NHP encompasses seven sites totaling 3,400 acres in the lower Columbia River estuary and along the Pacific Ocean in Clatsop County, Oregon, and Pacific County, Washington. The park preserves a variety of ecosystems from coastal dunes, estuarine mudflats and tidal marshes to shrub wetlands, temperate rainforests and swmnps. Extensive wetlands in the park include fringing saltmarshes on the lower Columbia River, the tidally-influenced lower Lewis and Clark River and many low-gradient brackish sloughs and marshes. These wetlands provide valuable habitat for a diversity of mammals, birds, reptiles, amphibians and fish.

The Imperium and Westway EISs should evaluate the impacts of potential oil spills from marine vessels traveling south from Grays Harbor to California on natural resources and visitor use and enjoyment at Lewis and Clark NHP. In particular, the analysis should address the effect that oil spills in the lower Columbia River estuary would have on critical habitat for federally threatened and endangered species that rear in and migrate through NPS waters in the estuary including but not limited to: Pacific eulachon *(Thaleichthys pacificus),* coho salmon *(Oncorhychus kisutch),* Chinook salmon *Oncorhynchus tshawytscha),* chum salmon *(Oncorhynchus keta)* and steelhead *(Oncorhynchus myldss).* The analysis should also include potential impacts to water quality and the aquatic environment.

Comment Number: 000000214-12
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:

Olympic NP
Olympic NP's 73-mile long wilderness coast is a rare treasure in a country where much of the coastline is prime real estate. The rocky headlands, beaches, tide pools, offshore sea stacks topped by nesting seabirds and wind-sheared trees are a remnant of a wilder America. The intertidal areas, where the Pacific Ocean tides shape life, are also within the boundary of the Olympic Coast National Marine Sanctuary. The offshore islands with their colonies of nesting seabirds and rocky haul-outs for seals and sea lions, lie within the Washington Maritime National Wildlife Refuge Complex. The EISs should assess potential impacts of oil spills from marine vessels traveling north from Grays Harbor to refineries in Puget Sound on the coastal and offshore natural resources of Olympic NP. The analysis should include potential impacts on the park's seven anadromous fish species, many populations of which are listed as threatened under the Endangered Species Act: bull trout, steelhead, and chinook, chum, coho, sockeye *(Oncorynchus nerlra)* and pink salmon *(Oncorynchus gorbuscha).*

Comment Number: 000000214-13
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 5.1 11
Comment Excerpt Text:
San Juan Island NHP
A key attraction for visitors at San Juan Island NHP is watching marine wildlife, including the iconic Puget Sound orcas. We are concerned about potential harmful effects on endangered orcas, as well as on anadromous fish species such as salmon and steelhead, from increased ship traffic, noise and potential oil spills. The park protects more than six miles of shoreline, and one of the best public beaches in the San Juan Islands. The analysis should include potential impacts to tourism.

Comment Number: 000000214-14
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 12
Comment Excerpt Text:
Ebey's Landing NHR
Ebey's Landing is the nation's first historical reserve, created in 1978 to protect a rural working landscape and community on central Whidbey Island. The reserve contains 17,500 acres, 18 working farms, 400 historical structures, native prairies, two state parks, miles of shoreline, a network of trails and the second oldest town in Washington. The Imperium and Westway EISs should evaluate the impacts of potential oil spills from marine vessels on natural resources and visitor use at the historical reserve.

Comment Number: 000000214-4
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 5.1 8
Comment Excerpt Text:
Glacier NP
Glacier NP preserves more than a million acres of forests, alpine meadows, lakes, rugged peaks and glacial-carved valleys in the Northern Rocky Mountains. Its diverse habitats are home to nearly 70

species of mammals including the grizzly bear, wolverine, gray wolf and lynx. Over 270 species of birds visit or reside in the park, including such varied species as harlequin ducks, dippers and golden eagles. The park is named for its prominent glacier-cawed terrain and remnant glaciers descended from the ice ages of 10,000 years past. Bedrock and deposited materials exposed by receding glaciers tell a story of ancient seas, geologic faults and uplifting, and the movement of giant slabs of the earth's ancient crust overlaying younger strata. The result of these combined forces is some of the most spectacular scenery on the planet.

The BNSF railroad runs adjacent to, and at times forms the southern boundary of, Glacier NP. The rail line borders Bear Creek and the Middle Fork Flathead River, a designated wild and scenic river that is world-renowned for whitewater rafting and fishing. The railroad also crosses several park streams and well-established avalanche chutes. We are very concerned about potential impacts from oil spills and train derailments on gateway communities, as well as on park water quality and aquatic life--specifically the federally-threatened bull trout *(Salvelinus conjluentus)* and the wests lope cutthroat trout *Oncorhynchus clarkii lewisi),* a state species of concern. These impacts should be evaluated in the EISs for the Imperium and Westway projects.

Comment Number: 000000221-3
Organization:
Commenter: Steve Iverson
Commenter Type: Public
Other Sections: 13.3 7.3
Comment Excerpt Text:
• Crude oil spills by train are 2.7 times more likely to occur than those by pipeline. Rail accidents occur 34 times more frequently than pipeline accidents for every ton of crude shipped comparable distances. The crude oil trains proposed will be up to 1.5 miles/125 cars long, and as a result harder to control, increasing the risk of something going wrong. Our area's aging rail and bridge infrastructure, much of it built on often saturated flood plains, has not been sufficiently assessed for suitability to this additional rail traffic, with each tanker car weighing up to 143 tons. • This crude oil is classified as more highly flammable than gasoline by the NFPA, placing Centralia residents along the line at risk for both fire and explosion (Note neighboring Montesano has had two train derailments in recent years.). • A single crude oil spill could severely damage drinking water, groundwater and marine resources, as well as hunting, fishing, agricultural, commercial and recreational resources in Centralia and Lewis County.

Comment Number: 000000229-5
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
Environmental impact
sThe rail lines within the CRGNSA run essentially parallel to the Columbia River, and in many places are immediately adjacent to the river and associated lakes and wetlands. In the event of an oil spill, it is likely that crude oil would directly enter the river and/or the associated water bodies. The Columbia River provides critical habitat and migration corridors for many salmonids and other federally listed fish species, as well as habitat for numerous other wildlife species that would be adversely impacted by a crude oil spill. Oil spilled on land would negatively impact terrestrial plants and wildlife.

Comment Number: 000000230-1
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 13.1 13.2 7.3 14
Comment Excerpt Text:
NOW THEREFORE,

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF HOQUIAM, WASHINGTON, IN REGULAR MEETING DULY ASSEMBLED, AS FOLLOWS:

SECTION 1. The City of Hoquiam supports the creation of clear Federal guidelines to immediately implement safety regulations concerning older-model tank cars used to transport petroleum, train speeds, and other identifiable hazards associated with petroleum.

SECTION 2. The City of Hoquiam strongly urges the U.S. Department of Transportation to increase Federal tank car design and operation regulations for petroleum product shipments by rail and aggressively phase out older-model tank cars used to move flammable liquids that are not retrofitted to meet new Federal requirements.

SECTION 3.The City Council of the City of Hoquiam urges the State Department of Ecology and City of Hoquiam staff responsible for the permitting of petroleum terminals to address and study the following issues prior to the issuance of any permits:

· Potential impacts associated with oil spills athe project site or during transit by rail or vessel.
· Disruption to vehicle traffic during construction and after operation of the facilities commences, including the potential for increased emergency response delays.
· Vehicle safety at railroad crossings.
· Analysis of train and vehicle delays and safety issues.
· Potential for increased rail congestion and delays that would contribute to safety concerns including the potential for increased vehicle delays at railroad crossings.
· Analysis of safety considerations related to transport of petroleum associated with infrastructure, including an evaluation of trackage, railroad crossings, water crossings, and the safety of cars transporting oil.
· Analysis of effects on public transit, pedestrian access and parking within Hoquiam, and Grays Harbor County.
· Potential for and extent of increased risk of spills, fires, and explosions during rail transport, from infrastructure failing, accidents, or natural disasters.
· Evaluation of emergency response, including preparedness planning.
· Identification of responsible parties and required emergency response, including equipment and materials, to address worst-case scenarios.

Comment Number: 000000230-4
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 15 7 7.3

Comment Excerpt Text:
RESOLUTION NO. 2014 –
A RESOLUTION of the City Council of the City of Hoquiam, Washington, related to petroleum transport by rail and vessel through the City of Hoquiam, Grays Harbor County, and the State of Washington, urging regulatory agencies to study public safety, environmental, and economic impacts of petroleum transport by rail and vessel.

WHEREAS, the City of Hoquiam is committed to the protection of its citizens and protection of the environment, and is concerned about the potential economic impacts of petroleum transport by rail and vessel; and

WHEREAS, recent train derailments in Grays Harbor County, as well as other regions, together with spills, fires and explosions involving trains transporting petroleum illustrate the potential catastrophic impacts which could occur to our community and environment from the improper transport of petroleum by rail;

Comment Number: 000000233-1
Organization:
Commenter: Gretchen Staebler
Commenter Type: Public
Other Sections: 13.2 13.3 14
Comment Excerpt Text:
I am extremely concerned about the proposed oil trains running through our towns and state and being stored and transported from our coast. Thank you for your careful study of all the issues. The rail lines are unsafe. The cars are unsafe. The toxic leakage is a threat to lives. The increased number of trains, and their length, is bad for businesses, property values, emergency vehicles and residents (of which I am one) needing to cross the tracks. The storage and shipping is bad for the environment at our beautiful coast and for the industries there. Please study carefully. Please show the courage to write a report against a bad idea for Washington.

Comment Number: 000000234-1
Organization:
Commenter: Polly Boyajian
Commenter Type: Public

Comment Excerpt Text:
Don't ship crude oil by rail. Oil spills cause dangerous polution.

Comment Number: 000000238-1
Organization: Citizen of Aberdeen
Commenter: Jamie Judkins
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
I am also very aware of the effects of oil on a City, County and even neighboring counties who were built on the fishing and logging industries. The natural resources of our beautiful land are important to the livelihoods of our people. Not just our tribal people but ALL people and we need to remember that. There are many things that must be addressed prior to considering such a venture as bringing crude oil through our Cities and Towns via the rail road. First and most important is our environment. If a spill were to occur, our harbor would be devastated losing way more jobs and natural resources than this proposal

could ever bring in! With the currents of our angry Pacific Ocean, a spill could devastate both the South shores of Shoalwater and Willapa Bay to the North shores of Quinault. Both shores, hugely reliant on natural resources.

Comment Number: 000000245-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 5 7
Comment Excerpt Text:
This use of the Port of Grays Harbor sites will, without doubt, lead to a significant crude oil spill in the future. Someday a harried worker will shortcut an established procedure and a release of crude oil into the Harbor will result, most likely during vessel loading. The protection offered to the Refuge under the GRP is pre-booming, using the row of pilings that cross the opening of Bowerman Basin. It's too bad that not all of the pilings still remain, and it's also too bad that booming there, while mostly ineffective, will afford no protection to the rest of the Refuge mudflats which lie beyond the pilings. The tidal action will not allow skimming of collected oil except during a brief window of time, and if not swiftly completed the skimming boat may be stranded on the mudflats for many hours. Oil on the mudflats will, as seen during the Nestucca spill of 1988, cause the death of tens of thousands of shorebirds, should it happen during the spring migration. Less obvious will be the destruction of the food source for the shorebirds: the creatures that live in the mud, and the biofilm that covers the intertidal area. Recent studies show that the biofilm provides more than half of the nutrition for several of the species of shorebirds.that migrate through the Harbor, and it is the principal source of nutrition for the shellfish that are farmed here. Until there is an effective means of protecting the all the refuge mudflats that are so necessary to the survival of the migrating shorebirds, this usage of the Port properties should not be permitted. There is no comparable tidal area that the shorebirds can use if the Harbor's mudflats are coated with oil. Remediation is not possible in this case, only prohibition provides the certain protection required.

Comment Number: 000000248-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 5.1 12 15
Comment Excerpt Text:
Any spill, but especially one of a car load or two, will at the minimum taint the fish, oysters, and crabs to the point where none of our native or commercial fishers will be able to sell their product. Remember what happened to the shrimp industry which was decimated by the recent Macondo Well blowout in the Gulf of Mexico. If there were a major spill, say of thousands of barrels of crude oil, all the marine resources would be destroyed for years, breaking the treaties with the Quinault and Chehalis tribal fishers, and ruining many of the businesses that the Port of Grays Harbor's prize Port of Westport depends on. This is just one more reason to not approve the permits for these two projects.

Comment Number: 000000270-1
Organization:
Commenter: Ilene Silver
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
Oil trains are a serious risk to the health and safety of our communities. A safe method for transporting Bakken Oil has not been found. Derailment is a critical concern for our communities. In July of 2013 47 people with killed after a train derailed in Quebec, Canada. In November of 2013, 200,000 gallons of oil

leaked into waterways in Alabama. A month later, in North Dakota, 400,000 gallons spilled forcing 1,400 people to evacuate, and Pennsylvania experienced the devastation of spills in January, February and April of this year.

Comment Number: 000000270-3
Organization:
Commenter: Ilene Silver
Commenter Type: Public
Other Sections: 13.4
Comment Excerpt Text:
The increase in the number of huge tankers greatly increases the risk of a catastrophic spill among our pristine waters.

Comment Number: 000000284-3
Organization:
Commenter: Marisa Salzer
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
Oil Spills - Not only are there multiple points of concern in which a train can derail and allow for crude oil to enter into the local waterways, the impact of such a spill would be catastrophic. Grays Harbor offers a rich environment, one that has been taken advantage of since it was developed for logging. Shellfish, fishing and wild game are just a few things that the Harbor depends on for its economy that would be impacted.

Comment Number: 000000294-1
Organization:
Commenter: Brian Jonas
Commenter Type: Public
Other Sections: 2.1 7 13.3
Comment Excerpt Text:
Please consider statewide and regionwide effects from the terminal expansions in the DOE's impact statement. Please look at the environmental effects of transporting the extra oil throughout Washington, including global warming effects and pollution effects, as well as possible spill effects. Consider the safety of the many towns, including Spokane, which will have an increase of very dangerous, explosive trains going through that have been disastrous to other areas during derailments. Also consider the global warming effects of sending more oil out to be used.

Comment Number: 000000296-1
Organization:
Commenter: Steve Hallstrom
Commenter Type: Public
Other Sections: 3.1 7.2 5.1 8
Comment Excerpt Text:
Impacts that need to be considered relevant to agriculture in Grays Harbor County: Contamination of water in the event of a spill. Noise pollution and its affect on dairy, and on the farmers who work long hours year round. Destruction of shellfish beds due to dredging for larger ships in the harbor. Blockage of farm and field access due to increased rail traffic. Potential contamination of shellfish beds in event of a spill.

Comment Number: 000000315-2
Organization: Riverside Fire Authority
Commenter: Richard Mack
Commenter Type: Agency
Other Sections: 14
Comment Excerpt Text:
Moreover, the Riverside Fire Authority has limited capacity to provide fire and life safety service to its citizens threatened by a catastrophic release of the product carried in the tank cars. In fact, the city of Portland has gone on record to indicate that it lacks sufficient class B foam capacity to mitigate a fire involving the oil volume from a single tank car. Notwithstanding the predictably devastating environmental impact to a catastrophic release of product, the Riverside Fire Authority has a limited supply of foam product capable only of suppressing a very small class B fire. Finally, in most cases, there are only four on-duty firefighters in the Riverside Fire Authority to mount a response to emergencies. We have calculated certain acceptable risks to existing facilities, infrastructure, equipment and transportation emergencies. The addition of three oil trains daily increases the risk not only to the trains themselves, but to all existing facilities, infrastructure, equipment and transportation in the event of a catastrophic release.

Comment Number: 000000318-1
Organization: Councilmember City of Aberdeen
Commenter: Alan Richrod
Commenter Type: Agency
Other Sections: 13.3 7.1
Comment Excerpt Text:
My overarching concern is for the safety and well-being of the city and county. I remind you of the 4 derailments between Aberdeen and Centralia over the last couple of weeks. With the first one, the train was sitting in the yard and simply tipped over spilling its contents. The rest were rolling trains. Thankfully, they were just grain. The railroad says it's because it rains here – to use their words. Is that not all the more reason not to bring volatile, poisonous crude oil here? There is no spill response for this area. If an oil spill happens east of town in the swamp land, no vehicle can get to it. There is no water passage, there are no roads. Imperium and Westway can store crude oil if they wish, just not here.

Comment Number: 000000319-5
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 13.2 14 7.1 5
Comment Excerpt Text:
The EIS should identify the safety of the spur rail line from Centralia to Hoquiam, the capacity for local emergency response teams to deal with spills in the riparian areas, the impact spills would have on downstream and estuarine species, and who would pay for cleanups when spills occur. Presumably you are aware of the significance of the Grays Harbor Estuary to the survival of migratory shorebirds. An April spill could threaten extinction for certain populations, if not species. The EIS should quantify how many migratory bird species depend on a healthy estuary, what percent of the Western Flyway populations those numbers represent, the cumulative impact on avian health of incidental spills that will occur if one or all oil ports are constructed, as well as the impact on those birds should a catastrophic spill happen.

Comment Number: 000000320-3
Organization: City of Washougal

Commenter: Sean Guard
Commenter Type: Agency
Other Sections: 13.3 7.3
Comment Excerpt Text:
In addition, there is the concern of safety. Since the train derailment and explosion in Quebec in July of 2013 there have been four other incidents of derailments or spills involving oil trains. In fact, there have been at least 10 instances since 2008 of freight trains hauling oil derailing and spilling nearly 3 million gallons of oil (twice as much as the largest pipeline spill in the U.S. since at least 1986) with most of the accidents touching off fires or catastrophic explosions.

Comment Number: 000000326-1
Organization:
Commenter: Barbara Scavezze
Commenter Type: Public
Other Sections: 15 13.1 13.3 7.3 14
Comment Excerpt Text:
Please consider the following: 1)climate change impacts caused by drilling, shipping and burning petroleum products and biofuels 2) the ability of train tracks to safely transport increased train traffic carrying very heavy loads 3) the impact on traffic congestion at railroad crossings in affected communities 4) the potential for deadly explosions, and the ability of emergency management personnel to handle them 5) the impact on Puget Sound and other waterways if any of the shipping containers or storage facilities leak.

Comment Number: 000000330-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Hazardous materials to be present at Facility, used or generated with disposal protocols and accident prevention and remediation measures in place.

Comment Number: 000000331-2
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
Socioeconomic issues related to human health affects, reduced employee productivity, increased health care costs, increased stress due to traffic congestion/noise/pollution Fisheries, especially for Salmon, Shellfish, Crab; Agriculture/Aquaculture: impacts due to spills, both near shore and in the ocean;transportation issues related to increased traffic congestion; air quality Tourism: impacts due to increased traffic congestion, spill/explosions/air quality concerns, noise, visual impact, perception of community Potential for change in values of property affected by increased rail, road or vessel traffic, or by other Port Facility- related alterations of the environment such as air, light and noise pollution; and fears of derailments, explositions and spills.

Comment Number: 000000339-11
Organization: Dept of Natural Resources

Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 7.1 13.3 13.5
Comment Excerpt Text:
Spills
The EISs should analyze the increased risk of Bakken, Tar Sands oil or other fuel spills that may occur during cargo loading and offloading, through vessel collisions that may result from the increase in vessel traffic at the river's mouth, along the coast, or through train collisions along the Chehalis River. Imperium's flange connection location has a 52 gallon catch basin per USCG requirements; is this sufficient to capture all potential spills? Imperium and Westway currently have no requirements for pre-booming due to speed of current and safety measures. Is there any way to design a pre-booming strategy to minimize chance of release should a failure occur during transfer? Westway currently has no spill response plan. How will spills be contained and prevented from spreading to sensitive areas, especially given the presence of hundreds of thousands of shorebirds nearby? What measures will be taken to ensure prevention and timely response to oil spills to avoid impacts to water and sediment quality, habitats, and species? What are the risks of oil spills associated with the need for vessel traffic maneuvering and queuing within and outside the harbor?

What are the risks of spills associated with increased rail transportation carrying crude oil and how will these risks be mitigated? The state's oil spill response program is funded through a crude oil tax on vessels that does not apply to rail. What is timeline for implementation in comparison to time line for crude oil transport operations to begin?

Comment Number: 000000348-2
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
Below are specific questions we believe need to be addressed for an adequate EIS. Marine Life The natural resources of Grays Harbor County and Washington’s Pacific coast are world class and their protections should be a top priority when considering the proposed projects. These questions need to be thoroughly investigated: 1. How would native wildlife and vegetation (including fish, birds, amphibians, mammals, shellfish, benthic invertebrates, algae, plankton and wetland systems) be impacted in the event of a large oil spill? 2. How would native wildlife and vegetation be impacted by small cumulative oil leaks due to shipping and transport? 3. Can these projects guarantee there will be no impact to state and federally listed endangered species? If not, why should these projects be allowed to move forward?

Comment Number: 000000351-1
Organization:
Commenter: Marsha Lovely
Commenter Type: Public
Other Sections: 13.3 15
Comment Excerpt Text:
The scope of any EIS should be as thorough and as strict as possible. Any oil filled train coming to the port of Grays Harbor has to pass over,or by, numerous waterways with any potential accident and spill affecting fish, shellfish, birds, migratory pathways for birds and much other plant and animal life, as well as people. In lieu of the many recent derailments and other accidents involving train traffic lately in this area and others it would seem a no brainer to look very hard at potential environmental and economic

impacts. It is obvious that the present state of the rails is not sturdy or strong enough to withstand the current increased number of trains, the cars they haul and their increased weight. Do not let money for a minority be the deciding factor in your decisions.

Comment Number: 000000353-4
Organization: Jefferson County
Commenter: Carolyn Avery
Commenter Type: Agency
Other Sections: 1.3 1.2 7.1
Comment Excerpt Text:
3. The EIS consider potential failures, of structures or processes, that would cause oil to spill into the environment- such as derailments or other damage caused by earthquakes of various magnitudes, river flooding and associated debris, or tsunamis.
4. The EIS determine what additional infrastructure, plans, procedures and equipment should exist in order to minimize damage to the environment from a forecasted tsunami and to coordinate with the evacuation and other needs of the local population.

Comment Number: 000000353-7
Organization: Jefferson County
Commenter: Carolyn Avery
Commenter Type: Agency
Other Sections: 5
Comment Excerpt Text:
7. The EIS describe in detail the direct and indirect effects of a major spill of 1). Crude oil from the Bakken Formation and its associated impurities (tracking chemicals) and 2). Canadian tar sands and associated impurities (synthetic crude and butimen with diluents) on the ESA-Iisted western snowy plover streaked horned lark and their designated critical habitats.

Comment Number: 000000354-5
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 7.3 14
Comment Excerpt Text:
Risk of Fire, Spills and Explosion:
Bakken crude oil is recognized as being highly volatile, as are all petroleum products that may be shippe d to the new term ina ls. The disaster at Lac-Megantic, Quebec, in which 47 lives were lost, demonstrates beyond question the danger posed by shipping this commodity through population centers. Analysis should include a review of the Federal Railroad Administration ' s "Operation Classification" undertaken due to its "specific safety concerns about the proper classification of crude oil being shipped by rail , the subsequent determination or selection of the proper tank car packaging used for transporting crude oil , and the corresponding tank car outage requirements ." The EIS needs to identify the potential for the risks of explosion and if and how those can be mitigated to nonsignificant levels . The mitigation measures to be analyzed need to include the proper equipping of first responders. The EIS must also identify the risks for sp ills and pot ential impacts
associated with release of petroleum products.

Comment Number: 000000356-9
Organization: NOAA - Olympic Coast National Marine Sanctuary

Commenter: Carol Bernthal
Commenter Type: Agency

Comment Excerpt Text:
• The EIS should include modeling of spill trajectories and analyze potential impacts to coastal resources in the event of a major spill, including the potential for a spill in either estuary or open ocean areas to reach and injure sanctuary resources.

Comment Number: 000000357-2
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization
Other Sections: 15 7.1 7.3
Comment Excerpt Text:
-Risks of oil spills in our marine environment. Increased vessel traffic and associated increased amounts of oil traveling through waterways mean a higher risk of oil spills, especially given the lack of tug escorts available to tankers. The EIS should also consider what the economic impacts of a spill, including to the shellfish, fishing, and tourism industries, would have on Grays Harbor and the entire region. -Risks from crude oil. Putting in place this infrastructure would allow Bakken crude oil and oil from the Canadian tar sands to come to Grays Harbor. The EIS should include an evaluation of the risks, resources needed to prevent spills, and response required related to these different oils. Bakken shale crude oil has been shown to be more explosive, putting our communities and first responders at greater risks. Tar sands sink and make cleanup of any spills much more difficult and expensive.

Comment Number: 000000357-7
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization
Other Sections: 7.1
Comment Excerpt Text:
Of particular importance is the threat of oil spills and other accidents and the impact based on the type of crude oil -- Bakken shale or Canadian tar sands -- and how, based on the type of crude oil, a spills and accident would be prevented, and, in the case of an accident, cleaned up.

Comment Number: 000000358-11
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
f. The risks associated with potential train derailments, and resulting oil sp ills , to freshwater ecosystems along rail corridors and the likely impacts to the associated aquatic organism s; evaluations should keep in mind the specific physical characteristics associated with individual products being transported along the rail lines.

Comment Number: 000000358-13
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 13.4 5.1
Comment Excerpt Text:
d. The effects that increased barge and ocean going vessel traffic would have on fish , birds, and marine mammals. For example, gray whales are particularly susceptible to ship strikes, and the burrowing shrimp on which they feed are both susceptible to mortality from oil toxicity and would become vectors for delivery of sub-lethal doses of toxic compounds in oil to whales, green sturgeon, and other shrimp predators.

Comment Number: 000000358-16
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:

5. The EIS should include, at a minimum, the following analyses:
a. Short- and long-term impacts of oil spills on the sensitive marine habitats and wildlife resources found within the project area, including on: State and federally listed threatened and endangered species; resident and migratory birds and marine mammals; salt marshes, tidal flats , and other sensitive shallow water habitats; other WDFW-listed Priority Habitat and Species (PHS); the marine fish and shellfish species important to recreational and /or commercial fisheries and commercial aquaculture activities.

Comment Number: 000000358-2
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 1.2 1.3
Comment Excerpt Text:
The proposed increase in storage and associated systems for each of these projects will significantly increase the risk of an accidental oil release. In addition, the proposed volume of storage exponentially increases the impacts associated with any given release. Oil storage facilities can fail for a variety of reasons, including industrial accidents, unusual weather conditions such as severe stonns and flooding, and other natural disasters such as earthquakes and tsunamis-all of which pose a high risk.

Comment Number: 000000358-3
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:

Grays Harbor is an area particularly sensitive to the adverse effects of oil spills . Salt marshes and sheltered tidal flats are found throughout the harbor and are v ital to salmon, birds, and marine mammals. Grays Harbor is also an area vital to migrating shorebirds, supporting upwards of one million birds during their spring migration.
If there were to be a spill, the volume of product being considered for this project would likely lead to a catastrophic loss of habitat, and the potentially affected area could be much larger than just the Grays Harbor vicinity. Depending on the location and timing of the incident, the area affected by an oil spill could extend throughout the Grays Harbor estuary, its tributaries, and to offshore waters where the spill could reach a broad expanse the Washington coast and beyond.

As an illustration of this, the Nestucca Barge incident (1998) released -213 ,000 gallons of oil near the entrance of Grays Harbor. While the majority of the oil washed ashore near Ocean Shores, beaches as far away as Orego n and Vancouver Island , British Columbia were impacted.

Comment Number: 000000358-4
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
The habitats within Grays Harbor and the nearshore areas are particularly sensitive to oil spill impacts, notoriously difficult to clean of oil, and are likely to suffer years of degraded function followin g a spill event. Such an incident would cause irreparable harm to the marine fish , shellfish, wildlife, and greater ecosystem for decades. The estuary is important nursery and foragin g area for juvenile salmonid s including stocks of coastal cutthroat trout; winter and summer steel head; fall, spring, and summer Chinook; fall chum and coho salmon. Herring spawning areas occur in eelgrass beds at several locations within the estuary, and Grays Harbor is also nursery ground for sixgill and sevengill sharks. The nearshore Pacific Ocean waters are designated as critical habitat for species listed under the Endangered Species Act (ESA), such as the leatherback sea turtle, green sturgeon, and Eulachon, and as Essential Fish Habitat for West Coast salmon (including ESA-listed stocks), groundfish, forage fish, and coastal pelagic sharks. The adjacent nearshore waters are important areas for thresher sharks and juvenile and adult rockfish, including species that are under rebuilding plans, such as canary and yelloweye rockfish. These rockfish and pelagic sharks are long-lived, slowgrowing species with low productivity whose populations take decades to recover to healthy levels.
With regard to shellfish, the estuary is a major nursery area for juvenile Dungeness crab, which contributes significantly to the adult population along the outer coast. Portions of the estuary are under active commercial oyster culture. While much of tidelands and oysters are privately owned, commercial oyster beds provide much the same habitat benefits to native fish and shellfish as do natural beds. Eastern soft-shell clams, horse clams, Manila clams and cockles are also found at various locations throughout the estuary.

Comment Number: 000000358-5
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5
Comment Excerpt Text:
Relative to wildlife, a wide variety of birds and marine mammals also frequent the Grays Harbor area, its

tributaries, nearshore ecosystem, and offshore waters. Grays Harbor is an important foraging arid resting area for migratory shorebirds and waterfowl. Waterfowl concentrations occur from fall through spring, especially in North Bay. Grays Harbor is a shorebird site of world significance, supporting up to one million birds during the spring migration , as well as large numbers of fall-migrating and wintering shorebirds. The Oyhut/Damon Point area is one of only three nesting areas in Washington for the federally threatened Snowy plover. Bald eagles and great blue herons nest throughout the region and forage in the bay, and Peregrine falcons are common during peak shorebird abundance in spring. Migrating Gray whales commonly feed in the bay during the northward migration from about March through June. Occasional resident grays may also be seen, especially around the mouth of the bay. Grays Harbor is also home to thousands ofharbor seals and California Sea Lions from mid-spring through early fall, and is one of the largest seal pupping areas in the state. Pupping occurs throughout the bay with concentrations around Sand Island and in North Bay.
Sea otters are fairly rare in the immediate vicinity of Grays Harbor, but there is a recovering population living on the outer coast north of Point Grenville with a significant portion of this population found around Destruction Island. It is possible that a large spill in the Grays Harbor area could be transported by wind and currents to the north coast area where sea otters would be impacted. Sea otters are particularly susceptible to oil injury due to their reliance on dense fur, rather than blubber, for thermal protection ; once the pelt of sea otters is oiled, it los es most of its thermally protective qualities and the animal would likely succumb to hypothermia.

Southern Resident Orcas periodically utilize the offshore waters near Grays Harbor and the Columbia River entrance particularly in the winter and early spring where they prey on salmon and other fish. Orcas suffered high rates of mortality following the Exxon Valdez oil spill; the same would likely happen here if a s imilar sized spill occurred while they were present. ESA listed Southern Resident Orcas rely heavily on Chinook salmon for prey, and an oil spill in Grays Harbor would eliminate a large portion of these preferred prey items from the area.

Comment Number: 000000358-6
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1 13.3
Comment Excerpt Text:
Potential Impacts to the Upland and Freshwater Environments

Each of the proposed projects will significantly increase the number of train transits through the area. These additional trains would transit tracks from Centralia to Aberdeen passing adjacent to, or crossing, numerous salmon bearing waters including the Chehalis, Black, Satsop, Wynoochee and Wishkah Rivers as well as numerous other fish bearing creeks and streams.
There are 20 rail crossings of documented salmon spawning streams in Grays Harbor County alone. Loss of oil into the sea waters could have a significant impact on resident and anadomous fish runs. Additionally, there are no effective oil spill containment and collection procedures identified for these waterways. The uncontrolled release of even one tank car could cause oil impacts for many miles downstream.

Around ten years ago, grain cars derailed on the Wynoochee Bridge, spilling grain onto pasture lands adjacent to the Wynoochee River. Had this been oil instead of grain, the river would have delivered this oil to the Chehalis and the surge plain immediately below it. This surge plain is protected by the Washington Department of Natural Resources as a natural area, and is one of the largest preserved natural

surge plain habitats on the west coast. Spilled oil would be impossible to remove from this critical habitat. This year , there have been three derailments over
the course of less than three weeks-one involved more cars immediately adjacent to the Chehalis River in Aberdeen and another was near the Wynoochee River. These recent incidents significantly reduce our confidence in the safety of this form of oil delivery to Grays Harbor.

Comment Number: 000000358-8
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 15 11
Comment Excerpt Text:
Potential Impacts to Recreational and Commercial Fisheries

Grays Harbor and adjacent ocean waters are home for many healthy marine fish and shellfish stocks, whi ch are harvested in Washington' s recreational and commercial fisheries, and upon which our coastal communities depend, including Dungeness crab, Pacific halibut, Pacific whiting, salmon, lingcod, sablefish, nearshore flatfish and rockfish species, forage fishincluding anchovy, sardines, and mackerel - and oysters and razor clams. The average ex-vessel revenue for Washington 's coastal commercial fisheries for the past five years exceeds $109 million, and commercial oyster growing operations in the harbor contribute significantly to the state 's economy as well. It is imperative th at the potential impacts to recreational and
commercial fisheries resulting from a catastrophic event, such an oil spill, and secondary effects, such as from airborne pollutants from train diesel engines, and the subsequent effects on the economies of the local communities and broader state be analyzed and considered in this decision-making process.

Comment Number: 000000363-1
Organization: Washington State Legislature
Commenter: Reuven Carlyle
Commenter Type: Agency

Comment Excerpt Text:
I. Increased threat of oil spills

By increasing the volume of oil that is transported across the state and through our waterways, the proposed expansion projects necessarily increase the risk of large-scale oil spills. The lack of tug escorts available to tankers, the lack of appropriate staffing requirements for oil barges, and the lack of appropriate emergency response planning given the proposed expansion projects are all factors that heighten the risk of a catastrophic oil spill. Additionally, the Bakken crude that is likely to be moved through the proposed projects poses risks above and beyond those of other types of oil. It has been shown to be more explosive (due to a lower flash point) and more difficult to clean up when spilled (due to the fact that it sinks). The EIS must carefully consider the full range of economic and environmental impacts that an oil spill would have on Grays Harbor and on the state as a whole.

Comment Number: 000000368-2
Organization:

Commenter: Diana Gordon
Commenter Type: Public

Comment Excerpt Text:
We also have several dams. A spill of sweet, light crude would stay mostly on top of the water and maybe not gum up the dams too much. However, oil derived from the Canadian tar sands is thick and gummy. If spilled into the river above a dam, it would sink and go right into the underwater turbines creating havoc for thousands of people. Any kind of collision or derailment could cause a spill. The T-111 tank cars are totally inadequate at preventing a puncture; the 1232's are better, but were implicated in an explosion in Alabama - the oil entered the Charles River in a wildlife refuge. (I would think that any terrorist worth his salt would find this information most interesting.)

Comment Number: 000000377-2
Organization:
Commenter: Laura Ackerman
Commenter Type: Public
Other Sections: 7.3 2.1 7 13.3 15 14
Comment Excerpt Text:
Please analyze the potential oil spills, fire from oil spills, diesel PM increasing, and the impacts to human health, especially those who live within a mile of the tracks, safety issues on increased railroad traffic, economics of communities paying for safety upgrades, impacts on rivers and other bodies of water, trails, parks, schools, hospitals and public facilities. Also analyze the impacts to wildlife.

Section 8 - Land and Shoreline Use

Comment Number: 000000022-1
Organization: University of Washington
Commenter: Donald Gunderson
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
The Grays Harbor, Willapa Bay, and Columbia River estuaries provide critical juvenile nursery habitat for Dungeness crab during their first two years of life. After migrating from these estuaries, these crabs eventually account for about 10-50% of the commercial catch landed in Grays Harbor, Willapa Bay, Ilwaco, Astoria, and Warrenton, depending on the year (see Armstrong, Rooper, and Gunderson, "Estuaries" 2003). Production from estuaries is relatively stable from year to year, while ocean production is more erratic, so that in some years the fishery is heavily dependent on estuarine production. The Grays Harbor estuary is the most productive of these three estuaries, and a substantial loss of revenue and jobs would result if this habitat were damaged. Particularly vital to young stages of crab are the smaller side channels that cross extensive intertidal flats where highest densities of crab are found. The adjacent tideflats are used for feeding during high tides when crab move from channels onto the flats (see Holsman, McDonald, Armstrong, "Marine Ecology Progress Series" 2006). Any damage to the Willapa Bay and Columbia River estuarine systems that might result during spills from barges transiting offshore waters should also be considered during the scoping process. The Grays Harbor, Willapa Bay, and Columbia River estuaries also provide critical habitat for English sole during their first two years of life. It is possible that most adult English sole captured by commercial trawlers off the coasts of Washington and Oregon come from estuarine nursery areas (Rooper, Gunderson, and Armstrong, "Estuaries", 2004).

Comment Number: 000000176-2
Organization: FOGH (Friends of Grays Harbor)

Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
Specific Areas of Concern:
1. Land use and public infrastructure requirements and alterations including new roads or bridges/overpasses necessary to decrease disruption of current traffic flow. Decrease of land values due to increased rail disruption and noise.

Comment Number: 000000176-30
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 7.2
Comment Excerpt Text:

21. Recreational parks and facilities, e.g., Morrison Park
• Accessibility for people attending events at these destinations
• Noise disruption during the event due to increase train traffic
• Community loss of these public venues for events, due to access, noise, safety and the impacts upon a sense of place and community heritage
• Increased safety concerns because of train traffic, train derailment (actual and perceived)
• Access of first responders to any emergencies at the events. We have had emergencies at past events and this is a significant concern to mitigate

22. Business entities rely upon the easy and safe access to their places

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Comment Number: 000000214-4
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 5.1 7.4
Comment Excerpt Text:
Glacier NP
Glacier NP preserves more than a million acres of forests, alpine meadows, lakes, rugged peaks and glacial-carved valleys in the Northern Rocky Mountains. Its diverse habitats are home to nearly 70 species of mammals including the grizzly bear, wolverine, gray wolf and lynx. Over 270 species of birds visit or reside in the park, including such varied species as harlequin ducks, dippers and golden eagles. The park is named for its prominent glacier-cawed terrain and remnant glaciers descended from the ice ages of 10,000 years past. Bedrock and deposited materials exposed by receding glaciers tell a story of ancient seas, geologic faults and uplifting, and the movement of giant slabs of the earth's ancient crust overlaying younger strata. The result of these combined forces is some of the most spectacular scenery on the planet.

The BNSF railroad runs adjacent to, and at times forms the southern boundary of, Glacier NP. The rail line borders Bear Creek and the Middle Fork Flathead River, a designated wild and scenic river that is world-renowned for whitewater rafting and fishing. The railroad also crosses several park streams and well-established avalanche chutes. We are very concerned about potential impacts from oil spills and train derailments on gateway communities, as well as on park water quality and aquatic life--specifically the

federally-threatened bull trout *(Salvelinus conjluentus)* and the wests lope cutthroat trout *Oncorhynchus clarkii lewisi),* a state species of concern. These impacts should be evaluated in the EISs for the Imperium and Westway projects.

Comment Number: 000000247-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
Should the Westway and Imperium crude by rail terminals be constructed and operated at the rates stated in their checklists, there will be massive changes in the livability of the area. People will view the area as an oil shipping port, rather than a lumber town which has other industries, such as boat-building, fishing, crabbing, shellfish growing, and the shipping of more benign items from the Port of Grays Harbor such as autos and soybean products.Based on the above description, many people move to the Grays Harbor area for the relaxed area, mild climate, and affordable housing. The housing industry (realtors, builders, etc.) have long prospered prior to the downturn of 2007-2008. Housing activity is picking up, but if there are crude oil terminals, there will be excessive noise, traffic congestion from rail traffic and odors from crude oil transfer and storage. All the above activities will detract from the area's livability, depressing housing values, and forcing taxing agencies to raise real estate taxation rates to maintain some semblance of county and municipal services. This will cause a further downward spiral, further depressing housing values and destroying the livability of cities and towns which are impacted by the rail and ship traffic. Those who are able will move to other areas, increasing the stock of available real estate, further depressing home prices. Prevention of further erosion of livability of the area should be avoided, and a moratorium on receipt and transfer of crude by rail should be enacted. Our county's position in the state's roll of high unemployment is already at or near the top, and crude by rail terminals will only solidify our grip on perennial malaise.

Comment Number: 000000296-1
Organization:
Commenter: Steve Hallstrom
Commenter Type: Public
Other Sections: 7.4 3.1 7.2 5.1
Comment Excerpt Text:
Impacts that need to be considered relevant to agriculture in Grays Harbor County: Contamination of water in the event of a spill. Noise pollution and its affect on dairy, and on the farmers who work long hours year round. Destruction of shellfish beds due to dredging for larger ships in the harbor. Blockage of farm and field access due to increased rail traffic. Potential contamination of shellfish beds in event of a spill.

Comment Number: 000000308-6
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency

Comment Excerpt Text:
Land and Shoreline Use

This element addresses whether the proposal is compatible with existing and projected land uses and

plans. For this proposal, the following should be addressed:

In October 2009, the City unanimously approved the master plan for the Columbia Waterfront Development project, which calls for the development of 3,300 residential units and 1 million square feet of commercial space on 32 acres of riverfront property. This site is bordered by the BNSF railroad tracks that will be used to transport the oil to the projects. On November 4, 2013, the Vancouver City Council unanimously approved the Waterfront Park Plan that calls for a 7.3-acre park and trail within the Waterfront Development project. The City has invested $45 million in transportation improvements to serve the Waterfront Development project. The EIS needs to identify the impacts of the projects and other reasonably foreseeable projects on the Waterfront Development project and identify how these impacts will be reduced to nonsignificant level. The EIS should also address: ? Impact of the proposal on the viability of the city's Vancouver City Center Vision Subarea Plan

Impacts on existing land and shoreline uses

Impacts on envisioned future uses

Impacts to parks and public spaces

Comment Number: 000000329-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 13.1 15
Comment Excerpt Text:
Land use and public infrastructure requirements and alterations including new roads or bridges/overpasses necessary to decrease disruption of current traffic flow. Decrease of land values due to increased rail disruption, traffic congestion, noise, potential for spills/explosions. These should be considered both separately and cumulatively in conjunction with the increased flood insurance costs imposed on most areas near the rail lines within the Aberdeen and Hoquiam areas.

Comment Number: 000000332-5
Organization: citizen
Commenter: Judy Carter
Commenter Type:

Comment Excerpt Text:
What is the analysis of impacts on land use and public infrastructure requirements, including alterations to roads, culverts, bridges, and overpasses in order to decrease disruption of current flows, analysis of costs and methods of payment to achieve these goals?

Comment Number: 000000339-15
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
Land and Shoreline Use
How might the additional train and vessel traffic affect DNR's agricultural and commercial lessees' lands

and the ability to get their commodities, such as wheat, grains, potatoes, and timber to the market? The EIS should include a cumulative impacts analysis of these potential effects.

Comment Number: 000000354-6
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency

Comment Excerpt Text:
Land and Shoreline Use

The City of Ridgefield and the Port of Ridgefield are collaborating on a 41-acre mixed use waterfront development with 820 ,000 square feet of office, re tai l and residential space along Lake River that has the railroad as its eastern boundary. The preliminary plat for the subdivision was approved in February 2014 (PLZ- 14-0003), the City has adopted Comprehensive Plan and zoning regulations to shape development of the site, and the Port has invested in the first two of three phases for a new overpass to improve site access. The EIS needs to identify the impacts of the projects on the Lake River waterfront development and identify how these impacts will be reduced to nonsignificant levels. The EIS should also address impacts to other adjacent land uses, including the mixed-use city center area directly east of the railroad tracks and residential areas to the south and north.

Section 9 - Aesthetics

Comment Number: 000000073-3
Organization:
Commenter: Jim Steitz
Commenter Type: Public
Other Sections: 2 7.2
Comment Excerpt Text:
Even before the climate impacts are considered, the immediate impacts to communities and landscapes between the oil sources and the departure point to the Pacific are numbing. The cities of Spokane and Grays Harbor would suffer an unacceptable diminution of their quality of life due to noise, air pollution, and the omnipresent eyesores of tankers and oil-loaded freight trains. Many other communities along the railroads further east would find additional hours of their day transformed into an acoustic and seismic barrage of rail traffic beyond anything they bargained for in joining that community.

Comment Number: 000000084-5
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Impacts of increased rail traffic on scenic viewsheds within Washington State -

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Comment Number: 000000176-31
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum

Commenter Type: Organization

Comment Excerpt Text:
23. Visual and aesthetic considerations

Comment Number: 000000176-56
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(ah) Visual and aesthetic considerations, as the area becomes an oil port. How will this affect housing, business and other real estate values?

Comment Number: 000000181-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public
Other Sections: 2.1 7.2 13.1
Comment Excerpt Text:
How will the companies plan to mitigate the array of traumatic and depressive effects that residents will experience for having to look at the blight, hear the noise, smell the oil, and wait for rail cars to pass as they are blocked at the crossing? http://www.dshs.wa.gov/pdf/ppa/2013-15jan14/BHSIA.pdf http://www1.dshs.wa.gov/pdf/ms/rda/research/4/47/updated/graysharbor.pdf

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Comment Number: 000000214-10
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7.2 12 11
Comment Excerpt Text:
We are concerned the increased rail traffic for the Imperium and Westway projects could introduce visual and audible elements that might diminish the ability of visitors (including American Indians and Native Hawaiians) to make connections to the historic properties of the district, including in particular, aspects offeeling and setting. Views from inside and adjacent to the Fort, Village and Waterfront Complex may be disrupted, affecting the ability of the visitor to orient to the historical context of the site. Some of these sites may have a special significance to American Indian tribes. The increased rail noise will be a constant distraction that could further diminish the integrity of the setting and feeling of the Fort, Village and Waterfront. The EISs should address indirect effects associated with the increased rail traffic through Fort Vancouver NHS and its affiliated areas.

Comment Number: 000000333-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
Visual and aesthetic considerations, as the area becomes an oil port. How will this affect housing, business and other real estate values? Tourism has become an increasingly important revenue generator and business generator in Grays Harbor. What will be the visual and aesthetic considerations regarding tourism in Grays Harbor?

Section 10 - Light and Glare

Comment Number: 000000084-3
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Impacts of overwater lighting on fish and wildlife habitat -

Comment Number: 000000084-7
Organization:
Commenter: Eric LaBrant
Commenter Type: Public
Other Sections: 7.2
Comment Excerpt Text:
Light and noise pollution both at the site and along transport routes -

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Comment Number: 000000176-13
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
light changes (on land or at water, light pollution at night, changes in ability of light to penetrate water columns and to reach bottom such as shading from dock/lingering ships);

Comment Number: 000000176-25
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
17. Light pollution at night from Facility and vessels.

Comment Number: 000000331-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 7.2 1.1 5.1
Comment Excerpt Text:
Noise and vibration: from operation of the Port Facility machinery, and increased train, truck and vessel traffic: Assessment of potential for increased land/mudslides and derailment due to more and longer trains and the associated increase in trains, and vibration; Impacts on marine life from significant increase in underwater noise associated with increase in vessels. Impacts and modeling of wake stranding due to vessels. Light pollution at night from Facility and vessels.

Comment Number: 000000339-7
Organization: Dept of Natural Resources
Commenter: Megan Duffy

Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
Artificial Lighting
The EIS should analyze impacts of any increase in lighti~g installations or time periods associated with project operations on aquatic species. A study should be conducted to investigate the potential changes in species abundance and dominance resulting from increased prey access under artificial lighting and address ways to reduce or eliminate any identified impacts.

Section 11 - Recreation

Comment Number: 000000214-10
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 9 7.2 12
Comment Excerpt Text:
We are concerned the increased rail traffic for the Imperium and Westway projects could introduce visual and audible elements that might diminish the ability of visitors (including American Indians and Native Hawaiians) to make connections to the historic properties of the district, including in particular, aspects offeeling and setting. Views from inside and adjacent to the Fort, Village and Waterfront Complex may be disrupted, affecting the ability of the visitor to orient to the historical context of the site. Some of these sites may have a special significance to American Indian tribes. The increased rail noise will be a constant distraction that could further diminish the integrity of the setting and feeling of the Fort, Village and Waterfront. The EISs should address indirect effects associated with the increased rail traffic through Fort Vancouver NHS and its affiliated areas.

Comment Number: 000000214-11
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7.4 7 5.1
Comment Excerpt Text:
Lewis and Clark NHP

Lewis and Clark NHP encompasses seven sites totaling 3,400 acres in the lower Columbia River estuary and along the Pacific Ocean in Clatsop County, Oregon, and Pacific County, Washington. The park preserves a variety of ecosystems from coastal dunes, estuarine mudflats and tidal marshes to shrub wetlands, temperate rainforests and swmnps. Extensive wetlands in the park include fringing saltmarshes on the lower Columbia River, the tidally-influenced lower Lewis and Clark River and many low-gradient brackish sloughs and marshes. These wetlands provide valuable habitat for a diversity of mammals, birds, reptiles, amphibians and fish.

The Imperium and Westway EISs should evaluate the impacts of potential oil spills from marine vessels traveling south from Grays Harbor to California on natural resources and visitor use and enjoyment at Lewis and Clark NHP. In particular, the analysis should address the effect that oil spills in the lower Columbia River estuary would have on critical habitat for federally threatened and endangered species that rear in and migrate through NPS waters in the estuary including but not limited to: Pacific eulachon *(Thaleichthys pacificus),* coho salmon *(Oncorhychus kisutch),* Chinook salmon *Oncorhynchus*

tshawytscha), chum salmon *(Oncorhynchus keta)* and steelhead *(Oncorhynchus myldss).* The analysis should also include potential impacts to water quality and the aquatic environment.

Comment Number: 000000214-13
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 5.1 7.4
Comment Excerpt Text:
San Juan Island NHP
A key attraction for visitors at San Juan Island NHP is watching marine wildlife, including the iconic Puget Sound orcas. We are concerned about potential harmful effects on endangered orcas, as well as on anadromous fish species such as salmon and steelhead, from increased ship traffic, noise and potential oil spills. The park protects more than six miles of shoreline, and one of the best public beaches in the San Juan Islands. The analysis should include potential impacts to tourism.

Comment Number: 000000214-3
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7 12
Comment Excerpt Text:

Specifically, we are concemed about potential project impacts on natural and cultural resources, visitor use and enjoyment, and employee and public safety at several areas managed or administered by the NPS. Washington Department of Ecology's website does not provide any details about the proposed rail or marine shipping routes. We, therefore, assume crude oil will be moved along rail lines from the Midwest, through the Columbia River Gorge to Vancouver,
Washington, north to Chehalis, then west to the Pmt of Grays Harbor. We further assume marine shipping could take place along the Pacific coast south to refineries in California or north to refineries in Puget Sound. Based on these assumptions, we have detetmined the following national park areas could potentially be affected by the Imperium and Westway projects: Glacier National Park (NP) in Montana; sections of the Lewis and Clark National Historic Trail (NHT), Oregon NHT and Ice Age Floods National Geologic Trail (NGT) along the Columbia River in Oregon and Washington; Fort Vancouver National Historic Site (NHS) in Vancouver, Washington; Lewis and Clark National Historical Park (NHP) near Astoria, Oregon; Olympic NP in northwest.Washington; San Juan Island NHP and Ebey's Landing National Historical Reserve (NHR) on Whidbey Island.

Comment Number: 000000214-7
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 12
Comment Excerpt Text:
National Historic and National Geologic Trails
In Washington and Oregon, the Lewis and Clark NHT follows the Columbia River from its confluence with the Snake River near Kennewick, Washington, to its mouth on the Pacific coast. The Oregon NHT joins the Columbia River east of the Deschutes River in Oregon and follows it west to Vancouver,

Washington. Ice Age Floods NGT includes the entire Columbia River basin.
The three trails provide unique interpretation of the area's cultural and natural history and include several viewpoints along the Columbia River. The Imperium and Westway EISs should evaluate how increased rail traffic could affect visitor access to, and enjoyment of, trail viewpoints and interpretive displays.

Comment Number: 000000214-8
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 12
Comment Excerpt Text:
Fort Vancouver NHS
Fort Vancouver NHS encompasses 209 acres and contains numerous cultural resources associated with American Indians, the Hudson's Bay Company colonial establishment and the first U.S. Army post in the Pacific Northwest. During World War I, Sitka spruce was brought from the Coast Range, including areas of Olympic NP, by railroad to be milled on the grounds of the National Park unit into aviation-grade lumber to support the war effort. The affiliated sites of the Vancouver National Historic Reserve include the City of Vancouver's Old Apple Tree Park, where the region's oldest living survivor ofthe early colonial days of Fort Vancouver still lives. There are numerous archaeological resources associated with Fort Vancouver NHS including the Fort Vancouver Village ("Kanaka" Village), the pond and Waterfront Complex, and underwater sites within the Columbia River (the Quartermaster East and Benoit sites). The entire area is a listed National Register District. Today, over one million visitors come to the park and its affiliated sites each year to learn more about the history of the Pacific Northwest.

The BNSF railroad runs through Fort Vancouver NHS and a portion of the lines are on an easement that dates back to 1906 when the original Spokane, Portland, and Seattle (SP&S) Line was built across the U.S. Army post. The Imperium and Westway EISs should evaluate the potential for the projects to adversely affect Fort Vancouver NHS and its affiliated areas of the Vancouver National Historic Reserve. In particular, we are concerned about increased rail traffic associated with the projects. This increased rail traffic could have direct and indirect effects on the historic properties of Fort Vancouver NHS. Increased rail traffic may increase the risk of a derailment that could damage irreplaceable cultural resources, and could pose hazards to visitors enjoying the site. For example, some of the areas immediately adjacent to the railroad contain highly sensitive and significant subsurface and submerged archaeological resources associated with the colonial period of the Pacific Northwest. A derailment in these areas could directly damage or destroy these resources. The EISs should include an analysis to address the increased risk of a derailment, or other accident, and how contingency plans would minimize harm of an oil spill on fragile and significant cultural resources on land and potentially in the Columbia River.

Comment Number: 000000229-8
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency

Comment Excerpt Text:

The CRGNSA is known for providing high quality outdoor recreational experiences. Recreation also provides a substantial proportion of the economic base in the Gorge and vicinity. The increased frequency and magnitude of train-related noise disturbance is of concern, because it may negatively impact the

recreation experience in the CRGNSA.

Comment Number: 000000236-1
Organization: Involved Democracy
Commenter: Brian Gunn
Commenter Type: Public
Other Sections: 7 2.1 12
Comment Excerpt Text:
Increased train traffic will have adverse affects on human health as well as on sensitive areas, especially wetlands. In addition to the risk of leaks and spills along the rail routes, diesel exhaust will increase and people living near or visiting parks along the rail lines will be exposed to these toxic fumes. Any oil terminal project will harm imperiled wildlife species and devastate critical habitat, interfere with recreational and tribal fishing, transform the region with rail congestion, and dramatically increase carbon pollution that is driving climate change.

Comment Number: 000000271-3
Organization: Mr.
Commenter: Michael Gary
Commenter Type: Public
Other Sections: 5.1 7 3.1
Comment Excerpt Text:
There are many impacts from the proposed facilities. Reduced fishing, impacted recreation, reduced air quality, reduced water quality, and long-term health impacts to humans, just to name a few. These dangerous trains passing through my home area of Woodland, Washington will further damage the quality of life there.

Comment Number: 000000331-5
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 13.1 15
Comment Excerpt Text:
Recreational parks and facilities: accessibility for people attending events at these destinations, noise disruption during the event due to increase train traffic, community loss of these public venues for events, due to access, noise, safety and the impacts upon a sense of place and community heritage; increased safety concerns because of train traffic, train derailment (actual and perceived)l and access of first responders to any emergencies at the events. We have had emergencies at past events and this is a significant concern to mitigate Business entities rely upon the easy and safe access to their places: impacts to businesses of increased traffic congestion, derailments, explosions, train stoppages in traffic areas. Visual and aesthetic considerations State contributions to infrastructure. In 2003 the State of Washington contributed $2 million to the Port of Grays Harbor Grain Terminal Loop Track. How will the citizen’s dollars be protected when a spill or explosion happens involving crude oil?

Comment Number: 000000341-3
Organization:
Commenter: Eric Sherdahl
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:

Consider also the potential harm to fishing,recreation and tourism. Also consider and investigate the effects of all weather and natural disasters and discuss mitigation to prevent massive pollution.What effect does out annual rain fall totals have on the rail lines and the proposed projects.

Comment Number: 000000358-14
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 15
Comment Excerpt Text:
c. Impacts to recreational and commercial fisheries resulti ng from additional shipping traffic during peak salmon runs, the possibility of shipping conflicts with fishing gears, and the potential for displacement of fish away from normal fishing grounds due to increased shipping.

Comment Number: 000000358-8
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 15 7.4
Comment Excerpt Text:
Potential Impacts to Recreational and Commercial Fisheries

Grays Harbor and adjacent ocean waters are home for many healthy marine fish and shellfish stocks, whi ch are harvested in Washington' s recreational and commercial fisheries, and upon which our coastal communities depend, including Dungeness crab, Pacific halibut, Pacific whiting, salmon, lingcod, sablefish, nearshore flatfish and rockfish species, forage fishincluding anchovy, sardines, and mackerel - and oysters and razor clams. The average ex-vessel revenue for Washington 's coastal commercial fisheries for the past five years exceeds $109 million, and commercial oyster growing operations in the harbor contribute significantly to the state 's economy as well. It is imperative th at the potential impacts to recreational and
commercial fisheries resulting from a catastrophic event, such an oil spill, and secondary effects, such as from airborne pollutants from train diesel engines, and the subsequent effects on the economies of the local communities and broader state be analyzed and considered in this decision-making process.

Section 12 - Historic and Cultural Preservation

Comment Number: 000000023-3
Organization: World Temperate Rainforest Network
Commenter: Pat Rasmussen
Commenter Type: Organization

Comment Excerpt Text:
The Tribes are opposed to oil trains. They have Treaty Rights that protect salmon, the rivers and much of the land the trains pass through. They can stop this proposal based on Treaty Rights.

Comment Number: 000000072-3
Organization: small business owner
Commenter: Karen Grimstad
Commenter Type:

Comment Excerpt Text:
The Native American's have fishing and land rights, the Federally Government is to protect them and those rights. We small business owner stand with the Native American's all over this county to stand up to big corporation who destroy the land, water and air.

Comment Number: 000000158-1
Organization:
Commenter: Robin Moore
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
The Department of Ecology and the City of Hoquiam have already received comments from the Quinault Indian Nation expressing their opposition to these oil terminal expansion projects. Ignoring their views will be one more betrayal by the "white man." Is this still done at this point in history? As a matter of governmental and social responsibility, how can the usurping of native people's rights be allowed? When the spill happens, no mitigation plan will be adequate for the destruction of the Quinault's culture. Take this opportunity to follow your moral compass and deny these permits.

Comment Number: 000000167-3
Organization:
Commenter: Bob Zeigler
Commenter Type: Public
Other Sections: 13.3 5 7
Comment Excerpt Text:
The EIS would need to discuss: 1. Risk increases to spill and those consequences to human health and safety, water quality and Chehalis River Fish and Wildlife and Native American Treaty Rights and impact to migratory birds stopping at Bowerman Basin. 2. Risks to people and natural resources and Treaty Rights along the entire train route from potential for accident and spill.

Comment Number: 000000176-3
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
2. Cultural, historical and archeological:
Native American Issues:
• Treaty fishing rights - loss/interruption of usual and accustomed fishing sites;
• Public's perception of negative effect on PNW totemic species: Salmon, Orca (cetaceans) and eagle.
• Shellfish and crab viability

Comment Number: 000000176-39
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(h) The EIS must include a discussion of treaty rights or impacts to fisheries and the environment subject to those treaties. What are the consequences of ignoring Federal treaty rights and promises?

Comment Number: 000000176-48
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(q) What is the analysis of impacts on cultural, historical and archeological issues, e.g., Treaty fishing rights/loss or impairment of usual and accustomed fishing sites?

Comment Number: 000000214-10
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 9 7.2 11
Comment Excerpt Text:
We are concerned the increased rail traffic for the Imperium and Westway projects could introduce visual and audible elements that might diminish the ability of visitors (including American Indians and Native Hawaiians) to make connections to the historic properties of the district, including in particular, aspects offeeling and setting. Views from inside and adjacent to the Fort, Village and Waterfront Complex may be disrupted, affecting the ability of the visitor to orient to the historical context of the site. Some of these sites may have a special significance to American Indian tribes. The increased rail noise will be a constant distraction that could further diminish the integrity of the setting and feeling of the Fort, Village and Waterfront. The EISs should address indirect effects associated with the increased rail traffic through Fort Vancouver NHS and its affiliated areas.

Comment Number: 000000214-14
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
Ebey's Landing NHR
Ebey's Landing is the nation's first historical reserve, created in 1978 to protect a rural working landscape and community on central Whidbey Island. The reserve contains 17,500 acres, 18 working farms, 400 historical structures, native prairies, two state parks, miles of shoreline, a network of trails and the second oldest town in Washington. The Imperium and Westway EISs should evaluate the impacts of potential oil spills from marine vessels on natural resources and visitor use at the historical reserve.

Comment Number: 000000214-3
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 7 11

Comment Excerpt Text:

Specifically, we are concemed about potential project impacts on natural and cultural resources, visitor use and enjoyment, and employee and public safety at several areas managed or administered by the NPS. Washington Department of Ecology's website does not provide any details about the proposed rail or marine shipping routes. We, therefore, assume crude oil will be moved along rail lines from the Midwest, through the Columbia River Gorge to Vancouver,
Washington, north to Chehalis, then west to the Pmt of Grays Harbor. We further assume marine shipping could take place along the Pacific coast south to refineries in California or north to refineries in Puget Sound. Based on these assumptions, we have detetmined the following national park areas could potentially be affected by the Imperium and Westway projects: Glacier National Park (NP) in Montana; sections of the Lewis and Clark National Historic Trail (NHT), Oregon NHT and Ice Age Floods National Geologic Trail (NGT) along the Columbia River in Oregon and Washington; Fort Vancouver National Historic Site (NHS) in Vancouver, Washington; Lewis and Clark National Historical Park (NHP) near Astoria, Oregon; Olympic NP in northwest.Washington; San Juan Island NHP and Ebey's Landing National Historical Reserve (NHR) on Whidbey Island.

Comment Number: 000000214-7
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 11
Comment Excerpt Text:
National Historic and National Geologic Trails
In Washington and Oregon, the Lewis and Clark NHT follows the Columbia River from its confluence with the Snake River near Kennewick, Washington, to its mouth on the Pacific coast. The Oregon NHT joins the Columbia River east of the Deschutes River in Oregon and follows it west to Vancouver, Washington. Ice Age Floods NGT includes the entire Columbia River basin.
The three trails provide unique interpretation of the area's cultural and natural history and include several viewpoints along the Columbia River. The Imperium and Westway EISs should evaluate how increased rail traffic could affect visitor access to, and enjoyment of, trail viewpoints and interpretive displays.

Comment Number: 000000214-8
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 11
Comment Excerpt Text:
Fort Vancouver NHS
Fort Vancouver NHS encompasses 209 acres and contains numerous cultural resources associated with American Indians, the Hudson's Bay Company colonial establishment and the first U.S. Army post in the Pacific Northwest. During World War I, Sitka spruce was brought from the Coast Range, including areas of Olympic NP, by railroad to be milled on the grounds of the National Park unit into aviation-grade lumber to support the war effort. The affiliated sites of the Vancouver National Historic Reserve include the City of Vancouver's Old Apple Tree Park, where the region's oldest living survivor ofthe early colonial days of Fort Vancouver still lives. There are numerous archaeological resources associated with Fort Vancouver NHS including the Fort Vancouver Village ("Kanaka" Village), the pond and Waterfront Complex, and underwater sites within the Columbia River (the Quartermaster East and Benoit sites). The entire area is a listed National Register District. Today, over one million visitors come to the park and its

affiliated sites each year to learn more about the history of the Pacific Northwest.

The BNSF railroad runs through Fort Vancouver NHS and a portion of the lines are on an easement that dates back to 1906 when the original Spokane, Portland, and Seattle (SP&S) Line was built across the U.S. Army post. The Imperium and Westway EISs should evaluate the potential for the projects to adversely affect Fort Vancouver NHS and its affiliated areas of the Vancouver National Historic Reserve. In particular, we are concerned about increased rail traffic associated with the projects. This increased rail traffic could have direct and indirect effects on the historic properties of Fort Vancouver NHS. Increased rail traffic may increase the risk of a derailment that could damage irreplaceable cultural resources, and could pose hazards to visitors enjoying the site. For example, some of the areas immediately adjacent to the railroad contain highly sensitive and significant subsurface and submerged archaeological resources associated with the colonial period of the Pacific Northwest. A derailment in these areas could directly damage or destroy these resources. The EISs should include an analysis to address the increased risk of a derailment, or other accident, and how contingency plans would minimize harm of an oil spill on fragile and significant cultural resources on land and potentially in the Columbia River.

Comment Number: 000000227-1
Organization:
Commenter: Julie Rabey
Commenter Type: Public
Other Sections: 5.1 15
Comment Excerpt Text:
Fish, shellfish, and aquatic plants are not only central to the lives and culture of the Quinault People, but also to all of our citizens who see the value of a strong sport fishery and clean environment in our county. Industry is not the only thing that adds value to our lives.The environment and clean air and water as well as safety of our citizens, contribute to quality of life. These things weighed against a few added jobs, win out in my mind. In fact, the economic impact of losing our clean waters and what is left of the fisheries, would impact the economy far more than adding oil to the mix. Therefore, the EIS needs to address the economics of the loss of our estuary. The EIS must address the impact to the Quinault Nation as well as sport fisheries.

Comment Number: 000000236-1
Organization: Involved Democracy
Commenter: Brian Gunn
Commenter Type: Public
Other Sections: 7 2.1 11
Comment Excerpt Text:
Increased train traffic will have adverse affects on human health as well as on sensitive areas, especially wetlands. In addition to the risk of leaks and spills along the rail routes, diesel exhaust will increase and people living near or visiting parks along the rail lines will be exposed to these toxic fumes. Any oil terminal project will harm imperiled wildlife species and devastate critical habitat, interfere with recreational and tribal fishing, transform the region with rail congestion, and dramatically increase carbon pollution that is driving climate change.

Comment Number: 000000248-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 5.1 7.4 15
Comment Excerpt Text:

Any spill, but especially one of a car load or two, will at the minimum taint the fish, oysters, and crabs to the point where none of our native or commercial fishers will be able to sell their product. Remember what happened to the shrimp industry which was decimated by the recent Macondo Well blowout in the Gulf of Mexico. If there were a major spill, say of thousands of barrels of crude oil, all the marine resources would be destroyed for years, breaking the treaties with the Quinault and Chehalis tribal fishers, and ruining many of the businesses that the Port of Grays Harbor's prize Port of Westport depends on. This is just one more reason to not approve the permits for these two projects.

Comment Number: 000000329-2
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Native American issues including treaty fishing rights - loss/interruption of usual and accustomed fishing sites. Shellfish and crab viability

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Comment Number: 000000332-1
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 1.3 6
Comment Excerpt Text:
Concerned about containment design, mitigation issues, "bathtub" effect of containment, sea level rise and projected rises, tsunami hazard zone, tsunami-caused flood inundation, effects of liquefaction, disruption of electricity for monitoring and safety components/emergency power resources; storage of spill containment equipment and location; treaty rights, consequences of ignoring treaties.

Comment Number: 000000332-6
Organization: citizen
Commenter: Judy Carter
Commenter Type:

Comment Excerpt Text:
What is the analysis of impacts on cultural, historical and archeological issues, e.g., Treaty fishing rights/loss or impairment of usual and accustomed fishing sites?

Comment Number: 000000352-2
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 5.1
Comment Excerpt Text:
A full analysis of impacts to the fishing industry (both Tribal and non-tribal to include: impacts to all fish and shellfish beds and spawning areas. Loss of income, both current and future.

Comment Number: 000000352-5
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 5.1

Comment Excerpt Text:
Study the impacts of additional vessels traffic in Grays Harbor on existing fishing industries both Tribal and non-tribal. What will be the impacts to the bird population on Grays Harbor? Grays Harbor is an area of hemispheric significance for nearly a million shorebirds, study the impacts to the mudflats and feeding grounds of migratory birds.

Section 13 - Transportation

Comment Number: 000000308-8
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency

Comment Excerpt Text:
Transportation
This element addresses all modes of transportation. This includes rail, ship, air, personal vehicles, public transportation, trucks, busses etc.

The oil will be transported to the project sites over rail running through Vancouver. There will be 6 (3 inbound and 3 outbound) unit trains serving the projects every day. A unit train is 100 to 110 cars long. Each unit is approximately one and a half miles long. The EIS needs to analyze the following:

The cumulative impacts to vehicular and passenger rail transportation caused by the increase in rail traffic associated with the projects when added to other past, present, and reasonably foreseeable future actions regardless of what agency or person undertakes such other actions.

Identify any rail infrastructure improvements that need to be made to accommodate the increased rail traffic from these projects.

Identify impediments to access created by the additional rail traffic.

Section 13.1 - Vehicle traffic

Comment Number: 000000056-2
Organization:
Commenter: Nick Lorax
Commenter Type: Public

Comment Excerpt Text:
I would also like to know how much added wait time the trains passage through downtown areas will incur as well as the expected effects on commerce in these neighborhoods.

Comment Number: 000000123-4
Organization:
Commenter: Kristin Hermenegildo

Commenter Type: Public

Comment Excerpt Text:
3. Blocking roads. Like I had mentioned earlier, we have only had one experience where a train has blocked the street where we live. However, with trains coming through our neighborhoods more frequently, this could be happening on a weekly basis rather than a yearly basis. On the opposite side of the tracks from the fire station, there are businesses that would not be able to receive help from aid vehicles if the tracks were blocked. Many of these businesses are mills where accidents can and do happen.

Comment Number: 000000136-2
Organization:
Commenter: Bruce Rinnert
Commenter Type: Public

Comment Excerpt Text:
Already trains disrupt the flow of other forms of traffic in our towns and cities to a harmful degree - especially in our largest city, Billings, where the rail line goes right through the middle of downtown.

Comment Number: 000000143-2
Organization:
Commenter: lee wilder
Commenter Type: Public

Comment Excerpt Text:
Higher traffic at rail crossings negatively impacts vehicle traffic and even commerce in some of our rural towns. The rights and concerns of Montana citizens and property owners must be considered as this proposal is reviewed.

Comment Number: 000000145-2
Organization:
Commenter: Don Kiehn
Commenter Type: Public

Comment Excerpt Text:
Second, the traffic congestion we already experience here in Helena, MT, due to coal and oil trains that bisect and disable our city is more than enough. Since we now know that the coal industry lobby has craftily and severely underestimated future coal production and transport figures, it is easy to predict that the traffic stoppages here in Helena will be far higher than the already unacceptable lowball estimates of 2-5X increases when production ramps up.

Comment Number: 000000155-2
Organization: Ms.
Commenter: Cate Campbell
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
The safety of the oil trains is in question and it only takes one good derailment to create huge problems for our rivers, streams, and communities along the route. New, safer tank cars may be proffered by BNSF and MRL railroads but rail capacity cannot be increased. Please take into account cumulative impacts of

this oil shipment idea. There are hundreds of at-grade crossings from the origin to the port. Hundreds of opportunities for blocked traffic and other safety hazards.

Comment Number: 000000166-3
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization
Other Sections: 13.2
Comment Excerpt Text:
• A balanced transportation policy. While rail traffic is an important part of Spokane's commerce, there are multiple other forms of transportation in the Spokane area – and all need to be balanced. Additionally, many parts of the Spokane Valley do not have over/under passes—crossings are at grade. Additional train traffic will seriously impact transportation throughout the region. The League of Women Voters of the Spokane Area believes that the Environmental Impact Statement should be cumulative and address the impacts all along the rail route, and not just on the proposed railway expansions in the port terminal area. Scoping also needs to address the cumulative effect of impacts over time. These additional trains would be coming through Spokane as a result of the completion of the proposed port. Spokane will be a choke point for rail traffic with trains continuing to western Washington as well as Oregon.

Comment Number: 000000166-9
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization
Other Sections: 13.2
Comment Excerpt Text:
• The affect of the additional rail traffic on the balance of transportation in and through Spokane.

Comment Number: 000000174-3
Organization: Twin Harbors Fish & Wildlife Advocacy
Commenter: Tim Hamilton
Commenter Type: Organization
Other Sections: 7.3
Comment Excerpt Text:
The risk of fire and traffic problems that will effect all the towns and local residents whom live along the tracks present a clear and precise threat to the citizens health and welfare.

Comment Number: 000000176-1
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 13.2 13.4
Comment Excerpt Text:
The following needs to be discussed for all the operational areas required by the proposed Imperium, Westway and US Development terminals, separately and cumulatively including for:
• Surface transportation into the Port of Grays Harbor (hereinafter "Port"): rail, auto and truck;
• Facility operational area including side rails, storage areas, storage terminals, pier and trestle;
• Marine transportation to and from Port: Panamax ships, barges, ATB barges and other vessels, including tenders.

Comment Number: 000000181-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public
Other Sections: 9 2.1 7.2
Comment Excerpt Text:
How will the companies plan to mitigate the array of traumatic and depressive effects that residents will experience for having to look at the blight, hear the noise, smell the oil, and wait for rail cars to pass as they are blocked at the crossing? http://www.dshs.wa.gov/pdf/ppa/2013-15jan14/BHSIA.pdf http://www1.dshs.wa.gov/pdf/ms/rda/research/4/47/updated/graysharbor.pdf

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Comment Number: 000000193-2
Organization:
Commenter: Kevin McCarroll
Commenter Type: Public

Comment Excerpt Text:
Additionally, the two current proposals being reviewed would add 23 trains a week with each being up to 1.3 miles long. The slower speeds required by these trains would create massive traffic congestion, and impede emergency vehicles, extend commute times and decrease access to local businesses which hurts Washington's economy.

Comment Number: 000000203-1
Organization:
Commenter: Monique Kovalenko
Commenter Type: Public
Other Sections: 7 13.3
Comment Excerpt Text:
It is with concern over public and environmental health, as well as over whether or not our community in Spokane would have proper emergency response resources if an accident were to happen that I am writing. I urge decision makers to include in their scope environmental impacts as well as availability, or lack of, community resources in regard to potential accidents and transportation slow downs.

Comment Number: 000000211-3
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency
Other Sections: 13.2 14 13.3
Comment Excerpt Text:
WSDOT has identified 25 state highway intersections and one limited access interchange along the PSAP Grays Harbor Subdivision where operations may be adversely impacted due to delays at nearby highway-railroad grade crossings. Some of these locations already experience delays under existing train volumes and may not be able to adequately absorb additional delays without mitigation measures. Of particular concern are possible highway operational impacts along US 12 between mileposts .60 and .74 within the City of Aberdeen. This segment is located within a
busy commercial area of the city, and the respective configuration of the highway, tracks, and commercial/retail businesses makes it particularly susceptible to significant operational and potential safety impacts from additional train traffic. A list of the 25 state highway locations is attached.

WSDOT requests that the scopes of the EISs include analysis of how these 25 locations would be affected

by the projected increase in rail traffic that would result from both proposals, including determining and factoring in the typical length of trains serving the facilities. WSDOT is not only interested in impacts to state highway railroad grade crossings, but also how increased delays at railroad grade crossings situated near state highway intersections and interchanges may impact those state highways. This analysis should include impacts to:
• Levels of service at affected state highway intersections/interchanges;
• Vehicle delay and queuing at state highway grade crossings and state highways impacted by local agency grade crossings;
• Emergency response capabilities; and
• Highway-rail grade crossing safety (i.e., whether modification of warning devices or grade separation might be warranted with the projected increase in rail traffic).

Comment Number: 000000211-4
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency
Other Sections: 13.2
Comment Excerpt Text:
We also understand that speed restrictions related to aging railway infrastructure and track geometry are in place along portions of the PSAP Grays Harbor Line, including at least one restriction within the City of Aberdeen over the Wishkah River Bridge and track curves at the PSAP and BNSF Railway interchange point in Centralia that limit train speeds to I 0 and 5 miles per hour respectively. Train speed restrictions that will tend to exacerbate state highway impacts along the PSAP line should be identified and appropriately factored into the analysis.
WSDOT is aware of at least one other proposal which would add traffic to the PSAP line. WSDOT requests that the scopes of the EISs include a cumulative analysis for crossings and intersections that have the potential to experience significant impacts.

Comment Number: 000000211-5
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency
Other Sections: 13.2
Comment Excerpt Text:
Once identified, the EISs should identify and examine strategies to mitigate any adverse impacts from the projected increase in train traffic and associated operational limitations such as train speed restrictions, including restrictions related to bridges and track geometry. This should include estimating the cost of implementing those strategies and determining the source(s) of investment that would be required.
[Footnote 1: WSDOT understands that the PSAP Railroad may be working with various local agencies to assess highway-rail safety and operational impacts along the Grays Harbor Line. as well as possible relief for speed restrictions over the Skookumchuck, Wishkah and Wynoochee river RR bridges. Depending on timing, opportunities may exist for this effort to inform the EIS for highway impacts and mitigation strategies.]

Comment Number: 000000211-6
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency

Comment Excerpt Text:
We understand that at least one of the expansion proposals may use trucks for additional material transport. If there is a potential for a significant long term increase in heavy truck traftic, we request the EISs analyze the indirect effects on US 101 bridges in Aberdeen and Hoquiam. These bridges could need repairs or replacement sooner than currently projected.

Comment Number: 000000221-1
Organization:
Commenter: Steve Iverson
Commenter Type: Public
Other Sections: 7.2 14
Comment Excerpt Text:
I OPPOSE new efforts by out of state interests to transport up to 5,250 crude oil tanker railcars per week through the heart of both Downtown and Residential Centralia and Lewis County to enormous new crude oil terminals along Grays Harbor! • Crude oil trains would substantially increase the amount of time traffic through Centralia is completely stopped due to train movement or lack of movement (up to or exceeding 12 hours per day). Crude oil tanker trains are louder than other trains. Horn blasts will occur at all grade crossings day and night. • Response time for Police, Fire and Emergency Medical Response services will increase exponentially due to tracks being blocked by these 1.5 mile long crude oil tankers.

Comment Number: 000000230-1
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 7.4 13.2 7.3 14
Comment Excerpt Text:
NOW THEREFORE,

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF HOQUIAM, WASHINGTON, IN REGULAR MEETING DULY ASSEMBLED, AS FOLLOWS:

SECTION 1. The City of Hoquiam supports the creation of clear Federal guidelines to immediately implement safety regulations concerning older-model tank cars used to transport petroleum, train speeds, and other identifiable hazards associated with petroleum.

SECTION 2. The City of Hoquiam strongly urges the U.S. Department of Transportation to increase Federal tank car design and operation regulations for petroleum product shipments by rail and aggressively phase out older-model tank cars used to move flammable liquids that are not retrofitted to meet new Federal requirements.

SECTION 3.The City Council of the City of Hoquiam urges the State Department of Ecology and City of Hoquiam staff responsible for the permitting of petroleum terminals to address and study the following issues prior to the issuance of any permits:

· Potential impacts associated with oil spills athe project site or during transit by rail or vessel.
· Disruption to vehicle traffic during construction and after operation of the facilities commences, including the potential for increased emergency response delays.
· Vehicle safety at railroad crossings.
· Analysis of train and vehicle delays and safety issues.

· Potential for increased rail congestion and delays that would contribute to safety concerns including the potential for increased vehicle delays at railroad crossings.
· Analysis of safety considerations related to transport of petroleum associated with infrastructure, including an evaluation of trackage, railroad crossings, water crossings, and the safety of cars transporting oil.
· Analysis of effects on public transit, pedestrian access and parking within Hoquiam, and Grays Harbor County.
· Potential for and extent of increased risk of spills, fires, and explosions during rail transport, from infrastructure failing, accidents, or natural disasters.
· Evaluation of emergency response, including preparedness planning.
· Identification of responsible parties and required emergency response, including equipment and materials, to address worst-case scenarios.

Comment Number: 000000243-2
Organization:
Commenter: Tiffany Heroux
Commenter Type: Public

Comment Excerpt Text:
How are these trains affecting traffic? Will there be delays trying to cross the river from Washington into Oregon? These are just a few of my questions.

Comment Number: 000000270-2
Organization:
Commenter: Ilene Silver
Commenter Type: Public
Other Sections: 13.2 14 15
Comment Excerpt Text:
Additionally, the two current proposals would add 23 trains a week with each being up to 1.3 miles long. The slower speeds required by these trains would create massive traffic congestion, and impede emergency vehicles, extend commute times and decrease access to local businesses which hurts Washington's economy.

Comment Number: 000000280-3
Organization:
Commenter: Karl Goeres
Commenter Type: Public
Other Sections: 14 15 13.3
Comment Excerpt Text:
The railroad has many surface crossings which are continually blocking access to vehicles and many of those crossing must be used for emergency and commercial access. More frequent trains will simply make the situation worse which will have a negative impact on the local economy and safety of the people who live here. Just the inconvenience of additional trains is not worth the minimal economic benefit of oil terminals.

Comment Number: 000000283-5
Organization:
Commenter: James George
Commenter Type: Public
Other Sections: 14

Comment Excerpt Text:
5. Additional trains will block access to the largest shopping area in the county. People wanting to shop block the right lane of the only bridge out of Aberdeen to the east. At times drivers in the left lane who want to shop block the left lane too. This then backs up into downtown Aberdeen, causing gridlock and total stoppage of all traffic in the downtown area. Slow, long trains of oil cars will cause this more ofter than it happens today. Police cannot get to the cars causing the problem because they cannot get over the bridge to east of the river where the offending cars are blocking the left lane.

Comment Number: 000000284-1
Organization:
Commenter: Marisa Salzer
Commenter Type: Public
Other Sections: 13.2 7.2 7
Comment Excerpt Text:
Rail Traffic - Increased one-way traffic of 3.25 trains per day (Imperium 2 per day, Westway 1.25 per day). The increased noise, train emissions, blockage of traffic, potential release of hazardous chemicals within and in close proximity to wetlands, rivers, and creeks will affect quality of life issues of a rural community. With the downtown core located within feet of the railroad tracks, Increased rail traffic may reduce tourist traffic when the main entrance to downtown is blocked by trains. Old Rail Bridges - Just outside my city, rail briddges over the Satsop and the Wynooche rivers (which flow to the ocean) and have been documented by local citizens of their apparent deteriorating condition, and create an environmental concern should a train derail and crude oil be spilled into those water ways.

Comment Number: 000000285-2
Organization:
Commenter: Beth Kaeding
Commenter Type: Public
Other Sections: 13.2 14
Comment Excerpt Text:
There are currently more than 50 trains traversing Montana on two main lines each day; this number is nearing capacity for the current rail system, and some upgrades are already in progress. However, projections of an additional 22 trains each day as a result of Bakken oil shipments and between 26 to 35 additional trains each day in the next 5 years as a result of coal export shipments will more than congest even an upgraded rail system. More train traffic would lead to more frequent and longer traffic delays for citizens at rail crossings. These delays would disrupt the business and commerce of cities and towns. These delays would mean a greater potential that emergency responders would be delayed in reaching residents when there is a medical emergency or a fire or the need for police.

Comment Number: 000000305-1
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 14 15 7.2
Comment Excerpt Text:
1. Community Impacts: The effects of more trains causing traffic backups that will limit accessibility between homes, businesses, emergency resources, including police and fire fighters.Decrease in land and property values due to increased rail disruption, noise and vibrations. Increase in Home Owners Insurance for areas affected by the rail.

Comment Number: 000000320-2
Organization: City of Washougal

Commenter: Sean Guard
Commenter Type: Agency
Other Sections: 14
Comment Excerpt Text:
The impact the additional trains will have on our City include delays to vehicle traffic at our five at-grade crossings (concerns of significant vehicle emissions from idling vehicles) as trains move through Washougal and especially delays to our emergency response vehicles should the at-grade crossings be blocked.

Comment Number: 000000321-1
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
Bringing oil by rail to Grays Harbor, especially to multiple storage sites, is fraught with concerns, environmental and otherwise. Increased rail traffic bisects cities (Elma) and commercial centers (East Aberdeen) creating serious vehicular traffic issues, particularly in the event of emergencies, medical or otherwise.

Comment Number: 000000321-4
Organization:
Commenter: Carrie Larson
Commenter Type: Public

Comment Excerpt Text:
Highway 12 runs parallel to much of the track and through many of our cities; this thoroughfare is heavily used not only by residents but by tourists headed to the beach, particularly during summer months. Substantial train traffic will create serious problems at crossings and, in the event of derailment or explosions, significant danger to the public.

Comment Number: 000000326-1
Organization:
Commenter: Barbara Scavezze
Commenter Type: Public
Other Sections: 15 13.3 7.3 14 7.4
Comment Excerpt Text:
Please consider the following: 1)climate change impacts caused by drilling, shipping and burning petroleum products and biofuels 2) the ability of train tracks to safely transport increased train traffic carrying very heavy loads 3) the impact on traffic congestion at railroad crossings in affected communities 4) the potential for deadly explosions, and the ability of emergency management personnel to handle them 5) the impact on Puget Sound and other waterways if any of the shipping containers or storage facilities leak.

Comment Number: 000000329-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 8 15
Comment Excerpt Text:
Land use and public infrastructure requirements and alterations including new roads or bridges/overpasses

necessary to decrease disruption of current traffic flow. Decrease of land values due to increased rail disruption, traffic congestion, noise, potential for spills/explosions. These should be considered both separately and cumulatively in conjunction with the increased flood insurance costs imposed on most areas near the rail lines within the Aberdeen and Hoquiam areas.

Comment Number: 000000330-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Road and highway infrastructure and traffic changes due to interruption by rail or trucks that are project-associated, increased likelihood of accidents as well as need for additional roadside armoring indicated by climate change-induced sea level rise. Who will pay?

Comment Number: 000000331-5
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 11 15
Comment Excerpt Text:
Recreational parks and facilities: accessibility for people attending events at these destinations, noise disruption during the event due to increase train traffic, community loss of these public venues for events, due to access, noise, safety and the impacts upon a sense of place and community heritage; increased safety concerns because of train traffic, train derailment (actual and perceived)l and access of first responders to any emergencies at the events. We have had emergencies at past events and this is a significant concern to mitigate Business entities rely upon the easy and safe access to their places: impacts to businesses of increased traffic congestion, derailments, explosions, train stoppages in traffic areas. Visual and aesthetic considerations State contributions to infrastructure. In 2003 the State of Washington contributed $2 million to the Port of Grays Harbor Grain Terminal Loop Track. How will the citizen's dollars be protected when a spill or explosion happens involving crude oil?

Comment Number: 000000332-3
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 13.2
Comment Excerpt Text:
The increase in train traffic through Grays Harbor County will have a significant impact on communities that are literally bisected by the train tracks. Emergency access can be delayed over 15 minutes due to mile long rail cars blocking crossings. In addition, rail cars cross over more than 100 creeks, rivers and streams, the majority fish-bearing. We are also concerned about impacts to surface transportation in the Hoquiam/Aberdeen facilities. How will the EIS address surface traffic along the rail into Washington heading towards Centralia to Hoquiam?

Comment Number: 000000334-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:

The significant influx of rail, automobile and shipping transportation resulting from the crude-by-rail shipping facility also will have impacts on local air quality and will exacerbate traffic congestion. How will this affect global greenhouse gas emissions and efforts to control these issues? How will this meet the intent of Executive Order 14-04?

Comment Number: 000000352-1
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
The complete EIS should include the following: A full analysis of rail infrastructure, including all rails, bridges, roadbed, culverts and any infrastructure that will bear the weight of trains. A full analysis of the potential traffic interruptions when trains are present to local businesses?

Comment Number: 000000354-8
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 13.2
Comment Excerpt Text:
Transportation
The EIS should address impacts to all modes of transportation , including rail , persona l vehicles, and trucks. The six additional trains running through Ridgefield daily (three inbound and three outbound) are reported to each be 1.5 miles long . The EIS should address:
The cumulative impacts to vehicular transportation caused by the increase in rail traffic associated with the projects when added to existing and proposed rail traffic.
Any rail infrastructure improvements needed to accommodate the increased rail traffic related to these projects.

Any impediments to vehicular access at the three crossings created by additional rail traffic.

Comment Number: 000000356-2
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency
Other Sections: 7.1
Comment Excerpt Text:
Specific recommendations for this EIS scoping are:

• A vessel traffic risk assessment (similar to one completed in March 2014 by George Washington University for northern Puget Sound) is recommended because of the significant increase in commercial vessel traffic anticipated with these proposals. This study and analysis of spill response capacity and needs should be completed before permits are issued for these projects.

Comment Number: 000000357-4
Organization: Friends of the Earth

Commenter: Marcie Keever
Commenter Type: Organization
Other Sections: 14
Comment Excerpt Text:
-Impacts to Grays Harbor communities. Community impacts, particularly the impacts of more trains causing traffic backups that will impact accessibility between homes, businesses, emergency resources, and communities on both sides of the rail tracks from Spokane to Grays Harbor.

Comment Number: 000000360-1
Organization:
Commenter: Lynn Metzenberg
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
At this crucial time we should slow the pace,not accelerate the marketing of these carbon producing resources. The full impact is not understood for the environment and all living things. We have had and will have continue tragic and toxic events in relation with transporting and storing these fuels. North America should not export crude oil now. Rail conditions,parking location of full or empty tank cars, traffic delays at rail crossings and security of tank farms must be studied closely.

Comment Number: 000000370-4
Organization:
Commenter: Mike Petersen
Commenter Type: Public
Other Sections: 7.2 13.2 14 2.1
Comment Excerpt Text:
Giant unit trains of oil, like unit trains of coal, would impact existing rail infrastructure (with taxpayers paying for said impacts or needed improvements / expansion), increase health risks from diesel particulates, contribute to traffic congestion and slow emergency response, increase noise pollution, air pollution, environmental risks, and more.

Section 13.2 - Rail traffic, including a rail transportation impact analysis for the rail line from Centralia to Grays Harbor

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Comment Number: 000000005-3
Organization:
Commenter: Yovonne Autrey
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
Another reason to block shipment of oil trains into proposed oil terminals in the Port of Grays Harbor is the fact that the 2 mile long oil trains will block access to hospital facilities, as well as emergency services, to several thousand residents and tourists while they roll through our towns.

Comment Number: 000000007-2
Organization:
Commenter: Michael Young
Commenter Type: Public

Comment Excerpt Text:
They will bring massive amounts of dangerous traffic to us.

Comment Number: 000000008-2
Organization:
Commenter: Vicki Johnson
Commenter Type: Public

Comment Excerpt Text:
The not yet measured long reaching effects of increased wait time by passing trains is another concern that must not be overlooked.

Comment Number: 000000009-3
Organization:
Commenter: David Perk
Commenter Type: Public
Other Sections: 3 13.3
Comment Excerpt Text:
Specifically, the scope of the Westway and Imperium EISes should include the following. Source-to-destination impacts of the method of transportation used to convey the products, including but not limited to: Methane and other gas emissions, groundwater contamination, waste products, and water consumption at the point of extraction; Diesel pollution, rail traffic displacement, road closures,

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Comment Number: 000000013-1
Organization:
Commenter: Libby Hazen
Commenter Type: Public
Other Sections: 13.4
Comment Excerpt Text:
I request that you include in the EIS an assessment of the rail and vessel transportation of fossil fuels on the quality of life on both land and sea.

Comment Number: 000000016-1
Organization: Mr
Commenter: Rodney Tharp
Commenter Type: Public
Other Sections: 13.3 7.1 7.3
Comment Excerpt Text:
Include in your EIS the impact on all the towns and cities that the oil trains will pass through or near. This should include public safety, safety from spills and exploding oil cars as well as accumulative rail congestion from all the increased train traffic of all state wide projects.

Comment Number: 000000017-2
Organization: Northbeach Community Gruop
Commenter: Lisa Riemer
Commenter Type: Organization

Comment Excerpt Text:
We need to think about all of the trains that are needed to bring in that oil.

Comment Number: 000000026-1
Organization:
Commenter: Garry Dale
Commenter Type: Public
Other Sections: 13.4
Comment Excerpt Text:
I am concerned about the continued vitality of Grays Harbor and the Washington Coast where crude oil ships would make over 700 additional transits per year over one of the most dangerous bars in the State. I request that the Environmental Impact Statement include the entire crude oil transportation corridor so that communities along the rail and marine routes are given due consideration.

Comment Number: 000000027-1
Organization: Indepent Artist/Disabled
Commenter: Diane Hicks
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
Greetings...I have personal concerns as follows. My roommate and I moved to Montesano in July 2014. Together we spent all of our available cash and borrowed money heavily. We are both disabled in a complex way. Locating closer to Olympia Medical Care was essential. Neither of us can re-locate. The train that will be transporting this oil cuts us both off from urgent medical care multiple times per 24 hrs including EMT services. Living 1/2 block from train tracks will cause devastating effects on my emotional, mental and physical health. My roommate can speak for himself. I believe that this proposed action for the use of trains to transport oil will so adversely affect my ability to live and function that it is a form of discrimination against my disability and inability to remove myself to a safer location. I would (as would my roommate) require re-location funding to include both a place to live and money to relocate. I believe that I can find others in this same situation and that some form of legal litigation is not out of the question.

Comment Number: 000000038-1
Organization: Ms.
Commenter: Rod Tharp
Commenter Type: Public

Comment Excerpt Text:
Please look at all impacts on any town, city or community within 1/2 mile radius of the tracks that these trains will be traveling on.

Comment Number: 000000046-1
Organization: Friends of the Gorge
Commenter: Gisela Ray
Commenter Type: Organization

Comment Excerpt Text:
The expansion of the Port of Grays Harbor Terminal 1 would lead to yet more oil trains traveling through the Columbia River Gorge.

Comment Number: 000000056-3
Organization:
Commenter: Nick Lorax
Commenter Type: Public

Comment Excerpt Text:
Additionally please investigate the impacts of added train traffic on the ability of commuter trains to operate timely and efficiently.

Comment Number: 000000063-1
Organization: El Centro de la Raza
Commenter: Estela Ortega
Commenter Type: Organization
Other Sections: 13.4
Comment Excerpt Text:
These proposals would negatively impact our communities, Grays Harbor, and the greater Pacific Northwest by elevating rail and marine traffic congestion

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Comment Number: 000000072-1
Organization: small business owner
Commenter: Karen Grimstad
Commenter Type:

Comment Excerpt Text:
Please stop this insane assault on the PNW by the fossil fuel industry. Please test and research the entire railroad line that will haul the dirties oil from ND to Grays Harbor.

Comment Number: 000000078-1
Organization:
Commenter: Sandy Wood
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
Continuing to approve increases in the use and transport of fossil fuels guarantees the end of the world as we know it. Climate change is already happening! Please study the environmental impacts of oil terminals of Skagit County, Vancouver, and any other location. The entire rail route from North Dakota to Grays Harbor needs to have ALL the impacts studied. The impact of CO2 emissions from the end users needs to be studied. We cannot allow our lives, communities, and planet destroyed to fill the pocketbooks of the oil and coal barons. We are fighting for our very lives!

Comment Number: 000000082-1
Organization:
Commenter: Robert DeBuhr
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:
The massive amounts of unstable crude oil that will be shipped by train - on one track that runs along a river, through or by several small towns and then passes through two larger towns. In the case of both Aberdeen and Hoquiam such trains would have negative impact on traffic, including emergency vehicles.

Comment Number: 000000086-1
Organization:
Commenter: Ronald Hawk
Commenter Type: Public
Other Sections: 7

Comment Excerpt Text:
y primary request is that you look beyond the impacts of these proposals on the environment of Greys Harbor County and consider all the impacts from transporting the oil through the state of Washington to the proposed storage sites. These transportation impacts include the following: 1. The impact of likely oil train explosions on cities and towns along the train route. 2. The impact of likely train derailments and oil leakage on nearby rivers and streams, including the impacts on anadromous fisheries. 3. The ability or lack of ability of local and state entities to respond to a major oil train catashrophe. 4. The impact of the additional oil trains on local traffic congestion and emergency vehicle response times in the communites through which the oil trains will pass through.

Comment Number: 000000116-2
Organization: League of Women Voters of Washington
Commenter: Kim Abel
Commenter Type: Organization

Comment Excerpt Text:

-Impacts of delays on local and intercity public transportation by oil transporting trains at train crossings and delays to other trains.

-Cumulative traffic impacts of this proposal and the many other energy transportation rail proposals along the same routes.

Comment Number: 000000123-1
Organization:
Commenter: Kristin Hermenegildo
Commenter Type: Public

Comment Excerpt Text:
As a parent and a resident of Hoquiam, I would not feel comfortable with crude oil trains coming through my neighborhood. My husband and I along with our four children live 1/2 a block from the train tracks in west Hoquiam. There are many children who live in this part of Hoquiam. In the year and a half that we have lived here, I can only recall one train going by. It stopped on the tracks for quite a few hours, blocking the street. My husband, who walks to work from our house, had to climb up between the two of the train cars to be able to walk the rest of the way home. I would not be comfortable with trains coming by more frequently, especially crude oil trains. I think they are a risk to this community that should be taken seriously.

Comment Number: 000000140-2
Organization: Northern Plains Resource Council
Commenter: Nancy McManus
Commenter Type: Organization

Comment Excerpt Text:
They would result in more oil trains coming through our states. When combined with Cherry Point and Longiview, Washington, and the Port of Morrow in Oregon, the systemic impacts to the entire rail transportation system of the region will be enormous.

Comment Number: 000000146-1
Organization:

Commenter: Lynne Dixon
Commenter Type: Public

Comment Excerpt Text:
The proposed Westway and Imperium crude oil terminals at Grays Harbor, Washington, would have significant impacts on Montana communities and commerce.They would result in more oil trains coming through our state. When combined with Cherry Point and Longiview, Washington, and the Port of Morrow in Oregon, the systemic impacts to the entire rail transportation system of the region will be enormous.

Comment Number: 000000146-5
Organization:
Commenter: Lynne Dixon
Commenter Type: Public

Comment Excerpt Text:
Increased rail congestion, which delays agricultural shipments and threatens the livelihoods of Montana's farmers.

Comment Number: 000000147-1
Organization:
Commenter: Peggy Miller
Commenter Type:

Comment Excerpt Text:
In your considerations, please factor in the negative impact of increased rail traffic in Montana.

Comment Number: 000000153-3
Organization:
Commenter: Paul Stormo
Commenter Type: Public
Other Sections: 7.2
Comment Excerpt Text:
3. Increased rail traffic and the associated noise pollution, as well as local travel restrictions must be remediated. Tactics such as automated crossing gates along with the related reduction in audible warning 'bells' are appropriate. (Even current train traffic reduces sound sleep for me, 1.5 miles from the tracks.) Cost should be shared by the benefiting corporations (rail as well as petroleum corporations.)

Comment Number: 000000153-6
Organization:
Commenter: Paul Stormo
Commenter Type: Public

Comment Excerpt Text:
7. A full and comprehensive evaluation and required remediation of rail track, foundation, and all related bridges for the full transport distance must be conducted, with costs supported by the benefiting corporations.

Comment Number: 000000155-1
Organization: Ms.
Commenter: Cate Campbell

Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
I am writing to request you include the impacts to Montana of the oil export terminals on the west coast. I live close to the tracks of the rail line which will be one of the main conduits for oil trains.We are already coping with too many coal trains. Both types of shipments are environmentally unsound with dust, noise, potential for accidents, and the offsetting of agricultural products on the same rails. Ranchers are already having problems getting their grain from N. Dakota and Montana to the west coast AND getting the fertilizer shipped from west to east due to the lack of railcars and capacity.

Comment Number: 000000161-1
Organization:
Commenter: Chris Meyer
Commenter Type: Public
Other Sections: 15 7.4 3.1
Comment Excerpt Text:
Please include the impacts of rail traffic carrying the oil through Idaho in the scoping for your EIS. These trains will pass over critical groundwater areas for our community and the potential impacts of a spill must be evaluated in the reviews of the proposed new liquid storage terminals.

Comment Number: 000000166-12
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization

Comment Excerpt Text:
For transportation through Spokane, the rail capacity needs to be examined – will there be capacity for other freight and human rail transport? • The impact of adding this train traffic to the already proposed coal train traffic needs to be considered.

Comment Number: 000000166-3
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization
Other Sections: 13.1
Comment Excerpt Text:
• A balanced transportation policy. While rail traffic is an important part of Spokane's commerce, there are multiple other forms of transportation in the Spokane area – and all need to be balanced. Additionally, many parts of the Spokane Valley do not have over/under passes—crossings are at grade. Additional train traffic will seriously impact transportation throughout the region. The League of Women Voters of the Spokane Area believes that the Environmental Impact Statement should be cumulative and address the impacts all along the rail route, and not just on the proposed railway expansions in the port terminal area. Scoping also needs to address the cumulative effect of impacts over time. These additional trains would be coming through Spokane as a result of the completion of the proposed port. Spokane will be a choke point for rail traffic with trains continuing to western Washington as well as Oregon.

Comment Number: 000000166-9
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization
Other Sections: 13.1

Comment Excerpt Text:
• The affect of the additional rail traffic on the balance of transportation in and through Spokane.

Comment Number: 000000176-1
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 13.1 13.4
Comment Excerpt Text:
The following needs to be discussed for all the operational areas required by the proposed Imperium, Westway and US Development terminals, separately and cumulatively including for:
• Surface transportation into the Port of Grays Harbor (hereinafter "Port"): rail, auto and truck;
• Facility operational area including side rails, storage areas, storage terminals, pier and trestle;
• Marine transportation to and from Port: Panamax ships, barges, ATB barges and other vessels, including tenders.

Comment Number: 000000176-20
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
12. Road and highway infrastructure and traffic changes due to interruption by rail or trucks that are project-associated, increased likelihood of accidents as well as need for additional roadside armoring indicated by climate change-induced sea level rise. Who will pay?

Comment Number: 000000176-44
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 14
Comment Excerpt Text:
(m) The increase in train traffic through Grays Harbor County will have a significant impact on communities that are literally bisected by the train tracks. Emergency access can be delayed over 15 minutes due to mile long rail cars blocking crossings. In addition, rail cars cross over more than 100 creeks, rivers and streams, the majority fish-bearing. We are also concerned about impacts to surface transportation in the Hoquiam/Aberdeen facilities. How will the EIS address surface traffic along the rail into Washington heading towards Centralia to Hoquiam?

Comment Number: 000000176-47
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(p) What is the analysis of impacts on land use and public infrastructure requirements, including alterations to roads, culverts, bridges, and overpasses in order to decrease disruption of current flows, analysis of costs and methods of payment to achieve these goals?

Comment Number: 000000202-1
Organization:
Commenter: frank huber jr
Commenter Type: Public

Comment Excerpt Text:
Being a "Native Washingtonian " ....not, to many left ..what has happened to our sense of Natural beauty ..that this "over -crowded " state has to offer ... The Port of Hocquiam ..doe NOT have the infrastructure to Accomodate trains' loaded with "Toxic products " ..ONE Mistake ...and your Harbor is FINISHED ...NO fish ,no tourist ,no business,no people (fumes)Do you really want to risk this for a " Few Jobs " ...and how long would they last ... Is the RISK WORTH THE DESTROYING YOUR HARBOR ..and way of life .. Think hard "City Fathers " ..

Comment Number: 000000211-2
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency

Comment Excerpt Text:
The proposals estimate that combined operations for both facilities will include 3.25 daily train trips, including both inbound and outbound trains. Train traffic to and from both facilities will utilize the Puget Sound and Pacific Railroad (PSAP) Grays Harbor Line between the Port of Grays Harbor and Centralia, Washington. Rail transportation beyond Centralia will occur primarily via BNSF Railway corridors. The EISs should evaluate possible rail-related impacts to state highway grade crossings and intersections located along the PSAP rail corridor, which crosses a SR-507 couplet in Centralia and continues northwest more or less parallel to US 12.

Comment Number: 000000211-3
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency
Other Sections: 13.1 14 13.3
Comment Excerpt Text:
WSDOT has identified 25 state highway intersections and one limited access interchange along the PSAP Grays Harbor Subdivision where operations may be adversely impacted due to delays at nearby highway-railroad grade crossings. Some of these locations already experience delays under existing train volumes and may not be able to adequately absorb additional delays without mitigation measures. Of particular concern are possible highway operational impacts along US 12 between mileposts .60 and .74 within the City of Aberdeen. This segment is located within a
busy commercial area of the city, and the respective configuration of the highway, tracks, and commercial/retail businesses makes it particularly susceptible to significant operational and potential safety impacts from additional train traffic. A list of the 25 state highway locations is attached.

WSDOT requests that the scopes of the EISs include analysis of how these 25 locations would be affected by the projected increase in rail traffic that would result from both proposals, including determining and factoring in the typical length of trains serving the facilities. WSDOT is not only interested in impacts to state highway railroad grade crossings, but also how increased delays at railroad grade crossings situated near state highway intersections and interchanges may impact those state highways. This analysis should

include impacts to:
• Levels of service at affected state highway intersections/interchanges;
• Vehicle delay and queuing at state highway grade crossings and state highways impacted by local agency grade crossings;
• Emergency response capabilities; and
• Highway-rail grade crossing safety (i.e., whether modification of warning devices or grade separation might be warranted with the projected increase in rail traffic).

Comment Number: 000000211-4
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency
Other Sections: 13.1
Comment Excerpt Text:
We also understand that speed restrictions related to aging railway infrastructure and track geometry are in place along portions of the PSAP Grays Harbor Line, including at least one restriction within the City of Aberdeen over the Wishkah River Bridge and track curves at the PSAP and BNSF Railway interchange point in Centralia that limit train speeds to I 0 and 5 miles per hour respectively. Train speed restrictions that will tend to exacerbate state highway impacts along the PSAP line should be identified and appropriately factored into the analysis.
WSDOT is aware of at least one other proposal which would add traffic to the PSAP line. WSDOT requests that the scopes of the EISs include a cumulative analysis for crossings and intersections that have the potential to experience significant impacts.

Comment Number: 000000211-5
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency
Other Sections: 13.1
Comment Excerpt Text:
Once identified, the EISs should identify and examine strategies to mitigate any adverse impacts from the projected increase in train traffic and associated operational limitations such as train speed restrictions, including restrictions related to bridges and track geometry. This should include estimating the cost of implementing those strategies and determining the source(s) of investment that would be required.
[Footnote 1: WSDOT understands that the PSAP Railroad may be working with various local agencies to assess highway-rail safety and operational impacts along the Grays Harbor Line. as well as possible relief for speed restrictions over the Skookumchuck, Wishkah and Wynoochee river RR bridges. Depending on timing, opportunities may exist for this effort to inform the EIS for highway impacts and mitigation strategies.]

Comment Number: 000000213-2
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization

Comment Excerpt Text:
In addition, we believe you need to study the impacts and risks associated with transporting this oil from the Bakken oil fields to these facilities. According to a Sightline Institute report, if the multiple proposed facilities are approved, they will generate 22 loaded and empty unit oil trains per day traveling to and

from North Dakota and the coast. Every train will pass through North Idaho, from Bonners Ferry through Sandpoint and Rathdrum.

Comment Number: 000000214-1
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 13.4 2.1
Comment Excerpt Text:
In general, in order to fulfill the requirements of Washington's State Environmental Policy Act, we believe the Imperium and Westway EISs should fully evaluate all direct and indirect effects of the bulk liquid distribution projects, including rail and marine shipment, port operations and climate change impacts associated with eventual fuel refining and combustion.

Comment Number: 000000229-1
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency

Comment Excerpt Text:
Domestic oil production is currently undergoing a dramatic expansion. The Westway and Imperium Renewables facilities are among a dozen or more facilities in Washington and Oregon either planning, expanding, building, or operating transport and storage facilities for crude oil.

These sites are or will be receiving oil shipped by rail. If all of these facilities were to operate at estimated full capacity, the cumulative total would be about 24 train trips per day (12 loaded and 12 unloaded).

Two major rail routes run through the Columbia River Gorge, one on each side of the river, and it is likely that these routes would be used to transport oil to the Westway and Imperium Renewables sites. Given the unprecedented volume of anticipated rail transport of crude oil through the region, it is both appropriate and critical for the projects' EISs to include an analysis of the direct, indirect, and cumulative effects associated with transporting crude oil by rail through the Columbia River Gorge.

Comment Number: 000000230-1
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 7.4 13.1 7.3 14
Comment Excerpt Text:
NOW THEREFORE,

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF HOQUIAM, WASHINGTON, IN REGULAR MEETING DULY ASSEMBLED, AS FOLLOWS:

SECTION 1. The City of Hoquiam supports the creation of clear Federal guidelines to immediately

implement safety regulations concerning older-model tank cars used to transport petroleum, train speeds, and other identifiable hazards associated with petroleum.

SECTION 2. The City of Hoquiam strongly urges the U.S. Department of Transportation to increase Federal tank car design and operation regulations for petroleum product shipments by rail and aggressively phase out older-model tank cars used to move flammable liquids that are not retrofitted to meet new Federal requirements.

SECTION 3.The City Council of the City of Hoquiam urges the State Department of Ecology and City of Hoquiam staff responsible for the permitting of petroleum terminals to address and study the following issues prior to the issuance of any permits:

· Potential impacts associated with oil spills athe project site or during transit by rail or vessel.
· Disruption to vehicle traffic during construction and after operation of the facilities commences, including the potential for increased emergency response delays.
· Vehicle safety at railroad crossings.
· Analysis of train and vehicle delays and safety issues.
· Potential for increased rail congestion and delays that would contribute to safety concerns including the potential for increased vehicle delays at railroad crossings.
· Analysis of safety considerations related to transport of petroleum associated with infrastructure, including an evaluation of trackage, railroad crossings, water crossings, and the safety of cars transporting oil.
· Analysis of effects on public transit, pedestrian access and parking within Hoquiam, and Grays Harbor County.
· Potential for and extent of increased risk of spills, fires, and explosions during rail transport, from infrastructure failing, accidents, or natural disasters.
· Evaluation of emergency response, including preparedness planning.
· Identification of responsible parties and required emergency response, including equipment and materials, to address worst-case scenarios.

Comment Number: 000000233-1
Organization:
Commenter: Gretchen Staebler
Commenter Type: Public
Other Sections: 13.3 7.4 14
Comment Excerpt Text:
I am extremely concerned about the proposed oil trains running through our towns and state and being stored and transported from our coast. Thank you for your careful study of all the issues. The rail lines are unsafe. The cars are unsafe. The toxic leakage is a threat to lives. The increased number of trains, and their length, is bad for businesses, property values, emergency vehicles and residents (of which I am one) needing to cross the tracks. The storage and shipping is bad for the environment at our beautiful coast and for the industries there. Please study carefully. Please show the courage to write a report against a bad idea for Washington.

Comment Number: 000000238-3
Organization: Citizen of Aberdeen
Commenter: Jamie Judkins
Commenter Type: Public
Other Sections: 14
Comment Excerpt Text:

Third, the decrepit rail roads, four derailments within one month, need I say more? Fourth, the rail road crossings need addressed. Automobiles crossing the rails have to slow to a crawl to cross them into the Olympic Gateway Plaza so they won't damage their wheels. If our crossings are permitted to fall to this sort of disrepair, I'm sure it's this way at many other crossings. Fifth, length of trains is already an issue, we have no alternative crossings to get in, or out, of the Olympic Gateway Plaza and many other areas of population. If and when an emergency occurred and I believe there has been one instance of this situation already, how will our emergency responders reach these situations? Currently, from what I understand, there is only one emergency response vehicle that can fit under the bridge near the Guest House Inn. What if that vehicle is unavailable? A rail bridge is in order! This would eliminate the crossings and the emergency situations.

Comment Number: 000000239-1
Organization:
Commenter: Janet Bess
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
If the oil terminals come to town the town is doomed. I will put my home on the market and move out of here along with so many other people. I have stuck it out through the hard times and working at doing my part to improve this community but I won't stay if oil comes to town. It will be intolerable having the trains come through day and night, as it is I'm about 10 blocks away from the tracks and I am woken up almost nightly by the train horns, with the oil this will increase exponentially. The risk of explosion is far to great and you are putting my life in jeopardy so the oil company can line their pockets.

Comment Number: 000000267-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 7.3 14
Comment Excerpt Text:
To date there has been no public display of the Westway Terminals Hoquiam five-tank layout, which is a change from the previous four-tank layout (attached). Access to the “northerly tanks”, even in the four-tank layout would have been constrained. Adding the fifth tank will make the tank to tank spacing much less than with the four tanks. Access to the tanks if there were a fire will be difficult, as the access is blocked by the southerly tanks and the port rail loop tracks. Please address the emergency access constraints that are exacerbated by the addition of the fifth storage tank. If access cannot be maintained, the addition of the fifth tank must be denied.

Comment Number: 000000270-2
Organization:
Commenter: Ilene Silver
Commenter Type: Public
Other Sections: 13.1 14 15
Comment Excerpt Text:
Additionally, the two current proposals would add 23 trains a week with each being up to 1.3 miles long. The slower speeds required by these trains would create massive traffic congestion, and impede emergency vehicles, extend commute times and decrease access to local businesses which hurts Washington’s economy.

Comment Number: 000000279-3
Organization:
Commenter: James Thomas
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
In addition, the EIS documents should consider the increased rail traffic and greenhouse gas emissions from all proposed oil terminal expansions and coal shipping terminals in Washington and Oregon.

Comment Number: 000000284-1
Organization:
Commenter: Marisa Salzer
Commenter Type: Public
Other Sections: 7.2 7 13.1
Comment Excerpt Text:
Rail Traffic - Increased one-way traffic of 3.25 trains per day (Imperium 2 per day, Westway 1.25 per day). The increased noise, train emissions, blockage of traffic, potential release of hazardous chemicals within and in close proximity to wetlands, rivers, and creeks will affect quality of life issues of a rural community. With the downtown core located within feet of the railroad tracks, Increased rail traffic may reduce tourist traffic when the main entrance to downtown is blocked by trains. Old Rail Bridges - Just outside my city, rail briddges over the Satsop and the Wynooche rivers (which flow to the ocean) and have been documented by local citizens of their apparent deteriorating condition, and create an environmental concern should a train derail and crude oil be spilled into those water ways.

Comment Number: 000000285-2
Organization:
Commenter: Beth Kaeding
Commenter Type: Public
Other Sections: 13.1 14
Comment Excerpt Text:
There are currently more than 50 trains traversing Montana on two main lines each day; this number is nearing capacity for the current rail system, and some upgrades are already in progress. However, projections of an additional 22 trains each day as a result of Bakken oil shipments and between 26 to 35 additional trains each day in the next 5 years as a result of coal export shipments will more than congest even an upgraded rail system. More train traffic would lead to more frequent and longer traffic delays for citizens at rail crossings. These delays would disrupt the business and commerce of cities and towns. These delays would mean a greater potential that emergency responders would be delayed in reaching residents when there is a medical emergency or a fire or the need for police.

Comment Number: 000000285-7
Organization:
Commenter: Beth Kaeding
Commenter Type: Public

Comment Excerpt Text:
The impacts of increased oil (and coal export) train traffic are real and significant. Each and every citizen and community along the hundreds of miles of rail lines between the Pacific Northwest and the Bakken oil fields (and the Powder River Basin coal mines) would experience numerous and significant effects that are the result of this increase in train traffic. Consequently, it is absolutely appropriate that the scope of the environmental review for the Westway and Imperium terminals project be comprehensive and that it include the cumulative and connected impacts that increased train traffic would have on all citizens and

communities along the entire length of the rail lines involved, particularly the impacts on Montana and Montanans.

Comment Number: 000000290-1
Organization:
Commenter: William Brake
Commenter Type: Public

Comment Excerpt Text:
The Crude Oil By Rail Proposals for West Way and Imperium are only two of the potential eleven proposed or operational projects in Washington and Oregon. Crude Oil by Rail is very large and complex logistics to safely get the product to a terminal location. As an engineer, there is a saying " Anything Times 365 is a Big Number" and it applies to the West Way and Imperium Crude Oil By Rail Projects. Further Transportation review as a whole in the state of Washington is requested and not segmented to parts and pieces.

Comment Number: 000000300-1
Organization:
Commenter: Diana Gordon
Commenter Type: Public
Other Sections: 7.3 13.3
Comment Excerpt Text:
One of the many concerns I have about the plans for the terminals in Grays Harbor is the cumulative effects that all this oil will have on the communities and the environment along the way. These terminals will increase rail traffic through the area by 3 or 4 unit trains per day. This oil contains a substantial amount of dissolved propane and is therefor rather explosive. If Grays Harbor were the only place this oil was going to, maybe we could live with the risk, however catastrophic. However, there are at least 10 other proposals including one for Vancouver which would be the largest oil terminal on the West Coast. These proposals together will transform the rail route into a fossil fuel corridor susceptible to spills and explosions on an unprecedented scale.

Comment Number: 000000315-1
Organization: Riverside Fire Authority
Commenter: Richard Mack
Commenter Type: Agency
Other Sections: 14
Comment Excerpt Text:
The Riverside Fire Authority provides full service response to fire, EMS, rescue and hazardous material emergencies to approximately 26,000 residents living in Northwest Lewis County and including the city of Centralia, Washington. These services are provided from eight fire stations to a geographic area of approximately 184 square miles comprised mostly of rural properties. There are two primary modes of commerce transportation through the Riverside Fire Authority's jurisdiction. They are Interstate 5 and the Burlington Northern Santa Fe Rail line which parallel one-another in a North/South orientation through the community. In addition, the Puget Sound and Pacific Rail line intersects with Burlington Northern Santa Fe in Centralia. This is the line proposed to be used to transport the commodity for the Westway and Imperium projects. This rail line crosses 9 residential streets and 2 major arterials along with 4 roads serving industrial complexes in the jurisdiction. The Riverside Fire Authority Governance Board adopted Response Time Objectives as a part of its Regional Fire Service Plan on August 7, 2007. The criteria which formulated the response time objectives is derived from the American Heart Association's recognition that once the heart stops beating, "there is a six minute window of opportunity for resuscitation and beyond that six minute window, there is only the slimmest margin of success." In

addition, it is recognized that a fire originating in a room doubles in size for every minute of time lapse. At approximately 8 minutes a condition known as flashover occurs which means everything in the room of origin is involved in fire and the space is untenable for sustaining human life. The Riverside Fire Authority requests a study be conducted as to how the additional rail traffic will impact our ability to meet the response time objectives outlined in the Regional Fire Authority Service Plan.

Comment Number: 000000316-1
Organization: OLympia F.O.R.
Commenter: Rozanne Rants
Commenter Type: Public

Comment Excerpt Text:
The effect of increasing the size of the oil terminal facilities in Greys Harbor would effect a wide area outside the immediate area. The increased transportation from the oil fields to the shipping terminals would have many ill effects all along the routes. These effects must be identified,examined and evaluated.

Comment Number: 000000319-5
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 14 7.1 5 7.4
Comment Excerpt Text:
The EIS should identify the safety of the spur rail line from Centralia to Hoquiam, the capacity for local emergency response teams to deal with spills in the riparian areas, the impact spills would have on downstream and estuarine species, and who would pay for cleanups when spills occur. Presumably you are aware of the significance of the Grays Harbor Estuary to the survival of migratory shorebirds. An April spill could threaten extinction for certain populations, if not species. The EIS should quantify how many migratory bird species depend on a healthy estuary, what percent of the Western Flyway populations those numbers represent, the cumulative impact on avian health of incidental spills that will occur if one or all oil ports are constructed, as well as the impact on those birds should a catastrophic spill happen.

Comment Number: 000000321-3
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
The track itself crosses multiple waterways, with the capacity to endanger countless estuaries and habitats. In the past couple of weeks alone we've seen three derailments—what does this mean for the safety of the line, particularly in the event of markedly increased rail traffic? Derailments impact other commercial traffic, rail and otherwise, causing problems for other area industries—how will this be addressed or mitigated?

Comment Number: 000000328-1
Organization:
Commenter: Sherri Garland
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
This country was built on industry and anything to stimulate our economy is good. But I am very

concerned about these gas/oil trains coming through my community of Centralia. The tracks are old and, I am under the impression, susceptible to derailments. It has happened several times just recently -- thankfully, with no major damage to lives or private property. Plus, we already have a lot of train traffic through our community and don't believe we can handle more.

Comment Number: 000000330-2
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Rail traffic analysis given current state of infrastructure; discuss percentage rail infrastructure is fully utilized pre-Facility, accident likelihood and recent experiences, impacts response capability and remediation. The rail from Centralia to Hoquiam is about 59 miles long, but this does not adequately reflect the impacts nor dangers of CBR. What is the statistical danger of over 1100 rail miles? Please address the decreased ability to repair infrastructure due to rail traffic. A current TIGER grant application from the City of Chehalis states that the current grain and auto traffic to the Port of Grays Harbor is "overwhelming the system." Please study the logistics of added rail use and its impacts to existing rail customers.

Comment Number: 000000332-3
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 13.1
Comment Excerpt Text:
The increase in train traffic through Grays Harbor County will have a significant impact on communities that are literally bisected by the train tracks. Emergency access can be delayed over 15 minutes due to mile long rail cars blocking crossings. In addition, rail cars cross over more than 100 creeks, rivers and streams, the majority fish-bearing. We are also concerned about impacts to surface transportation in the Hoquiam/Aberdeen facilities. How will the EIS address surface traffic along the rail into Washington heading towards Centralia to Hoquiam?

Comment Number: 000000338-1
Organization:
Commenter: John Larson
Commenter Type: Public

Comment Excerpt Text:
Though trains traveling over the historic Northern Pacific route into Grays Harbor have a long history of hauling all manner of cargo -- even bulk hazardous liquids -- nothing in the past rivals the volume of shipments being proposed in these two crude oil plans. Imperium is proposing to add two unit trains per day, Westway is seeking to add 1.25 unit trains a day. Though not under consideration here, a third company, U.S. Development Corp., is seeking to add its own bulk shipping station with at minimum a similar number of trains each day. Considering the Puget Sound and Pacific Railroad's already busy rail business on Grays Harbor -- hauling automobiles, agricultural products, other bulk liquids, lumber, etc. -- does the existing rail infrastructure have the capacity to safely handle this greatly increased rail traffic?

Comment Number: 000000344-2
Organization:
Commenter: Janet Strong

Commenter Type: Public

Comment Excerpt Text:
3. Effects of greatly increased train traffic on all communities, all rivers, streams and wetlands, and agricultural areas all along the rail corridor from North Dakota to Grays Harbor estuary; 4. Condition of railroad infra structure between ND and Grays Harbor, taking into account expected increases in precipitation in the NW and drought in the midwest;

Comment Number: 000000349-4
Organization: City of Westport
Commenter: Michael Bruce
Commenter Type: Agency
Other Sections: 13.3
Comment Excerpt Text:
4) The infrastructure and quality of the rail lines and bridges as well as the community impacts of more trains causing traffic backups which may impact accessibility between homes, businesses, emergency resources, and communities on both sides of the rail in Grays Harbor communities.

Comment Number: 000000352-1
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 13.1
Comment Excerpt Text:
The complete EIS should include the following: A full analysis of rail infrastructure, including all rails, bridges, roadbed, culverts and any infrastructure that will bear the weight of trains. A full analysis of the potential traffic interruptions when trains are present to local businesses?

Comment Number: 000000352-4
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public

Comment Excerpt Text:
Study the impacts to existing rail customers of adding additional trains running on the same infrastructure. Study the impacts of trains blocking emergency access points.

Comment Number: 000000354-7
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 15
Comment Excerpt Text:
Housing

The EIS should address impacts associated with additional train traffic to residential areas along the railroad tracks, including noise impacts, changes to property values, and changes to access affecting existing and proposed residential development.

Comment Number: 000000354-8
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 13.1
Comment Excerpt Text:
Transportation
The EIS should address impacts to all modes of transportation , including rail , persona l vehicles, and trucks. The six additional trains running through Ridgefield daily (three inbound and three outbound) are reported to each be 1.5 miles long . The EIS should address:
The cumulative impacts to vehicular transportation caused by the increase in rail traffic associated with the projects when added to existing and proposed rail traffic.
Any rail infrastructure improvements needed to accommodate the increased rail traffic related to these projects.

Any impediments to vehicular access at the three crossings created by additional rail traffic.

Comment Number: 000000363-2
Organization: Washington State Legislature
Commenter: Reuven Carlyle
Commenter Type: Agency
Other Sections: 13.4 2.1 7.2
Comment Excerpt Text:
II. Impacts of additional rail and vessel traffic The Westway and Imperium expansion projects will significantly increase rail traffic along Washington rail lines and vessel traffic through Washington waterways, and the impacts of this additional traffic must be reviewed by the agencies.

Rail traffic will likely cause congestion at rail crossings, increased air and noise pollution along rail corridors, and increased rail maintenance and improvement costs. Out-of-state oil shipments are also likely to have an impact on the movement of key commodities within Washington, as the agriculture and aerospace industries, among many others, rely on rail to transport goods. Vessel traffic has the potential to interfere with marine wildlife, congest already busy shipping lanes, and impact local fisheries.

Comment Number: 000000370-3
Organization:
Commenter: Mike Petersen
Commenter Type: Public

Comment Excerpt Text:
More crude oil transport through eastern Washington means more delays and deteriorating passenger service. Spokane passenger service is already poor and inconvenient. Please analyze the cumulative impacts of this proposed terminal on rail traffic, combined with other proposed oil and coal shipments. What will be the impact on local agriculture's ability to access the rail lines? Please read and analyze the updated study, Heavy Traffic Still Ahead, by Terry Whiteside and Gerald Fauth prepared for Western Organization for Resource Councils with the context of these proposed facilities. You can find it online at www.heavytrafficahead.org.

Comment Number: 000000370-4
Organization:
Commenter: Mike Petersen
Commenter Type: Public
Other Sections: 7.2 14 13.1 2.1
Comment Excerpt Text:
Giant unit trains of oil, like unit trains of coal, would impact existing rail infrastructure (with taxpayers paying for said impacts or needed improvements / expansion), increase health risks from diesel particulates, contribute to traffic congestion and slow emergency response, increase noise pollution, air pollution, environmental risks, and more.

Comment Number: 000000370-6
Organization:
Commenter: Mike Petersen
Commenter Type: Public
Other Sections: 3.1
Comment Excerpt Text:
Please analyze the risk to the Spokane River and Hangman Creek, to the Rathdrum Prairie - Spokane Valley Aquifer, the neighborhoods along the rail lines, and the increasingly bustling and economically attractive downtown Spokane core.

Comment Number: 000000377-1
Organization:
Commenter: Laura Ackerman
Commenter Type: Public

Comment Excerpt Text:
Please analyze the impacts of these proposed facilitates on increases in train traffic from the Bakken oil fields to the ports. Please read and analyze the above within the context of the report Heavy traffic Still Ahead, Feb. 2014 found at www.heavytrafficahead.org.

Section 13.3 - Rail safety

Comment Number: 000000005-4
Organization:
Commenter: Yovonne Autrey
Commenter Type: Public

Comment Excerpt Text:
The rail lines run through the most populous parts of Grays Harbor County and pose too much of a hazard to citizens and visitors alike.

Comment Number: 000000008-3
Organization:
Commenter: Vicki Johnson
Commenter Type: Public

Comment Excerpt Text:
Homes will burn, people will die and all so a few companies can become even more profitable? No! These issues must be transparently addressed and given top priority before the continuation of any further

infrastructure is implemented. We don't need jobs that will support the increase of fossil fuel pollution. We need PUBLIC officials that uphold our needs and safety.

Comment Number: 000000009-3
Organization:
Commenter: David Perk
Commenter Type: Public
Other Sections: 13.2 3
Comment Excerpt Text:
Specifically, the scope of the Westway and Imperium EISes should include the following. Source-to-destination impacts of the method of transportation used to convey the products, including but not limited to: Methane and other gas emissions, groundwater contamination, waste products, and water consumption at the point of extraction; Diesel pollution, rail traffic displacement, road closures,

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Comment Number: 000000016-1
Organization: Mr
Commenter: Rodney Tharp
Commenter Type: Public
Other Sections: 13.2 7.1 7.3
Comment Excerpt Text:
Include in your EIS the impact on all the towns and cities that the oil trains will pass through or near. This should include public safety, safety from spills and exploding oil cars as well as accumulative rail congestion from all the increased train traffic of all state wide projects.

Comment Number: 000000017-1
Organization: Northbeach Community Gruop
Commenter: Lisa Riemer
Commenter Type: Organization

Comment Excerpt Text:
We need to think about possible accidents effecting our harbor.

Comment Number: 000000017-3
Organization: Northbeach Community Gruop
Commenter: Lisa Riemer
Commenter Type: Organization

Comment Excerpt Text:
We need to discuss how the aging train tracks can carry those trains day after day, year about year. An accident will happen!

Comment Number: 000000023-2
Organization: World Temperate Rainforest Network
Commenter: Pat Rasmussen
Commenter Type: Organization

Comment Excerpt Text:
Oil trains have been exploding. The oil they plan to carry is dangerous. The train tracks go through towns, cities, past schools, homes, businesses. They are too dangerous.

Comment Number: 000000023-6
Organization: World Temperate Rainforest Network
Commenter: Pat Rasmussen
Commenter Type: Organization

Comment Excerpt Text:
The rail system is old and not in good repair for so many trains anyway. It would be expensive to bring them up to what is needed and would be a waste of money. Taxpayers are NOT going to pay for that.

Comment Number: 000000031-1
Organization: Health Care for All-WA
Commenter: Martha Koester
Commenter Type: Organization

Comment Excerpt Text:
A town in Canada was totally destroyed by an accident with one of these trains. Why would we want them in WA State?

Comment Number: 000000032-1
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
Trains helped industrialize America over 150 years ago.Now, trains and associated services are less-than-adequate in maintenance for machinery, tracks and bridges. Industries increasingly run on thinnest of maintenance and staff. Trains in trouble remain so, until affiliated services slowly respond, for both freight and passenger trains: Freighters stuck, derailed, or crashed, have sat, sometimes days, depending on area [like rural UT, NV]. I was on a train stuck almost 24 hours in snow near Klamath, related to ancillary service track-clearing failing to respond to inhuman conditions inside that train.

Comment Number: 000000032-7
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
Costly in lives, environment, resources which cannot be replaced Derelict Bridges are along the route: WHO is to rebuild them before anymore trains transit them? Damages from accidents become WILLFULL NEGLECT and INTENTIONAL DAMAGE, even mass murder. GHC has inadequate budget to do timely repair on road bridges. It seems RR-bridges are similarly neglected—all of them need fixed;

Comment Number: 000000033-1
Organization:
Commenter: Mark McFeely
Commenter Type: Public

Comment Excerpt Text:
I'm not against the growth of the Port of Grays Harbor or increase rail traffic. I am how ever against the

cargo they are transporting (Bakken Crude). I do believe safety has been overlooked for the all mighty dollar in this instance.

Comment Number: 000000046-2
Organization: Friends of the Gorge
Commenter: Gisela Ray
Commenter Type: Organization

Comment Excerpt Text:
I am truly concerned about the safety of all this oil transport through our Gorge.

Comment Number: 000000050-1
Organization:
Commenter: Arlene Eubanks
Commenter Type: Public

Comment Excerpt Text:
The DOT-111 rail cars need to be redesigned to carry hazardous materials.

Comment Number: 000000050-5
Organization:
Commenter: Arlene Eubanks
Commenter Type: Public

Comment Excerpt Text:
5. Finally number 5! On April 10, 2014, U.S. Senator Patty Murray, held a transportation hearing to discuss safety regulations to protect communities in face of more growth.

Comment Number: 000000054-1
Organization:
Commenter: Carol Rose
Commenter Type: Public
Other Sections: 7.3 7.4
Comment Excerpt Text:
I care for that region's welfare as well as for my own Vancouver. The cumulative proposed oil train cars traveling through our state is monumental. The potential dangers grow exponentially. Current rail cars are inadequate. Even safer rail cars are not safe, simply less dangerous. This type of oil sinks and is more difficult, if not impossible to clean up. It is more volatile and explosive.

Comment Number: 000000064-2
Organization: Wild Game Fish Conservation International
Commenter: James Wilcox
Commenter Type: Organization
Other Sections: 13.5
Comment Excerpt Text:
Some of the scoping-related concerns by Wild Game Fish Conservation International surrounding petrochemical product transportation, storage and export include, but are not limited to: • Existing infrastructure (pipelines, rails, tank cars, bridges, storage facilities, port facilities)

Comment Number: 000000070-2
Organization:
Commenter: Patricia Szot
Commenter Type: Public

Comment Excerpt Text:
I am opposed to the potential movement of OIL by rail anywhere in the state of Washington. So far that I know of there have been 4 major rail disasters of oil transport. Washington does not need to be added to that list.

Comment Number: 000000073-4
Organization:
Commenter: Jim Steitz
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
These oil-freighted trains have compiled a poor safety record in recent months. Their load of heavy crude is known to be even more explosive than lighter-grade oils, and human life is placed at unacceptable risk by running these loads on a recurring basis immediately adjacent to rail-line towns.

Comment Number: 000000087-1
Organization:
Commenter: Herb Hethcote
Commenter Type:
Other Sections: 7.3 7.4
Comment Excerpt Text:
The two proposed oil storage facilities would allow many oil trains with some old, unsafe oil tanker cars to cross our state. These trains have derailed over 6 times in the past several months and spilled volatile oil. There have been some explosions and some deaths.

Comment Number: 000000100-3
Organization:
Commenter: Heather Haverfield
Commenter Type: Public
Other Sections: 7 2.1
Comment Excerpt Text:
My opinion is based on dangers of shipping explosive fuels by rail, through residential and commercial zones, as well as risks to the natural environment, and the consequences of burning ever more quantities of fossil fuel, especially as they are sourced through ever more and more extreme procedures. The risks are not worth the loss of a healthy environment.

Comment Number: 000000102-1
Organization:
Commenter: Duane Callos
Commenter Type: Public

Comment Excerpt Text:
However, the proposed "oil by rail" has me greatly concerned for the safety of myself, my family and all the other homes nearby. In the past few years there have been several train derailments within West Aberdeen. One was where the railroad crosses Myrtle Street, another was where the railroad crosses West 1st Street and the latest was at the foot of Washington street near State street. I believe all of these

involved grain cars or other non-hazardous material which poses a danger only to the immediate area very near the train tracks. As I'm sure you are aware, the day after that derailment at the foot of Washington Street in Aberdeen there was a train derailment in Lynchburg, VA that involved an oil train and a large explosion and fire. In view of that accident and the many other "oil by rail" derailments, fires, explosions and etc. that have been in the news in the last couple of years. Even with all the assurances that "It is perfectly safe", that I'm sure will be issued by all the companies involved in this project if it is approved, how would it be possible to reside in my residence without being completely un-nerved day and night? How could a person ask their family to go to sleep at night, knowing what has happened in the very recent past, and that at any time during the night while they are sound asleep an "Oil train" will be passing within 200 ft of them and that a derailment and possibly disasterous explosion and fire could be on the verge of taking place? The problems with the derailments and explosions aren't from the distant past or non-existent, these things are happening NOW. In addition, the NTSB has declared that the tank cars that are presently transporting the oil are "unsafe". Something that I would really like to hear your answer to is: If this project is approved, Would you want your family to live here? If this project is approved under these conditions I will undoubtedly decide to move to another location. What will this project do to the value of my house at this location. If I am afraid to live here then I don't think anyone else would want to live here either.

Comment Number: 000000106-1
Organization:
Commenter: Jan Verrinder
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
My concerns about oil-- -Explosions, derailments, human error and the variety of reasons causing multiple oil-by-rail catastrophes in 2013 and now in 2014. -Oil cars, to be replaced with safer designs, but operational until then—and the news that the safer ones are also failing.

Comment Number: 000000106-4
Organization:
Commenter: Jan Verrinder
Commenter Type: Public

Comment Excerpt Text:
Rail tracks degrading naturally, but especially from daily coal dust contamination. This is checked, but regularly? Carefully? Without fail? -

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Comment Number: 000000108-1
Organization:
Commenter: Raymond Shustak
Commenter Type: Public

Comment Excerpt Text:
Hoquiam, Aberdeen has 2 derails in one mouth?# NO BRAINER#Hoquiam SAY NO TO OIL CARS PLEASE

Comment Number: 000000116-7
Organization: League of Women Voters of Washington
Commenter: Kim Abel
Commenter Type: Organization

Comment Excerpt Text:
It appears that the rail industry plans to continue to keep unsafe tank cars in service, even as it adds safer cars to its fleet for the massive expansion that is anticipated to transport this oil cargo. This would leave Washington citizens at risk for the kinds of spills and explosions that have devastated other communities in recent months. The review of these projects must include assuring that the safety issues related to shipment of crude oil by rail have been addressed.

Comment Number: 000000119-1
Organization: none
Commenter: Diana Gordon
Commenter Type: Public

Comment Excerpt Text:
We are very concerned about increasing the amount of oil train rail traffic through our small city. Washougal is spread out along the RR track between hills on the north and the Columbia River on the south. The tracks go right through the downtown, in front of several schools and parks, across the Washougal River. We live within a quarter mile of the tracks. Safety is a major concern here as we have 5 at-grade crossings and only one overpass. A train/car accident at any one of these crossings would have a devastating effect on a large section of town. At the present time, the rail cars, T-111's, are not reliable in an accident, and there are some doubts about even the new ones, the 1232's. Several other oil-by-rail projects have been proposed. I feel that it is very important to include the cumulative effects that all these projects will have on the safety of the cities and towns that the trains pass through in the EIS. This project will not occur in a vacuum and the more rail traffic there is, the better the chance of mishaps. This project cannot help but have a harmful effect on thousands of people in many towns.

Comment Number: 000000123-2
Organization:
Commenter: Kristin Hermenegildo
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
Here are a few of my concerns. 1. The risk of derailment. If one of these trains were to derail, it could cause an explosion. These trains will be coming through our neighborhoods, and an explosion could cause fires structural damage to our homes and neighborhoods. There is also a possibility that an explosion could cause loss of life to some of Hoquiam's residents. There have been two recent derailments in Aberdeen within the last month alone. Derailment is a likely possibility and a huge risk for the city of Hoquiam.

Comment Number: 000000134-1
Organization:
Commenter: larry bridenback
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
a spill,one will happen sooner than later, we destroy the Chehalis river. the train travels within a 100 yards of elma elementary school. a derailment there could kill hundreds of kids.

Comment Number: 000000138-1
Organization: concerned citizen
Commenter: Shawn Murray
Commenter Type: Public

Other Sections: 5.1 7.4
Comment Excerpt Text:
I strongly OPPOSE crude by rail development in Grays Harbor. The potential for harming an already fragile marine life ecosystem is far too great a risk. The tracks that these rail tankers would be utilizing are old and unsatisfactory. They follow all to closely the Chehalis River and Grays Harbor, the question of a spill is not if, but when.

Comment Number: 000000139-1
Organization:
Commenter: Don Overby
Commenter Type: Public

Comment Excerpt Text:
I'm all for expanding the Port of Gray's Harbor and bringing jobs back to the area. My concern is the old rail ways and bridges that service them are outdated and need to be improved and maintained to a higher standard.

Comment Number: 000000143-1
Organization:
Commenter: lee wilder
Commenter Type: Public
Other Sections: 2.1 7.4
Comment Excerpt Text:
Expansion of the Imperium and Westway terminals will have a significant environmental impact on Montana and those effects must be taken into consideration as this proposal is evaluated. Rail traffic creates a diminution in air quality and the potential for derailments increases with more trains and longer trains. Derailments of trains carrying oil create a significant environmental risk. Derailments do happen and there have been too many spills of chemicals and oil.

Comment Number: 000000153-1
Organization:
Commenter: Paul Stormo
Commenter Type: Public

Comment Excerpt Text:
1. Given recent derailing incidents associated with oil transport via rail, the risk associated with rail transport adjacent to the Chehalis River, as well as the risk associated with residential communities must be considered.

Comment Number: 000000155-2
Organization: Ms.
Commenter: Cate Campbell
Commenter Type: Public
Other Sections: 13.1
Comment Excerpt Text:
The safety of the oil trains is in question and it only takes one good derailment to create huge problems for our rivers, streams, and communities along the route. New, safer tank cars may be proffered by BNSF and MRL railroads but rail capacity cannot be increased. Please take into account cumulative impacts of this oil shipment idea. There are hundreds of at-grade crossings from the origin to the port. Hundreds of opportunities for blocked traffic and other safety hazards.

Comment Number: 000000159-1
Organization:
Commenter: Karen and Ronald Siebrass
Commenter Type: Public
Other Sections: 7 7.3
Comment Excerpt Text:
My husband and I are very worried about our personal as well as environmental health and safety jeopardized by the transportation of oil and coal along the waterfront. We live on the bluff and already count multiple trains per day with well over 100 cars of uncovered,heaping coal and containers of oil. The possibility of derailment or explosion and the tons of coal dust distributed in our air are our primary fears. We live 100' above the tracks and listen to our glasses in our cabinets bump against each other as the passing train shakes the ground. The idea of another terminal with significantly more train traffic containing these hazardous materials is frightening. I am a Snohomish County Beach Watcher volunteer who has been trained in environmental impacts on our waterways. The more I learn, the more worried I am about our water quality, fish and habitat and the future of our beautiful area.

Comment Number: 000000160-1
Organization:
Commenter: Walter Appel
Commenter Type: Public
Other Sections: 15
Comment Excerpt Text:
Gentlemen: We support the building and operation of oil storage and transfer stations in Washington state. These facilities will enable petroleum to safely move to facilities where it can be transferred to barges and ships for movement along our coast and to overseas destinations. These terminals will provide employment at the sites and in the marine and rail industries. Oil produced in the USA will help move the nation to energy independence and improve our balance of payments if the oil is exported. Rail transportation safety has been improving and the railways are spending billions on improving their right of ways and rolling stock. The proposed terminals are a positive for the state and its citizens.

Comment Number: 000000162-1
Organization:
Commenter: Howard Moe
Commenter Type: Public
Other Sections: 7.4 7
Comment Excerpt Text:
Our current port commissioners have been making good choices in their selection of goods to be shipped from our port. It would be a very bad choice to add crude oil to this list of goods. The many recent explosions and derailments make it clear that the dangers associated with shipping crude oil far outweigh any possible advantages to our area. The damage done at Prince William Sound from the EXXon spill has still not dissipated entirely. Please say no to crude oil.

Comment Number: 000000164-1
Organization:
Commenter: Kelle Metz
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
The only way to make absolutely sure that the people of Grays Harbor county are not caught in a cataclysmic oil train accident, is to ban all oil shipment via rail to the Port of Grays Harbor. I want clean

water, clean air, and clean food--Bakken crude will deplete all three of those things, and can cause death and destruction along the way.

Comment Number: 000000167-1
Organization:
Commenter: Bob Zeigler
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
The expansion of these facilities is for dramatic expansion of train traffic and transport of volatile fracked oils out of Washington ports There would be an increase of more than 450 trains a year traveling with oil to store and load onto more than 100 barges a year. There is very large increase in the potential for accident and spill with this proposal with potential to impact human life, health, safety and welfare.

Comment Number: 000000167-3
Organization:
Commenter: Bob Zeigler
Commenter Type: Public
Other Sections: 12 5 7
Comment Excerpt Text:
The EIS would need to discuss: 1. Risk increases to spill and those consequences to human health and safety, water quality and Chehalis River Fish and Wildlife and Native American Treaty Rights and impact to migratory birds stopping at Bowerman Basin. 2. Risks to people and natural resources and Treaty Rights along the entire train route from potential for accident and spill.

Comment Number: 000000168-1
Organization: Gig harbor puget sound anglers
Commenter: Steve Ng
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
No to oil transport via rail thru grays harbor .Too much at risk here , with salmon and steelhead streams so close to the rails, let alone human life in case of a derailment with dangerous loads,or oil container cars .

Comment Number: 000000169-1
Organization: Gig harbor puget sound anglers
Commenter: Steve Ng
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
No to oil transport via rail thru grays harbor .Too much at risk here , with salmon and steelhead streams so close to the rails, let alone human life in case of a derailment with dangerous loads,or oil container cars .

Comment Number: 000000175-4
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency
Other Sections: 7
Comment Excerpt Text:

I also strongly urge the Washington Department of Ecology and the Military Department Emergency Management Division, in collaboration with the Washington Department of Fish and Wildlife, the Coast Guard and local government emergency response entities, to assess the impact to public safety, the environment, the economy, and traffic of petroleum transport by rail through Grays Harbor County and the State of Washington.

Comment Number: 000000176-19
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
11. Rail traffic analysis given current state of infrastructure; discuss percentage rail infrastructure is fully utilized pre-Facility, accident likelihood and recent experiences, impacts response capability and remediation. The rail from Centralia to Hoquiam is about 59 miles long, but this does not adequately reflect the impacts nor dangers of CBR. What is the statistical danger of over 1100 rail miles? Please address the decreased ability to repair infrastructure due to rail traffic. A current TIGER grant application from the City of Chehalis states that the current grain and auto traffic to the Port of Grays Harbor is "overwhelming the system." Please study the logistics of added rail use and its impacts to existing rail customers.

Comment Number: 000000176-59
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(ak) Impacts of the additional transportation of crude oil into domestic ports in Washington State and California. What has been the analysis of the indirect impacts of the proposed project(s)?
(al) There has been an inadequate analysis of alternatives and project purpose.
(am) There has been an inadequate analysis of indirect impacts.
(an) Inadequate discussion of fire and emergency response along the entire rail line. Hoquiam has been experiencing increased incidents with fewer personnel and less equipment to respond. If there were more than one incident at one of the terminals or elsewhere in the City, how would the emergency services be able to respond?
(ao) Special fire-fighting equipment and supplies are required depending on the type of fire. What supplies would be needed to suppress and extinguish a unit train accident? Where would these supplies be stored and made available?

Comment Number: 000000177-1
Organization:
Commenter: Hans Mak
Commenter Type: Public
Other Sections: 5.1 7.4
Comment Excerpt Text:
In light of the recent derailments in the County I oppose the oil trains through the area. I come to the harbor to fish and gather shellfish. A crude derailment/ spill would be catastrophic to environmental and community resources. This is not a good fit with the amount of rain we receive in the area.

Comment Number: 000000183-1
Organization:
Commenter: Mary Holder
Commenter Type: Public

Comment Excerpt Text:
Safety Impacts from Transporting Oil by Rail: The scope of the EIS for this proposed project must include all public safety and health impacts of rail transportation of crude oil including not only at the proposed facilities, but all along the rail route in our state. Westway estimates it will receive 1.25 unit trains per day or 458 trains trips (loaded and unloaded) a year. Imperium estimates that the terminal would add 730 train trips annually, equaling two 105-car trains (one loaded with oil on the way in, one bearing only residue and fumes on the way out) per day. The scope of the EIS must include the air quality and public health impacts of locomotive diesel emissions along the rail route(s) in Washington and the impacts on emergency response at blocked at-grade crossings along the route(s). The EIS must also fully address the significant hazards of transporting Bakken and tar sands crude oil in rail tank cars through communities and sensitive environments along an already over-crowded rail line and even in the area of the new facilities themselves. Studies must detail the risks and consequences of explosions and fire from transporting crude oils.

The scope of the EIS must include a full review of state and local emergency response preparedness and capability for accidents involving the tank cars all along the rail route. There are no adequate regulations ensuring the safety of rail tank cars transporting oil. See U.S. Department of Transportation. May 7, 2014. http://www.dot.gov/briefing-room/us-dot-takes-new-emergency-actions-part-comprehensive-strategy-keep-crude-oil. Advisories for voluntary measures are not regulations and notifications are not safety standards. (Tate, C. McClatchy Washington Bureau. May 7, 2014. Regulators take voluntary route on tank car rules.
http://www.mcclatchydc.com/2014/05/07/226820/dot-wants-new-rail-rules-for-crude.html. ["But like other efforts since the beginning of this year involving train speeds, track inspections and routing decisions, DOT's tank car recommendations are not mandatory."… " I'm concerned that calls for action without clear guidelines won't actually do much to improve safety,' said Sen. Heidi Heitkamp, D-N.D." Accessed May 8, 2014). The transport of Bakken crude through communities is particularly dangerous due to the volatility of the un-stabilized crude oil in tank cars and the vapor pressures from the gases in the oil; these factors have led to catastrophic accidents involving loss of human life, immense property damage, and severe degradation of the environment (Gold, R. February 23, 2014. Bakken Shale Oil Carries High Combustion Risk: Analysis of Crude From North Dakota Raises Further Questions About Rail Transportation. The Wall Street Journal.

Comment Number: 000000185-1
Organization:
Commenter: Shelli Hopsecger
Commenter Type: Public
Other Sections: 7.1 7.3 7.4
Comment Excerpt Text:
This specific Environmental Impact Study should focus on the two projects that are being proposed by companies with proven records as good corporate citizens. Have the companies offered to invest in equipment and training for first responders? The Study should accurately weigh the risks -- what percentage of crude being shipped by rail has been leaked into the environment? What have been the affects - short-term and longterm on the environment? Were clean-up response plans in place? What can be learned from these outcomes to better position ourselves? What is the percentage of rail cars that have

been involved in derailments, what type of car were involved, will these cars be allowed to move crude when these projects are approved? Given these percentages, what is the REAL likelihood of an accidental spill, derailment or explosion? While nobodies wants these things to happen we must be realistic in our assessment of risk.

Comment Number: 000000193-1
Organization:
Commenter: Kevin McCarroll
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
Oil trains are a serious risk to the health and safety of our communities. Present proposals are for Bakken crude oil (extremely explosive) fracked in North Dakota, but could be expanded to serve to transport Canadian Tar Sands. A safe method for transporting Bakken Oil has not been found. Derailment is a critical concern for our communities. In July of 2013 47 people with killed after a train derailed in Quebec, Canada. In November of 2013, 200,000 gallons of oil leaked into waterways in Alabama. A month later, in North Dakota, 400,000 gallons spilled forcing 1,400 people to evacuate, and Pennsylvania experienced the devastation of spills in January, February and April of this year.

Comment Number: 000000194-1
Organization:
Commenter: Laura Reisdorph
Commenter Type: Public

Comment Excerpt Text:
This proposal uses the PSPR line that turns off the main line in Centralia, travels through Elma and on to Aberdeen. The initial route travels right through the Edison District (historic housing district) in Centralia. Houses hug the rail on both sides. This line is already being used for Grain and with this commodity already has a history of derailments. CONTAINERS Crude from Bakken is known to be highly volatile and so the containers it is carried in should be REQUIRED to be the newer, safer container models, not the old containers that are more easily punctured when bumped or when derail. Derailing happens so we need assurance the industry is investing in equipment that meets their products needs. The communities will be dealing with increased traffic, noise, property value issues and needs to know that their inconvenience for the oil industry's profit is at least as safe as it can be. The requirement for updated containers is long over due.

Comment Number: 000000198-1
Organization: NORTH BEACH ASSOC.
Commenter: LEE RIENER
Commenter Type: Organization
Other Sections: 7.4
Comment Excerpt Text:
I am against these bulk liquid storage terminals. They will be located near the waters of Grays Harbor. I have lived in this area for over 30 years, and own a home. I think that it is only a matter of time before an accident, a leak occurs from this facility, that will effect Grays Harbor.

Comment Number: 000000198-5
Organization: NORTH BEACH ASSOC.
Commenter: LEE RIENER
Commenter Type: Organization
Other Sections: 7

Comment Excerpt Text:
We cannot allow this potential accidental leak from the petroleum tanks, to destroy our lives here on Grays Harbor. I do not think for the health and safety of our community, that we can allow this facility to be built on this location. Also the impact of the trains, bringing in this oil is problematic. These trains will derail, sooner or later.

Comment Number: 000000203-1
Organization:
Commenter: Monique Kovalenko
Commenter Type: Public
Other Sections: 7 13.1
Comment Excerpt Text:
It is with concern over public and environmental health, as well as over whether or not our community in Spokane would have proper emergency response resources if an accident were to happen that I am writing. I urge decision makers to include in their scope environmental impacts as well as availability, or lack of, community resources in regard to potential accidents and transportation slow downs.

Comment Number: 000000204-1
Organization: CCA
Commenter: Gary Johnson
Commenter Type: Public
Other Sections: 7 7.4
Comment Excerpt Text:
To whom it may concern, I am OPPOSED to the oil trains coming through Grays Harbor. The track record and recent derailments send a clear message that this rail system is in horrific condition. If an oil spill occurs in Grays Harbor it with have a long standing impact on the economy. Fisheries in Westport, Humptulips, and the tributaries of the Chehalis basin will all be affected. Oil spills in this bay and tidal waters are hard to clean-up. Let's protect these valuable ecosystems that the area depends on and stop this madness!

Comment Number: 000000209-2
Organization: none
Commenter: Lyle Olmsted
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
Having helped to plan and then participate in an emergency exercise like the one that happened in eastern Canada several months ago, I, and a lot of other Centralia residents, do not want those trains coming through our City. We are not being told a whole lot about the contents and the hazards from those contents, but believe me, when you begin to study the effects of a train disaster in or near Centralia or Chehalis, it becomes a very scary situation. Either City could have the entire downtown and adjoining residential districts virtually wiped out. Casualties from explosions, fires, and poisonous gases would be horrendous, and property damage would be in the millions.

Comment Number: 000000211-3
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency
Other Sections: 13.2 13.1 14
Comment Excerpt Text:
WSDOT has identified 25 state highway intersections and one limited access interchange along the PSAP

Grays Harbor Subdivision where operations may be adversely impacted due to delays at nearby highway-railroad grade crossings. Some of these locations already experience delays under existing train volumes and may not be able to adequately absorb additional delays without mitigation measures. Of particular concern are possible highway operational impacts along US 12 between mileposts .60 and .74 within the City of Aberdeen. This segment is located within a
busy commercial area of the city, and the respective configuration of the highway, tracks, and commercial/retail businesses makes it particularly susceptible to significant operational and potential safety impacts from additional train traffic. A list of the 25 state highway locations is attached.

WSDOT requests that the scopes of the EISs include analysis of how these 25 locations would be affected by the projected increase in rail traffic that would result from both proposals, including determining and factoring in the typical length of trains serving the facilities. WSDOT is not only interested in impacts to state highway railroad grade crossings, but also how increased delays at railroad grade crossings situated near state highway intersections and interchanges may impact those state highways. This analysis should include impacts to:
• Levels of service at affected state highway intersections/interchanges;
• Vehicle delay and queuing at state highway grade crossings and state highways impacted by local agency grade crossings;
• Emergency response capabilities; and
• Highway-rail grade crossing safety (i.e., whether modification of warning devices or grade separation might be warranted with the projected increase in rail traffic).

Comment Number: 000000213-5
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization

Comment Excerpt Text:
Many communities in Eastern Washington and North Idaho are concerned about the ability to respond to an emergency in the event of a derailment. Emergency response and the resources needed for communities to be prepared should also be part of your analysis.

Comment Number: 000000214-6
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 5
Comment Excerpt Text:
Visitor and employee safety is a concern at Glacier NP because several high use and developed areas are adjacent to the railroad tracks and more rail traffic increases the likelihood of derailments: In addition, research has shown the current traffic level of about 30 trains per day affects wildlife movement and survival. For example, Ji'om 1998-2011, thirty-one out of 290 (11 %) confirmed deaths of threatened grizzly bears in the Northem Continental Divide Ecosystem of Montana were due to collisions with trains. Train collisions represent the fomth most common form of human-caused mortality in the Northem Continental Divide Ecosystem grizzly bear population (U.S. Fish and Wildlife Service, 2013). Increased rail traffic could further restrict wildlife movement and increase mortality in and near the park.

Comment Number: 000000214-9
Organization: National Park Service
Commenter: Christine Lehnertz

Commenter Type: Agency

Comment Excerpt Text:

Visitor and employee safety is also a concern, including at the heavily-used land b1idge trail that runs alongside, and goes undemeath, the tracks. Obviously, an accident could endanger visitors that are using the Waterfront, Old Apple Tree Park, or the Confluence Project Land Bridge. The EISs should analyze the increased risk to human health associated with increased train traffic.

Comment Number: 000000215-1
Organization: self
Commenter: Max Vogt
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
It is my understanding that there are 500+ railcar derailments in the US every year. It is also my understanding that oil cars can and will explode in a derailment and cannot currently be prevented. There is no way to guaranty that they won't explode. They are much more precarious and delicate to explosions than an average automobile. Would we allow these oil train cars on our freeways? In my opinion, given these facts, our state government would be committing criminal negligence as soon as we have a death in our state from an exploding railcar. We know it will happen. We just don't know how soon. Why would Washington State do this to us? How can the state allow this? If our State allows this, we need to hold a "death watch," to alarm citizens of what will happen and what is coming. We must be prepared and not surprised, when people die, as well as hold responsible those who think this is a cool idea.

Comment Number: 000000216-1
Organization:
Commenter: Christopher Sauer
Commenter Type: Public

Comment Excerpt Text:
First, I am all for the jobs, revenue, commerce and other positives that would come with the crude oil and gas cars coming into the harbor. That being said, if the oil companies and all the others who will be making millions more on the savings want to bring it to Grays Harbor then they better be ready to invest millions to insure that a derailment and spill are as preventable as possible with upgraded tracks, improved infrastructure for rail and safety measures to help prevent a derailment.

Comment Number: 000000221-3
Organization:
Commenter: Steve Iverson
Commenter Type: Public
Other Sections: 7.4 7.3
Comment Excerpt Text:
• Crude oil spills by train are 2.7 times more likely to occur than those by pipeline. Rail accidents occur 34 times more frequently than pipeline accidents for every ton of crude shipped comparable distances. The crude oil trains proposed will be up to 1.5 miles/125 cars long, and as a result harder to control, increasing the risk of something going wrong. Our area’s aging rail and bridge infrastructure, much of it built on often saturated flood plains, has not been sufficiently assessed for suitability to this additional rail traffic, with each tanker car weighing up to 143 tons. • This crude oil is classified as more highly flammable than gasoline by the NFPA, placing Centralia residents along the line at risk for both fire and

explosion (Note neighboring Montesano has had two train derailments in recent years.). • A single crude oil spill could severely damage drinking water, groundwater and marine resources, as well as hunting, fishing, agricultural, commercial and recreational resources in Centralia and Lewis County.

Comment Number: 000000227-2
Organization:
Commenter: Julie Rabey
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
This EIS must address the impact in all areas that could be effected by train derailments, fires, storage tank failures and tanker spills into Grays Harbor. Also the increased rail transits need to be addressed. Our rail infrastructure is poor and trains are already causing long waits at crossings as well as dangerous situations at these crossing due to derailment and lack of emergency access. Living in Grays Harbor and seeing the impact, I don't see how we can bear any more rail pressure. Therefore this issue needs to be addressed in the EIS. Can there be 100% guarantee that no oil will go into our precious Grays Harbor estuary? It is already impacted by the pulp mill. Are we willing to throw away our precious environment? These are the standards the EIS needs to speak to.

Comment Number: 000000229-10
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency
Other Sections: 14
Comment Excerpt Text:
Public safety
Several recent incidents involving derailment of trains transporting crude oil have highlighted the serious risks associated with transporting crude oil through populated areas. While the potential for derailment or other accidents is considered by the railroad and energy industries to be very low, any single incident may have catastrophic consequences. Trains traveling through the Columbia River Gorge pass directly through numerous small and mid-sized communities. First responder resources are limited. Vehicle travel through the Gorge is largely restricted to the two major highways that run along the river, adjacent to the railroad tracks. A derailment and any possible associated spill or fire activities would most likely render the adjacent highway unpassable, further restricting both response and evacuation capacity.

Comment Number: 000000229-2
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency
Other Sections: 7
Comment Excerpt Text:
The Columbia River Gorge National Scenic Area (CRGNSA) lies between the mouth of the Sandy River and the mouth of the Deschutes River, spanning from Washougal to Wishram in Washington, and Troutdale to The Dalles on Oregon. The 1986 Columbia River Gorge National Scenic Area Act gave the US Forest Service and the Columbia River Gorge Commission responsibility for management of lands and resources within the Scenic Area. Across its 85-mile length, the CRGNSA encompasses 292,500 acres in Washington and Oregon, and contains thirteen urban areas and numerous other communities. As the only sea-level passage across the Cascade Mountains, the Gorge is a major regional transportation corridor for both motor vehicle and railroad traffic.

The Forest Service is concerned about environmental impacts, increased fire risk, and public safety issues associated with trains carrying crude oil through the Scenic Area. These effects are associated with both day-to-day railroad operations as well as the potential for derailment and other accidents involving trains carrying crude oil. Our concerns include public lands managed by the Forest Service as well as the other lands, urban areas, and communities within the CRGNSA boundaries.

Comment Number: 000000230-1
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 7.4 13.1 13.2 7.3 14
Comment Excerpt Text:
NOW THEREFORE,

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF HOQUIAM, WASHINGTON, IN REGULAR MEETING DULY ASSEMBLED, AS FOLLOWS:

SECTION 1. The City of Hoquiam supports the creation of clear Federal guidelines to immediately implement safety regulations concerning older-model tank cars used to transport petroleum, train speeds, and other identifiable hazards associated with petroleum.

SECTION 2. The City of Hoquiam strongly urges the U.S. Department of Transportation to increase Federal tank car design and operation regulations for petroleum product shipments by rail and aggressively phase out older-model tank cars used to move flammable liquids that are not retrofitted to meet new Federal requirements.

SECTION 3.The City Council of the City of Hoquiam urges the State Department of Ecology and City of Hoquiam staff responsible for the permitting of petroleum terminals to address and study the following issues prior to the issuance of any permits:

· Potential impacts associated with oil spills athe project site or during transit by rail or vessel.
· Disruption to vehicle traffic during construction and after operation of the facilities commences, including the potential for increased emergency response delays.
· Vehicle safety at railroad crossings.
· Analysis of train and vehicle delays and safety issues.
· Potential for increased rail congestion and delays that would contribute to safety concerns including the potential for increased vehicle delays at railroad crossings.
· Analysis of safety considerations related to transport of petroleum associated with infrastructure, including an evaluation of trackage, railroad crossings, water crossings, and the safety of cars transporting oil.
· Analysis of effects on public transit, pedestrian access and parking within Hoquiam, and Grays Harbor County.
· Potential for and extent of increased risk of spills, fires, and explosions during rail transport, from infrastructure failing, accidents, or natural disasters.
· Evaluation of emergency response, including preparedness planning.
· Identification of responsible parties and required emergency response, including equipment and materials, to address worst-case scenarios.

Comment Number: 000000230-4
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 15 7 7.3 7.4
Comment Excerpt Text:
RESOLUTION NO. 2014 –
A RESOLUTION of the City Council of the City of Hoquiam, Washington, related to petroleum transport by rail and vessel through the City of Hoquiam, Grays Harbor County, and the State of Washington, urging regulatory agencies to study public safety, environmental, and economic impacts of petroleum transport by rail and vessel.

WHEREAS, the City of Hoquiam is committed to the protection of its citizens and protection of the environment, and is concerned about the potential economic impacts of petroleum transport by rail and vessel; and

WHEREAS, recent train derailments in Grays Harbor County, as well as other regions, together with spills, fires and explosions involving trains transporting petroleum illustrate the potential catastrophic impacts which could occur to our community and environment from the improper transport of petroleum by rail;

Comment Number: 000000233-1
Organization:
Commenter: Gretchen Staebler
Commenter Type: Public
Other Sections: 13.2 7.4 14
Comment Excerpt Text:
I am extremely concerned about the proposed oil trains running through our towns and state and being stored and transported from our coast. Thank you for your careful study of all the issues. The rail lines are unsafe. The cars are unsafe. The toxic leakage is a threat to lives. The increased number of trains, and their length, is bad for businesses, property values, emergency vehicles and residents (of which I am one) needing to cross the tracks. The storage and shipping is bad for the environment at our beautiful coast and for the industries there. Please study carefully. Please show the courage to write a report against a bad idea for Washington.

Comment Number: 000000240-1
Organization: Shoalwater Bay Tribe
Commenter: Douglas Davis
Commenter Type: Agency

Comment Excerpt Text:
The Shoalwater Bay Tribe is opposed to the oil by rail proposal. The Tribe has concerns with the safe transportation and transfer of the oil under the current system and feels that it would be unwise and irresponsible to move forward with this project at this time.

Comment Number: 000000242-1
Organization:
Commenter: Penny Lightfoot
Commenter Type: Public

Comment Excerpt Text:
I feel that unless the rail bed and oil tanker cars used in rail transport of oil are made fail-safe we should stop the massive oil shipments of rail through Washington State.

Comment Number: 000000249-1
Organization: Lewis County for Safe Rails
Commenter: Larry Kerschner
Commenter Type: Public

Comment Excerpt Text:
On May 15, for the third time in two weeks a train derailed near Montesano. Fortunately for those who live nearby, it was only carrying grain. However, the oil companies have been quietly shipping explosive crude oil by rail through local communities including here in Lewis County. Tesoro Oil began shipping Bakken crude on BNSF rail lines in Washington State to its refinery in Anacortes in 2012. Crude oil shipment on Washington rail lines increased from 9,500 carloads in 2008 to more than 200,000 car loads last year. The oil is shipped from North Dakota down along the Columbia River and then up the west side of the state.

Comment Number: 000000249-2
Organization: Lewis County for Safe Rails
Commenter: Larry Kerschner
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
There are 10 rail terminals planned or under construction in Washington and Oregon. One Tesoro facility has been completed in Anacortes, WA. Others include: 2 in Anacortes; 2 in Ferndale; 1 in Tacoma; 3 in Hoquiam;1 in Vancouver; and 1 in Clatskanie, OR. If all terminals proposed for Washington are completed, it would mean approximately 12 loaded 100 car crude oil trains a day. That is 1,200 DOT-111 rail cars, which the National Transportation Safety Board has stated are unsafe, would carry 800,000 barrels of Bakken crude oil every day through the State of Washington. A large portion of these trains would run right through the middle of Lewis County. A recent safety alert from the U.S. Department of Transportation warned the public, emergency responders, and oil shippers of the particularly high volatility of crude oil from the Bakken oil patch in eastern Montana and western North Dakota. The officials from DOT declared that Bakken's light, sweet crude oil is prone to ignite at lower temperatures that other crude oil due to the high percentage of inflammable vapors given off. Bakken crude oil has approximately three times the vapor pressure (evaporation rate of volatile compounds) of Louisiana Light Sweet crude from the Gulf of Mexico. The combination of a low flashpoint (the lowest temperature at which ignition can occur) and high vapor pressure of Bakken crude makes it highly likely to ignite and explode in the event of a punctured rail car. On July 6, 2013 a train carrying Bakken crude derailed in the small Canadian town of Lac Megantic, Ontario. The resulting fire and explosions killed 47 people, destroyed more than 30 buildings in the town center with a blast radius of 0.6 miles. Heat from the fire was felt over a mile away. Picture this happening in Vader, Winlock, Napavine, Chehalis or Centralia where the train tracks cross roads near schools. Would our local emergency management personnel be prepared for such a disaster? If the proposed terminals planned for Hoquiam are not built, it will significantly reduce the risk to people living in Lewis County. Contact all elected officials in our communities and tell them to bring whatever pressure they can to stop the terminal construction in Grays Harbor. There is no advantages only risk to Lewis County residents from these explosive trains moving like bombs through our communities.

Comment Number: 000000254-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
The US Department of Transportation has issued restrictions on the type of railcars that may be used for transporting Bakken crude oil, but the cars that meet the restriction are currently not available in high enough numbers to satisfy the demand for crude oil transport. The DOT-111 cars have un-shielded drain valves, which are subject to rupture in one of the derailments on the poorly maintained tracks of the Puget Sound and Pacific RR. The Bakken crude has been shown to have a substantial, although variable, amount of SO2, giving the possibility of having excess corrosion in the railcars. This combined with the DOT-111 cars having a 3/8" sidewall thickness and 7/16" head thickness should give pause to using these cars for transport of Bakken crude. Until replacement cars are available the Department of Ecology should follow the federal agencies and declare a moratorium on the use of the DOT-111 cars for Bakken crude transport.

Comment Number: 000000270-1
Organization:
Commenter: Ilene Silver
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
Oil trains are a serious risk to the health and safety of our communities. A safe method for transporting Bakken Oil has not been found. Derailment is a critical concern for our communities. In July of 2013 47 people with killed after a train derailed in Quebec, Canada. In November of 2013, 200,000 gallons of oil leaked into waterways in Alabama. A month later, in North Dakota, 400,000 gallons spilled forcing 1,400 people to evacuate, and Pennsylvania experienced the devastation of spills in January, February and April of this year.

Comment Number: 000000271-2
Organization: Mr.
Commenter: Michael Gary
Commenter Type: Public

Comment Excerpt Text:
It is senseless to keep risking human life and environmental disasters by transporting crude oil by train. I am opposed to the expansion of rail, barge, and ship transport of crude oil. Many people have died in Lac Megantic Canada and many more will be put at risk by transporting crude oil in the future.

Comment Number: 000000280-2
Organization:
Commenter: Karl Goeres
Commenter Type: Public

Comment Excerpt Text:
Further more the oil will be shipped to the terminals on a rail system that is and has been poorly maintained for decades. There is no reason to believe that this situation will not continue. There have been three derailments in the county in the past few weeks that I know of. The rail company is very secretive about repairs accidents and spill plans. The is no evidence to indicate that will change with addition of oil trains.

Comment Number: 000000280-3
Organization:
Commenter: Karl Goeres
Commenter Type: Public
Other Sections: 13.1 14 15
Comment Excerpt Text:
The railroad has many surface crossings which are continually blocking access to vehicles and many of those crossing must be used for emergency and commercial access. More frequent trains will simply make the situation worse which will have a negative impact on the local economy and safety of the people who live here. Just the inconvenience of additional trains is not worth the minimal economic benefit of oil terminals.

Comment Number: 000000282-1
Organization:
Commenter: William Brake
Commenter Type: Public

Comment Excerpt Text:
The Puget Sound and Pacific Railroad was built in 1890 some 124 years ago and has had several owners throughout the years. It is a short haul line and not regulated as much as a Class One rail line like BNSF and UP. Three Rail derailments in a two week period in May 2014 is unacceptable to all on this short haul 100 + mile rail line. News Reports blame the derailments on "Rain Soaked Rail Ties". In 2011 a total of 80,000 rail cars moved freight on this rail line and the three proposed crude oil projects in the Grays Harbor Area near Hoquiam could move as many as 185,836 additional rail cars annually. The rail traffic could be as much as 70 % Crude Oil and 30 % other products. Further investigation into rail accidents is needed on this short haul rail line.

Comment Number: 000000283-6
Organization:
Commenter: James George
Commenter Type: Public

Comment Excerpt Text:
6. The rails are not well maintained and promises from the railroad cannot be trusted. If they skimp on it now why should we believe they will live up to their responsibilities later? They blame a marsh for getting their ties wet. Is the marsh going away? Grain dumped doesn't hurt the marsh, river, or bay but oil would, even if it doesn't ignite.

Comment Number: 000000284-2
Organization:
Commenter: Marisa Salzer
Commenter Type: Public
Other Sections: 1.1
Comment Excerpt Text:
Rail Safety - Due to the geography close to the flood plain, annual rainfall and moisture content of the soil, the increased traffic and weight may not be supported by the current rail infrastructure. There have been three slow speed derailments within 16 days, two blamed on water under the ties.

Comment Number: 000000284-4
Organization:

Commenter: Marisa Salzer
Commenter Type: Public

Comment Excerpt Text:
Safety - One just has to look at the recent derailment near Walmart in Aberdeen that occurred a few days ago. This is the third derailment. It may argued that tankers may occasionally crash on the highway, but the fact is, that the highway's infrastructure, proximity to an extremely vulnerable ecosystem and environment, safety response/responders does not even compare to our local railroads.

Comment Number: 000000285-5
Organization:
Commenter: Beth Kaeding
Commenter Type: Public
Other Sections: 7 15
Comment Excerpt Text:
Increased train traffic would mean a higher potential for derailments, which are especially dangerous and life-threatening when trains are carrying crude oil. Derailments may not be common, but they do happen, and with the increase in the number of trains, the potential for derailments will also increase. The risks to communities, citizens, and the environment of rail transport of crude oil as well as the related connected and cumulative consequences of the costs of preparedness, response, and clean-up of oil spills.

Comment Number: 000000292-1
Organization:
Commenter: Thomas Gordon
Commenter Type: Public

Comment Excerpt Text:
The additional placement of crude oil tanks in the Grays Harbor area only increases the danger to the towns, residents of the area, the fishing and oyster beds, and the environment. www.lightningsafety.com/nlsi_lls/Causes-of-Failures-in-Bulk-Storage.pdf This study details the causes of many tank failures, including those caused by lightning. One tank farm failure resulted in the biggest explosion in Europe since WWII. The causes of tank failures are many: earthquakes, human error, tank structural failure, and poor footing for the tanks. This study cites failures all over the world, including the United States. The chances for these failures can be lessened, but not eliminated. Tank failures occur. Please do not increase the risk and chances for catastrophe by allowing the storage and transfer of crude oil at the Westway and Imperium Renewables Expansion Projects.

Comment Number: 000000294-1
Organization:
Commenter: Brian Jonas
Commenter Type: Public
Other Sections: 2.1 7 7.4
Comment Excerpt Text:
Please consider statewide and regionwide effects from the terminal expansions in the DOE's impact statement. Please look at the environmental effects of transporting the extra oil throughout Washington, including global warming effects and pollution effects, as well as possible spill effects. Consider the safety of the many towns, including Spokane, which will have an increase of very dangerous, explosive trains going through that have been disastrous to other areas during derailments. Also consider the global warming effects of sending more oil out to be used.

Comment Number: 000000300-1
Organization:
Commenter: Diana Gordon
Commenter Type: Public
Other Sections: 13.2 7.3
Comment Excerpt Text:
One of the many concerns I have about the plans for the terminals in Grays Harbor is the cumulative effects that all this oil will have on the communities and the environment along the way. These terminals will increase rail traffic through the area by 3 or 4 unit trains per day. This oil contains a substantial amount of dissolved propane and is therefor rather explosive. If Grays Harbor were the only place this oil was going to, maybe we could live with the risk, however catastrophic. However, there are at least 10 other proposals including one for Vancouver which would be the largest oil terminal on the West Coast. These proposals together will transform the rail route into a fossil fuel corridor susceptible to spills and explosions on an unprecedented scale.

Comment Number: 000000305-3
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
3. Derailments: There have been three derailments in the last three weeks in Grays Harbor county. The April 29, 2014 was investigated and determined to be cause due to "heavy rain". Considering this area has some the highest rain levels in the continental United States,how will this be mitigated? 4.Public Safety:Increased safety concerns because of crude by rail, including,automobile and train collisions,derailment accidents and explosions (actual and perceived).

Comment Number: 000000307-1
Organization: Pacific County
Commenter: Steve Rogers
Commenter Type: Agency
Other Sections: 3.1 5.1
Comment Excerpt Text:
As a Pacific County commissioner and Willapa Harbor native, I am very concerned about the potential for a Grays Harbor oil-related disaster affecting the very clean waters of Willapa Bay. Recent derailments and an obviously shaky railroad infrastructure point to potential disaster. This is not good. We have worked hard for generations to take care of our bay and the potential for pollution from an outside source is very disheartening. We have a robust shellfish industry thanks to the folks who have treated our waters with respect for over a century. We have earned the right to have our waters respected.

Comment Number: 000000308-5
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency
Other Sections: 7.3 14
Comment Excerpt Text:
Risk of Fire, Spills and Explosion –

Bakken crude oil is recognized as being highly volatile. The disaster at Lac-Megantic, Quebec, in which 47 lives were lost, demonstrates beyond question the danger posed by shipping this commodity through population centers. Analysis should include a review of the Federal Railroad Administration's "Operation

Classification" undertaken due to its "specific safety concerns about the proper classification of crude oil being shipped by rail, the subsequent determination or selection of the proper tank car packaging used for transporting crude oil, and the corresponding tank car outage requirements." The Association of American Railroads [Footnote 2: The AAR is a trade association whose membership includes freight railroads that operate 82 percent of the line-haul mileage, employ 95 percent of the workers, and account for 97 percent of the freight revenues of all railroads in the United States.] recently commented to the Pipeline and Hazardous Materials Safety Administration on the need to revise and upgrade the standards for DOT-111 cars used to transport crude oil. [Footnote 3: See AAR comments submitted in Docket NO. PHMSA—2012—0082.] The EIS needs to identify the potential for the risks of explosion and if and how those can be mitigated to nonsignificant levels. The mitigation measures to be analyzed need to include the proper equipping of first responders.

Comment Number: 000000310-1
Organization:
Commenter: Robin Moore
Commenter Type: Public

Comment Excerpt Text:
In all we undertake, there are acceptable and unacceptable risks. One may risk a walk on a rainy day, but not on a day when sidewalks are covered in ice. The risks associated with these expansion projects have been extensively enumerated during this scoping process. They may be acceptable for the corporations involved. Corporations only risk their capital investments. The risks are not acceptable to the people of Grays Harbor or Washington State. Not culturally, not financially, not environmentally. No mitigation plan is adequate. Stop the madness now.

Comment Number: 000000313-1
Organization:
Commenter: Robert Whitlock
Commenter Type: Public
Other Sections: 13.5 15
Comment Excerpt Text:
I would like to see an eis that includes all impacts, from local to global. From risk related to rail and marine shipping. To overall economic and ecological impacts. In specific, human societies currently exist beyond the sustainable carrying capacity of the planet. The oil terminals will be slated to handle fuels from extreme extraction projects, like Bakken formation fracking, and Canadian oil sands. How do these extreme extraction projects stand to affect the current overall unsustainable economic relationship between human societies and the planet? Is it possible that they will push activities even further beyond the point of sustainability? Do we owe it to future generations to bring overall activities back into sustainability (much less harmony) with the natural world? Or do we send a curse along to grandchildren and future generations. What do you think?

Comment Number: 000000318-1
Organization: Councilmember City of Aberdeen
Commenter: Alan Richrod
Commenter Type: Agency
Other Sections: 7.4 7.1
Comment Excerpt Text:
My overarching concern is for the safety and well-being of the city and county. I remind you of the 4 derailments between Aberdeen and Centralia over the last couple of weeks. With the first one, the train

was sitting in the yard and simply tipped over spilling its contents. The rest were rolling trains. Thankfully, they were just grain. The railroad says it's because it rains here – to use their words. Is that not all the more reason not to bring volatile, poisonous crude oil here? There is no spill response for this area. If an oil spill happens east of town in the swamp land, no vehicle can get to it. There is no water passage, there are no roads. Imperium and Westway can store crude oil if they wish, just not here.

Comment Number: 000000320-3
Organization: City of Washougal
Commenter: Sean Guard
Commenter Type: Agency
Other Sections: 7.3 7.4
Comment Excerpt Text:
In addition, there is the concern of safety. Since the train derailment and explosion in Quebec in July of 2013 there have been four other incidents of derailments or spills involving oil trains. In fact, there have been at least 10 instances since 2008 of freight trains hauling oil derailing and spilling nearly 3 million gallons of oil (twice as much as the largest pipeline spill in the U.S. since at least 1986) with most of the accidents touching off fires or catastrophic explosions.

Comment Number: 000000320-4
Organization: City of Washougal
Commenter: Sean Guard
Commenter Type: Agency
Other Sections: 2.1 14
Comment Excerpt Text:
The City requests that the scoping of the EIS address the significant unavoidable adverse impacts to the City of Washougal , and other communities that these trains will travel through , including but not limited to impacts from; 1) vehicle emissions from idling vehicles at blocked at-grade crossings; 2) emergency response delays at blocked at-grade crossings; and 3) rail safety. The EIS should address ways to avoid, minimize and mitigate the effects of these impacts on our community.

Comment Number: 000000321-3
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
The track itself crosses multiple waterways, with the capacity to endanger countless estuaries and habitats. In the past couple of weeks alone we've seen three derailments—what does this mean for the safety of the line, particularly in the event of markedly increased rail traffic? Derailments impact other commercial traffic, rail and otherwise, causing problems for other area industries—how will this be addressed or mitigated?

Comment Number: 000000325-1
Organization: City of Spokane
Commenter: Ben Stuckart
Commenter Type: Agency
Other Sections: 7

Comment Excerpt Text:
We are deeply concerned about the potential danger these proposed terminals pose to the City of Spokane. This is an issue our City Council takes very seriously. In fact, the Council unanimously supported and adopted a resolution calling for stronger oil transportation regulations and protections. This unanimous, public stance by Council came on the heels of the multiple explosions and derailments across North America. We worry that Spokane, as a regional hub, could be impacted significantly by these terminals.

Our city understands and values our nation's rail transportation system. We support our friends and colleagues utilizing our state harbor system in their effort to provide good, quality jobs to their citizens. We also support a businesses' right to conduct legal commerce and seek a profit. The bottom line is that we just want to know how it affects the citizens of our city.

We urge that you include the impacts to the City of Spokane in your Environmental Impact Statements for the Westway and Imperium Terminal projects.

Comment Number: 000000326-1
Organization:
Commenter: Barbara Scavezze
Commenter Type: Public
Other Sections: 15 13.1 7.3 14 7.4
Comment Excerpt Text:
Please consider the following: 1)climate change impacts caused by drilling, shipping and burning petroleum products and biofuels 2) the ability of train tracks to safely transport increased train traffic carrying very heavy loads 3) the impact on traffic congestion at railroad crossings in affected communities 4) the potential for deadly explosions, and the ability of emergency management personnel to handle them 5) the impact on Puget Sound and other waterways if any of the shipping containers or storage facilities leak.

Comment Number: 000000328-1
Organization:
Commenter: Sherri Garland
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
This country was built on industry and anything to stimulate our economy is good. But I am very concerned about these gas/oil trains coming through my community of Centralia. The tracks are old and, I am under the impression, susceptible to derailments. It has happened several times just recently -- thankfully, with no major damage to lives or private property. Plus, we already have a lot of train traffic through our community and don't believe we can handle more.

Comment Number: 000000332-10
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 13.5 7
Comment Excerpt Text:
There are potential impacts to sensitive areas within the Harbor and on the open ocean coast. How will these areas be protected? Aquatic invasive species introduction due to increased freight traffic – rail and

vessel are a significant probability. How will these issues be addressed and controlled? Nearshore changes due to increased shading from added vessels, including impacts to plants and animals. How will this be minimized or eliminated? Human health, increased diesel fumes from trains, vessels and loading equipment. What preventive measures will be taken to eliminate or avoid these impacts? How will health issues that arise from this increase be addressed and paid for?

Comment Number: 000000335-5
Organization: Ms.
Commenter: Tammy Domike
Commenter Type: Public
Other Sections: 7.3 14
Comment Excerpt Text:
Please consider this aspect raised by EarthIsland today: "...Yet, as a recent Earth Island Journal investigation found (read, “Warning, Highly Flammable”), despite the rapidly growing business of shipping crude by rail across North America, the railroad industry has been slow to provide even rudimentary information to local officials and emergency responders about shipments of Bakken crude." and "An air of secrecy has surrounded the booming oil by rail industry since last year’s devastating accident in Lac-Megantic. Since then trains carrying Bakken crude have derailed in Alabama, North Dakota, Pennsylvania, and now Lynchburg. No new regulations, other than the DOT’s recent emergency order, have been issued. The industry continues to argue that oil from the Bakken formation is no more dangerous than other forms of crude." How will responders be able to put out a fire if they are not informed as to what it is? How will we know how air is affected if we don't know what is in Bakken Crude? There simply are not enough regulations in place to safely approve this project going forward. Please do not assume the regulations will catch up afterwards

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Comment Number: 000000336-3
Organization:
Commenter: Lillian Broadbent
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
Our current infrastructure simply does not support this project as evidenced by the recent train derailments. Are we any better prepared for the shipping? I urge you to expand the scope of this determination to include all areas of potential impact. I urge you to require infrastructure improvements that will protect our rivers, beaches, wildlife and shellfish.

Comment Number: 000000338-2
Organization:
Commenter: John Larson
Commenter Type: Public

Comment Excerpt Text:
The three recent derailments on this railroad suggest that the existing single line may not be able to safely withstand even existing heavy use. Much of the railroad's route through Grays Harbor comes in close proximity to fragile aquatic lands and across numerous streams and several rivers.

Comment Number: 000000339-11
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 7.4 7.1 13.5

Comment Excerpt Text:
Spills
The EISs should analyze the increased risk of Bakken, Tar Sands oil or other fuel spills that may occur during cargo loading and offloading, through vessel collisions that may result from the increase in vessel traffic at the river's mouth, along the coast, or through train collisions along the Chehalis River. Imperium's flange connection location has a 52 gallon catch basin per USCG requirements; is this sufficient to capture all potential spills? Imperium and Westway currently have no requirements for pre-booming due to speed of current and safety measures. Is there any way to design a pre-booming strategy to minimize chance of release should a failure occur during transfer? Westway currently has no spill response plan. How will spills be contained and prevented from spreading to sensitive areas, especially given the presence of hundreds of thousands of shorebirds nearby? What measures will be taken to ensure prevention and timely response to oil spills to avoid impacts to water and sediment quality, habitats, and species? What are the risks of oil spills associated with the need for vessel traffic maneuvering and queuing within and outside the harbor?

What are the risks of spills associated with increased rail transportation carrying crude oil and how will these risks be mitigated? The state's oil spill response program is funded through a crude oil tax on vessels that does not apply to rail. What is timeline for implementation in comparison to time line for crude oil transport operations to begin?

Comment Number: 000000341-1
Organization:
Commenter: Eric Sherdahl
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
The following needs to be discussed as areas of concern. Our home is located within the location of railroad tracks referred to as "the incineration zone". Study and specify all areas from the point of oil extraction to Hoquiam and super-impose them on a map, determining how and what can be done to mitigate public safety and loss of property and loss of life. Also, consider the devastating, destructive effects on public health and quality of life that these proposals will potentially cause, and who will pay for this? This includes air quality and water quality to sustain health for our families and communities.Increased safety concerns because of train traffic, derailment and potential explosions (actual and perceived).

Comment Number: 000000341-3
Organization:
Commenter: Eric Sherdahl
Commenter Type: Public
Other Sections: 11
Comment Excerpt Text:
Consider also the potential harm to fishing,recreation and tourism. Also consider and investigate the effects of all weather and natural disasters and discuss mitigation to prevent massive pollution.What effect does out annual rain fall totals have on the rail lines and the proposed projects.

Comment Number: 000000342-1
Organization:
Commenter: Thomas Gordon
Commenter Type: Public

Other Sections: 1.2
Comment Excerpt Text:
I support the largest possible scoping for the EIS because I oppose the enlargement of these terminals. Two of my concerns revolve around possible earthquakes. If an earthquake off the coast occurred, a tsunami could wipe out the tank farms, spreading oil all the way up and down the coast. Another possibility concerns the tanks and their footing. Other tanks have failed due to poor footing in earthquakes, among other reasons, as seen in the report, "Review of Failures, Causes & Consequences in the Bulk Storage Industry." This report examines accidents worldwide, including one in Hertfordshire, UK, in 2005, that "resulted in what is widely regarded as the largest explosion in Europe since the Second World War."

Comment Number: 000000343-1
Organization:
Commenter: Daniel Domike
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
Above and beyond all the very real concerns about oil trains and safety, which I do not believe can be positively addressed by either the train or oil companies, there would be extreme life style changes for those of us who live in Grays Harbor County. My wife and I retired to Hoquiam because we believed it to be a quiet place, close to the ocean and forests we love. Trains, long trains, coming in and out of our town would be most disruptive to our way of life. They would destroy whatever rustic beauty we now enjoy. Even the promise of "jobs" is not enough to dissuade us to believe such a trade-off would be worth it. And, frankly, I do not begin to believe that the oil terminals would bring the county that many jobs. We feel that a lot of smoke is being blown. The oil and train companies main interests are profits and not for the safety and enjoyment of our chosen home.

Comment Number: 000000345-2
Organization: Clark County Fire & Rescue
Commenter: Tim Dawdy
Commenter Type: Agency
Other Sections: 14
Comment Excerpt Text:
Rail Crossings • Clark County Fire & Rescue protects the BNSF rail crossings in the cities of Ridgefield, Washington and Woodland, Washington. The Fire District is concerned about the public safety issues surrounding these busy rail crossings. • These tracks and crossings have a deadly history. The increase in rail activity will compound the problem. • The improvement of the rail crossings in the city of Ridgefield and in the city of Woodland must be provided by BNSF • Additional financial support from BNSF is needed for the Port Of Ridgefield Overpass Project. We believe that these engineering requirements are essential for firefighters' access and public safety in emergency situations.

Comment Number: 000000348-4
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization
Other Sections: 13.5
Comment Excerpt Text:
Transportation These projects require moving crude oil by train, transferring to ship, and then navigating Grays Harbor before making it to the open ocean. There are significant risks with these modes of transport. 1. Is the current railroad infrastructure adequate to safely move crude oil, especially in light of the numerous derailments that have occurred recently? 2. What is the safety record for the ships that will

be moving the oil via the ocean? 3. How do the hazards, such as extreme wind, rain, and surf, compare in Grays Harbor to other major ports? Are the risks significantly higher?

Comment Number: 000000349-4
Organization: City of Westport
Commenter: Michael Bruce
Commenter Type: Agency
Other Sections: 13.2
Comment Excerpt Text:
4) The infrastructure and quality of the rail lines and bridges as well as the community impacts of more trains causing traffic backups which may impact accessibility between homes, businesses, emergency resources, and communities on both sides of the rail in Grays Harbor communities.

Comment Number: 000000350-1
Organization: none
Commenter: Beverly Bassett
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
The scope of this extreme oil extraction and transport through the decrepit old unsafe rails in single walled DOT 111 rail cars is sure to result in derailments and oil spills onto wetlands and waterways eventually. Probably sooner rather than later. And then it will be burned in Asia--not even domestically to meet our own needs! Our lands and waters will be degraded by spills, fumes, and explosions that will endanger people within a quarter mile of the tracks--and that's a lot of people--even in Grays Harbor County. Our children will be impacted adversely for many generations--as many as there will be--considering that we are now in the 6th Great Extinction which will include humans, most other creatures, and most of the plants and animals in our current world. This is happening now and is irreversable--the only control we have is over the time frame. And at our current rate, it is likely to be within 100 years for 99+% of earth's populations... This project will hasten extinctions. Time for the Dept of Ecology to work on behalf of the people who pay the taxes and live in Washington and DISALLOW these terminals and the transport of these volatile/explosive filthy dirty extreme extraction fossil fuels through our precious lands!

Comment Number: 000000351-1
Organization:
Commenter: Marsha Lovely
Commenter Type: Public
Other Sections: 7.4 15
Comment Excerpt Text:
The scope of any EIS should be as thorough and as strict as possible. Any oil filled train coming to the port of Grays Harbor has to pass over,or by, numerous waterways with any potential accident and spill affecting fish, shellfish, birds, migratory pathways for birds and much other plant and animal life, as well as people. In lieu of the many recent derailments and other accidents involving train traffic lately in this area and others it would seem a no brainer to look very hard at potential environmental and economic impacts. It is obvious that the present state of the rails is not sturdy or strong enough to withstand the current increased number of trains, the cars they haul and their increased weight. Do not let money for a minority be the deciding factor in your decisions.

Comment Number: 000000353-6
Organization: Jefferson County
Commenter: Carolyn Avery

Commenter Type: Agency

Comment Excerpt Text:
6. The EIS characterize how the risks of derailments and other train wrecks in the Grays Harbor Region would change as a result of the proposals.

Comment Number: 000000354-4
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency

Comment Excerpt Text:
Safety
Crossing Delays:
The closure of the at-grade crossings in Ridgefield creates delays of 1 to 5 minutes depending on the length and speed of the trains. Typical delays can have deadly consequences in emergency situations when first responders cannot cross the tracks to respond to a situation in a timely manner. The crossing delays and potential impa cts for emergency response time should be analyzed as part of the EIS, particularly for the length of trains proposed.

Comment Number: 000000355-1
Organization: City of Chehalis Fire Department
Commenter: Robert Gebhart
Commenter Type: Agency
Other Sections: 7.3 14
Comment Excerpt Text:
As the Interim Fire Chief in Chehalis my concern is the increase in rail traffic transporting crude oil and the possibility of a spill or fire. Chehalis has several crossings over the rail system that the fire department uses to access emergencies on the West side of the city. We do have an overpass that we can utilize so rail traffic cannot completely cut us off from the West side but can delay or slow our response. There have been numerous derailments throughout the US and Canada involving trains transporting crude oil. I am encouraged that the rail industry is in the process of providing specialized training to emergency responders on how to respond to these emergencies. . I would ask that the following be studied as part of the EIS: • An analysis of the fire and life safety risk and probability of error based on the volume of crude oil and transport type, including risks to homes and businesses along the rail system. • An examination of the impacts on the fire department's ability to respond to emergencies and an identification of deficiencies and needed mitigations such as training or equipment. • An evaluation of the proposed fire and spill protection systems along the rail system.

Comment Number: 000000358-6
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1 7.4
Comment Excerpt Text:
Potential Impacts to the Upland and Freshwater Environments

Each of the proposed projects will significantly increase the number of train transits through the area. These additional trains would transit tracks from Centralia to Aberdeen passing adjacent to, or crossing, numerous salmon bearing waters including the Chehalis, Black, Satsop, Wynoochee and Wishkah Rivers

as well as numerous other fish bearing creeks and streams.
There are 20 rail crossings of documented salmon spawning streams in Grays Harbor County alone. Loss of oil into the sea waters could have a significant impact on resident and anadomous fish runs. Additionally, there are no effective oil spill containment and collection procedures identified for these waterways. The uncontrolled release of even one tank car could cause oil impacts for many miles downstream.

Around ten years ago, grain cars derailed on the Wynoochee Bridge, spilling grain onto pasture lands adjacent to the Wynoochee River. Had this been oil instead of grain, the river would have delivered this oil to the Chehalis and the surge plain immediately below it. This surge plain is protected by the Washington Department of Natural Resources as a natural area, and is one of the largest preserved natural surge plain habitats on the west coast. Spilled oil would be impossible to remove from this critical habitat. This year , there have been three derailments over
the course of less than three weeks-one involved more cars immediately adjacent to the Chehalis River in Aberdeen and another was near the Wynoochee River. These recent incidents significantly reduce our confidence in the safety of this form of oil delivery to Grays Harbor.

Comment Number: 000000360-1
Organization:
Commenter: Lynn Metzenberg
Commenter Type: Public
Other Sections: 13.1
Comment Excerpt Text:
At this crucial time we should slow the pace,not accelerate the marketing of these carbon producing resources. The full impact is not understood for the environment and all living things. We have had and will have continue tragic and toxic events in relation with transporting and storing these fuels. North America should not export crude oil now. Rail conditions,parking location of full or empty tank cars, traffic delays at rail crossings and security of tank farms must be studied closely.

Comment Number: 000000366-4
Organization: City of Ocean Shores
Commenter: Crystal Dingler
Commenter Type: Agency
Other Sections: 13.5 14
Comment Excerpt Text:
Shipping energy products by rail and barge (or ship) has serious safety implications that must be dealt with before we consider implementation. Washington Senator Patty Murray addressed rail problems in a recent congressional address indicating that “since July there have been major rail accidents involving crude oil in Quebec, Alabama and North Dakota. These accidents have resulted in lost lives, forced entire towns to evacuate, caused over $1.2 billion in property damage, and contaminated the environment. As the NTSB pointed out in January, our current regulations were written long before anybody could imagine how much oil would move over rail.” Human error and track defects, says Sen. Murray, cause two-thirds of train accidents. Not only must we address our safety policies from point of origin to point of final delivery, but the infrastructure must be overhauled to prevent accidents. We also need to fund enforcement. We need to require increased safety training. With three derailments in the past month in Grays Harbor County, we must also require increased maintenance of tracks, track beds, and ties. We need to develop policies to require oil firefighting capability all along the rail lines. We also need to require accessible equipment and trained personnel to respond to spills and/or fires along the rails, in fresh waterways, and in our harbors and along the barge/shipping routes to delivery. During winter

storms, ships and barges will be at risk, and cleaning up spills and leaks are difficult, if not impossible. This is a massive effort, yet requirements must be in place before we seriously consider crude by rail through our Washington communities and out through our shipping channels.

Comment Number: 000000367-1
Organization: St. Mark's Episcopal Church
Commenter: James Campbell
Commenter Type: Organization

Comment Excerpt Text:
Please use all efforts to look thoroughly at every aspect of this idea to bring oil trains into our state, our county of Grays Harbor and all towns all the rail lines that are affected by this possible plan. A single rail accident along the way or a rail yard or storage tanks or even ships accident could be catastrophic to nearby areas, and the effects would linger for a very long time. The plans for this have not been thought out clearly--poor rail systems exist now without plans to upgrade them, the rail cars used are not safe, and the plans for handling any accidents are not in place. The best idea is to not allow this at all and let's get clear about what is right to use our rail systems for and also the shipping lanes and focus on developing those for safe and beneficial use.

Comment Number: 000000370-1
Organization:
Commenter: Mike Petersen
Commenter Type: Public

Comment Excerpt Text:
Spokane is at risk from train accidents involving oil filled cars. Please analyze an alternative route around Spokane. The health risk to Spokane residents, where schools, businesses, and hospitals are next to the rail line, make it too great of a risk to have explosive rail cars travelling through the city.

Comment Number: 000000370-5
Organization:
Commenter: Mike Petersen
Commenter Type: Public

Comment Excerpt Text:
The impacts of this traffic will be added to other proposed oil and coal export facilities. Sightline Institute reports that all the new terminals proposed for Washington (currently ten) would mean approximately 12 loaded 100 car crude oil trains a day running through Spokane. 1,200 rail cars--which the National Transportation Safety Board has stated are unsafe, as early as 1992--every day, carrying approximately 800,000 barrels of crude oil per day through the state of Washington with Spokane being the big choke point near the point of entry. Sightline also reports that the NW is averaging nine freight train derailments per month. These facilities will increase the chances of more derailments, and oil is a double-edged sword because it’s hard to clean up and it causes fires. Please also analyze this new study in your scoping: http://www.seattlepi.com/business/energy/article/Study-measures-oil-spill-risks-from-projects-5498943.php#src=fb

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Comment Number: 000000371-1
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization

Comment Excerpt Text:
Given the significant overlap between the proposed rail lines and riverine and estuarine ecosystems, the EIS should evaluate the following: (1) the safety of the rail lines and the likelihood of spill events (using quantitative risk analyses),

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Comment Number: 000000375-1
Organization:
Commenter: William Brake
Commenter Type: Public

Comment Excerpt Text:
Concern on Short Haul Rail Line operated by Puget Sound and Pacific Railroad. Information from news paper articles indicates that 80,000 rail cars operated on this rail line in 2011. The West Way Project will add an additional 26,718 Crude Oil Rail Cars and the Imperium Project will add 38,325 Crude Oil rail cars for a total of 65,043 new rail cars. This is 44 % of all the rail traffic to be Crude Oil and this is no small change over historic levels. Is the PS & P Railroad willing and able to commit major capital expenditures (in excess of $100 million dollars) to make this segment of the Crude Oil by Rail Project safe for the last 100 miles. Information from The Federal Rail Administration indicates that 276 reported derailments occurred in a 31 month period from July 2011 to December 2013 in the Northwest United States. This is 9 derailments per month or one every 3.5 days and is unacceptable. Luckily most of these derailments were minor and did not do the significant damage a Crude Oil derailment could. I recommend further study on the Rail Transportation for the West Way and Imperium Projects. Safety can not be compromised for any one.

Comment Number: 000000376-1
Organization: Ms.
Commenter: Tammy Domike
Commenter Type: Public

Comment Excerpt Text:
Please consider the 4 derailments that have occurred on this rail line this past month. The railroad refused to embargo the tracks, choosing to reduce speed to 5mph rather than repair and face fines. In Port of Centralia's TIGER Grant application, the railroad makes a big deal about how old and what poor condition the tracks are in, yet only ask for $12M. Have you priced replacing a bridge lately? This $12M will be bandaid repairs at best. It is also disturbing the grant application makes no mention of Crude Oil trains or the proposed increase of trains, while bemoaning that the track is stressed by current grain and car transport. The proposed Deep Water dredging also eludes mention of Crude Transport, and says it will enhance the current grain & auto shipping. These stealth projects will then be used to bolster Crude proposals. Given the glaring omissions in their proposals, how can the word of the railroads be taken in good faith?

Comment Number: 000000377-2
Organization:
Commenter: Laura Ackerman
Commenter Type: Public
Other Sections: 7.4 7.3 2.1 7 15 14
Comment Excerpt Text:
Please analyze the potential oil spills, fire from oil spills, diesel PM increasing, and the impacts to human health, especially those who live within a mile of the tracks, safety issues on increased railroad traffic, economics of communities paying for safety upgrades, impacts on rivers and other bodies of water, trails, parks, schools, hospitals and public facilities. Also analyze the impacts to wildlife.

Comment Number: 000000378-1
Organization:
Commenter: Margaret Rader
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
I have a personal reason for thinking the oil trains are not appropriate for Grays Harbor county. They would come right by my front door, and I am concerned about the safety. I also am concerned about possible derailments and spills and how they could affect fish and wildlife. The Black River in Thurston county goes right by our houses, and crosses an old iron Railroad bridge. The bridge and its abbutments do not look strong enough to stand up to the increased hazardous traffice. I have attacked pdf files with pictures of our bridge at the end of Holm Road in Thurston County. Please include in the scope of the EISs the safety of bridges and other infrastructure.

Section 13.4 - Vessel traffic, including vessel transportation impact analysis for vessel traffic in Grays Harbor

Comment Number: 000000013-1
Organization:
Commenter: Libby Hazen
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
I request that you include in the EIS an assessment of the rail and vessel transportation of fossil fuels on the quality of life on both land and sea.

Comment Number: 000000026-1
Organization:
Commenter: Garry Dale
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
I am concerned about the continued vitality of Grays Harbor and the Washington Coast where crude oil ships would make over 700 additional transits per year over one of the most dangerous bars in the State. I request that the Environmental Impact Statement include the entire crude oil transportation corridor so that communities along the rail and marine routes are given due consideration.

Comment Number: 000000041-1
Organization:
Commenter: Gail Streicker
Commenter Type: Public
Other Sections: 7 2.1 14
Comment Excerpt Text:
I strongly oppose the construction of crude oil terminals in Grays Harbor and the transport of oil by rail through communities in the Northwest. These proposals would negatively impact my community, the Columbia River Gorge National Scenic Area, Grays Harbor, and the Pacific Northwest in many ways, including: elevate rail and marine traffic congestion, increase the potential of oil spills and disastrous explosions, harm existing businesses, delay emergency responders, and put our communities, public health, and environment at risk. These terminals, and the transport of crude oil to and from these

terminals, would damage terrestrial and aquatic ecosystems, endanger fishing grounds, and accelerate climate change. I urge you to include these impacts into the scope of the Environmental Impact Statement for both the Westway and the Imperium projects

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Comment Number: 000000063-1
Organization: El Centro de la Raza
Commenter: Estela Ortega
Commenter Type: Organization
Other Sections: 13.2
Comment Excerpt Text:
These proposals would negatively impact our communities, Grays Harbor, and the greater Pacific Northwest by elevating rail and marine traffic congestion

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Comment Number: 000000085-4
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
Impacts to surface waters due to additional marine traffic

Comment Number: 000000176-1
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 13.1 13.2
Comment Excerpt Text:
The following needs to be discussed for all the operational areas required by the proposed Imperium, Westway and US Development terminals, separately and cumulatively including for:
• Surface transportation into the Port of Grays Harbor (hereinafter "Port"): rail, auto and truck;
• Facility operational area including side rails, storage areas, storage terminals, pier and trestle;
• Marine transportation to and from Port: Panamax ships, barges, ATB barges and other vessels, including tenders.

Comment Number: 000000176-21
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 13.5
Comment Excerpt Text:
13. Vessel traffic along the Washington coast, the Grays Harbor estuary and destination routes to California and the Straits of Juan de Fuca including pre-facility status.
• List flag state of vessels to be used and first language of crew;
• Details of Panamax vessels as to age and structural and electronic components;
• Detail normal/permitted pollution impacts:
o Of air and water including from fuels, engine exhausts, crude oil, ballast or bilge water, noise and direct physical interactions or caused avoidance behavior;

Comment Number: 000000176-46
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(o) What is the analysis of impacts on marine transportation to and from facilities, Panamax ships, Articulated Tug Barges, other vessels, including present traffic and projected additional traffic?

Comment Number: 000000214-1
Organization: National Park Service
Commenter: Christine Lehnertz
Commenter Type: Agency
Other Sections: 13.2 2.1
Comment Excerpt Text:
In general, in order to fulfill the requirements of Washington's State Environmental Policy Act, we believe the Imperium and Westway EISs should fully evaluate all direct and indirect effects of the bulk liquid distribution projects, including rail and marine shipment, port operations and climate change impacts associated with eventual fuel refining and combustion.

Comment Number: 000000270-3
Organization:
Commenter: Ilene Silver
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
The increase in the number of huge tankers greatly increases the risk of a catastrophic spill among our pristine waters.

Comment Number: 000000330-4
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 13.5
Comment Excerpt Text:
Vessel traffic along the Washington coast, the Grays Harbor estuary and destination routes to California and the Straits of Juan de Fuca including pre-facility status, vessels as to age and structural and electronic components; detail normal/permitted pollution impacts of air and water including from fuels, engine exhausts, crude oil, ballast or bilge water, noise and direct physical interactions or caused avoidance behavior; pollution due to accidents by fuels, crude, etc.; history of single and multi-ship accidents of any nature and consequences for such vessels, current risk analysis and the prevention and remediation measures proposed including discussion of needed updates of Geographic Response Plans and any need for/who pays cost for/what time period needed to implement as to new deployment strategies and associated response equipment in Grays Harbor in spatial relation to shipping lanes; interference by these vessels with other necessary ocean transportation uses both commercial including fishers, and as well as with recreational and tribal users; interference by these vessels with marine mammal social structure and health including physical interaction through striking; identification of location of anchorages for delayed/backed up vessels that cannot be at Facility dock.

Comment Number: 000000331-4
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Cumulative Impacts, relative to crude: if one to three projects are fully built out and all proposed west coast crude export ports come on line and all coal export ports come on line (including the Oregon Gateway Terminal at the Port of Coos Bay, Oregon; the Coyote Island Terminal site at the Port of Morrow, Oregon; at the Millennium Bulk Logistics site in Longview, Washington; two separate facilities at the Port of St. Helens, Oregon [Ambre Energy and Kinder Morgan]) there could be a projected total annual potential western coal export of hundreds of metric tons - and there are upwards of 70 mmt that may be exported from Canadian ports; relative to vessel traffic: all of the above export vessels will use Grays Harbor, the Salish Sea, the ocean coast, the Strait of Juan de Fuca and, in addition, further expansion of Kinder Morgan's pipeline and the subsequent increase in tanker traffic in and out of the Port of Vancouver must be considered.

Comment Number: 000000332-4
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 13.5
Comment Excerpt Text:
How will the EIS adequately address facility operations, including storage, existing piers and transfer methods? What is the analysis of impacts on marine transportation to and from facilities, Panamax ships, Articulated Tug Barges, other vessels, including present traffic and projected additional traffic?

Comment Number: 000000334-4
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Wave and current impacts from increased ship activity. Dredging depths impact inner Harbor mudflats and sand islands. Decrease in lease values or elimination of oysterlands. How will increased vessel-oriented maintenance support current marine resources? Impacts of the additional transportation of crude oil into domestic ports in Washington State and California. What has been the analysis of the indirect impacts of the proposed project(s)?

Comment Number: 000000334-6
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Increased vessel traffic will impact the estuary and the ocean shipping lanes. What is the risk of these vessels as they traverse towards Anacortes, through the Marine Sanctuary, and as they traverse southward to California. What are the potentials for conflict in the shipping lanes and reaching destination in a timely manner?

Comment Number: 000000339-18
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 13.5
Comment Excerpt Text:
Transportation
Marine Vessels
The EIS should include a detailed vessel traffic analysis and assessment of traffic management needs. The analysis should provide information on vessel drift, ballast water management, frequency of entry, egress, and moorage time anticipated for the different types of vessels and sizes of vessels, and their potential impact on aquatic natural resources. It should be based on a robust model that relies on the most recent United States Coast Guard vessel tracking system data for the region, including existing or projected traffic from adjacent industrial facilities,upstream shipping terminals, and nonindustrial vessels. The study should evaluate multiple alternatives for reducing potential incidents.

The EIS should analyze the potential for the projects' proposed vessel operations to adversely impact or interfere with adjacent industrial operations, including facility access. How will vessel traffic between the two entities sharing the marine terminal be coordinated? If a vessel can't access one of the facilities and has to moor temporarily, how might this affect other industrial operations and vessels transiting through the harbor, or the risk of collision?

Comment Number: 000000339-2
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
IMPACTS IN THE IMMEDIATE PROJECT VICINITY

Natural Environment:Earth
Will the project result in the need for or encourage dredging of aquatic lands beyond those currently dredged, such as the mouth of Grays River Harbor? Portions of the harbor currently are too shallow for Panamax size ships. Will an increase in the number and size of vessels and need for deep turnaround or queuing areas affect the need to dredge additional areas?

Comment Number: 000000339-4
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 5.1 13.5
Comment Excerpt Text:
Plants and Animals
The project property is situated along the shoreline of Grays Harbor which is inhabited by riverine and estuary fish including Pacific salmon species, bull trout *(Salvelinus confluentus),* green sturgeon *(Acipenser medirostris),* and Pacific eulachon *(Thaleichthys pacificus).* Many fish species use Grays Harbor for migration, rearing, and foraging. Federally listed bull trout, green sturgeon, and eulachon are

known to use the harbor for foraging and migration.
Spawning beaches for species of forage fish such as surf smelt, Pacific herring, and sand lance occur in the outer areas of Grays Harbor. The nearshore marine areas from the mouth of Grays Harbor north to the Washington/Canada border, and Grays Harbor is designated as critical habitat for the Southern DPS of green sturgeon (NOAA 2009). This includes coastal waters with depths less than 360 feet (110 meters) and bays and estuaries upstream to the extent of tidal influence. Portions of the Chehalis River and the marine waters of Grays Harbor are designated by the USFWS as critical habitat for the Coastal-Puget Sound bull trout. The EIS should analyze how vessels, including barges, propose to navigate or dock at the proposed facility, and how adverse impacts of the proposed alignment and vessel operations on eulachon, salmon, marine mammals, riverine and estuarine vegetation, and other biological resources and species will be mitigated. What are the potential impacts of vessel traffic, and increased risks of spills on these species and their habitats?

Comment Number: 000000339-8
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 4
Comment Excerpt Text:

Aquatic Vegetation
The EIS should analyze any potential for dock operations, and increases in vessel traffic to scour sediments or disrupt or harm riverine and estuarine vegetation or other benthic habitats.

How will impacts to riverine and estuarine vegetation damaged during construction or operations through displacement, shading, burial, and scour be avoided?

Comment Number: 000000356-8
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency

Comment Excerpt Text:
• The EIS should include analysis and description of requirements for channel dredging beyond what is currently completed for existing vessel traffic through the estuary and river.

Comment Number: 000000358-13
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1 7.4
Comment Excerpt Text:
d. The effects that increased barge and ocean going vessel traffic would have on fish , birds, and marine mammals. For example, gray whales are particularly susceptible to ship strikes, and the burrowing shrimp on which they feed are both susceptible to mortality from oil toxicity and would become vectors for delivery of sub-lethal doses of toxic compounds in oil to whales, green sturgeon, and other shrimp predators.

Comment Number: 000000358-22
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:

4. A Vessel Transportation Impact Analysis (VITA) be conducted relative to these specific proposals. This analysis should include evaluation of the items listed below, and should provide recommended solutions and mitigation measures to minimize any risks identified.

Comment Number: 000000358-24
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:
f. How vessels will be managed offshore if the bars associated with Grays Harbor or the Columbia River are closed.

Comment Number: 000000363-2
Organization: Washington State Legislature
Commenter: Reuven Carlyle
Commenter Type: Agency
Other Sections: 13.2 2.1 7.2
Comment Excerpt Text:
II. Impacts of additional rail and vessel traffic The Westway and Imperium expansion projects will significantly increase rail traffic along Washington rail lines and vessel traffic through Washington waterways, and the impacts of this additional traffic must be reviewed by the agencies.

Rail traffic will likely cause congestion at rail crossings, increased air and noise pollution along rail corridors, and increased rail maintenance and improvement costs. Out-of-state oil shipments are also likely to have an impact on the movement of key commodities within Washington, as the agriculture and aerospace industries, among many others, rely on rail to transport goods. Vessel traffic has the potential to interfere with marine wildlife, congest already busy shipping lanes, and impact local fisheries.

Section 13.5 - Vessel safety

Comment Number: 000000015-1
Organization:
Commenter: Garrett Phillips
Commenter Type: Public
Other Sections: 5.1 7.4
Comment Excerpt Text:

I live in Hoquiam. I regularly go out recreationally clamming on beaches between Ocean Shores and Quinault Reservation. I consider this to be an important part of my life. It is done of the reasons that I live here. I am concerned that ocean going vessels carrying crude oil from the proposed export facilities will malfunction or collide with other vessels, debris, or rocksm and leak oil into the marine environment, causing harm to razor calm communities on the beaches where I go clamming. Please study the potential impacts of these events occurring. Please do not simply quantify the probability of these events occurring. Rather, please study the actual impacts to my recreational clamming opportunities that would result from a marine oil spill. This study should include analysis of marine and near shore hydrology, the clams' habitat and ecological relationships, and the limits of best practices in oil spill cleanup. Please study what seasonal restrictions WDFW would have to impose for at least ten years following an oil spill to ensure public safety and sustainable clam populations, and what impact this would have on recreational clam harvest opportunities.

Comment Number: 000000026-2
Organization:
Commenter: Garry Dale
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
Questions that concern me, and which objective, rigorous and comprehensive studies should address include: Oil risks: How will the marine vessel traffic increase collision risks with tankers, cargo and other commercial vessels in the area? What would be the effects to our region in the event of catastrophic oil spill?

Comment Number: 000000026-5
Organization:
Commenter: Garry Dale
Commenter Type: Public

Comment Excerpt Text:
Boating & Safety: How will fishing vessels (commercial, recreational and tribal) be affected by the additional transport vessels in our waters? How much will accident and collision rates increase?

Comment Number: 000000064-2
Organization: Wild Game Fish Conservation International
Commenter: James Wilcox
Commenter Type: Organization
Other Sections: 13.3
Comment Excerpt Text:
Some of the scoping-related concerns by Wild Game Fish Conservation International surrounding petrochemical product transportation, storage and export include, but are not limited to: • Existing infrastructure (pipelines, rails, tank cars, bridges, storage facilities, port facilities)

Comment Number: 000000118-3
Organization: a concerned citizen
Commenter: Abby Brockway
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
Please consider the increased marine traffic and how to mitigate the traffic and how to respond to the potential chemical spills that will be an increased possibility due to the extra 400 trips per year. Please

keep in mind the recent climate reports that show the danger to many disasters due to the carbon output that this project will contribute 30,000,000 more barrels per year.

Comment Number: 000000176-21
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization
Other Sections: 13.4
Comment Excerpt Text:
13. Vessel traffic along the Washington coast, the Grays Harbor estuary and destination routes to California and the Straits of Juan de Fuca including pre-facility status.
• List flag state of vessels to be used and first language of crew;
• Details of Panamax vessels as to age and structural and electronic components;
• Detail normal/permitted pollution impacts:
o Of air and water including from fuels, engine exhausts, crude oil, ballast or bilge water, noise and direct physical interactions or caused avoidance behavior;

Comment Number: 000000176-60
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(ap) Increased vessel traffic will impact the estuary and the ocean shipping lanes. What is the risk of these vessels as they traverse towards Anacortes, through the Marine Sanctuary, and as they traverse southward to California. What are the potentials for conflict in the shipping lanes and reaching destination in a timely manner?

Comment Number: 000000313-1
Organization:
Commenter: Robert Whitlock
Commenter Type: Public
Other Sections: 13.3 15
Comment Excerpt Text:
I would like to see an eis that includes all impacts, from local to global. From risk related to rail and marine shipping. To overall economic and ecological impacts. In specific, human societies currently exist beyond the sustainable carrying capacity of the planet. The oil terminals will be slated to handle fuels from extreme extraction projects, like Bakken formation fracking, and Canadian oil sands. How do these extreme extraction projects stand to affect the current overall unsustainable economic relationship between human societies and the planet? Is it possible that they will push activities even further beyond the point of sustainability? Do we owe it to future generations to bring overall activities back into sustainability (much less harmony) with the natural world? Or do we send a curse along to grandchildren and future generations. What do you think?

Comment Number: 000000319-3
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public

Comment Excerpt Text:
The EIS should identify the likelihood of an accident due to tanker and oil barge traffic into, out of, and across the estuary, what measures would be necessary to enhance transport safety, and who should pay for these measures.

Comment Number: 000000330-4
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 13.4
Comment Excerpt Text:
Vessel traffic along the Washington coast, the Grays Harbor estuary and destination routes to California and the Straits of Juan de Fuca including pre-facility status, vessels as to age and structural and electronic components; detail normal/permitted pollution impacts of air and water including from fuels, engine exhausts, crude oil, ballast or bilge water, noise and direct physical interactions or caused avoidance behavior; pollution due to accidents by fuels, crude, etc.; history of single and multi-ship accidents of any nature and consequences for such vessels, current risk analysis and the prevention and remediation measures proposed including discussion of needed updates of Geographic Response Plans and any need for/who pays cost for/what time period needed to implement as to new deployment strategies and associated response equipment in Grays Harbor in spatial relation to shipping lanes; interference by these vessels with other necessary ocean transportation uses both commercial including fishers, and as well as with recreational and tribal users; interference by these vessels with marine mammal social structure and health including physical interaction through striking; identification of location of anchorages for delayed/backed up vessels that cannot be at Facility dock.

Comment Number: 000000332-10
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 13.3 7
Comment Excerpt Text:
There are potential impacts to sensitive areas within the Harbor and on the open ocean coast. How will these areas be protected? Aquatic invasive species introduction due to increased freight traffic – rail and vessel are a significant probability. How will these issues be addressed and controlled? Nearshore changes due to increased shading from added vessels, including impacts to plants and animals. How will this be minimized or eliminated? Human health, increased diesel fumes from trains, vessels and loading equipment. What preventive measures will be taken to eliminate or avoid these impacts? How will health issues that arise from this increase be addressed and paid for?

Comment Number: 000000332-4
Organization: citizen
Commenter: Judy Carter
Commenter Type:
Other Sections: 13.4
Comment Excerpt Text:
How will the EIS adequately address facility operations, including storage, existing piers and transfer methods? What is the analysis of impacts on marine transportation to and from facilities, Panamax ships, Articulated Tug Barges, other vessels, including present traffic and projected additional traffic?

Comment Number: 000000339-11
Organization: Dept of Natural Resources

Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 7.4 7.1 13.3
Comment Excerpt Text:
Spills
The EISs should analyze the increased risk of Bakken, Tar Sands oil or other fuel spills that may occur during cargo loading and offloading, through vessel collisions that may result from the increase in vessel traffic at the river's mouth, along the coast, or through train collisions along the Chehalis River. Imperium's flange connection location has a 52 gallon catch basin per USCG requirements; is this sufficient to capture all potential spills? Imperium and Westway currently have no requirements for pre-booming due to speed of current and safety measures. Is there any way to design a pre-booming strategy to minimize chance of release should a failure occur during transfer? Westway currently has no spill response plan. How will spills be contained and prevented from spreading to sensitive areas, especially given the presence of hundreds of thousands of shorebirds nearby? What measures will be taken to ensure prevention and timely response to oil spills to avoid impacts to water and sediment quality, habitats, and species? What are the risks of oil spills associated with the need for vessel traffic maneuvering and queuing within and outside the harbor?

What are the risks of spills associated with increased rail transportation carrying crude oil and how will these risks be mitigated? The state's oil spill response program is funded through a crude oil tax on vessels that does not apply to rail. What is timeline for implementation in comparison to time line for crude oil transport operations to begin?

Comment Number: 000000339-18
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 13.4
Comment Excerpt Text:
Transportation
Marine Vessels
The EIS should include a detailed vessel traffic analysis and assessment of traffic management needs. The analysis should provide information on vessel drift, ballast water management, frequency of entry, egress, and moorage time anticipated for the different types of vessels and sizes of vessels, and their potential impact on aquatic natural resources. It should be based on a robust model that relies on the most recent United States Coast Guard vessel tracking system data for the region, including existing or projected traffic from adjacent industrial facilities,upstream shipping terminals, and nonindustrial vessels. The study should evaluate multiple alternatives for reducing potential incidents.

The EIS should analyze the potential for the projects' proposed vessel operations to adversely impact or interfere with adjacent industrial operations, including facility access. How will vessel traffic between the two entities sharing the marine terminal be coordinated? If a vessel can't access one of the facilities and has to moor temporarily, how might this affect other industrial operations and vessels transiting through the harbor, or the risk of collision?

Comment Number: 000000339-4
Organization: Dept of Natural Resources

Commenter: Megan Duffy
Commenter Type: Agency
Other Sections: 5.1 13.4
Comment Excerpt Text:
Plants and Animals
The project property is situated along the shoreline of Grays Harbor which is inhabited by riverine and estuary fish including Pacific salmon species, bull trout *(Salvelinus confluentus),* green sturgeon *(Acipenser medirostris),* and Pacific eulachon *(Thaleichthys pacificus).* Many fish species use Grays Harbor for migration, rearing, and foraging. Federally listed bull trout, green sturgeon, and eulachon are known to use the harbor for foraging and migration.
Spawning beaches for species of forage fish such as surf smelt, Pacific herring, and sand lance occur in the outer areas of Grays Harbor. The nearshore marine areas from the mouth of Grays Harbor north to the Washington/Canada border, and Grays Harbor is designated as critical habitat for the Southern DPS of green sturgeon (NOAA 2009). This includes coastal waters with depths less than 360 feet (110 meters) and bays and estuaries upstream to the extent of tidal influence. Portions of the Chehalis River and the marine waters of Grays Harbor are designated by the USFWS as critical habitat for the Coastal-Puget Sound bull trout. The EIS should analyze how vessels, including barges, propose to navigate or dock at the proposed facility, and how adverse impacts of the proposed alignment and vessel operations on eulachon, salmon, marine mammals, riverine and estuarine vegetation, and other biological resources and species will be mitigated. What are the potential impacts of vessel traffic, and increased risks of spills on these species and their habitats?

Comment Number: 000000348-4
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization
Other Sections: 13.3
Comment Excerpt Text:
Transportation These projects require moving crude oil by train, transferring to ship, and then navigating Grays Harbor before making it to the open ocean. There are significant risks with these modes of transport. 1. Is the current railroad infrastructure adequate to safely move crude oil, especially in light of the numerous derailments that have occurred recently? 2. What is the safety record for the ships that will be moving the oil via the ocean? 3. How do the hazards, such as extreme wind, rain, and surf, compare in Grays Harbor to other major ports? Are the risks significantly higher?

Comment Number: 000000356-3
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency

Comment Excerpt Text:
• With or without a vessel traffic risk study, the EIS should review regional changes in tanker and tug/barge traffic risk associated with these projects, including the hazardous crossing of the bar into Grays Harbor estuary and increased vessel traffic in the shipping lanes in the estuary and river.

Comment Number: 000000358-23
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:

a. The risk associated with each proposal's traffic (including the number and size of ships) increase relative to existing conditions, and the cumulative effects of both proposals combined with existing conditions.

b. The risk associated with the combined Imperium and Westway Terminals traffic incre ase relative to existing navigation saf ety throughout the navigation channels associated with the Salish Sea (Strait of Juan de Fuca, Puget Sound, Georgia B as in, etc.), in Grays Harbor, and along the Washington coast.

c. The risk associated with the combined Imperium and Westway Terminals traffic increase relative to potential increases of petroleum shipments from terminals with the Salish Sea (Strait of Juan de Fuca, Puget Sound, Georgia Basin, etc.)

d. The capability of current tugs to control disabled vessel movements under the most adverse prevailing weather conditions in the area and respond to incidents in the harbor, outside the harbor entrance, and within a safe distance of the Washington shoreline, given that there is no ocean capable rescue tug stationed in Westport.

e. The emergency tug availability from Neah Bay and Co lumbia River, include availability during severe weather or bar closures.

Comment Number: 000000358-25
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:
g. The risks of incidents and measures to mitigate the risk for potential groundings, collision/allisions/loss of propulsion or oil spill while underway within the harbor and along the outer coast.

Comment Number: 000000366-4
Organization: City of Ocean Shores
Commenter: Crystal Dingler
Commenter Type: Agency
Other Sections: 13.3 14
Comment Excerpt Text:
Shipping energy products by rail and barge (or ship) has serious safety implications that must be dealt with before we consider implementation. Washington Senator Patty Murray addressed rail problems in a recent congressional address indicating that “since July there have been major rail accidents involving crude oil in Quebec, Alabama and North Dakota. These accidents have resulted in lost lives, forced entire towns to evacuate, caused over $1.2 billion in property damage, and contaminated the environment. As the NTSB pointed out in January, our current regulations were written long before anybody could imagine how much oil would move over rail.” Human error and track defects, says Sen. Murray, cause two-thirds of train accidents. Not only must we address our safety policies from point of origin to point of final delivery, but the infrastructure must be overhauled to prevent accidents. We also need to fund enforcement. We need to require increased safety training. With three derailments in the past month in Grays Harbor County, we must also require increased maintenance of tracks, track beds, and ties. We

need to develop policies to require oil firefighting capability all along the rail lines. We also need to require accessible equipment and trained personnel to respond to spills and/or fires along the rails, in fresh waterways, and in our harbors and along the barge/shipping routes to delivery. During winter storms, ships and barges will be at risk, and cleaning up spills and leaks are difficult, if not impossible. This is a massive effort, yet requirements must be in place before we seriously consider crude by rail through our Washington communities and out through our shipping channels.

Comment Number: 000000371-5
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization

Comment Excerpt Text:
Given the significantly increased shipping traffic, including tankers and oil barges, the EIS should quantitatively assess the likelihood of shipping accidents in the Grays Harbor Estuary and the likely ecological consequences of a range of different accident scenarios. In addition, necessary measures to improve shipping safety in the estuary and the costs of implementing them should be evaluated.

Section 14 - Public Services

Comment Number: 000000005-3
Organization:
Commenter: Yovonne Autrey
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
Another reason to block shipment of oil trains into proposed oil terminals in the Port of Grays Harbor is the fact that the 2 mile long oil trains will block access to hospital facilities, as well as emergency services, to several thousand residents and tourists while they roll through our towns.

Comment Number: 000000027-1
Organization: Indepent Artist/Disabled
Commenter: Diane Hicks
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
Greetings...I have personal concerns as follows. My roommate and I moved to Montesano in July 2014. Together we spent all of our available cash and borrowed money heavily. We are both disabled in a complex way. Locating closer to Olympia Medical Care was essential. Neither of us can re-locate. The train that will be transporting this oil cuts us both off from urgent medical care multiple times per 24 hrs including EMT services. Living 1/2 block from train tracks will cause devastating effects on my emotional, mental and physical health. My roommate can speak for himself. I believe that this proposed action for the use of trains to transport oil will so adversely affect my ability to live and function that it is a form of discrimination against my disability and inability to remove myself to a safer location. I would (as would my roommate) require re-location funding to include both a place to live and money to relocate. I believe that I can find others in this same situation and that some form of legal litigation is not out of the question.

Comment Number: 000000032-4
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)

Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
WHAT happens if an oil train is stuck here, blocking passage for emergency help, or w/ threatened or damaged tanker cars?

Comment Number: 000000032-6
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
Blockage of Emergency services happens to people and properties on the entrapment-side of tracks. This is inhumane, and costly due to added costs of remediation of the emergency where help has been delayed.

Comment Number: 000000041-1
Organization:
Commenter: Gail Streicker
Commenter Type: Public
Other Sections: 7 2.1 13.4
Comment Excerpt Text:
I strongly oppose the construction of crude oil terminals in Grays Harbor and the transport of oil by rail through communities in the Northwest. These proposals would negatively impact my community, the Columbia River Gorge National Scenic Area, Grays Harbor, and the Pacific Northwest in many ways, including: elevate rail and marine traffic congestion, increase the potential of oil spills and disastrous explosions, harm existing businesses, delay emergency responders, and put our communities, public health, and environment at risk. These terminals, and the transport of crude oil to and from these terminals, would damage terrestrial and aquatic ecosystems, endanger fishing grounds, and accelerate climate change. I urge you to include these impacts into the scope of the Environmental Impact Statement for both the Westway and the Imperium projects

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Comment Number: 000000050-4
Organization:
Commenter: Arlene Eubanks
Commenter Type: Public

Comment Excerpt Text:
4. The number of emergency local responders the BNSF railway must advise in advance of shipments is -O-.

Comment Number: 000000062-1
Organization:
Commenter: Rex Valentine
Commenter Type: Public

Comment Excerpt Text:
I would be for the Crude By Rail providing an East-West road would be completed North of the railroad so traffic could be routed for fire and police protection for Elma. Much of the area has a road there now, so it would not be a major construction project.

Comment Number: 000000063-3
Organization: El Centro de la Raza
Commenter: Estela Ortega
Commenter Type: Organization

Comment Excerpt Text:
harming existing businesses and delaying emergency responders;

Comment Number: 000000082-1
Organization:
Commenter: Robert DeBuhr
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
The massive amounts of unstable crude oil that will be shipped by train - on one track that runs along a river, through or by several small towns and then passes through two larger towns. In the case of both Aberdeen and Hoquiam such trains would have negative impact on traffic, including emergency vehicles.

Comment Number: 000000137-1
Organization:
Commenter: dale and MargRET VERMILLION
Commenter Type: Public
Other Sections: 7.2 7
Comment Excerpt Text:
DO NOT INCREASE TRAIN TRAFFIC BY MORE EXPORTS FOR OIL. RURAL CITIZENS LIKE US BEAR THE BURDEN OFCOAL DUST POLLUTION, NOISE, EMERGENCY DISRUPTIONS AT CROSSINGS AND AN END TO OUR PEACEFUL LIFE IN RURAL SETTINGS.

Comment Number: 000000142-2
Organization: CCA
Commenter: William Kearse
Commenter Type: Public
Other Sections: 7 5.1 7.2
Comment Excerpt Text:
The negatives include a significant risk to public safety, potential disaster for the marine and freshwater species that define the Chehalis Basin, dangerous interruptions to EMS, fire, and police operations in towns with only at-grade crossings, increased noise,

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Comment Number: 000000166-10
Organization: League of Women Voters / Spokane Area
Commenter: Ann Murphy
Commenter Type: Organization

Comment Excerpt Text:
In Spokane, the effects on emergency response times and general traffic flow at railroad crossings need to be studied.

Comment Number: 000000176-44
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Other Sections: 13.2
Comment Excerpt Text:
(m) The increase in train traffic through Grays Harbor County will have a significant impact on communities that are literally bisected by the train tracks. Emergency access can be delayed over 15 minutes due to mile long rail cars blocking crossings. In addition, rail cars cross over more than 100 creeks, rivers and streams, the majority fish-bearing. We are also concerned about impacts to surface transportation in the Hoquiam/Aberdeen facilities. How will the EIS address surface traffic along the rail into Washington heading towards Centralia to Hoquiam?

Comment Number: 000000211-3
Organization: Washington State Department of Transportation
Commenter: Megan White
Commenter Type: Agency
Other Sections: 13.2 13.1 13.3
Comment Excerpt Text:
WSDOT has identified 25 state highway intersections and one limited access interchange along the PSAP Grays Harbor Subdivision where operations may be adversely impacted due to delays at nearby highway-railroad grade crossings. Some of these locations already experience delays under existing train volumes and may not be able to adequately absorb additional delays without mitigation measures. Of particular concern are possible highway operational impacts along US 12 between mileposts .60 and .74 within the City of Aberdeen. This segment is located within a
busy commercial area of the city, and the respective configuration of the highway, tracks, and commercial/retail businesses makes it particularly susceptible to significant operational and potential safety impacts from additional train traffic. A list of the 25 state highway locations is attached.

WSDOT requests that the scopes of the EISs include analysis of how these 25 locations would be affected by the projected increase in rail traffic that would result from both proposals, including determining and factoring in the typical length of trains serving the facilities. WSDOT is not only interested in impacts to state highway railroad grade crossings, but also how increased delays at railroad grade crossings situated near state highway intersections and interchanges may impact those state highways. This analysis should include impacts to:
• Levels of service at affected state highway intersections/interchanges;
• Vehicle delay and queuing at state highway grade crossings and state highways impacted by local agency grade crossings;
• Emergency response capabilities; and
• Highway-rail grade crossing safety (i.e., whether modification of warning devices or grade separation might be warranted with the projected increase in rail traffic).

Comment Number: 000000221-1
Organization:
Commenter: Steve Iverson
Commenter Type: Public
Other Sections: 13.1 7.2
Comment Excerpt Text:
I OPPOSE new efforts by out of state interests to transport up to 5,250 crude oil tanker railcars per week through the heart of both Downtown and Residential Centralia and Lewis County to enormous new crude oil terminals along Grays Harbor! • Crude oil trains would substantially increase the amount of time traffic through Centralia is completely stopped due to train movement or lack of movement (up to or

exceeding 12 hours per day). Crude oil tanker trains are louder than other trains. Horn blasts will occur at all grade crossings day and night. • Response time for Police, Fire and Emergency Medical Response services will increase exponentially due to tracks being blocked by these 1.5 mile long crude oil tankers.

Comment Number: 000000229-10
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency
Other Sections: 13.3
Comment Excerpt Text:
Public safety
Several recent incidents involving derailment of trains transporting crude oil have highlighted the serious risks associated with transporting crude oil through populated areas. While the potential for derailment or other accidents is considered by the railroad and energy industries to be very low, any single incident may have catastrophic consequences. Trains traveling through the Columbia River Gorge pass directly through numerous small and mid-sized communities. First responder resources are limited. Vehicle travel through the Gorge is largely restricted to the two major highways that run along the river, adjacent to the railroad tracks. A derailment and any possible associated spill or fire activities would most likely render the adjacent highway unpassable, further restricting both response and evacuation capacity.

Comment Number: 000000230-1
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 7.4 13.1 13.2 7.3
Comment Excerpt Text:
NOW THEREFORE,

BE IT RESOLVED BY THE MAYOR AND CITY COUNCIL OF THE CITY OF HOQUIAM, WASHINGTON, IN REGULAR MEETING DULY ASSEMBLED, AS FOLLOWS:

SECTION 1. The City of Hoquiam supports the creation of clear Federal guidelines to immediately implement safety regulations concerning older-model tank cars used to transport petroleum, train speeds, and other identifiable hazards associated with petroleum.

SECTION 2. The City of Hoquiam strongly urges the U.S. Department of Transportation to increase Federal tank car design and operation regulations for petroleum product shipments by rail and aggressively phase out older-model tank cars used to move flammable liquids that are not retrofitted to meet new Federal requirements.

SECTION 3.The City Council of the City of Hoquiam urges the State Department of Ecology and City of Hoquiam staff responsible for the permitting of petroleum terminals to address and study the following issues prior to the issuance of any permits:

· Potential impacts associated with oil spills athe project site or during transit by rail or vessel.
· Disruption to vehicle traffic during construction and after operation of the facilities commences, including the potential for increased emergency response delays.

· Vehicle safety at railroad crossings.
· Analysis of train and vehicle delays and safety issues.
· Potential for increased rail congestion and delays that would contribute to safety concerns including the potential for increased vehicle delays at railroad crossings.
· Analysis of safety considerations related to transport of petroleum associated with infrastructure, including an evaluation of trackage, railroad crossings, water crossings, and the safety of cars transporting oil.
· Analysis of effects on public transit, pedestrian access and parking within Hoquiam, and Grays Harbor County.
· Potential for and extent of increased risk of spills, fires, and explosions during rail transport, from infrastructure failing, accidents, or natural disasters.
· Evaluation of emergency response, including preparedness planning.
· Identification of responsible parties and required emergency response, including equipment and materials, to address worst-case scenarios.

Comment Number: 000000233-1
Organization:
Commenter: Gretchen Staebler
Commenter Type: Public
Other Sections: 13.2 13.3 7.4
Comment Excerpt Text:
I am extremely concerned about the proposed oil trains running through our towns and state and being stored and transported from our coast. Thank you for your careful study of all the issues. The rail lines are unsafe. The cars are unsafe. The toxic leakage is a threat to lives. The increased number of trains, and their length, is bad for businesses, property values, emergency vehicles and residents (of which I am one) needing to cross the tracks. The storage and shipping is bad for the environment at our beautiful coast and for the industries there. Please study carefully. Please show the courage to write a report against a bad idea for Washington.

Comment Number: 000000238-3
Organization: Citizen of Aberdeen
Commenter: Jamie Judkins
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
Third, the decrepit rail roads, four derailments within one month, need I say more? Fourth, the rail road crossings need addressed. Automobiles crossing the rails have to slow to a crawl to cross them into the Olympic Gateway Plaza so they won't damage their wheels. If our crossings are permitted to fall to this sort of disrepair, I'm sure it's this way at many other crossings. Fifth, length of trains is already an issue, we have no alternative crossings to get in, or out, of the Olympic Gateway Plaza and many other areas of population. If and when an emergency occurred and I believe there has been one instance of this situation already, how will our emergency responders reach these situations? Currently, from what I understand, there is only one emergency response vehicle that can fit under the bridge near the Guest House Inn. What if that vehicle is unavailable? A rail bridge is in order! This would eliminate the crossings and the emergency situations.

Comment Number: 000000265-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Other Sections: 7.3
Comment Excerpt Text:
"Due to the flammable nature of Bakken formation crude oil, there is the possibility of a fire inside the terminal, requiring the response of both local fire departments to help bring the fire under control." The design of the Westway terminal, and the area constraints of the Port of Grays Harbor site will make it difficult to bring enough equipment to keep a fire in one storage tank in check. The nature of the crude oil makes it impossible to extinguish a tank fire. The combined resources of the Aberdeen and Hoquiam water supply are not sufficient to keep such a fire in control, preventing it from spreading to additional storage tanks. Additional water storage tanks, larger mains and pumps should be required to assure adequate volume and flow capabilities to prevent a fire from spreading to additional tanks. In the event of a small fire, the requirement of having foaming equipment in both cities that is compatible should be required. Both fire departments must be trained in foam equipment and its use Adequate supply of foaming agent containers for suppressing an 8 hour fire must be required, and their expiration dates monitored to assure the foamant is still usable.

Comment Number: 000000267-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 7.3 13.2
Comment Excerpt Text:
To date there has been no public display of the Westway Terminals Hoquiam five-tank layout, which is a change from the previous four-tank layout (attached). Access to the "northerly tanks", even in the four-tank layout would have been constrained. Adding the fifth tank will make the tank to tank spacing much less than with the four tanks. Access to the tanks if there were a fire will be difficult, as the access is blocked by the southerly tanks and the port rail loop tracks. Please address the emergency access constraints that are exacerbated by the addition of the fifth storage tank. If access cannot be maintained, the addition of the fifth tank must be denied.

Comment Number: 000000270-2
Organization:
Commenter: Ilene Silver
Commenter Type: Public
Other Sections: 13.2 13.1 15
Comment Excerpt Text:
Additionally, the two current proposals would add 23 trains a week with each being up to 1.3 miles long. The slower speeds required by these trains would create massive traffic congestion, and impede emergency vehicles, extend commute times and decrease access to local businesses which hurts Washington's economy.

Comment Number: 000000280-3
Organization:
Commenter: Karl Goeres
Commenter Type: Public
Other Sections: 13.1 15 13.3
Comment Excerpt Text:
The railroad has many surface crossings which are continually blocking access to vehicles and many of those crossing must be used for emergency and commercial access. More frequent trains will simply make the situation worse which will have a negative impact on the local economy and safety of the people

who live here. Just the inconvenience of additional trains is not worth the minimal economic benefit of oil terminals.

Comment Number: 000000283-1
Organization:
Commenter: James George
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
1. Primary concern is that there is no fire equipment adequate to fight a light crude fire. It could easily spread to most of Hoquiam. It seems totally unfair that we would have to buy such equipment to reasonable protect ourselves while others profit.

Comment Number: 000000283-5
Organization:
Commenter: James George
Commenter Type: Public
Other Sections: 13.1
Comment Excerpt Text:
5. Additional trains will block access to the largest shopping area in the county. People wanting to shop block the right lane of the only bridge out of Aberdeen to the east. At times drivers in the left lane who want to shop block the left lane too. This then backs up into downtown Aberdeen, causing gridlock and total stoppage of all traffic in the downtown area. Slow, long trains of oil cars will cause this more ofter than it happens today. Police cannot get to the cars causing the problem because they cannot get over the bridge to east of the river where the offending cars are blocking the left lane.

Comment Number: 000000285-2
Organization:
Commenter: Beth Kaeding
Commenter Type: Public
Other Sections: 13.2 13.1
Comment Excerpt Text:
There are currently more than 50 trains traversing Montana on two main lines each day; this number is nearing capacity for the current rail system, and some upgrades are already in progress. However, projections of an additional 22 trains each day as a result of Bakken oil shipments and between 26 to 35 additional trains each day in the next 5 years as a result of coal export shipments will more than congest even an upgraded rail system. More train traffic would lead to more frequent and longer traffic delays for citizens at rail crossings. These delays would disrupt the business and commerce of cities and towns. These delays would mean a greater potential that emergency responders would be delayed in reaching residents when there is a medical emergency or a fire or the need for police.

Comment Number: 000000305-1
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 13.1 15 7.2
Comment Excerpt Text:
1. Community Impacts: The effects of more trains causing traffic backups that will limit accessibility between homes, businesses, emergency resources, including police and fire fighters.Decrease in land and property values due to increased rail disruption, noise and vibrations. Increase in Home Owners Insurance for areas affected by the rail.

Comment Number: 000000308-5
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency
Other Sections: 7.3 13.3
Comment Excerpt Text:
Risk of Fire, Spills and Explosion –

Bakken crude oil is recognized as being highly volatile. The disaster at Lac-Megantic, Quebec, in which 47 lives were lost, demonstrates beyond question the danger posed by shipping this commodity through population centers. Analysis should include a review of the Federal Railroad Administration's "Operation Classification" undertaken due to its "specific safety concerns about the proper classification of crude oil being shipped by rail, the subsequent determination or selection of the proper tank car packaging used for transporting crude oil, and the corresponding tank car outage requirements." The Association of American Railroads [Footnote 2: The AAR is a trade association whose membership includes freight railroads that operate 82 percent of the line-haul mileage, employ 95 percent of the workers, and account for 97 percent of the freight revenues of all railroads in the United States.] recently commented to the Pipeline and Hazardous Materials Safety Administration on the need to revise and upgrade the standards for DOT-111 cars used to transport crude oil. [Footnote 3: See AAR comments submitted in Docket NO. PHMSA—2012—0082.] The EIS needs to identify the potential for the risks of explosion and if and how those can be mitigated to nonsignificant levels. The mitigation measures to be analyzed need to include the proper equipping of first responders.

Comment Number: 000000308-9
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency

Comment Excerpt Text:
Public Services

This section addresses whether the project could result in an increased need for public services. These include, for example: fire protection, police protection, health care, and schools, among others.

Some residential areas along the Columbia River could be entirely cut-off from emergency services for extended periods of time and increased frequency due to the length of the unit trains and slow speeds of the trains in city limits, or from trains stopped waiting for other trains to move. Emergency responders may have no alternative but to access these areas by boat. But such a response would be clearly inadequate for fire response or responses to criminal activity. The EIS needs to identify and address the impact of the projects and all reasonably foreseeable projects on public services provided by emergency responders. These include:

Potential impacts to health service providers should there be a spill, chemical release or other such incident associated with the projects, rail or river shipping of the commodity.

Potential need for additional police officers to assure they are available when there are trains blocking the

access over the rail lines.

An analysis to determine if the City should employ specially trained responders to respond to spills, fires, releases of contaminants etc.

Comment Number: 000000315-1
Organization: Riverside Fire Authority
Commenter: Richard Mack
Commenter Type: Agency
Other Sections: 13.2
Comment Excerpt Text:
The Riverside Fire Authority provides full service response to fire, EMS, rescue and hazardous material emergencies to approximately 26,000 residents living in Northwest Lewis County and including the city of Centralia, Washington. These services are provided from eight fire stations to a geographic area of approximately 184 square miles comprised mostly of rural properties. There are two primary modes of commerce transportation through the Riverside Fire Authority's jurisdiction. They are Interstate 5 and the Burlington Northern Santa Fe Rail line which parallel one-another in a North/South orientation through the community. In addition, the Puget Sound and Pacific Rail line intersects with Burlington Northern Santa Fe in Centralia. This is the line proposed to be used to transport the commodity for the Westway and Imperium projects. This rail line crosses 9 residential streets and 2 major arterials along with 4 roads serving industrial complexes in the jurisdiction. The Riverside Fire Authority Governance Board adopted Response Time Objectives as a part of its Regional Fire Service Plan on August 7, 2007. The criteria which formulated the response time objectives is derived from the American Heart Association's recognition that once the heart stops beating, "there is a six minute window of opportunity for resuscitation and beyond that six minute window, there is only the slimmest margin of success." In addition, it is recognized that a fire originating in a room doubles in size for every minute of time lapse. At approximately 8 minutes a condition known as flashover occurs which means everything in the room of origin is involved in fire and the space is untenable for sustaining human life. The Riverside Fire Authority requests a study be conducted as to how the additional rail traffic will impact our ability to meet the response time objectives outlined in the Regional Fire Authority Service Plan.

Comment Number: 000000315-2
Organization: Riverside Fire Authority
Commenter: Richard Mack
Commenter Type: Agency
Other Sections: 7.4
Comment Excerpt Text:
Moreover, the Riverside Fire Authority has limited capacity to provide fire and life safety service to its citizens threatened by a catastrophic release of the product carried in the tank cars. In fact, the city of Portland has gone on record to indicate that it lacks sufficient class B foam capacity to mitigate a fire involving the oil volume from a single tank car. Notwithstanding the predictably devastating environmental impact to a catastrophic release of product, the Riverside Fire Authority has a limited supply of foam product capable only of suppressing a very small class B fire. Finally, in most cases, there are only four on-duty firefighters in the Riverside Fire Authority to mount a response to emergencies. We have calculated certain acceptable risks to existing facilities, infrastructure, equipment and transportation emergencies. The addition of three oil trains daily increases the risk not only to the trains themselves, but to all existing facilities, infrastructure, equipment and transportation in the event of a catastrophic release.

Comment Number: 000000319-5
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 13.2 7.1 5 7.4
Comment Excerpt Text:
The EIS should identify the safety of the spur rail line from Centralia to Hoquiam, the capacity for local emergency response teams to deal with spills in the riparian areas, the impact spills would have on downstream and estuarine species, and who would pay for cleanups when spills occur. Presumably you are aware of the significance of the Grays Harbor Estuary to the survival of migratory shorebirds. An April spill could threaten extinction for certain populations, if not species. The EIS should quantify how many migratory bird species depend on a healthy estuary, what percent of the Western Flyway populations those numbers represent, the cumulative impact on avian health of incidental spills that will occur if one or all oil ports are constructed, as well as the impact on those birds should a catastrophic spill happen.

Comment Number: 000000320-2
Organization: City of Washougal
Commenter: Sean Guard
Commenter Type: Agency
Other Sections: 13.1
Comment Excerpt Text:
The impact the additional trains will have on our City include delays to vehicle traffic at our five at-grade crossings (concerns of significant vehicle emissions from idling vehicles) as trains move through Washougal and especially delays to our emergency response vehicles should the at-grade crossings be blocked.

Comment Number: 000000320-4
Organization: City of Washougal
Commenter: Sean Guard
Commenter Type: Agency
Other Sections: 2.1 13.3
Comment Excerpt Text:
The City requests that the scoping of the EIS address the significant unavoidable adverse impacts to the City of Washougal , and other communities that these trains will travel through , including but not limited to impacts from; 1) vehicle emissions from idling vehicles at blocked at-grade crossings; 2) emergency response delays at blocked at-grade crossings; and 3) rail safety. The EIS should address ways to avoid, minimize and mitigate the effects of these impacts on our community.

Comment Number: 000000321-1
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 13.1
Comment Excerpt Text:
Bringing oil by rail to Grays Harbor, especially to multiple storage sites, is fraught with concerns, environmental and otherwise. Increased rail traffic bisects cities (Elma) and commercial centers (East

Aberdeen) creating serious vehicular traffic issues, particularly in the event of emergencies, medical or otherwise.

Comment Number: 000000321-2
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
Our County's limited emergency personnel and resources are not equipped nor prepared to handle potential spills or fires—how will this be addressed?

Comment Number: 000000326-1
Organization:
Commenter: Barbara Scavezze
Commenter Type: Public
Other Sections: 15 13.1 13.3 7.3 7.4
Comment Excerpt Text:
Please consider the following: 1)climate change impacts caused by drilling, shipping and burning petroleum products and biofuels 2) the ability of train tracks to safely transport increased train traffic carrying very heavy loads 3) the impact on traffic congestion at railroad crossings in affected communities 4) the potential for deadly explosions, and the ability of emergency management personnel to handle them 5) the impact on Puget Sound and other waterways if any of the shipping containers or storage facilities leak.

Comment Number: 000000330-5
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
Grays Harbor Safety/ Geographic Response Plans – Plan is based on slack tide, what would happen and how would the plan be deployed in alternate tides, surge and weather conditions? Time to respond, training for first responders, time to respond for back-up responders if initial team is unavailable or inadequate to control the spill, impacts of response if not done in a speedy manner prior to tidal changes, and the subsequent damage to the surrounding environment due to the tides and inadequate response; training concerns for response teams: is it adequate, are enough people trained, have they been able to train on the equipment and are they skilled with using the boom, and how will this impact the environment if all factors are not done in a smooth, quick and skilled manner.

Comment Number: 000000334-5
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Inadequate discussion of fire and emergency response along the entire rail line. Hoquiam has been experiencing increased incidents with fewer personnel and less equipment to respond. If there were more than one incident at one of the terminals or elsewhere in the City, how would the emergency services be able to respond? How would any of the emergency services be able to respond within the entire Grays Harbor area, both individually and collectively? What impacts due the recent lay-offs of fire fighters in

Hoquiam have on this situation? Special fire-fighting equipment and supplies are required depending on the type of fire. What supplies would be needed to suppress and extinguish a unit train accident? Where would these supplies be stored and made available? Who will pay for them? Who will ensure they are maintained adequately, kept in good working condition, and that staff is properly trained in using them?

Comment Number: 000000335-5
Organization: Ms.
Commenter: Tammy Domike
Commenter Type: Public
Other Sections: 13.3 7.3
Comment Excerpt Text:
Please consider this aspect raised by EarthIsland today: "...Yet, as a recent Earth Island Journal investigation found (read, “Warning, Highly Flammable”), despite the rapidly growing business of shipping crude by rail across North America, the railroad industry has been slow to provide even rudimentary information to local officials and emergency responders about shipments of Bakken crude." and "An air of secrecy has surrounded the booming oil by rail industry since last year’s devastating accident in Lac-Megantic. Since then trains carrying Bakken crude have derailed in Alabama, North Dakota, Pennsylvania, and now Lynchburg. No new regulations, other than the DOT’s recent emergency order, have been issued. The industry continues to argue that oil from the Bakken formation is no more dangerous than other forms of crude." How will responders be able to put out a fire if they are not informed as to what it is? How will we know how air is affected if we don't know what is in Bakken Crude? There simply are not enough regulations in place to safely approve this project going forward. Please do not assume the regulations will catch up afterwards

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Comment Number: 000000339-16
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
Public Services and Utilities
The EIS should analyze whether any uses of state-managed lands would need to be increased to accommodate the construction, operation, and any future maintenance activities of rail corridors and infrastructure. This includes but is not limited to: all excavation of material, placement of construction materials and tracks, equipment movement and placement of equipment. The EIS should analyze how state resources, including the Chehalis River, wetlands and forests within and outside directly affected areas, will be protected. Will the project require re-configuring of existing wetlands? The EIS should analyze the location and design of bridges and culverts needing to be upgraded due to the project.

Comment Number: 000000345-1
Organization: Clark County Fire & Rescue
Commenter: Tim Dawdy
Commenter Type: Agency
Other Sections: 7.3
Comment Excerpt Text:
Fire District Concerns • The addition of trains carrying hazardous materials will compound fire and health risks to the residents of the fire district. • Access to remote sections of the rail line is problematic for the fire district. Provisions for fire district access should be made by BNSF. • Firefighting equipment access and Emergency Medical Service access must be provided. • Equipment for the transport of the sick and

injured should be provided by BNSF. • Methodology for the rapid application of firefighting foam in these remote locations. The Fire District has no provision for the application of firefighting foam in these locations. BNSF should provide local foam resources to meet this need.

Comment Number: 000000345-2
Organization: Clark County Fire & Rescue
Commenter: Tim Dawdy
Commenter Type: Agency
Other Sections: 13.3
Comment Excerpt Text:
Rail Crossings • Clark County Fire & Rescue protects the BNSF rail crossings in the cities of Ridgefield, Washington and Woodland, Washington. The Fire District is concerned about the public safety issues surrounding these busy rail crossings. • These tracks and crossings have a deadly history. The increase in rail activity will compound the problem. • The improvement of the rail crossings in the city of Ridgefield and in the city of Woodland must be provided by BNSF • Additional financial support from BNSF is needed for the Port Of Ridgefield Overpass Project. We believe that these engineering requirements are essential for firefighters' access and public safety in emergency situations.

Comment Number: 000000347-1
Organization: Private citizen
Commenter: Brian Sterling
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
I believe that I can offer a somewhat different and technical perspective on the hazards of transporting crude oil by railroad. I am a degreed chemical engineer with many years of experience working in the petroleum refining, storage and transportation business. I was the General Manager of a 600,000 BPD (barrels per day) petroleum refinery in the US Virgin Islands for Hess Oil Virgin Islands Corp. I have fought many major petroleum fires, where, as the Refinery Manager, I was the Incident Commander on site. As a result of my experience, I am quite familiar with the hazards of handling petroleum products, and particularly "wild" or high vapor pressure crude oil. I have personally witnessed boiling liquid, expanding vapor explosions (or BLEVEs) similar to the one that launched a rail car over 3600 feet in Murdoch, Illinois in 1983. I do not believe that our communities have the resources to fight large scale oil fires, which are much different than residential or commercial structural firefighting.Petroleum firefighting takes specialized training, specialized equipment, and massive quantities of firefighting foam concentrate to safely fight these fires. I know because I have done it. Without such equipment, our firefighters will put themselves at grave risk should a major fire occur. My question is, who will provide the necessary personnel and equipment to fight oil fires when (not if) they occur? And who will pay for it? Will the burden be placed on our local fire departments? If so, are our local fire chiefs aware of this? I request that these issues be addressed under the scope of the Environmental Impact Statement for the proposed projects. I would like to state my belief that Bakken crude oil is far too dangerous to transport in atmospheric rail cars such as the obsolete and fragile Type 111 cars that are prevalent. I do not want these in my town, or any other town. I want the people living along the rail lines, and the firemen that protect them, to understand how much risk this poses to them and their fellow citizens.

Comment Number: 000000348-5
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization
Other Sections: 7.1 1.2 1.3
Comment Excerpt Text:

4. In the event of a major oil spill, either by rail, ship, or transferring, what is the response plan? How much oil could be recovered under ideal circumstances? How much could be recovered under the worst circumstances such as an earthquake or tsunami? 5. How would the increase of rail transport impact the ability of first responders to answer public health emergencies, either due to congestion or derailment?

Comment Number: 000000352-6
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 7.1 15
Comment Excerpt Text:
Study the impacts to current response plans? Who pays for updating of those plans? Study the cumulative impacts of all three projects being built out to completion. Study the impacts to the tourism and recreational industries. Study the impacts to the agricultural industries in Grays Harbor. In event of a spill who will compensate farmers for loss of production?

Comment Number: 000000354-5
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 7.3 7.4
Comment Excerpt Text:
Risk of Fire, Spills and Explosion:
Bakken crude oil is recognized as being highly volatile, as are all petroleum products that may be shippe d to the new term ina ls. The disaster at Lac-Megantic, Quebec, in which 47 lives were lost, demonstrates beyond question the danger posed by shipping this commodity through population centers. Analysis should include a review of the Federal Railroad Administration ' s "Operation Classification" undertaken due to its "specific safety concerns about the proper classification of crude oil being shipped by rail , the subsequent determination or selection of the proper tank car packaging used for transporting crude oil , and the corresponding tank car outage requirements ." The EIS needs to identify the potential for the risks of explosion and if and how those can be mitigated to nonsignificant levels . The mitigation measures to be analyzed need to include the proper equipping of first responders. The EIS must also identify the risks for sp ills and pot ential impacts
associated with release of petroleum products.

Comment Number: 000000354-9
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency

Comment Excerpt Text:
Public Services
The EIS should examine any increased need for public services, including fire protection, police protection, and health care. The Ridgefield waterfront, which includes a 52-unit floating home marina, boat launch and marina, offices, and the city wastewater plant and is planned for 820,000 square feet of mixed use development, could be entirely cut-off from emergency services for longer periods of time and with increasing frequency due to the proposed increase in rail traffic and their length. Emergency responders may have few alternatives to access these areas, creating potentially life-threatening situations. A January 2013 fire at the marina claimed the lives of two dogs trapped inside a burning floating home when fire trucks were delayed for five-minutes by a slow-moving train blocking the crossing . To prevent

any similar situations, the EIS must address potential need for additional police officers, fire fighters, and other first responders to ensure they can access all areas of the city in the event a train is blocking access . The EIS must also address the potential need for specially trained responders, including health service providers, to respond to spills, fires, releases of contaminants.

Comment Number: 000000355-1
Organization: City of Chehalis Fire Department
Commenter: Robert Gebhart
Commenter Type: Agency
Other Sections: 7.3 13.3
Comment Excerpt Text:
As the Interim Fire Chief in Chehalis my concern is the increase in rail traffic transporting crude oil and the possibility of a spill or fire. Chehalis has several crossings over the rail system that the fire department uses to access emergencies on the West side of the city. We do have an overpass that we can utilize so rail traffic cannot completely cut us off from the West side but can delay or slow our response. There have been numerous derailments throughout the US and Canada involving trains transporting crude oil. I am encouraged that the rail industry is in the process of providing specialized training to emergency responders on how to respond to these emergencies. . I would ask that the following be studied as part of the EIS: • An analysis of the fire and life safety risk and probability of error based on the volume of crude oil and transport type, including risks to homes and businesses along the rail system. • An examination of the impacts on the fire department's ability to respond to emergencies and an identification of deficiencies and needed mitigations such as training or equipment. • An evaluation of the proposed fire and spill protection systems along the rail system.

Comment Number: 000000357-4
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization
Other Sections: 13.1
Comment Excerpt Text:
-Impacts to Grays Harbor communities. Community impacts, particularly the impacts of more trains causing traffic backups that will impact accessibility between homes, businesses, emergency resources, and communities on both sides of the rail tracks from Spokane to Grays Harbor.

Comment Number: 000000366-4
Organization: City of Ocean Shores
Commenter: Crystal Dingler
Commenter Type: Agency
Other Sections: 13.3 13.5
Comment Excerpt Text:
Shipping energy products by rail and barge (or ship) has serious safety implications that must be dealt with before we consider implementation. Washington Senator Patty Murray addressed rail problems in a recent congressional address indicating that “since July there have been major rail accidents involving crude oil in Quebec, Alabama and North Dakota. These accidents have resulted in lost lives, forced entire towns to evacuate, caused over $1.2 billion in property damage, and contaminated the environment. As the NTSB pointed out in January, our current regulations were written long before anybody could imagine how much oil would move over rail.” Human error and track defects, says Sen. Murray, cause two-thirds of train accidents. Not only must we address our safety policies from point of origin to point of final delivery, but the infrastructure must be overhauled to prevent accidents. We also need to fund

enforcement. We need to require increased safety training. With three derailments in the past month in Grays Harbor County, we must also require increased maintenance of tracks, track beds, and ties. We need to develop policies to require oil firefighting capability all along the rail lines. We also need to require accessible equipment and trained personnel to respond to spills and/or fires along the rails, in fresh waterways, and in our harbors and along the barge/shipping routes to delivery. During winter storms, ships and barges will be at risk, and cleaning up spills and leaks are difficult, if not impossible. This is a massive effort, yet requirements must be in place before we seriously consider crude by rail through our Washington communities and out through our shipping channels.

Comment Number: 000000370-4
Organization:
Commenter: Mike Petersen
Commenter Type: Public
Other Sections: 7.2 13.2 13.1 2.1
Comment Excerpt Text:
Giant unit trains of oil, like unit trains of coal, would impact existing rail infrastructure (with taxpayers paying for said impacts or needed improvements / expansion), increase health risks from diesel particulates, contribute to traffic congestion and slow emergency response, increase noise pollution, air pollution, environmental risks, and more.

Comment Number: 000000377-2
Organization:
Commenter: Laura Ackerman
Commenter Type: Public
Other Sections: 7.4 7.3 2.1 7 13.3 15
Comment Excerpt Text:
Please analyze the potential oil spills, fire from oil spills, diesel PM increasing, and the impacts to human health, especially those who live within a mile of the tracks, safety issues on increased railroad traffic, economics of communities paying for safety upgrades, impacts on rivers and other bodies of water, trails, parks, schools, hospitals and public facilities. Also analyze the impacts to wildlife.

Section 15 - Other

Comment Number: 000000003-1
Organization:
Commenter: Garrett Phillips
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
I'm concerned that Washington residents who could be affected by oil trains, and who could be affected by marine oil ships will not have adequate opportunities to comment on and affect the scope of this EIS. The oil that is to be carried to the proposed terminals will travel across the entire state of Washington on trains. At least two additional scoping meetings should be held farther east along the proposed train route. While its true that residents of these central and eastern Washington communities can comment using mail service or the internet from the comfort of home,they should be provided more substantial opportunities for comment. Essentially they should be given actual scoping meetings. they should be given actual scoping meetings because their is real potential for substantial impacts to their communities. This is undeniable after the four recent explosive oil train crashes in Quebec, Alabama, New Brunswick and North Dakota. The extent of damage, and loss of life in the Quebec accident shows that even if there is low probability of such an event occurring, the potential impacts must be studied, and the people in

communities along the real line need an opportunity to speak publicly to Department of Ecology and their peers about their concerns and about what they want the scope of the EIS to include. our of these trains have recently blown up in derailments: Quebec (47 dead, the town a wreck), Alabama, New Brunswick and North Dakota.

Comment Number: 000000009-1
Organization:
Commenter: David Perk
Commenter Type: Public

Comment Excerpt Text:
The scope of both EISes should be comparable to the scope adopted by the Department of Ecology for the Gateway and Millennium coal terminals, particularly in regards to the explicit and implicit costs of resource extraction, transportation and consumption. At the public hearing for the Millennium terminal a project proponent asked rhetorically what limits applied to EIS scoping.

Comment Number: 000000017-7
Organization: Northbeach Community Gruop
Commenter: Lisa Riemer
Commenter Type: Organization

Comment Excerpt Text:
Our tourism jobs are too important, also.

Comment Number: 000000021-1
Organization:
Commenter: Wendy Bartlett
Commenter Type: Public

Comment Excerpt Text:
After our twice elected US President Barack Obama has officially recognized the threat of global warming as real, and has ordered the end of any new coal or nuclear power facilities to be built, the approval the proposed Gateway Pacific Coal Terminal at Cherry Point would be an inexcusable crime against humanity, the environment, and the crumbling infrastructure within Washington State along the Burlington Northern Sante Fe railroad tracks as well as compromise existing jobs that our local and regional economy depends upon. Please do your job and deny the permits to what can only be a ruthless plot to bring "record profits" for so few at the expense of everyone and everything else on Earth.

Comment Number: 000000026-4
Organization:
Commenter: Garry Dale
Commenter Type: Public

Comment Excerpt Text:
Tourism & other Economic Costs: How would increased odor and pollution, depressed property values and diminished aesthetics affect our tourism industry/local economy? How much would we, the taxpayers ultimately pay for the cost directly and indirectly associated with the terminal(s)?

Comment Number: 000000028-1
Organization:
Commenter: Tori Kovach

Commenter Type: Public

Comment Excerpt Text:
1) Will future Grays Harbor channel dredging be impacted because of crude oil residual and dispersant chemical saturation of the sediment throughout the affected tidal basin?

Comment Number: 000000028-4
Organization:
Commenter: Tori Kovach
Commenter Type: Public
Other Sections: 1.2 1.3
Comment Excerpt Text:
4) The proposed Imperium expansion seeks an increase of 720,000 barrels of storage for volatile and heavily polluting fuels and other products. The proposed site is on fill material within the flood plain of the Chehalis River upstream of a highly productive estuary and a National Wildlife Refuge that is of international significance to bird species protected by international and tribal treaties. What provisions are being made to contain these fuels in the event of a) rupture of one of the multiple tanks b) earthquake c) tsunami d) storm surge e) terrorist assault?

Comment Number: 000000032-11
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
WHY are more train cars now parked along tracks for extended periods? WHAT's really going on, that anyone remotely thinks this is a viable project? WHO's being paid off to coerce this long-term dirty development? Industrial “progress” becomes “regress”, when the long-term, bigger-picture consequences are ignored. Any profits gained initially, become far-reaching debt-loads, in context of decades-long, or longer, damages.

Comment Number: 000000032-12
Organization: Friends of the Library, Oakville Community Hall Library (FOTL)
Commenter: Constance Holmes
Commenter Type: Organization

Comment Excerpt Text:
Those mean THOUSANDS become jobless, indefinitely, may go hungry. Citizens, not the responsible corporations, are still cleaning up oil in Alaska, the Gulf, etc., and world-wide sites of spills, leaks, explosions.

Comment Number: 000000033-2
Organization:
Commenter: Mark McFeely
Commenter Type: Public

Comment Excerpt Text:
This will have very little impact as far as jobs. Its putting our prestin waterways in serious jeopardy The risk out weighs the rewards not even remotely close

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Comment Number: 000000037-1
Organization:
Commenter: Daryl Johnson
Commenter Type: Public

Comment Excerpt Text:
What a great opportunity for our county, communities, and many families here as well. This county has been hit hard over the years by cries of environmental concerns that have devastated our county economically. Historically, when using any natural resource, there will be some who raise a cry. The methods for moving this oil through our area will create jobs and taxes for our communities. There is also the added benefit to the environment that rather than using yesterdays technology to move it, these projects use best technology available and with the most modern safe practices available. When the environment is considered on a global scale and a look at how many pipeline spills there are every month this is a very good option. The number of spills with rail are tiny in comparison. The difference is, the amount of press given to each event. It is so common in pipelines that it has not been given press time in decades but rail spills are so uncommon that they get attention. And extreme disasters are now used as a scare tactic to again damage our economy when ecology is already being protected. Thanks for your consideration and support of our ecosystems and economy.

Comment Number: 000000050-2
Organization:
Commenter: Arlene Eubanks
Commenter Type: Public

Comment Excerpt Text:
2. There is a total lack of communication between state and government agencies with BNSF Railway Company.

Comment Number: 000000050-6
Organization:
Commenter: Arlene Eubanks
Commenter Type: Public

Comment Excerpt Text:
The railroads are effectively exempt from regulations that restrict other transportation modes, such as roads and pipelines.

Comment Number: 000000054-3
Organization:
Commenter: Carol Rose
Commenter Type: Public

Comment Excerpt Text:
The jobs produced are minimal compared to the potential harm, dangers and loss of quality of life or even life itself. We Washingtonians value our quality of life. We value our fish, our birds, all our wildlife and plant life. No job is worth the risk involved. I have such great respect for the Grays Harbor citizens taking a stand against this. For I know how hard that area has been hit economically. So they are taking a stand of courage belief in a better way of life than dirty, dangerous oil! North Dakota now produces 1 million barrels of oil per day.

Comment Number: 000000055-1
Organization:
Commenter: Charlotte Sahnow
Commenter Type: Public

Comment Excerpt Text:
NO COAL, OIL OR NATURAL GAS FLOWING THROUGH OUR STATE!!! LET'S GET ON SUSTAINABLE ENERGY, NOW!!

Comment Number: 000000056-1
Organization:
Commenter: Nick Lorax
Commenter Type: Public

Comment Excerpt Text:
When pursing the scope of impacts for the EIS please consider the effects of said extraction on the entire ecosystem which the ore is a part of to include flora, fauna, horological and geological.

Comment Number: 000000059-1
Organization: US Citizen
Commenter: John Eddy
Commenter Type: Public

Comment Excerpt Text:
We need to concentrate efforts to implement Renewable Energies not contribute to more carbon pollution.

Comment Number: 000000061-1
Organization:
Commenter: Kevin Drake
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
I strongly support new oil terminals in Washington State, and I strongly oppose Washington States Department of Ecology's (DOE) role in the matter.Talk about a agency with a misguided mission, and a waste of State funds, duplicating Federal efforts. The DOE should let the Feds do their environmental overview and make their suggestions at that point, I don't know like maybe encourage the oil trains but do some much need infrastructure works, like vehicle overpass's over tracks, more train tracks so we can get better Amtrak service between Portland and Vancouver BC, oil spill repsonse network for the rivers and bays, the Railroads are just waiting for the Fed's to develop standards for rail cars, encourage that, but please lets support any industry that brings jobs, the sky is not going to fall.

Comment Number: 000000062-2
Organization:
Commenter: Rex Valentine
Commenter Type: Public

Comment Excerpt Text:
Also, the promise of local jobs for the rail project is a joke! In looking back over previous big construction jobs, the companies hire a few locals, then lay them off so they can bring in their “friends.” That kind of baloney must be stopped or we should not take on this job.

Comment Number: 000000064-12
Organization: Wild Game Fish Conservation International
Commenter: James Wilcox
Commenter Type: Organization
Other Sections: 7
Comment Excerpt Text:
Terrorism mitigation • Other impacts to public health and safety and to wild ecosystem security

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Comment Number: 000000070-1
Organization:
Commenter: Patricia Szot
Commenter Type: Public

Comment Excerpt Text:
All the oil companies are doing is moving this oil to a port to ship to China for total profit to them. We don't get any benefits but all the harmful effects of the rail movement and the pollution that comes to us from China. Washington is a great innovative state, lets use our experience to move FOWARD, not backward. Lets work with re-newable energy. Lets stop aiding the multinational profitable oil companies and injuring the people and the beauty of this state.

Comment Number: 000000071-3
Organization:
Commenter: Carol Brumfield
Commenter Type: Public

Comment Excerpt Text:
The citizens of Grays Harbor county shouldn't have to live in fear so a few people can get richer. I urge you to put a stop to this before disaster strikes because by then it will be too late.

Comment Number: 000000072-2
Organization: small business owner
Commenter: Karen Grimstad
Commenter Type:

Comment Excerpt Text:
Seriously, beautiful Gray's Harbor with their high cost housing and retail in tourism. Why would our elected officials even conceder greedy oil transfer sites. I can’t believe we the people have to write to say think elected officials that would permit this dirty project. No we say NO to a transfer site any transfer sites at Gray’s Harbor or on any of the PNW’s water ways or oceans. Stay on the East Coast and in TX were they pollute the waters and lands and air, No thanks. Just like the slammed/permitting for a year at the Vancouver oil transfer site; right in the very spot we the people have invested in new downtown water front. The water front will bring our community jobs, revenue into the community rather then the pollution from the burping of the tanker cars that pollute the air we breath. No we don’t want our water polluted with dirt oil or coal or fracked gas, the very reason why we have such clean water, land and air – No fossil fuel industry. No gas transfer site on the Sandy River, No Oil or coal in the Gorge or Puget Sound.

Comment Number: 000000072-4
Organization: small business owner
Commenter: Karen Grimstad

Commenter Type:

Comment Excerpt Text:
Solar has been here since 1976 and for almost 40 yrs. and counting the dirty oil companies rule. Kristi in NJ who won't allow the electric car to be sold in NJ is a crime, we know oil bought and paid for him to do that to the people of his State - shame. Kristi will go down. We heard the corporation party, the obstruction party and now in at lease one State that if one put solar on their home they would be fined – how crazy is that? How can you that make the decisions and the permitting sleep at night. You must have children and grandchildren - don't they mean anything to you, don't you love them enough NOT to be on the take for the fossil fuel industry.

Comment Number: 000000072-5
Organization: small business owner
Commenter: Karen Grimstad
Commenter Type:

Comment Excerpt Text:
I am a small business owner and who 2 commercial parcels that sit 300 feet from the tracks in downtown Washougal, Washington. I have been watching and waiting to see what the out come will be with the coal trains that hit 6-8 rail road crossings in heavy residential communities spitting poison on all of us. Think decision makers there are many people like me that are watching and waiting. There is so much investment and competence all along the rail way of the pollution path. I will not live or work where rolling booms roll past my door. My small business service had us at Shoreline in the Seattle area where the coal trains are running and then sit on the tracks in front of this home we worked on. The air quality is poor and the inside of this home in the window seals has black coal dust and the owner said, they clean their windows weekly. The coal dust was coming into the home. The man who was the owner suffers from lung problems now with pneumonia and drugs almost monthly. These homes are so expensive and lost so much value he can't sell for what he owes. He's sick and stuck and we all know how may other people are backwards in their homes – thanks to corporations again. No to fossil fuels we need bundled renewable's.

Comment Number: 000000081-2
Organization:
Commenter: Jana Wiley
Commenter Type: Public

Comment Excerpt Text:
Is it really worth the few jobs obtained to risk our seafood industry and related jobs? Is it worth the loss of critical habitat and human life? Is any of it worth it given this resource is being shipped out somewhere else for refining and ultimately leading to further ocean acidification and loss to the shellfish industry? I do not see where this industry deserves a foothold in our state. I do not believe WA DOE when it says we are ready for an incident like the one in Lynchberg. To approve this project flies in the face of what the majority in this State requests.

Comment Number: 000000082-3
Organization:
Commenter: Robert DeBuhr
Commenter Type: Public

Comment Excerpt Text:
That brings up the question of "fracking", which I don't think the people of Grays Harbor should be

supporting as well. Grays Harbor should no prostitute itself for a new jobs - most of which will be temporary - and pay the potential price of a huge environmental disaster.

Comment Number: 000000083-1
Organization:
Commenter: Travis Heinze
Commenter Type: Public

Comment Excerpt Text:
If you can allow storage facilities for hazardous oil into the city, why don't you allow livestock as well? Your priorities are getting so far from sustainable that you have disconnected yourselves from reality.

Comment Number: 000000084-4
Organization:
Commenter: Eric LaBrant
Commenter Type: Public

Comment Excerpt Text:
The capacity for the facility to handle non-pipeline grade Canadian oil sands - The carbon footprint for the extraction, transport, refinement, storage, and final use of the products to be handled at the site - The potential for the site to handle volumes in excess of its stated capacity, and the environmental impacts at such an increased level of use -

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Comment Number: 000000087-2
Organization:
Commenter: Herb Hethcote
Commenter Type:

Comment Excerpt Text:
We do not need these facilities at Grays Harbor, since alternative clean energy sources are available in Washington state. I urge you to reject the proposals for oil storage terminals at Grays Harbor, since they are environmentally damaging and unsafe to our communities.

Comment Number: 000000098-1
Organization:
Commenter: Willam Ward
Commenter Type: Public

Comment Excerpt Text:
----- For the Planet Please -----Stop Franking- until we know what they are putting (deadly chemicals Ect.) into the ground ---- and we make it SAFE!. Stop any fossil fuel exporting (only use in US - to be cheap energy to bring jobs back to the US) as we move away from fossil fuels, That is bad for Global Warming

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Comment Number: 000000100-1
Organization:
Commenter: Heather Haverfield
Commenter Type: Public

Comment Excerpt Text:
Please do not support fracking in any form. I am against the construction of a new building that would be

used to house proppants for fracking. I am against spending tax-payer money to house proppants. I am against proposed Grays Harbor Washington Crude by Rail oil terminals (slated to handle oil fracked from the Bakken formation and/or Canada Oil Sands,).

Comment Number: 000000100-2
Organization:
Commenter: Heather Haverfield
Commenter Type: Public

Comment Excerpt Text:
People & the environment are our most important assets which are always being put at risk by Corporate greed. Please put people first and not corporations.

Comment Number: 000000101-1
Organization:
Commenter: Patricia Holm
Commenter Type: Public

Comment Excerpt Text:
Also consider extending this comment period, as it has been difficult to make this on-line commenting work.

Comment Number: 000000104-2
Organization:
Commenter: Joel Carlson
Commenter Type: Public

Comment Excerpt Text:
Stopping this destruction of our planet is the most important issue of our time! We have got to stop burning fossil fuels as fast as possible. Solar panels for homes now are affordable and make economic sense. Electric hybrid and hydrogen fuel cell cars are rapidly developing, becoming more affordable and becoming a compelling buying decision. Buildings can be made much more energy efficient. Biofuels from algae hold promise. Renewable energy creates many more jobs and prosperity for the United States. We all must do our part to stop burning fossil fuels and leave them in the ground!

Comment Number: 000000105-1
Organization:
Commenter: Allison Collins
Commenter Type: Public

Comment Excerpt Text:
NO!

Comment Number: 000000106-3
Organization:
Commenter: Jan Verrinder
Commenter Type: Public
Other Sections: 7.3
Comment Excerpt Text:
-Fracked oil’s increased combustibility and fracking’s damage to the earth. -

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Comment Number: 000000106-5
Organization:
Commenter: Jan Verrinder
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
Oil possibly spilling into a river or the ocean. It could shut down water traffic, fishing, tourism, water supply projects and port jobs for years.

Comment Number: 000000106-7
Organization:
Commenter: Jan Verrinder
Commenter Type: Public

Comment Excerpt Text:
-Lack of a comprehensive energy policy that sustains us and future generations. Risk vs gain: a clear imbalance. Let’s have a strong economy and jobs; but not an economy built on disaster clean-up.

Comment Number: 000000107-1
Organization:
Commenter: Marilyn Dungan
Commenter Type: Public

Comment Excerpt Text:
This project is a short time fix and will leave a long time problem. It is simply not worth it, and I hope you're not weakened by outside powers and short term issues. Be strong -

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Comment Number: 000000110-1
Organization:
Commenter: Denise Burke
Commenter Type: Public

Comment Excerpt Text:
The EIS needs to include a full-scale review of property values for all land parcels located within a half mile of the rail line, both present and future. Properties within those boundaries will be negatively impacted with a oil rail line in the vicinity. Of interest is properties in communities where an oil spill / fire has occurred. How were property values, insurance rates, etc.affected? Adding a rail line in the proximity of residential properties takes away any incentive to improve property, build in GH or add value to existing properties. What happens to the city and county tax base when homes can't be sold and diminish in value simply by being located next to a rail line?

Comment Number: 000000114-1
Organization:
Commenter: Robin Moore
Commenter Type: Public

Comment Excerpt Text:
The oil industry is an extraction economy, thus has a limited life span. I am concerned that the socioeconomic character of our community will suffer from these crude oil projects. Grays Harbor's established forestry and fishery industries are renewable. The intensity of the proposed crude oil projects will adversely impact the woods and the waters. Long term employment will be sacrificed. Family

traditions will be lost. Why should these short lived projects be given permits to proceed when we will likely have another round of unemployment when the plants shut down? Can Imperium and Westway be compelled to provide adequate post-employment compensation for their workers?

Comment Number: 000000116-5
Organization: League of Women Voters of Washington
Commenter: Kim Abel
Commenter Type: Organization

Comment Excerpt Text:
-Cumulative impacts of all of the proposed crude oil shipments to Washington, predominantly from the Bakken shale region, about three billion barrels annually.

Comment Number: 000000116-9
Organization: League of Women Voters of Washington
Commenter: Kim Abel
Commenter Type: Organization

Comment Excerpt Text:
Finally, we could not fail to note that at the Centralia hearing on April 29th, 2014, the local people who spoke about the significant and serious impacts these projects would have on their lives -- residents of Centralia and other communities along the route of the rail tracks-- had been largely unaware of these impending projects until only a few days prior to the hearing. We would strongly urge that the time frame for public comment be extended for at least another 60 days, and that a further public hearing be arranged. We also note with regret that no one representing the proponents of these projects was on hand to share information with the public, or to put forward their scoping suggestions.

Comment Number: 000000117-3
Organization: A concerned citizen participating in the democratic process
Commenter: Abby Brockway
Commenter Type: Public

Comment Excerpt Text:
Jobs are very valuable in this economy and our region relies heavily on a healthy ecosystem for fishing, tourism and water security. Increasing our fossil fuel production will hurt the stability of our region and put into jeopardy the jobs that we already have. Any increase in fossil fuel exports will cause increased natural disasters as stated in the Intergovernmental Panel on Climate Change report. This is not a project that is sustainable so I would request that there is a regulation to requirement to remove all construction of these areas once the market has collapsed and is no longer profitable to Westway. Many coal and oil companies leave contaminated sites for taxpayers to clean up and abandon their equipment leaving the landscape littered with old equipment once they have sucked all of their profit from a project. As a citizen I am overwhelmed by the massive amounts of projects being proposed in my state. Last year I attended seven hearings and am very disappointed that these projects are not allowing an average citizen that has a job and a family to fully participate in the permitting process. Please do not allow this state to be the carbon vein to the rest of the world. It is not our future and there will be spills that will devastate our region causing much harm.

Comment Number: 000000123-5
Organization:
Commenter: Kristin Hermenegildo
Commenter Type: Public

Comment Excerpt Text:
4. Home values. With crude oil trains passing through Hoquiam, it would lower the value of many homes. This wouldn't be fair to the homeowners. Overall, the risks of crude oil trains coming through Hoquiam outweigh the benefit. Many Hoquiam residents would have to worry about the risk of accidents constantly, but would never benefit from the crude oil trains. I understand that Hoquiam is a small town and not a big city, but it seems to me that crude oil trains should only be passing through non-populated, not right through a neighborhood where there are schools, businesses and many homes. Please take the time to think about how you might feel if any of the threats or risks of crude oil trains were about to move into your backyard.

Comment Number: 000000125-2
Organization:
Commenter: Gregory Flood
Commenter Type: Public

Comment Excerpt Text:
The proposals appear to be primarily for the benefit of private industry at great potential expense to community resources. There has been little offered by the oil and coal industry to provide confidence that they are willing to pay the actual total expenses incurred by the proposals.

Comment Number: 000000131-1
Organization:
Commenter: Susan Sunshine
Commenter Type: Public

Comment Excerpt Text:
An unemployed person in Hoquiam might well look at the proposed terminals as a chance for a job not considering that there probably won't be all that many jobs and the pay will no doubt be as low as possible. The Chamber of Commerce no doubt pictures opportunities for business growth. Surely there will be more jobs and at least some growth in businesses but that is not the focus of the Department of Ecology. Your responsibilities cover an even more important sphere. While other jobs and business schemes might come along and even be better, there is only one environment and if you get it wrong in protecting it there's no second chance. One spill at the export facility, one tanker accident anywhere along the route north, one exploding oil train anywhere along the route west means destruction with a capitol "D"; estruction that even the best clean-up scenarios are not going to remedy.

Comment Number: 000000132-2
Organization:
Commenter: Teresa Harper
Commenter Type: Public

Comment Excerpt Text:
Our local coastal communities depend on tourism. So besides our local residence that enjoy our outdoors activities people from the outside area come and that brings revenue to our businesses. If things go wrong this would bring an economical disaster to our businesses. Commutative impact of the proposed projects in Grays Harbor, and other similar oil and fossil fuel transport projects across the region. The evaluation should include the increased risks related to all these projects and the impacts they would have, cumulatively, on our region.

Comment Number: 000000132-5
Organization:
Commenter: Teresa Harper
Commenter Type: Public

Comment Excerpt Text:
Myself and other fellow community residents suggest that you cover all the environment impact this project will or may have over the long run.

Comment Number: 000000136-3
Organization:
Commenter: Bruce Rinnert
Commenter Type: Public

Comment Excerpt Text:
Montanans are very concerned that the taxpayers will be asked to improve on rail lines to facilitate the oil and coal trains.

Comment Number: 000000137-2
Organization:
Commenter: dale and MargRET VERMILLION
Commenter Type: Public
Other Sections: 7.2
Comment Excerpt Text:
RAILROADS SHOULD PAY FOR NOISE ABATEMENT BY INCREASING R.R. CROSSING ARMS SO TRAINS DO NEED TO BLOW 4 WHISTLES AT EACH CROSSING, OR DO OVERPASSES . CITIZENS SHOULD NOT SUFER THE IMPACTS OF TRAIN TRAFFIC NOR SHOU LD THEIR TAXES PAY FOR INFRASTRUCTURE! STOP EXPORT TO ASIA OR BE RESPONSIBLE BY MITIGATING IMPACTS. R.R'S ARE MAKING BILLIONS AND CAN AFFORD TO PAY THEIR WAY!

Comment Number: 000000140-1
Organization: Northern Plains Resource Council
Commenter: Nancy McManus
Commenter Type: Organization

Comment Excerpt Text:
The proposed Westway and Imperium crude oil terminals at Grays Harbor, Washington, would have significant impacts on Washington, Idaho and Montana communities and commerce.

Comment Number: 000000141-1
Organization:
Commenter: Judy Staigmiller
Commenter Type: Public
Other Sections: 2.1 7
Comment Excerpt Text:
Please consider the impact of increased oil train traffic to Montana. Diesel emissions will lower the air quality and cause health problems. Infrastructure upgrades will be needed to mitigate the effects of noise for the families living near railroad right-of-way. You can bet the companies will not pay for this, we taxpayers will be stuck with it.

Comment Number: 000000141-3
Organization:
Commenter: Judy Staigmiller
Commenter Type: Public

Comment Excerpt Text:
Increased rail congestion threatens Montana's agricultural shipments which would have economic consequences for farmers and ranchers. Please include the state of Montana and other areas along the route in the scope of analysis for this project. This project would affect a large number of people and a large land area. The consequences for not taking environmental issues into account would be dire.

Comment Number: 000000142-1
Organization: CCA
Commenter: William Kearse
Commenter Type: Public

Comment Excerpt Text:
The one positive is a limited number of temporary jobs for construction.

Comment Number: 000000142-3
Organization: CCA
Commenter: William Kearse
Commenter Type: Public

Comment Excerpt Text:
declining real estate values, and a general reduction in the quality of life for the citizens of Grays Harbor, just to name a few. Crude (and coal) are not the right way to boost our local economy. There are simply too many risks to vital aspects of our lives and our environment associated. Grays Harbor needs jobs, and I support port expansion, provided it's not for the purpose of shipping products that potentially threaten the natural resources that define our area. Why not develop the port for imports of consumer goods, for example?

Comment Number: 000000146-3
Organization:
Commenter: Lynne Dixon
Commenter Type: Public

Comment Excerpt Text:
Taxpayer money going to necessary infrastructure upgrades to mitigate the effects of rail traffic and noise;

Comment Number: 000000146-6
Organization:
Commenter: Lynne Dixon
Commenter Type: Public

Comment Excerpt Text:
Because there will be significant direct, indirect, connected, and cumulative impacts to Montanans as a result of this proposed project, we are requesting that issues and concerns of Montanans be included in the scope of analysis for the proposed project. These impacts are generally connected with the rail shipment of the crude oil to Washington through Montana.

Comment Number: 000000148-1
Organization: Grafix
Commenter: Rich Clawson
Commenter Type: Public

Comment Excerpt Text:
The last thing a country seeking energy independence should be building facilities to export our energy independence. The last place to do this over water. Get a grip and figure out if you are trying to facilitate big business, or be in the business of putting the needs and priority of your citizenry first. What is being proposed for expansion or environmental in this direction of expansion projects.

Comment Number: 000000149-1
Organization:
Commenter: Bob Young
Commenter Type: Public

Comment Excerpt Text:
NO!!!!

Comment Number: 000000150-1
Organization: Mr.
Commenter: Jim Davis
Commenter Type: Public

Comment Excerpt Text:
Stop ruining this country to export our energy, what are you thinking.

Comment Number: 000000151-1
Organization:
Commenter: Robin Moore
Commenter Type: Public

Comment Excerpt Text:
There have been several tragedies lately: the Oso mudslide, the lost Malaysian airplane, the sunken Korean ferry, and the avalanche on Mt. Everest. In all of these, people wanted the bodies of their loved ones recovered. Is there a body recovery plan if there is a deadly accident with the crude oil trains or tanks? Is there a fund in escrow for survivors and next of kin? Can the state, city, or county force the companies to behave responsibly? Will tax payers end up paying for compensation?

Comment Number: 000000153-4
Organization:
Commenter: Paul Stormo
Commenter Type: Public

Comment Excerpt Text:
4. Impact on property values and the related tax base along the full transport path from Centralia to Hoquiam. Because of the associated risks associated with public safety due to rail accidents, increased noise pollution, property values for current residents should not be expected to increase, rather at best remain stable. (My purchase of my home in July 2013 would have seen the offer reduced by approximately 20% if the proposed rail traffic had been then active.) As a result, contributions to meet the

cost of related services should be supported in full by fees and taxes associated with the transported product--as those costs are determined as a part of the scoping effort, with provisions for appropriate adjustment as time passes.

Comment Number: 000000153-7
Organization:
Commenter: Paul Stormo
Commenter Type: Public

Comment Excerpt Text:
8. The scope and focus identified in the initial 'Determination of Significance' should be considered a starting point, not a complete and comprehensive identification of the economic and ecological risk associated with the project.

Comment Number: 000000154-5
Organization: concerned citizen
Commenter: Lydia Garvey
Commenter Type: Public

Comment Excerpt Text:
Also promotes climate change, ecological destruction, unsustainable energies. We need to think 7 generations ahead. Your assistance in this most urgent matter would be much appreciated by all present future generations of all species.

Comment Number: 000000155-1
Organization: Ms.
Commenter: Cate Campbell
Commenter Type: Public
Other Sections: 13.2
Comment Excerpt Text:
I am writing to request you include the impacts to Montana of the oil export terminals on the west coast. I live close to the tracks of the rail line which will be one of the main conduits for oil trains.We are already coping with too many coal trains. Both types of shipments are environmentally unsound with dust, noise, potential for accidents, and the offsetting of agricultural products on the same rails. Ranchers are already having problems getting their grain from N. Dakota and Montana to the west coast AND getting the fertilizer shipped from west to east due to the lack of railcars and capacity.

Comment Number: 000000157-1
Organization:
Commenter: Verne House
Commenter Type: Public

Comment Excerpt Text:
This issue troubles me. The US happily imported petroleum leaving exporting countries to manage whatever mess was caused in producing and exporting to us. Now, the US is in a position to export. Fairness might suggest supporting exports, but global warming has changed the outlook altogether. What could change my mind on this? If profits were committed -- firmly committed -- to developing independence from petroleum in this country -- by means of solar, wind, algae (but not nuclear because we do not manage its wastes) -- I would look favorably on exporting petroleum. What about tar sands? I oppose helping Canada move its extra dirty product into export markets; Canada missed a huge opportunity to develop its own economy by building equipment in country to refine its tar sand oil into

products that would encounter less resistance in exporting. Cost minimizing for the corporations but Stupid government. Improve ports' facilitation of exports? No. Given current policies and dim prospects for alternative energies, I oppose petroleum exports and expansion of port facilities.

Comment Number: 000000160-1
Organization:
Commenter: Walter Appel
Commenter Type: Public
Other Sections: 13.3
Comment Excerpt Text:
Gentlemen: We support the building and operation of oil storage and transfer stations in Washington state. These facilities will enable petroleum to safely move to facilities where it can be transferred to barges and ships for movement along our coast and to overseas destinations. These terminals will provide employment at the sites and in the marine and rail industries. Oil produced in the USA will help move the nation to energy independence and improve our balance of payments if the oil is exported. Rail transportation safety has been improving and the railways are spending billions on improving their right of ways and rolling stock. The proposed terminals are a positive for the state and its citizens.

Comment Number: 000000161-1
Organization:
Commenter: Chris Meyer
Commenter Type: Public
Other Sections: 13.2 7.4 3.1
Comment Excerpt Text:
Please include the impacts of rail traffic carrying the oil through Idaho in the scoping for your EIS. These trains will pass over critical groundwater areas for our community and the potential impacts of a spill must be evaluated in the reviews of the proposed new liquid storage terminals.

Comment Number: 000000167-2
Organization:
Commenter: Bob Zeigler
Commenter Type: Public

Comment Excerpt Text:
3. Impacts from continued reliance on fossil fuels and the consequences to climate change that this increased oil supply and consumption would have.

Comment Number: 000000175-5
Organization: Grays Harbor County
Commenter: Frank Gordon
Commenter Type: Agency

Comment Excerpt Text:
I request that the Governor of Washington, the Washington Department of Ecology, the Washington State Energy Facility Site Evaluation Council, and any other relevant state agencies refrain from permitting projects that would expand the capacity for petroleum export out of the state or otherwise increase the number of trains carrying petroleum through Grays Harbor County and other Washington communities until the cumulative environmental and safety impacts of these projects are studied and addressed.

Comment Number: 000000176-26
Organization: FOGH (Friends of Grays Harbor)

Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
18. Socioeconomic:
• Human health affects:
o Reduced employee productivity;
o Increased health care costs;
• Fisheries, especially for Salmon, Shellfish, Crab;
• Agriculture;
• Aquaculture;
• Tourism;

Comment Number: 000000176-27
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
• Potential for change in values of property affected by increased rail, road or vessel traffic, or by other Port Facility-related alterations of the environment such as air, light and noise pollution.

Comment Number: 000000176-29
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
20. Cumulative Impacts, relative to crude: if one to three projects are fully built out and all proposed west coast crude export ports come on line and all coal export ports come on line (including the Oregon Gateway Terminal at the Port of Coos Bay, Oregon; the Coyote Island Terminal site at the Port of Morrow, Oregon; at the Millennium Bulk Logistics site in Longview, Washington; two separate facilities at the Port of St. Helens, Oregon [Ambre Energy and Kinder Morgan]) there could be a projected total annual potential western coal export of hundreds of metric tons - and there are upwards of 70 mmt that may be exported from Canadian ports; relative to vessel traffic: all of the above export vessels will use Grays Harbor, the Salish Sea, the ocean coast, the Strait of Juan de Fuca and, in addition, further expansion of Kinder Morgan's pipeline and the subsequent increase in tanker traffic in and out of the Port of Vancouver must be considered.

Comment Number: 000000176-32
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
24. State contributions to infrastructure. In 2003 the State of Washington contributed $2 million to the Port of Grays Harbor Grain Terminal Loop Track. How will the citizen's dollars be protected when a spill or explosion happens involving crude oil?

Comment Number: 000000176-34
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(b) The review and design process does not account for sea level rise. Please discuss the calculations for projected rises scenarios.

Comment Number: 000000176-36
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(d) The proponent lists that controls for the loading, unloading and emergency monitoring have redundant processes, but they are all electronically controlled. As the 2007 storm proved the access to electricity can be interrupted for long periods of time. What emergency power will be associated with this installation?

Comment Number: 000000176-38
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(g) Considering alternatives is good planning, however there doesn't appear to be any consideration of alternatives.

Comment Number: 000000176-45
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
(n) How will the EIS adequately address facility operations, including storage, existing piers and transfer methods?

Comment Number: 000000176-61
Organization: FOGH (Friends of Grays Harbor)
Commenter: Arthur Grunbaum
Commenter Type: Organization

Comment Excerpt Text:
Finally, These Global Issues Must Be Addressed
• Increased presence of mercury in environment due to increased use of crude.
• Increased ocean acidification from burning more carbon.
• Climate change: Impacts such as sea level rise and greater erosion from more intense storms on the planet, and especially implications for dredge filled areas.
• Option of not building the terminals.

• Discussion of leaving the crude in the earth and of domestic fuel security issues

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Comment Number: 000000178-1
Organization: League of Women Voters of Grays Harbor
Commenter: Shannon Vandenbush
Commenter Type: Organization

Comment Excerpt Text:
In response to the revised proposals themselves, our group sees the shifting promise of 40- 100 jobs to our community as an unequal exchange for the risk to the safety of our citizens, and the pristine quality of our environment.

Comment Number: 000000178-2
Organization: League of Women Voters of Grays Harbor
Commenter: Shannon Vandenbush
Commenter Type: Organization
Other Sections: 5.1
Comment Excerpt Text:
If implemented, whether in part or their entirety, these projects would present a continual and unrelenting menace to the infrastructure of our existing fishing, shellfish and tourism derived economies. Our membership is requesting a broad based, explorative NEPA/ SEPA EIS review that will consider what impacts these projects will have on the diverse span of environmental, social, and transportation aspects that will affect the everyday life of the inhabitants of Grays Harbor.

Comment Number: 000000178-4
Organization: League of Women Voters of Grays Harbor
Commenter: Shannon Vandenbush
Commenter Type: Organization

Comment Excerpt Text:
The best interests of the vast and overwhelming majority of people living in Grays Harbor County are not reflected in these proposals. These proposals are rooted inside the rapid and unprecedented expansion of oil, gas and coal related projects that have moved through our country over the last thirteen years. This increase has not been accompanied by an attendant escalation in forethought about what long term consequences may be imposed upon the environment and the lives of citizens who must live with the impending danger of under-regulated projects. These projects should not be allowed to proceed in any form without a complete NEPA/SEPA EIS review.

Comment Number: 000000182-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
If the Port of Grays Harbor is given the go ahead to host the currently proposed crude oil related projects, and, soon after, the US agrees to export oil to world markets- thereby centering the regulations under EU and international law, will that give us less regulatory power over these projects? If so, what plan is in place for proponants to respond to the spills? Will lifting the Jones Act ultimately result in Grays Harbor Residents paying a higher cost for oil?

Comment Number: 000000183-6
Organization:
Commenter: Mary Holder
Commenter Type: Public

Comment Excerpt Text:
The EIS should also consider what short-term and long-term economic impacts that a rail accident and oil spill would have on Grays Harbor and the state. In particular, the EIS must study the impacts of the accidents associated with these projects on the Cities of Hoquiam and Aberdeens's revitalization and historic preservation efforts, the Aberdeen retail center, the Grays Harbor Shorebird Festival, and the reputation the greater Grays Harbor area is trying to maintain as gateway to the Olympics. What would the likely impacts be on the tourist industry? Tourists such as ourselves are very unlikely to visit an area that has become an oil port, especially one where dangerous Bakken crude oil is being stored and transported by rail and vessel. The EIS must also analyze the impacts on the area's shellfish and fishing industries. Who would pay for the consequences of rail accidents and oil spills? In the case of Lac-Mégantic, following the catastrophic accident, the rail company promptly declared bankruptcy and the cleanup costs are in the hundreds of millions of dollars. Beaudin, M. January 6, 2014. Montrealgazette.com. Huge scope of Lac-Mégantic cleanup comes into focus. http://www.montrealgazette.com/news/Huge+scope+M%C3%A9gantic+cleanup+comes+into+focus/9348298/story.html. Accessed May 19, 2014. The EIS must detail the likely costs of cleanup and who would pay. There can be no mitigation for severe economic impacts that would result from a catastrophic accident as occurred at Lac-Mégantic.

Comment Number: 000000184-1
Organization:
Commenter: Verne House
Commenter Type: Public

Comment Excerpt Text:
This issue troubles me. The US happily imported petroleum leaving exporting countries to manage whatever mess was caused in producing and exporting to us. Now, the US is in a position to export. Fairness might suggest supporting exports, but global warming has changed the outlook altogether. What could change my mind on this? If profits were committed -- firmly committed -- to developing independence from petroleum in this country -- by means of solar, wind, algae (but not nuclear because we do not manage its wastes) -- I would look favorably on exporting petroleum. What about tar sands? I oppose helping Canada move its extra dirty product into export markets; Canada missed a huge opportunity to develop its own economy by building equipment in country to refine its tar sand oil into products that would encounter less resistance in exporting. Cost minimizing for the corporations but Stupid government. Improve ports' facilitation of exports? No. Given current policies and dim prospects for alternative energies, I oppose petroleum exports and expansion of port facilities.

Comment Number: 000000185-2
Organization:
Commenter: Shelli Hopsecger
Commenter Type: Public

Comment Excerpt Text:
My greatest concern regarding the study is that the economic impacts will not be fully analyzed as a it relates to a community suffering from chronic unemployment, an increasing percentage of our citizens on government assistance and the continuing descent of our economy. How many jobs will be created, how

does the pay compare to the current Grays Harbor average? What is the total investment and will this be part of the property tax base, how much to schools, cities, port, libraries, etc? What is the additional investment in infrastructure that will occur as a result of these specific projects, especially as it relates to Puget Sound and Pacific Railroad's ability to invest in and beef up the rail line serving Grays Harbor? Tug service investments, etc? What is the impact of no action? Grays Harbor's assessed valuations have consistently declined with the only major private investments occurring at the Port. Do Westway Terminals and Imperium Grays Harbor's future operations in Grays Harbor and Washington State rely upon their abilities to expand, diversify and strengthen their operations? Do you risk what they do today by limiting what they can become? Washington is already in the business of handling Crude by Rail with operations in place in Tacoma and Anacortes. To say no in Grays Harbor without a substantial reason would be unjustified. Energy independence will take investment. The United States will need to learn what it takes to handle our own energy resources safely. We will have to learn fast and implement changes~ much like USDOT is already doing with the rail cars. Washington Department of Ecology has a great record for spill prevention and response. This is an emerging opportunity that will be powering our Country for 30 or more years. Fearing increased vessel shipments, rail car movements and commerce is hypocritical ~ the oil is moving now, it is just moving on different modes and it is coming from countries that have taken all of the initial risks and reaped all of the financial rewards. I think the US can do it better, with strong environmental and safety standards that keep our communities safe, while still reaping the economic benefits of the activity. It our responsibility as citizens to ensure that we do not limit both our economic and environmental futures by ducking and running. The numbers are there to demonstrate the benefits. The policies and regulations are available to make it safe. Let's make sure the information in this study is factual and complete so it can be utilized to make educated decisions.

Comment Number: 000000186-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public

Comment Excerpt Text:
Will there be additional wear and tear on our roads caused by heavy equipment, in order for these projects to come to full fruition? Will there be an escalation in death from accident caused by road damage due to use of the roads by the project proponents use heavy equipment used during construction on already damaged roads? Will the proponents plan to reimburse each of the cities that they travel through for the damage to the roads that will be caused by heavy equipment?

Comment Number: 000000189-1
Organization:
Commenter: Shannon Vandenbush
Commenter Type: Public

Comment Excerpt Text:
In the wake of the December 2007 storm, FEMA officials hypothesized that the wind, which topped over 100 mph, may have been an instance of hyperwinds referenced in Al Gore’s book “Inconvenient Truth”. If a spill happens in a similar storm, what efforts are in place to mitigate the rapid spread of oil on water in the event of hurricane force wind that has no spin?

Comment Number: 000000195-1
Organization:
Commenter: Robin Moore
Commenter Type: Public

Comment Excerpt Text:
New Jersey is already at work preparing for sea level rise. This state and county seem to be planning a future that doesn't have this problem. Do either of these projects have any way to deal with sea level rise or other effects of climate change?

Comment Number: 000000197-1
Organization:
Commenter: Janice Gegg
Commenter Type: Public

Comment Excerpt Text:
I support oil by rail through Grays Harbor. Lets fix the rails, roads, bridges and bring jobs and industry back to the Harbor.

Comment Number: 000000198-3
Organization: NORTH BEACH ASSOC.
Commenter: LEE RIENER
Commenter Type: Organization

Comment Excerpt Text:
There are several reasons: Hundreds of tourism jobs are associated with the beauty and purity of Grays Harbor. Many of my friends and neighbors work in this tourism industry. We cannot allow this facility, which may leak petroleum, to destroy our jobs.

Comment Number: 000000200-2
Organization:
Commenter: Roger Imes
Commenter Type: Public

Comment Excerpt Text:
Why are we risking our pristine rivers, and the life and health of our communities, simply to transport and ship dirty, and cheap energy to other countries? Is it for them to produce cheap goods to stock the shelves of Wall-mart stores, which will sooner, rather than later, end up in our landfills? It that the reason we are risking the life of our communities, and yes, of the only planet we have to live on? Where is the reason, where is the sanity in such choices? This is a regional issue with worldwide impact, and it must stop here. To allow the greed of a few, to dictate what quality of life most of us will live, is wrong, and it must be stopped now. Although I live in Spokane, I must protest this proposal in the name of all humanity for what we do here no longer threatens only the quality of our lives, but of all life on this precious little earth. There are alternatives, and the answers exist, the Status Quo is no longer a viable option.

Comment Number: 000000209-1
Organization: none
Commenter: Lyle Olmsted
Commenter Type: Public

Comment Excerpt Text:
I vote NO! Question: Why are our gas pump prices so high if we have enough oil to be exporting it? Doesn't make any sense to me. Of course, the higher amount we spend on fuel, the more tax money the Government(s) make!

Comment Number: 000000210-1
Organization: Mr.
Commenter: Michael Beasley
Commenter Type: Public

Comment Excerpt Text:
These proposals are too problematic to be allowed to move forward without a proper hearing in Spokane to allow citizens to have direct input. We here in Spokane are at the choke point on the route to Grays Harbor and deserve to be allowed to ask the questions and give testimony to the issue here in Spokane. We will not be left out of the process!

Comment Number: 000000213-1
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization

Comment Excerpt Text:
We urge you to take a broad and comprehensive scope in your analysis. It's our understanding that these two proposals are among several to expand or construct facilities to store and transport Bakken crude oil in the Northwest. These proposals should not be viewed in a vacuum, but considered in light of other oil storage and transport facilities that are proposed or in the permitting phase.

Comment Number: 000000213-6
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization

Comment Excerpt Text:
In addition, the increased rail traffic will likely create conflicts with the many at-grade crossings throughout Washington and Idaho. The costs for local communities to upgrade these crossings to make them safe should also be included in the analysis.

Comment Number: 000000213-8
Organization: Idaho Conservation League
Commenter: Susan Drumheller
Commenter Type: Organization

Comment Excerpt Text:
While the state of Washington may not be able to address and mitigate all the concerns in Idaho, we believe a thorough study of the impacts of the transport of oil will help you to make a more informed decision regarding the true impacts of these proposals and will provide Idaho, too, with much-needed information.

Comment Number: 000000218-1
Organization:
Commenter: Benjamin Lucal
Commenter Type: Public

Comment Excerpt Text:
Since some or all of the oil proposed to travel through the area will be extracted by fracking in the Bakken, please study the effects of fracking and any other relevant extraction methods at their respective

sites of extraction, surrounding communities, water tables, local ecosystems etc; proposals like this directly enable extraction. (Note that on April 22nd, 2014, a U.S. court ruled that Oil Fracking had harmed a family of 3's bodies by poisoning the water they drank, and the air they breathed, and that the nearby oil fracking would continue to cause more harm to their bodies in the future. http://www.dmlawfirm.com/3-million-verdict-fracking-case)

Comment Number: 000000221-4
Organization:
Commenter: Steve Iverson
Commenter Type: Public

Comment Excerpt Text:
• A number of Northwest oil refineries already accept crude oil shipments making the proposed terminals both redundant and unnecessary. For this reason, it is thought terminals are actually being built to supply lucrative markets in China and Asia. As a pass-through community, crude oil shipments will diminish our property values, hurt our children, families, seniors, farms and businesses! In short, Centralia and Lewis County would see all of the negative consequences and expenses, but none of the benefits.

Comment Number: 000000222-1
Organization:
Commenter: James Heins
Commenter Type: Public
Other Sections: 7 5.1
Comment Excerpt Text:
Jobs in the proposed area are very much needed. Along with those much needed jobs is the very much needed protection of the local environment, all of it. Fish in the area are very dependent on us humans doing the right thing. Please take all steps possible to protect the area. If this project is allowed, at least make the penalties of failure so so strong and deep that they wont allow it to fail.

Comment Number: 000000227-1
Organization:
Commenter: Julie Rabey
Commenter Type: Public
Other Sections: 5.1 12
Comment Excerpt Text:
Fish, shellfish, and aquatic plants are not only central to the lives and culture of the Quinault People, but also to all of our citizens who see the value of a strong sport fishery and clean environment in our county. Industry is not the only thing that adds value to our lives.The environment and clean air and water as well as safety of our citizens, contribute to quality of life. These things weighed against a few added jobs, win out in my mind. In fact, the economic impact of losing our clean waters and what is left of the fisheries, would impact the economy far more than adding oil to the mix. Therefore, the EIS needs to address the economics of the loss of our estuary. The EIS must address the impact to the Quinault Nation as well as sport fisheries.

Comment Number: 000000228-1
Organization:
Commenter: Ken Bedell
Commenter Type: Public

Comment Excerpt Text:
Anytime mankind is involved in the production and transportation of crude oil there will be unintended

consequences. I am talking about spills and harm to the environment. For the current time and for the foreseeable future mankind will be involved with the transportation of crude oil and its refined products. So, as I see it, the issue is how best to reduce the risks of handling these hydrocarbons. The answer to this is statistically an easy one. You build pipelines to transport crude oil and its refined products. This is what has been done for years and is what should be done with the crude coming from the oil fields in Montana and North Dakota.

Comment Number: 000000229-4
Organization: USDA Forest Service - CRGNSA
Commenter: Robin Shoal
Commenter Type: Agency

Comment Excerpt Text:
We also request that the Westway and Imperium Renewables projects be considered within the context of the overall expansion of crude oil transport and handling in the Pacific Northwest.

Comment Number: 000000230-4
Organization: City of Hoquiam
Commenter: Brian Shay
Commenter Type: Agency
Other Sections: 13.3 7 7.3 7.4
Comment Excerpt Text:
RESOLUTION NO. 2014 –
A RESOLUTION of the City Council of the City of Hoquiam, Washington, related to petroleum transport by rail and vessel through the City of Hoquiam, Grays Harbor County, and the State of Washington, urging regulatory agencies to study public safety, environmental, and economic impacts of petroleum transport by rail and vessel.

WHEREAS, the City of Hoquiam is committed to the protection of its citizens and protection of the environment, and is concerned about the potential economic impacts of petroleum transport by rail and vessel; and

WHEREAS, recent train derailments in Grays Harbor County, as well as other regions, together with spills, fires and explosions involving trains transporting petroleum illustrate the potential catastrophic impacts which could occur to our community and environment from the improper transport of petroleum by rail;

Comment Number: 000000236-3
Organization: Involved Democracy
Commenter: Brian Gunn
Commenter Type: Public
Other Sections: 6
Comment Excerpt Text:
All of this means that we must stop burning fossil fuels and transition now to cleaner, renewable energy sources such as wind, solar and geothermal. Moving away from reliance on fossil fuels is the best thing we can do for our economy and our planet. We should not listen to the old, tired argument that we cannot afford to impose more regulation on energy producers and other fossil fuel industries. The fact is that we cannot afford NOT to regulate in a way that will reduce pollution and encourage the development of clean, renewable energy sources. Other countries are already beginning to take the lead in developing wind turbines, solar panels, and electric vehicles. American workers are being denied the opportunities of

this new green economy by our stubborn, and ultimately suicidal, continuance of policies that make fossil fuels economical.

Comment Number: 000000238-2
Organization: Citizen of Aberdeen
Commenter: Jamie Judkins
Commenter Type: Public

Comment Excerpt Text:
Second, the policies and procedures need to be injected with steroids, revamped including compliance oversight! I work in grants and know full well that Federal Policy often has gaps in it that could be addressed much better. Communication, from what I understand, is a huge issue between the rail roads and the state and local level of administration. We don't know what's being shipped most of the time and when. The rail road could be much more transparent.

Comment Number: 000000239-2
Organization:
Commenter: Janet Bess
Commenter Type: Public

Comment Excerpt Text:
The jobs in the area will not increase as the automated systems and specialized positions will not be maned by local people. We will not see any benefits of having the oil come through our lives we will only be taking the risk. It is NOT worth exporting oil through town and county. this is not for the greater good.

Comment Number: 000000246-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
Will the Department of Ecology prevent the inevitable destruction of the Harbor’s ecosystem that would result from an oil spill by denying the permit applications?

Comment Number: 000000247-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 8
Comment Excerpt Text:
Should the Westway and Imperium crude by rail terminals be constructed and operated at the rates stated in their checklists, there will be massive changes in the livability of the area. People will view the area as an oil shipping port, rather than a lumber town which has other industries, such as boat-building, fishing, crabbing, shellfish growing, and the shipping of more benign items from the Port of Grays Harbor such as autos and soybean products.Based on the above description, many people move to the Grays Harbor area for the relaxed area, mild climate, and affordable housing. The housing industry (realtors, builders, etc.) have long prospered prior to the downturn of 2007-2008. Housing activity is picking up, but if there are crude oil terminals, there will be excessive noise, traffic congestion from rail traffic and odors from crude oil transfer and storage. All the above activities will detract from the area’s livability, depressing housing values, and forcing taxing agencies to raise real estate taxation rates to maintain some semblance of county and municipal services. This will cause a further downward spiral, further depressing housing

values and destroying the livability of cities and towns which are impacted by the rail and ship traffic. Those who are able will move to other areas, increasing the stock of available real estate, further depressing home prices. Prevention of further erosion of livability of the area should be avoided, and a moratorium on receipt and transfer of crude by rail should be enacted. Our county's position in the state's roll of high unemployment is already at or near the top, and crude by rail terminals will only solidify our grip on perennial malaise.

Comment Number: 000000248-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
Frequently those in neighboring areas have their regular TV network commercials replaced by images of trees, beaches, wind-surfing, and happy people. These replacement commercials are the product of Grays Harbor Tourism, which has had a long record of sponsoring local festivals, promoting tourist facilities, and emphasizing the natural beauty of Grays Harbor County. The promotion of consumptive activities (fishing, clamming, crabbing, etc.) and non-consumptive ones (travel, birding, photography, visiting parks, etc.) has brought millions of tourist dollars to this county, and the operation of crude by rail terminals will detract from these benefits that we can offer. In fact, apart from the unsightliness of the terminals, increased traffic congestion, 24 hour a day noise, and the pervasive odors, the terminals have the capability to destroy several of our activities. Not many tourists will come to view oil terminals, or marvel at the efficiency of the tank car unloading facilities. The probability of a spill of crude oil will approach 100%, especially when the terminal operators want more and more production from their workers, and the night shift workers are sleep-deprived.

Comment Number: 000000248-2
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 5.1 7.4 12
Comment Excerpt Text:
Any spill, but especially one of a car load or two, will at the minimum taint the fish, oysters, and crabs to the point where none of our native or commercial fishers will be able to sell their product. Remember what happened to the shrimp industry which was decimated by the recent Macondo Well blowout in the Gulf of Mexico. If there were a major spill, say of thousands of barrels of crude oil, all the marine resources would be destroyed for years, breaking the treaties with the Quinault and Chehalis tribal fishers, and ruining many of the businesses that the Port of Grays Harbor's prize Port of Westport depends on. This is just one more reason to not approve the permits for these two projects.

Comment Number: 000000250-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public

Comment Excerpt Text:
To date there has been no significant financial responsibility taken by shippers of Bakken crude oil in the event of accidents, spills, or explosions. In the Lac Megantic, Quebec accident, the short-line railroad declared bankruptcy within a few weeks of the occurrence, leaving the Provincial government to pay the clean-up and rebuilding charges. The Genesee and Wyoming RR states that they are a 5 billion dollar value corporation, and have the financial resources to deal with an accident. However, the acquisition of

the PSAP by RailAmerica was accompanied by the following statement contained in the Surface Transportation Board docket FD_34197_0: “On January 8, 2002, RailAmerica acquired control of ParkSierra Corporation (ParkSierra). See RailAmerica, Inc.--Control Exemption--ParkSierra Acquisition Corp. and ParkSierra Corp., STB Finance Docket No. 34100 (STB served Dec. 20, 2001). ParkSierra has three operating divisions: Arizona & California Railroad Company Limited Partnership; California Northern Railroad Company, L.P.; and Puget Sound & Pacific Railroad. RailAmerica has determined that the three operating divisions of ParkSierra should be operated as separate corporations, eliminating the need for ParkSierra as a consolidated holding company. To accomplish that goal, this transaction and three notices of exemption under 49 CFR 1150.31 were filed on April 23, 2002, one for each of the operating divisions. The applicants are ARZC, CFNR, and PSAP. The related proceedings are: STB Finance Docket No. 34198, ARZC Operating Company, Inc.--Acquisition and Operation Exemption--ParkSierra Corp., STB Finance Docket No. 34199, CFNR Operating Company, Inc.--Acquisition and Operation Exemption--ParkSierra Corp., and STB Finance Docket No. 34200, PSAP Operating Company, Inc.--Acquisition and Operation Exemption--ParkSierra Corp. Also, three separate requests for waiver of the 60-day labor notice requirements under 49 CFR 1150.32(e) were filed in those dockets on April 22, 2002.” Please note that the PSAP RR is a separate corporation and, as such is subject to separate dissolution from the parent Genesee and Wyoming corporation. Please require that there be adequate insurance coverage to cover the losses from an accident on the banks of the Chehalis River and its Grays Harbor estuary. Suggested insurance levels would be in the hundreds of millions of dollars, and should be studied in the EIS.

Comment Number: 000000255-1
Organization:
Commenter: Arnie Martin
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
The National Research Council estimates (2010) that by 2050 there will be approximately 12 to 18 inches of sea level rise, based on conservative CO2 emission estimates. If all three proposed Grays Harbor crude oil export facilities are built and operated at their stated throughput rates, the combustion of their crude oil would generate CO2 emissions of 33% of the current total emissions of Washington State. We should not be assisting the oil companies in their efforts to export crude oil, making sea level increase worse than the current conditions imply. How are the proponents preparing to cope with sea level increases, considering that the site elevations of all of the projects are in the range of 12 to 15 feet currently? Will they be building sea walls around the port to protect their spill containment structures against higher tidal states?

Comment Number: 000000256-1
Organization:
Commenter: Robin Moore
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
Who owns the oil that will be brought to these facilities? It is not Imperium or Westway. It is not the rail line. It will not be the ships that carry the oil out of the port. Does the Department of Ecology, the Port of Grays Harbor, and/or the City of Hoquiam know the identity of the oil companies? Will the companies be able to be held to ultimate responsibility in event of an accident? This issue can be mitigated right now. Name the companies of ownership.

Comment Number: 000000268-1
Organization:
Commenter: Charles Metzenberg

Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
Having oil from the mid-east has been costly in lives and dollars. Now that we can free ourselves from foreign oil, why do we need to export before we use these resources to rebuild the long overdue infrastructure and put more citizens to work and rebuild the middle class. Corporate greed has been well documented they gain and too many times the citizens are left with the degraded environment and clean up costs. Oil spills happen and cleanups are not that effective, oil fouled beaches in Alaska after 25 years and tons of crude oil sunk in the gulf of Mexico. The rewards go to a few and the risks go to many. My alternative to scope, is to use North American crude oil at home to reduce imported crude oil and oil products.

Comment Number: 000000270-2
Organization:
Commenter: Ilene Silver
Commenter Type: Public
Other Sections: 13.2 13.1 14
Comment Excerpt Text:
Additionally, the two current proposals would add 23 trains a week with each being up to 1.3 miles long. The slower speeds required by these trains would create massive traffic congestion, and impede emergency vehicles, extend commute times and decrease access to local businesses which hurts Washington's economy.

Comment Number: 000000270-5
Organization:
Commenter: Ilene Silver
Commenter Type: Public

Comment Excerpt Text:
This proposal should be reviewed on a level that matches its far-reaching effects, from direct, community problems to its global reach.

Comment Number: 000000271-1
Organization: Mr.
Commenter: Michael Gary
Commenter Type: Public

Comment Excerpt Text:
The quality of our live here on this planet continues to degrade with more oil being burned and used. America and the rest of the world have the ability to transition away from fossil fuels and these permits should be denied.

Comment Number: 000000272-1
Organization: Kelso resident
Commenter: Roy Staples
Commenter Type: Public
Other Sections: 2.1
Comment Excerpt Text:
No Expansion should be permitted for the Port of Grays Harbor Terminal 1, because 1) it will increase the use of fossil fuels, and 2) the exploration of them based upon market conditions now, not in the future. First, with the devastating weather events we have witnessed in recent years, it is imperative for us to take

seriously the phenomenon of global warming (also known as climate change). Ample scientific evidence shows that the effects on our atmosphere by burning fossil fuels. It is time now to convert our energy infrastructure to renewal energy sources and to explore ways to limit the use of fossil fuels. Creating new ways to export oil, natural gas, and coal all contribute to fossil fuel use. IT IS TIME TO REDUCE AND STOP USING FOSSIL FUELS!

Comment Number: 000000272-2
Organization: Kelso resident
Commenter: Roy Staples
Commenter Type: Public

Comment Excerpt Text:
Second, the demand that fluctuates even now for these fuels, including oil, cannot be guaranteed to exist at the levels that would predict a market for oil exports from this country. In other words, creating a facility now for oil export may be a total waste of money. IF THERE IS NO MARKET, OR A DECLINING MARKET WHICH MAKES OIL TOO CHEAP TO SELL, THEN THE AREA WILL HAVE WASTED MONEY! Please protect the livelihood of all who live here. Do not expand export of fossil fuels from anywhere on the west coast!

Comment Number: 000000273-1
Organization:
Commenter: Ron Figlar-Barnes
Commenter Type: Public

Comment Excerpt Text:
The cumulative effects on the environment must be inclusive. If three oil terminal where placed in Grays Harbor what would be the affects to cities all along the route from North Dakota to Grays Harbor? What would be the impacts to Washington's economy? Specifically, the Environmental Impact Statements (EIS) for Westway and Imperium needs to be a comprehensive environmental and economic analysis reaching past the specific building of the facilities to the consequences for our coastal communities, Grays Harbor itself and the impact to the citizens and economy associated with the entire process including the implications of fracking.

Comment Number: 000000276-3
Organization:
Commenter: Diana Gordon
Commenter Type: Public

Comment Excerpt Text:
Further, the fuels to be shipped through these terminals are obtained by fracking, an extremely controversial and dangerous process. It wastes and pollutes tremendous amounts of water and creates unstable ground susceptible to earthquakes.

Comment Number: 000000279-1
Organization:
Commenter: James Thomas
Commenter Type: Public
Other Sections: 7
Comment Excerpt Text:
Finally, the draft EIS reports should estimate the potential environmental and economic impacts from rail accidents in the Grays Harbor watershed.

Comment Number: 000000280-1
Organization:
Commenter: Karl Goeres
Commenter Type: Public

Comment Excerpt Text:
Allowing oil terminals in Grays Harbor is the worst idea I have heard of. The potential negative impact to sport and commercial fishing industries far out weighs any monetary gain from the oil terminals. The sport fishery in and near Grays Harbor generates hundreds of jobs and millions of dollars which will be severely impacted by oil spills and tanker traffic.

Comment Number: 000000280-3
Organization:
Commenter: Karl Goeres
Commenter Type: Public
Other Sections: 13.1 14 13.3
Comment Excerpt Text:
The railroad has many surface crossings which are continually blocking access to vehicles and many of those crossing must be used for emergency and commercial access. More frequent trains will simply make the situation worse which will have a negative impact on the local economy and safety of the people who live here. Just the inconvenience of additional trains is not worth the minimal economic benefit of oil terminals.

Comment Number: 000000283-7
Organization:
Commenter: James George
Commenter Type: Public

Comment Excerpt Text:
7. Too many people are being put at too high of a risk without benefits other than to the stockholders of the oil and rain companies.

Comment Number: 000000284-5
Organization:
Commenter: Marisa Salzer
Commenter Type: Public

Comment Excerpt Text:
The Harbor's economy is struggling - The Port has done many smart things in the past few years. Bringing crude by rail to the Harbor is taking advantage of a struggling economy with the promise of a few jobs, without consideration for the damage and complete devastation it would bring the Harbor should a spill occur, one in which the Harbor may never recover from.

Comment Number: 000000285-1
Organization:
Commenter: Beth Kaeding
Commenter Type: Public

Comment Excerpt Text:
I have been presenting programs around the state of Montana for the past two years about the impacts to

our communities from the increase in coal export train traffic because of the terminal proposals at Cherry Point and Longview in Washington and Port of Morrow in Oregon. The impacts to Montanans from the oil terminal proposals will be the same – however, together these proposals for oil and coal shipments will even more greatly impact citizens, communities, and the entire rail transportation system of the region.

Comment Number: 000000285-5
Organization:
Commenter: Beth Kaeding
Commenter Type: Public
Other Sections: 13.3 7
Comment Excerpt Text:
Increased train traffic would mean a higher potential for derailments, which are especially dangerous and life-threatening when trains are carrying crude oil. Derailments may not be common, but they do happen, and with the increase in the number of trains, the potential for derailments will also increase. The risks to communities, citizens, and the environment of rail transport of crude oil as well as the related connected and cumulative consequences of the costs of preparedness, response, and clean-up of oil spills.

Comment Number: 000000285-6
Organization:
Commenter: Beth Kaeding
Commenter Type: Public

Comment Excerpt Text:
Increased train traffic would cost taxpayers money. We all understand that if a rail company needs to upgrade its track or a crossing in order to facilitate current or increased train traffic, they will do so and they will pay for it, however, if a city or county wants to have a particular crossing in their community upgraded to deal with local impacts and the rail company doesn't want to do this, under existing law the railroads do not have to respond to the local government concerns. Nor do railroads have to pay for "Quiet Zones." The only choice citizens have if they decide their community needs a Quiet Zone or any other infrastructure upgrades is to pay for these things themselves with public money – taxes.

Comment Number: 000000300-2
Organization:
Commenter: Diana Gordon
Commenter Type: Public

Comment Excerpt Text:
In addition to the oil terminal proposals, two coal terminals have also been proposed for Longview and Bellingham. Coal dust on the tracks is a considerable hazard as train after train carrying dangerous cargo passes over it. The increased rail traffic alone will have an effect due to traffic problems, noise, diesel pollution and so on. However, the increased safety risks due to these trains dwarfs other concerns. Please include in your EIS the cumulative effects of the hazards of all these trains on our region.

Comment Number: 000000305-1
Organization:
Commenter: Judy Sherdahl
Commenter Type: Public
Other Sections: 13.1 14 7.2
Comment Excerpt Text:
1. Community Impacts: The effects of more trains causing traffic backups that will limit accessibility

between homes, businesses, emergency resources, including police and fire fighters.Decrease in land and property values due to increased rail disruption, noise and vibrations. Increase in Home Owners Insurance for areas affected by the rail.

Comment Number: 000000308-2
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency

Comment Excerpt Text:
The City requests that the analysis include the entire range of probable significant adverse environmental impacts associated, not only with the proposed projects, but also with the transportation of the commodities to the project sites by rail. The EIS must consider alternatives to the project including a no action alternative. [Footnote 1: WAC 197-11-440(5)]

Cumulative Impacts: The EIS should also include an analysis of the cumulative impacts associated with other projects under consideration in the region that may have impacts that are similar to the proposed project. The analysis should consider the impacts of the proposed Tesoro Savage oil terminal in Vancouver, Washington.

Comment Number: 000000308-7
Organization: City of Vancouver
Commenter: Eric Holmes
Commenter Type: Agency

Comment Excerpt Text:
Housing
This element addresses impacts to housing. There are areas within the city zoned for residential development that are located along the BNSF railroad tracks. The additional train traffic will reduce access to these areas. The following impacts should be analyzed:

Impacts of noise on existing and planned residential development along the railroad corridor

Impacts to access to existing and proposed residential development as a result of additional rail traffic.

Comment Number: 000000312-1
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public

Comment Excerpt Text:
The EIS should identify how many jobs are dependent on a healthy Grays Harbor: the shellfish businesses, the crabbers, the fisheries, not only in the estuary, but in all the coastal waters affected by anticipated oil transport vessels. The review should also quantify the employment derived from recreation in clean waters: beach combing, clamming, surfing, fishing, whale and bird watching, whatever brings tourists to the coast. We should know the total number of jobs, the cumulative income we have now, and the tax revenue derived from that commerce. The review should quantify indirect revenue streams as well: rentals, hotels, gas, restaurants. The impact of oil transport threats on existing commerce should be

identified. The EIS should identify the jobs, income, and tax revenue placed in jeopardy along the entire in-state rail route, especially along the spur line following the Chehalis River.

Comment Number: 000000312-2
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
The EIS should identify the magnitude of the inevitable routine pollution that will happen with the proposed oil transport program, as well as the revenue loss that will follow due to the pollution. Who will pay for monitoring and clean-up? The EIS should identify the costs and loss of income that will occur when a catastrophic spill happens. The EIS should identify who pays for spill response and cleanup.

Comment Number: 000000312-3
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public

Comment Excerpt Text:
The EIS should incorporate the cumulative impact of all three oil port proposals. Even though US Development is not a part of this review, all three projects could be approved, and the total impact is germane to a realistic review.

Comment Number: 000000312-5
Organization:
Commenter: Bruce Hoeft
Commenter Type: Public

Comment Excerpt Text:
The data incorporated into the EIS should be derived from independent sources, and not from those who benefit financially if the project is approved.

Comment Number: 000000313-1
Organization:
Commenter: Robert Whitlock
Commenter Type: Public
Other Sections: 13.3 13.5
Comment Excerpt Text:
I would like to see an eis that includes all impacts, from local to global. From risk related to rail and marine shipping. To overall economic and ecological impacts. In specific, human societies currently exist beyond the sustainable carrying capacity of the planet. The oil terminals will be slated to handle fuels from extreme extraction projects, like Bakken formation fracking, and Canadian oil sands. How do these extreme extraction projects stand to affect the current overall unsustainable economic relationship between human societies and the planet? Is it possible that they will push activities even further beyond the point of sustainability? Do we owe it to future generations to bring overall activities back into sustainability (much less harmony) with the natural world? Or do we send a curse along to grandchildren and future generations. What do you think?

Comment Number: 000000318-2
Organization: Councilmember City of Aberdeen

Commenter: Alan Richrod
Commenter Type: Agency

Comment Excerpt Text:
Following reprinted by permission: One of the major arguments in favor of such construction is that of the jobs such a facility will bring to the area. Crude oil storage does indeed bring a certain number of employment positions. But my question is how many jobs will there be. In reviewing such facilities across the country, the number of jobs promised has always been grossly overinflated. Factoring in such things as the size and number of facilities to be built here, there cannot logically be more than 10 to 12, or perhaps 15 positions at the automated facilities. Say, for the sake of argument, that there are 50. An important question to ask is: are those jobs, or any others, worth the cost of 10 to 20 times that number should an accident arise and petroleum is spilled into the harbor - a scenario which seems increasingly likely. As to the vast amount of money that is said to be coming into this area from such an operation, we could just as well offer to store nuclear waste. We would likely be able to garner not only vast sums more money but the eternal gratitude of a grateful nation for taking what no one else will. But would not that money simply go to the port of Grays Harbor anyway? Would we the city of Aberdeen and its good citizens see any of it?

Comment Number: 000000318-3
Organization: Councilmember City of Aberdeen
Commenter: Alan Richrod
Commenter Type: Agency

Comment Excerpt Text:
Another point that I hear often is that at meetings of people opposed to oil storage on the harbor and mile and a half long oil trains, one always sees the same people attend time after time. Really? Perhaps. However setting aside the fact that that is not literally true, if one turns the tables and were to attend meetings of supporters of the project, would one not see all the same people at those meetings albeit probably a different group? I have attended several of the meetings against oil storage and while most of the attendees are those that show up at all of the meetings, there is a constant stream of new faces. The argument that since I drive a car that has an engine powered by gasoline, therefore I cannot be against the storage of crude oil is a hollow and pointless one. It is true I drive a vehicle that runs on petroleum fuel but had I the money to do so, I would change that situation in an instant. As my financial situation improves I shall do just that. I drive a gas powered, car because I have no choice.

Comment Number: 000000318-4
Organization: Councilmember City of Aberdeen
Commenter: Alan Richrod
Commenter Type: Agency

Comment Excerpt Text:
Lastly, petroleum is a dead technology and one with no future. It is only one of millions of commodities which can be transported to and from Grays Harbor. Support of a petroleum storage and shipping facility, or as I am led to understand multiple facilities, is not in the interests of the Grays Harbor area. The benefits are insignificant when weighed against the probable cost – a cost which will be paid by the entire area. I further remind you of the FRA's own statement that transporting crude oil by rail cannot be made safe. That sentiment was echoed by the Canadian Government. Imperium was billed and built as a biofuel production facility. That is all well and good but the vast majority of people in this area feel betrayed and are against this proposal. We all urge rejection of the permit to allow storage of crude oil.

Comment Number: 000000321-5
Organization:
Commenter: Carrie Larson
Commenter Type: Public
Other Sections: 7.1
Comment Excerpt Text:
In the event of a spill, who will be responsible for cleanup, how will it be paid for, and how will it impact fish and shellfish industries and tourism, and the families that rely on those jobs to make their livelihoods? How will it affect the health of all county residents?

Comment Number: 000000323-4
Organization:
Commenter: Karuna Johnson
Commenter Type: Public

Comment Excerpt Text:
What mitigation projects do Westway and Imperium plan to benefit the community, such as parks, trails, recreation opportunities along the waterfront?

Comment Number: 000000323-5
Organization:
Commenter: Karuna Johnson
Commenter Type: Public

Comment Excerpt Text:
Where will workers go to be helped with health problems due to occupational hazard? "Environmental justice research demonstrates that people of color and low-income persons are disproportionately exposed to environmental hazards, such as pollution and chemicals, in their communities, schools, and at work." US Dept Health and Human Services, 2010, Bullard 2007) Isn't it true that Westway and Imperium assume that the low socioeconomic status of Grays Harbor implies that the people who live here are collateral damage to their profit motive?

Comment Number: 000000326-1
Organization:
Commenter: Barbara Scavezze
Commenter Type: Public
Other Sections: 13.1 13.3 7.3 14 7.4
Comment Excerpt Text:
Please consider the following: 1)climate change impacts caused by drilling, shipping and burning petroleum products and biofuels 2) the ability of train tracks to safely transport increased train traffic carrying very heavy loads 3) the impact on traffic congestion at railroad crossings in affected communities 4) the potential for deadly explosions, and the ability of emergency management personnel to handle them 5) the impact on Puget Sound and other waterways if any of the shipping containers or storage facilities leak.

Comment Number: 000000329-1
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 8 13.1

Comment Excerpt Text:
Land use and public infrastructure requirements and alterations including new roads or bridges/overpasses necessary to decrease disruption of current traffic flow. Decrease of land values due to increased rail disruption, traffic congestion, noise, potential for spills/explosions. These should be considered both separately and cumulatively in conjunction with the increased flood insurance costs imposed on most areas near the rail lines within the Aberdeen and Hoquiam areas.

Comment Number: 000000331-2
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 7.4
Comment Excerpt Text:
Socioeconomic issues related to human health affects, reduced employee productivity, increased health care costs, increased stress due to traffic congestion/noise/pollution Fisheries, especially for Salmon, Shellfish, Crab; Agriculture/Aquaculture: impacts due to spills, both near shore and in the ocean;transportation issues related to increased traffic congestion; air quality Tourism: impacts due to increased traffic congestion, spill/explosions/air quality concerns, noise, visual impact, perception of community Potential for change in values of property affected by increased rail, road or vessel traffic, or by other Port Facility- related alterations of the environment such as air, light and noise pollution; and fears of derailments, explositions and spills.

Comment Number: 000000331-5
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 11 13.1
Comment Excerpt Text:
Recreational parks and facilities: accessibility for people attending events at these destinations, noise disruption during the event due to increase train traffic, community loss of these public venues for events, due to access, noise, safety and the impacts upon a sense of place and community heritage; increased safety concerns because of train traffic, train derailment (actual and perceived)l and access of first responders to any emergencies at the events. We have had emergencies at past events and this is a significant concern to mitigate Business entities rely upon the easy and safe access to their places: impacts to businesses of increased traffic congestion, derailments, explosions, train stoppages in traffic areas. Visual and aesthetic considerations State contributions to infrastructure. In 2003 the State of Washington contributed $2 million to the Port of Grays Harbor Grain Terminal Loop Track. How will the citizen’s dollars be protected when a spill or explosion happens involving crude oil?

Comment Number: 000000332-9
Organization: citizen
Commenter: Judy Carter
Commenter Type:

Comment Excerpt Text:
Salt water concerns: normal/permitted pollution from discharges including sewage/ballast/bilge/stormwater/petroleum products, solvents and other industrial substances including those unknown substances that are part of the crude oil fracking process; from accidents and from introduction of invasive species. How has the DS addressed these specific concerns?

Comment Number: 000000333-3
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public
Other Sections: 9
Comment Excerpt Text:
Visual and aesthetic considerations, as the area becomes an oil port. How will this affect housing, business and other real estate values? Tourism has become an increasingly important revenue generator and business generator in Grays Harbor. What will be the visual and aesthetic considerations regarding tourism in Grays Harbor?

Comment Number: 000000334-2
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Increased production also threatens public health as there is little to no regulation on toxic pollution coming out of wells and facilities where hydraulic fracturing is the primary mode of extraction.

Comment Number: 000000334-8
Organization: citizen
Commenter: Judy Carter
Commenter Type: Public

Comment Excerpt Text:
Option of not building the terminals. Discussion of leaving the crude in the earth and of domestic fuel security issues. What is the impact on every community, eco-system, waterways, and all lands between the point of extraction to the point of delivery for refinement?

Comment Number: 000000336-2
Organization:
Commenter: Lillian Broadbent
Commenter Type: Public

Comment Excerpt Text:
Tourism is our only industry. They come for the beach, the clean air, the abundant wildlife, local seafood and the beauty of the area, all of which can be wiped out in an instant as a result of this project. A seismic event, flood, significant storm, train derailment, or an act of treason would cost our city it's only source of employment. The effects of even a minor spill would linger for years to come. The port may benefit, Imperium certainly will benefit, but the people of Grays Harbor will live with risk. It will impact the attractiveness of this location for future growth.

Comment Number: 000000339-1
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
PROJECT ALTERNATIVES

Design Analysis
The project proposes to expand an existing facility and increase existing operations. The increased scale of the proposal warrants the same consideration as a new facility. The design analysis should address possible configurations which will be required to accommodate maximum projected volumes. Equipment design should include options available to reduce operational risks. Basic design parameters should include scenarios of high water and catastrophic events.

Overwater structure modifications should identify options that avoid and minimize impacts to the aquatic environment as well as minimizing risk of spill impacts. Increased operations should be examined with regard to dredging requirements, including the use of smaller, shallowerdraft vessels. Future structural requirements which might be required to achieve full capacity should be identified and impacts quantified.

Operational factors including vessel size, frequency and loading speeds should be considered within maximum design parameters and extreme conditions. Impacts of perceivable advances in technology should be integrated with vessel traffic predictions.

Vessel Operations
The EIS should analyze alternative berthing times and seasonal restrictions to ensure that cargo vessel and tug operations do not adversely affect the spawning and migration behavior of salmon, eulachon, sturgeon, migrating and resident shorebirds, marine mammals, and other species that utilize the proposed project area. The potential impacts by the proposed expansion projects' activities to spawning beach areas and Pacific herring spawning and holding areas in Grays Harbor need to be considered in the EIS.

Rail Corridor Expansion
The EIS should identify any necessary expansion of rail corridors or infrastructure that may be utilized by the proposed project and possible alternative rail routes or pipeline options. If any necessary expansions of rail corridors or infrastructure are identified, alternatives should be identified that avoid and minimize impacts to aquatic habitat and water quality. The railroad should coordinate with DNR prior to expanding any railroa~s crossings onto state-managed land (such as the Satsop and Wynoochee Rivers), to determine whether a use authorization may be required.

Comment Number: 000000339-13
Organization: Dept of Natural Resources
Commenter: Megan Duffy
Commenter Type: Agency

Comment Excerpt Text:
Invasive Species
The EISs should analyze the potential for the project to introduce invasive species to the ecosystem and how any potential, adverse impacts will be mitigated to prevent introduction. If an invasive species is found to occur on a vessel associated with the project, what actions will be implemented to prevent spread of the species into riverine and estuarine waters?

Comment Number: 000000341-2
Organization:
Commenter: Eric Sherdahl
Commenter Type: Public

Comment Excerpt Text:
The negative effects on all economies and loss of revenue and decreased property values need to be mitigated for all areas along the rail lines from point of extraction to Hoquiam.

Comment Number: 000000344-5
Organization:
Commenter: Janet Strong
Commenter Type: Public

Comment Excerpt Text:
7. Economic effects on Grays Harbor area if port turns into a tank farm with the increased noise, air pollution, traffic delays, fear of train explosions by nearby residents, reduction in property values, loss of tourism, loss of business resulting from the above, lowered tax base and resources for education;

Comment Number: 000000344-8
Organization:
Commenter: Janet Strong
Commenter Type: Public

Comment Excerpt Text:
10. Economic effects on an oil spill or chronic leaks on local fin fishing shellfish and nature-watching industries, including the effects on organisms serving as food sources for the fish, shellfish, birds and wildlife.

Comment Number: 000000348-1
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization

Comment Excerpt Text:
As advocates for smart economic development that benefits the local economy and protects our ecological assets, we insist that a comprehensive assessment of the environmental impacts posed by these projects be performed. Additionally, an assessment of the cumulative impacts of these proposals must be considered, including the foreseeable US Development project in Grays Harbor. If it is determined that there would be a reasonable risk to marine life, the local economy, or recreational activity, then these projects should not be approved.

Comment Number: 000000348-3
Organization: The Surfrider Foundation
Commenter: Casey Dennehy
Commenter Type: Organization

Comment Excerpt Text:
The Local Economy Grays Harbor and Pacific counties are marine dependent economies that would be severely impacted by small or large oil spills. 1. In the event of a large oil spill, what would happen to the fishing and aquaculture industries in Pacific and Grays Harbor counties? How many jobs would be lost? 2. Would demand for local seafood products be negatively impacted due to the proximity of large oil export facilities? 3. How would local property values respond to the approval of these projects, and how would that impact tax revenue for local governments? 4. How would recreation and tourism be impacted by an oil spill? 5. Who will compensate fishermen, oyster growers, and other local businesses if they are impacted by an oil spill? What level of compensation will be available?

Comment Number: 000000349-2
Organization: City of Westport
Commenter: Michael Bruce
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
2) The consideration of the risks of oil spills in our marine environment what the economic impacts of a spill, including to the shellfish, fishing, and tourism industries, would have on Westport, coastal communities, Grays Harbor County and our region.

Comment Number: 000000351-1
Organization:
Commenter: Marsha Lovely
Commenter Type: Public
Other Sections: 13.3 7.4
Comment Excerpt Text:
The scope of any EIS should be as thorough and as strict as possible. Any oil filled train coming to the port of Grays Harbor has to pass over,or by, numerous waterways with any potential accident and spill affecting fish, shellfish, birds, migratory pathways for birds and much other plant and animal life, as well as people. In lieu of the many recent derailments and other accidents involving train traffic lately in this area and others it would seem a no brainer to look very hard at potential environmental and economic impacts. It is obvious that the present state of the rails is not sturdy or strong enough to withstand the current increased number of trains, the cars they haul and their increased weight. Do not let money for a minority be the deciding factor in your decisions.

Comment Number: 000000352-6
Organization: citizen
Commenter: Albert Carter
Commenter Type: Public
Other Sections: 14 7.1
Comment Excerpt Text:
Study the impacts to current response plans? Who pays for updating of those plans? Study the cumulative impacts of all three projects being built out to completion. Study the impacts to the tourism and recreational industries. Study the impacts to the agricultural industries in Grays Harbor. In event of a spill who will compensate farmers for loss of production?

Comment Number: 000000353-3
Organization: Jefferson County
Commenter: Carolyn Avery
Commenter Type: Agency

Comment Excerpt Text:

The Board of Jefferson County Commissioners strongly recommends that:

1. EIS scoping be delayed until the 2014 Marine and Rail Oil Transportation Study is complete and its findings reviewed in the context of other proposed tank farms and coal terminals in Washington State
2. The EIS for the Westway and Imperium proposals consider the cumulative effects of oil transport through Grays Harbor, to include US Development's Grays Harbor Rail Terminal (and tanks) [Footnote 3: http://cityofhoquiam.com/rail-terminal], on vessel and train traffic and patterns, on levels of

environmental risk, on existing economic activities and on the quality of life for people living in the region.

Comment Number: 000000353-5
Organization: Jefferson County
Commenter: Carolyn Avery
Commenter Type: Agency

Comment Excerpt Text:
5. The EIS identify and quantify any new costs to the public of effective emergency response such as costs to station an ocean rescue tug in Grays Harbor and costs to upgrade emergency response capacity on land.

Comment Number: 000000354-7
Organization: City of Ridgefield
Commenter: Steve Stuart
Commenter Type: Agency
Other Sections: 13.2
Comment Excerpt Text:
Housing

The EIS should address impacts associated with additional train traffic to residential areas along the railroad tracks, including noise impacts, changes to property values, and changes to access affecting existing and proposed residential development.

Comment Number: 000000356-6
Organization: NOAA - Olympic Coast National Marine Sanctuary
Commenter: Carol Bernthal
Commenter Type: Agency

Comment Excerpt Text:
• The costs to the public of modifications to the regional response capacity should be identified clearly.

Comment Number: 000000357-1
Organization: Friends of the Earth
Commenter: Marcie Keever
Commenter Type: Organization

Comment Excerpt Text:
The Environmental Impact Statement for these projects should include an evaluation of: -Cumulative impacts. Cumulative impact of the proposed projects in Grays Harbor, and other similar oil and fossil fuel transport projects across the region. The evaluation should include the increased risks related to all these projects and the impacts they would have, cumulatively, on the region.

Comment Number: 000000357-2
Organization: Friends of the Earth
Commenter: Marcie Keever

Commenter Type: Organization
Other Sections: 7.4 7.1 7.3
Comment Excerpt Text:
-Risks of oil spills in our marine environment. Increased vessel traffic and associated increased amounts of oil traveling through waterways mean a higher risk of oil spills, especially given the lack of tug escorts available to tankers. The EIS should also consider what the economic impacts of a spill, including to the shellfish, fishing, and tourism industries, would have on Grays Harbor and the entire region. -Risks from crude oil. Putting in place this infrastructure would allow Bakken crude oil and oil from the Canadian tar sands to come to Grays Harbor. The EIS should include an evaluation of the risks, resources needed to prevent spills, and response required related to these different oils. Bakken shale crude oil has been shown to be more explosive, putting our communities and first responders at greater risks. Tar sands sink and make cleanup of any spills much more difficult and expensive.

Comment Number: 000000358-1
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
The project area of potential effect should be analyzed at three scales: . the project site, the project vicinity, and the broader project shipping prism. In addition, impacts to natural resources from the increase in rail transportation associated with the delivery of crude oil to the distribution terminal also must be addressed. These proposed projects will significantly increase the amount of oil transiting Grays Harbor and the surrounding areas by trains (1,188 new train movements per year), pipelines, and vessels/barges (428 new vessel/barge movements per year).
While WDFW recognizes that there are existing storage tanks, pipelines, and rail facilities bordering the Harbor now that pose potential threats to marine life, we are concerned about the greater risks associated with the dramatic expansion of this infrastructure, the increase in the amount of product being handled, and the additional rail activity that will occur in the area bordering the estuary and throughout the western Washington region.

Potential Impacts to the Marine Environment
WDFW has serious concerns about the potential impacts to marine life, which could occur during the transport of crude oil or other hazardous products via rail, shipping vessel, or pipeline, or at the bulk liquid storage facility adjacent to Grays Harbor.

Comment Number: 000000358-14
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 11
Comment Excerpt Text:
c. Impacts to recreational and commercial fisheries resulti ng from additional shipping traffic during peak salmon runs, the possibility of shipping conflicts with fishing gears, and the potential for displacement of fish away from normal fishing grounds due to increased shipping.

Comment Number: 000000358-15
Organization: Washington Dept of Fish and Wildlife

Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:

b. An economic analysis of the current status of and potential impacts to recreational and commercial fisheries resulting from the direct or indirect effects of one or both of these projects.

Comment Number: 000000358-18
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:
• Creation of new jobs must be balanced with placin g existing jobs and businesses at risk. A thorough analysis ofthe existing jobs and their reliance on a healthy and vibrant ecological environment must be completed to understand the risks and consequences of a spill.

Comment Number: 000000358-19
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:
• While outside the scope of these two particular proposals, we recommend against siting any bulk fluid storage and transloading/shipping operation at Terminal3. A decision to site crude-by-rail facilities on land immedi atel y adjacent to the U.S. Fish and Wildlife Service's Wildlife Refu ge poses an unacceptable risk to this critical habitat.

Comment Number: 000000358-20
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 5.1
Comment Excerpt Text:
More specifically, to address the concerns we have identified, WDFW strongly recommends:
1. A series of status determination studies for key fish and wildlife populations in the Grays Harbor and nearshore Pacific Ocean waters to establish a baseline prior to the expansion of these facilities. The key populations would include forage fish , such as anchovy, herring, and smelt; nearshore and juvenile rockfish; nearshore flatfish ; seabirds and shorebirds.

2. As a mitigation measure, should one or both of these projects move forward , we recommend adequate funding be provided to WDFW for ongoing annual monitoring studies for the populations listed in item # 1.

Comment Number: 000000358-21
Organization: Washington Dept of Fish and Wildlife

Commenter: Michele Culver
Commenter Type: Agency

Comment Excerpt Text:

3. The Department of Ecology and the City of Hoquiam should ho st a series of inter-agency discussions that include WDFW, the Quinault Indian Nation, and the Chehalis Tribe, to properly coordinate with these other entities with substantial interests before continuing to advance proposals that would bring additional bulk fluid storage and transloading/shipping operations to Grays Harbor. A focus should be placed on the areas of port safety, spill prevention measures, stand-by resources for spill containment, and contingency planning.

Comment Number: 000000358-8
Organization: Washington Dept of Fish and Wildlife
Commenter: Michele Culver
Commenter Type: Agency
Other Sections: 11 7.4
Comment Excerpt Text:
Potential Impacts to Recreational and Commercial Fisheries

Grays Harbor and adjacent ocean waters are home for many healthy marine fish and shellfish stocks, whi ch are harvested in Washington' s recreational and commercial fisheries, and upon which our coastal communities depend, including Dungeness crab, Pacific halibut, Pacific whiting, salmon, lingcod, sablefish, nearshore flatfish and rockfish species, forage fishincluding anchovy, sardines, and mackerel - and oysters and razor clams. The average ex-vessel revenue for Washington 's coastal commercial fisheries for the past five years exceeds $109 million, and commercial oyster growing operations in the harbor contribute significantly to the state 's economy as well. It is imperative th at the potential impacts to recreational and
commercial fisheries resulting from a catastrophic event, such an oil spill, and secondary effects, such as from airborne pollutants from train diesel engines, and the subsequent effects on the economies of the local communities and broader state be analyzed and considered in this decision-making process.

Comment Number: 000000363-3
Organization: Washington State Legislature
Commenter: Reuven Carlyle
Commenter Type: Agency

Comment Excerpt Text:
III. Net economic impacts Given the array of potential impacts that are likely to result from the expansion projects, we feel strongly that an apples-to-apples accounting of the net costs and benefits is critical before we can make an informed decision that sufficiently protects the interests of Washington State. The creation of full-time, family wage jobs and the associated tax revenue are legitimate benefits that must be objectively quantified. The externalities of creating those jobs, however, are equally important to examine and quantify.

In the course of conducting an analysis of the net economic impacts of the proposed projects, we must inevitably examine our state’s rail infrastructure and what public investment would be necessary to allow for growth in the future. As oil shipments are added to our increasingly congested railways, a detailed

accounting of the taxpayer dollars required for infrastructure expansions and upgrades is necessary. This analysis is critical as we strive to ensure a world-class transportation infrastructure for the coming decades.

Similarly, a look at the net economic impacts of the Westway and Imperium projects must include consideration of the other bulk fuel export projects that are under consideration in the Pacific Northwest. As a trade-dependent state focused on steady economic development, a thorough analysis of oil export impacts is necessary to ensure that project proposals fit within current growth projections and are consistent with existing industries. For example, we would be remiss to ignore the potential impact that oil trains would have on the transport of other goods, or the possible complications to vehicle movement that might arise as a result of increased rail traffic. While economic growth is a priority for our state, we must diligently and objectively review the net impacts of each proposal to ensure that we choose the right path forward for Washington.

Comment Number: 000000366-3
Organization: City of Ocean Shores
Commenter: Crystal Dingler
Commenter Type: Agency

Comment Excerpt Text:
Our environment creates millions of dollars through tourism that would disappear if we were hit with oil spill accidents. In addition, the livability of our communities would be drastically affected in any of the possible events discussed.

Comment Number: 000000368-1
Organization:
Commenter: Diana Gordon
Commenter Type: Public

Comment Excerpt Text:
I think that one of the most important things that you should include in the EIS is the economic effects that a spill or a leak could have on Grays Harbor, the Columbia River and its many tributaries that rail lines cross over, such as the Washougal River. Any kind of a spill or leak into Grays Harbor would have a devastating effect on wildlife and fishing. The harbor is surrounded by several state parks and beaches where people enjoy a variety of outdoor activities. Campers and fishermen bring tourist dollars to surrounding areas. So do the various activities sponsored by the Grays Harbor Historical Seaport. The Lady Washington, Washington's state ship, and the Hawaiian Chieftain attract hundreds of visitors every year. A spill in the right place could also have an impact on commercial fishermen as well - another loss of dollars to the local economy. Up the Columbia, we have huge moneymakers in windsurfing, kiteboarding, boating, hiking, camping, etc., as well as commercial and sport fishing.

Comment Number: 000000368-3
Organization:
Commenter: Diana Gordon
Commenter Type: Public

Comment Excerpt Text:
I ask that your EIS be broad in scope and include the results of an oil spill or leak on the economy of the whole area that the oil trains would pass through and also consider the effect on our quality of life.

Comment Number: 000000370-2
Organization:
Commenter: Mike Petersen
Commenter Type: Public

Comment Excerpt Text:
The railroad should be required to post a bond in case of accidents. The City of Spokane and other dischargers to the Spokane River are spending close to a half billion dollars to remove contaminants from the river. One spill at the many crossings could immediately reverse this progress and cost tens of millions of dollars to mitigate - and full mitigation is impossible.

Comment Number: 000000371-4
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization

Comment Excerpt Text:
(4) the parties that would be responsible for paying for any spills that might occur.

Comment Number: 000000371-7
Organization: Tahoma Audubon Society
Commenter: Peter Hodum
Commenter Type: Organization
Other Sections: 7.1
Comment Excerpt Text:
The EIS should also evaluate the capacity of local spill response teams to control and minimize impacts of spills of varying magnitudes and identify parties responsible to pay for clean-up efforts.

Comment Number: 000000377-2
Organization:
Commenter: Laura Ackerman
Commenter Type: Public
Other Sections: 7.4 7.3 2.1 7 13.3 14
Comment Excerpt Text:
Please analyze the potential oil spills, fire from oil spills, diesel PM increasing, and the impacts to human health, especially those who live within a mile of the tracks, safety issues on increased railroad traffic, economics of communities paying for safety upgrades, impacts on rivers and other bodies of water, trails, parks, schools, hospitals and public facilities. Also analyze the impacts to wildlife.

Comment Number: 000000377-4
Organization:
Commenter: Laura Ackerman
Commenter Type: Public

Comment Excerpt Text:
Also,this form is fine for short comments, but you should allow, as you did with the scoping for Cherry Point and Longview, a simple email address to send comments to. Citizens should be allowed to comment in as many ways as possible, and this single form email comment is too restrictive. It's not particularly democratic and conducive to longer comments, and snail mail is fine, but it's a lot easier to have the

longer comments already on line, instead of having to scan them in.

Appendix B

Laws and Regulations

Appendix B
Laws and Regulations

This appendix provides information on the laws, regulations, and court decisions that apply to the resources addressed in Chapter 3, *Affected Environment, Impacts and Mitigation*, and Chapter 4, *Environmental Health and Safety*. This appendix also provides information on plans, policies, and professional practices that provide guidance for management of these resources.

B.1 Federal

B.1.1 Clean Water Act of 1972 (33 U.S.C. 1251 et seq.)

The Clean Water Act (CWA) of 1972 (33 United States Code [U.S.C.] 1251 et seq.) establishes the basic structure for regulating discharges of pollutants into waters of the United States and for developing and implementing surface water quality standards. As defined in 40 Code of Federal Regulations (CFR) 122.2, waters of the United States include all navigable waters subject to the ebb and flow of the tide; interstate waters and wetlands; intrastate lakes, rivers, streams (including intermittent streams), wetlands, sloughs, mud and sand flats, and natural ponds, among other water bodies, whose use, degradation, or destruction could affect interstate or foreign commerce; tributaries and adjacent wetlands to all such waters previously mentioned; and the territorial seas. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the CWA, are not waters of the United States.

Under the CWA, discharges of pollution from point sources are managed through a number of regulatory provisions. The following are applicable to the proposed action.

B.1.1.1 Section 301 of the Clean Water Act (33 U.S.C. 1311)

Section 301 of the CWA (33 U.S.C. 1311) prohibits the discharge of any pollutant to a water of the United States from a point source without a permit. Waters of the United States include wetlands and other waters that may contain areas of submerged aquatic vegetation that could be affected by pollutants.

Point sources are defined as any discernable, confined, or discrete conveyance such as but not limited to a pipe (e.g., outfall), ditch, channel, or container. Because the proposed action would require the discharge of stormwater to Grays Harbor through the Port of Grays Harbor's stormwater conveyance system, compliance with Section 301 of the CWA would be required.

B.1.1.2 Section 402 of the Clean Water Act

Section 402 of the CWA (33 U.S.C. 1342) establishes the permitting program, known as the National Pollutant Discharge Elimination System (NPDES), under which such discharges are regulated for construction and operations of facilities. It mandates that certain activities comply with the requirements of the U.S. Environmental Protection Agency (EPA) NPDES program. In Washington State, EPA has delegated this authority to the Washington State Department of Ecology (Ecology), and Ecology administers all of the applicable permits under the program.

B.1.2 Clean Air Act of 1963 (42 U.S.C. 7401 et seq.)

EPA regulates the nation's air emissions through the Clean Air Act (42 U.S.C 7401 et seq.). EPA first began regulating on-road mobile sources in 1970 as part of the Clean Air Act. EPA was given the added regulatory authority under Section 213 in the 1990 Clean Air Act Amendments to control the emissions from nonroad engines (e.g., construction equipment, locomotives, and ships). An extensive number of exhaust emissions standards and regulations have been issued by EPA since 1990 on all classes of nonroad engines including construction equipment, locomotives, vessels, off-road vehicles and lawn and garden equipment. Most recent regulations relevant here are the locomotive emission standards for new and rebuilt locomotive engines along with the North America Emission Control Area for marine vessels limiting the sulfur content in fuel oil. No provisions have been made to allow states (other than California) or local authorities to impose additional regulations on these source categories.

B.1.2.1 National Ambient Air Quality Standards

Under the Clean Air Act, EPA has established National Ambient Air Quality Standards for criteria air pollutants that establish the concentration of air pollutants allowed in the ambient (outside) air. The six criteria air pollutants are carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter particulate matter with a diameter of 10 or 2.5 micrometers or less, and sulfur dioxide. The National Ambient Air Quality Standards are designed to protect the most sensitive populations. Unless the state or local jurisdiction has adopted more stringent standards, EPA standards apply.

The National Ambient Air Quality Standards consist of primary standards designed to protect public health including protecting the health of sensitive populations such as asthmatics, children, and the elderly and secondary standards designed to protect public welfare (e.g., preventing air pollution damage to vegetation). Annual standards are never to be exceeded. Short-term standards are not to be exceeded more than once per year unless noted. Federal and state ambient air quality standards are shown in Table 1.

B.1.2.2 Air Toxics

Under the Clean Air Act, EPA is also required to control air toxics, which are pollutants known or suspected to cause cancer or other serious health effects, such as birth defects or reproductive effects. Examples of air toxics include diesel particulate matter, benzene, formaldehyde, and toluene. EPA has identified 188 air toxics, which it refers to as hazardous air pollutants. EPA's control of these pollutants differs from its control of criteria air pollutants. No ambient air quality standards have been established for air toxics. Instead, EPA has identified all major industrial stationary sources that emit these pollutants, and has developed national technology-based performance standards to significantly reduce their emissions and ensure that major sources of these toxics are controlled regardless of geographic location.

In 2009, EPA proposed the Endangerment Finding and the Cause or Contribute Findings for Greenhouse Gases under Section 202(a) of the Clean Air Act. The Endangerment Findings determined that the current and projected concentrations for carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorinated chemicals, and sulfur hexafluoride posed a threat to the health and welfare of current and future generations (U.S. Environmental Protection Agency 2009). The action establishes the legal foundation for regulating greenhouse gas (GHG) emissions from sources such as vehicles, industrial facilities, and power plants.

B.1.3 Greenhouse Gas Reporting Program (40 CFR 98)

EPA issued the Mandatory Reporting of Greenhouse Gases Rule (74 *Federal Register* [FR] 56260), establishing mandatory GHG reporting requirements for owners and operators of certain facilities that directly emit GHGs. As of 2010, there is an annual reporting requirement for facilities that emit 25,000 metric tons or more of GHGs (U.S. Environmental Protection Agency 2015a).

B.1.4 Greenhouse Gas Tailoring Rule

Under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit Programs, EPA established an approach to permitting GHG emissions. This ruling tailors the existing permitting requirements to include best available control technology for GHG emissions from new and existing industrial facilities (U.S. Environmental Protection Agency 2015b).

B.1.5 National Flood Insurance Act of 1968 (42 U.S.C. 4001 et seq.)

The National Flood Insurance Act of 1968 (42 U.S.C. 4001 et seq.) established the National Flood Insurance Program (NFIP) This federal floodplain management program is designed to reduce future flood losses nationwide through the implementation of community-enforced building and zoning ordinances, in return for the provision of affordable, federally backed flood insurance to property owners (Federal Emergency Management Agency 2011:1). NFIP is administered by the Federal Emergency Management Agency, a component of the U.S. Department of Homeland Security. For the most part, NFIP is a voluntary program available to cities, towns, or counties who choose to participate based on an assessment of their site-specific flood hazards.

For communities involved in NFIP, the Federal Emergency Management Agency, typically conducts a detailed engineering flood insurance study to determine the flood hazards in a particular area. The flood hazard areas identified in the study are mapped on a flood insurance rate map for the community. These maps typically show the base flood elevations (if determined), floodplain boundaries, and a series of insurance risk zones. They also identify any special flood hazard areas—high-risk areas that include lands that would be inundated by a flood having a 1% chance of occurring in a given year, which is also referred to as the base flood or 100-year flood. Special flood hazard areas are labeled as Zone A or Zone V, both of which are often followed by a modifier that further describes site-specific conditions (e.g., Zone AO, Zone A1-A30, Zone VE, Zone V1-V30). Zone V designations are used for areas along the coasts that are both within the 100-year floodplain and subject to additional hazards associated with storm-induced waves.

In addition to special flood hazard areas, flood insurance rate maps may also show areas of moderate and minimal flood hazards, and the limits of the regulatory floodway. Moderate flood hazard areas are labeled Zone B and are defined as those areas located between the limits of the base flood and the 0.2%-annual-chance (or 500-year) flood. Minimal flood hazard areas are labeled Zone C and are those areas located above the elevation of the 0.2% annual-chance flood.[1] The regulatory floodway is defined as the channel of a river or other watercourse, and the portion of the floodplain outside the channel banks, that must be kept free from encroachment so that water from

[1] On new and revised flood insurance rate maps, Zone X is now used in place of Zones B and C, with further differentiation provided on the map by shading.

the base flood may pass through without increasing the flood level of the 100-year flood by more than 1 foot. Participating communities must regulate development in these floodways to ensure that there are no increases in upstream flood elevations.

The Cities of Hoquiam and Aberdeen are both participants in the NFIP (Federal Emergency Management Agency 2014:1, 3). Development within floodplains is regulated on the local level in Hoquiam in accordance with Hoquiam Municipal Code (HMC) 11.16 and in Aberdeen in accordance with Aberdeen Municipal Code (AMC) 15.52.

B.1.6 Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990, as Amended by the National Invasive Species Act of 1996 (16 U.S.C. 4711 et seq.)

Ballast water management is regulated under authority of the *Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990*, as amended by the *National Invasive Species Act of 1996* (16 U.S.C. 4711). The U.S. Coast Guard (USCG) issued mandatory ballast water management regulations in 2004 that require most vessels entering U.S. waters with ballast water from outside the U.S.'s Exclusive Economic Zone to either conduct midocean ballast water exchange, retain the vessel's ballast water onboard, or utilize an alternative control method approved by USCG (69 FR 44952). Because a number of studies have shown that mid-ocean exchange is only partially effective and not all vessels in all ports comply with these regulations, USCG issued a final rule on June 12, 2012 (77 FR 17254) establishing the most stringent standards to date for the quantity of living organisms that may be retained in ship's ballast water when discharged into waters of the United States. However, the act contains three categories of vessels that are exempt from requirements to install and operate USCG-approved ballast water management systems, including the requirements to conduct midocean exchange and the newer numeric standards for organisms in discharged ballast water (16 U.S.C. 4711; 77 FR 17254). The following categories of vessels are exempt.

- Crude oil tankers engaged in coastwise trade.
- Any vessel of the U.S. Armed Forces that is subject to the Uniform National Discharge Standards for Vessels of the Armed Forces.
- Any warship, naval auxiliary, or other vessel owned or operated by a foreign state and used, for the time being, only on government and non-commercial service.

B.1.7 Endangered Species Act (16 U.S.C. 1531–1544)

The Endangered Species Act (ESA) (16 U.S.C. 1531–1544, as amended) provides protections for imperiled species and the ecosystems upon which they depend. Under the ESA, species may be listed as endangered or threatened, meaning they are either in danger of becoming extinct or may become endangered in the near future. The U.S. Department of the Interior, acting through the National Oceanic and Atmospheric Administration (NOAA) and the U.S. Fish and Wildlife Service (USFWS), are responsible for implementing the ESA. USFWS is responsible for plant species and for designating critical habitat areas deemed essential to the conservation and recovery of the listed species. The USFWS Information, Planning, and Conservation online system maintains the current list of plant species protected and managed under the ESA.

Section 7 of the ESA requires federal agencies to ensure their actions, including providing federal funding or issuance of a federal permit, do not jeopardize the existence of any listed species. Section 9 of the ESA prohibits the take[2] of threatened or endangered species to provide for the protection and recovery of listed species. However, take of ESA listed plants is prohibited only on federal lands.

USFWS also works cooperatively with Washington State Department of Natural Resources under Section 6 of the ESA to conduct research and conservation activities to protect and recover rare or endangered plants.

NOAA Fisheries is responsible for managing, conserving, and protecting ESA-listed marine species, including marine mammals, sea turtles, fish (marine and anadromous), marine invertebrates, and marine plants. USFWS is responsible for terrestrial and freshwater species, including mammals, birds, reptiles, amphibians, fish, invertebrates (e.g., clams, snails, insects), and plants. Both NOAA Fisheries and USFWS are responsible for designating critical habitat for ESA-listed species, which are areas essential to the conservation of listed species. Federally listed threatened and endangered species may be present in the study area. Although no permits or approvals are required by the ESA, the proposed action could result in indirect impacts on ESA-listed species.

B.1.8 Magnuson-Stevens Fishery Conservation and Management Act (16 U.S.C. 1801)

The Magnuson-Stevens Fishery Conservation and Management Act is the principal law governing marine fisheries management in federal waters of the United States. The act establishes eight regional fishery management councils responsible for preparing fishery management plans. The Pacific Fishery Management Council is responsible for preparing the fishery management plan that covers California, Oregon, and Washington (including Grays Harbor), and NOAA Fisheries is responsible for implementing and enforcing the fishery management plan. Habitats used by fisheries managed under fishery management plans are protected under the essential fish habitat (EFH) provisions of Section 305. The act defines EFH as "those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity." While the fishery management jurisdiction of the act applies to federal waters (3 to 200 miles offshore), the EFH provisions of the act apply throughout the range of the managed species and extend into state-managed estuarine and riverine habitats (inshore and up to 3 miles offshore). Habitat protected under the act is present in the study area. Under the act, federal agencies must consult with NOAA Fisheries for actions that might adversely affect EFH. Although no permits or approvals are required consistent with the act, the proposed action could indirectly affect EFH.

B.1.9 Marine Mammal Protection Act of 1972, As Amended 2007 (16 U.S.C. 31)

The Marine Mammal Protection Act of 1972 (50 CFR 216, as amended) protects marine mammals from take without appropriate authorization, which may only be granted under certain circumstances by NOAA Fisheries. NOAA Fisheries and USFWS enforce the act. The act protects marine mammals from take without appropriate authorization, which may only be granted under

[2] Take, as defined by the ESA means, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct."

certain circumstances by NOAA Fisheries. Marine mammals protected under the act may be present in the study area. Although no permits or approvals are required by the act, the proposed action could indirectly affect marine mammals.

B.1.10 Migratory Bird Treaty Act of 1918 (16 U.S.C. 703–709)

USFWS enforces the Migratory Bird Treaty Act of 1918 as amended (16 U.S.C. 703–709, as amended). The act makes it illegal for anyone to take, possess, import, export, transport, sell, purchase, barter, or offer for sale, purchase, or barter, any migratory bird, or the parts, nests, or eggs of such a bird except under the terms of a valid permit issued pursuant to federal regulations. Birds protected by the act may be present in the study area. Although no permits or approvals are required by the act, the proposed action could indirectly affect protected birds.

B.1.11 Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.)

USFWS enforces the Bald and Golden Eagle Protection Act of 1940 (16 U.S.C. 668, as amended). The act prohibits the *take*[3] of bald eagles, including their parts, nests, or eggs without a permit issued by USFWS, and provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any manner, any bald eagle... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." Bald eagles may be present in the study area.

B.1.12 Quinault River Treaty

The Quinault River Treaty, also known as the Treaty of Olympia, was signed in 1855 and 1856 and set aside reservation land and reserved fishing rights for the Quinault Indian Nation throughout its usual and accustomed grounds. The treaty specifies that “the right of taking fish at all usual and accustomed grounds and stations is secured to said Indians in common with all citizens of the Territory…” (Treaty of Olympia). “Usual and accustomed grounds” refers to an area where a particular tribe has reserved right under the provisions of the treaty based on that tribe having traditionally fished the area. The treaty is law under the U.S. Constitution and treaty rights have been reaffirmed by the federal court through several court rulings.

As a treaty tribe, the Quinault Indian Nation manages its fisheries and is responsible for regulating its fishers both on and off reservation. The Quinault Indian Nation is a comanager with the State of Washington (Washington Department of Fish and Wildlife [WDFW]) for salmon, steelhead, and Dungeness crab. Each year the tribe and state meet to determine how many fish and crab can be caught in fisheries. The tribe and state then negotiate fishery schedules to ensure an equitable share of the catch. The process for co-management of the ocean and freshwater salmon fisheries has evolved over the years and is now a highly evolved process of preseason meetings and use of model based predictions of abundance, number of fish available for harvest, and catch. Once the tribe and state reach agreement on fisheries in the spring they release a preseason summary of planned fisheries and predicted catch (the planned fisheries includes schedules of weeks and days open). The

[3] Take under the Bald and Golden Eagle Protection Act means to “pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb.” 50 CFR 22.3

Quinault Indian Nation posts fishery regulations on their website reporting days and areas opened by statistical week (Sunday through Saturday) for their fishers. WDFW also posts planned openings of tribal fisheries on their website to inform recreational fishers when nets may be deployed. The tribe is responsible for enforcing Quinault fishing regulations and in-season management includes monitoring catch during each opening. Summaries of weekly catch are shared with WDFW as the fishery progresses and annual catch is shared at the end of the season. An important aspect of fisheries management are in-season reviews of catch and updated estimates of number of harvestable fish. Provisions are in place between the tribe and state to adjust fishery schedules in-season if estimates of number of fish and harvestable abundance are not as forecast or if bad weather has disrupted fishing schedules (Scharpf pers. comm.). These updates may adjust fishery schedules, resulting in closures to protect certain species or to add a fishing day in the same week (if bad weather affected a fishery).

The Quinault Indian Nation began to exert its treaty-reserved right for Dungeness crab when treaty-reserved rights were extended to shellfish in a ruling by Judge Rafeedie in 1994 (*United States v. Washington, 873 F. Supp. 1422*). The States of Washington, Oregon and California and treaty tribes comanage the coastal Dungeness crab fishery. The four coastal treaty tribes (Makah, Quileute, Hoh and Quinault) have designated usual and accustomed ocean fishing areas for crab. The treaty tribes and state determine the amount of harvestable crab for each area, which the treaty tribes are entitled to 50%. The tribes manage their fisheries specific to their usual and accustomed area, setting seasons, issuing permits, regulating number of pots that can be deployed, and recording catch.

Management of treaty-reserved rights for marine fisheries is at the international or federal level. Halibut are managed at the international level with the International Pacific Halibut Commission regulating harvest. Other marine fish such as sablefish, groundfish (rockfish, pacific cod, lingcod, and whiting) are managed through the Pacific Fisheries Management Council. The council and coastal treaty tribes (Makah, Quileute, Hoh, and Quinault) have formal harvest allocations for sablefish and whiting (Pacific Fishery Management Council 2014). Treaty allocation of other groundfish species is made through annual determination by the council through a regulatory process found at 50 CFR 660.50.

B.1.13 United States v. Washington, 384 F. Supp. 312 (W.D. Wash. 1974)

United States v. Washington, 384 F. Supp. 312, commonly referred to as the Boldt Decision, is a 1974 ruling that interpreted the rights of treaty tribes to take fish in their "usual and accustomed places in common with all citizens" to mean that treaty tribes have a treaty-reserved right to harvest 50% of the harvestable portion of fish. It also affirmed the role of treaty tribes as co-managers of the resources with WDFW. Estimates of harvestable salmon run and fishery schedules are negotiated between the tribes and WDFW fishing preseason. The 1974 decision was affirmed by the Supreme Court in 1979.

B.1.14 United States v. Washington, 873 F. Supp. 1422 (1994)

Through *United States v. Washington, 873 F. Supp. 1422 (1994)*, Judge Rafeedie ruled that treaty rights include shellfish and that tribes are entitled to 50% of the harvestable shellfish on most Washington State beaches. The ruling excluded shellfish beds "staked or cultivated by citizens." The

coastal tribes have successfully argued that this treaty right also applies to marine fish and shellfish along the Washington Coast.

B.1.15 Occupational Safety and Health Act of 1970 as Amended 2004 (29 U.S.C. 651 et seq.)

The Occupational Safety and Health Act (29 U.S.C. 651 et seq.) establishes the framework for safe and healthful working conditions by authorizing enforcement of the standards developed under the act. The act also provides for training, outreach, education, and assistance related to establishing a safe working environment. Regulations defining safe standards have been developed for general industry, construction, maritime, recordkeeping, and agriculture. The State of Washington has a state plan that has been approved by the Occupational Safety and Health Administration. The administration's standards specific to hazardous materials are listed in 29 CFR 1910 Subpart H. Safety and health regulations pertaining to construction are listed in 29 CFR 1926 Subpart H.

B.1.16 Comprehensive Environmental Response, Compensation, and Liability Act (42 U.S.C. 103)

Proper site characterization of and site remediation for hazardous materials is regulated by the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. 103). Additional requirements for hazardous materials are specified under hazardous substances at 40 CFR 116, and priority toxic pollutants at 40 CFR 122.

B.1.17 Oil Pollution Act of 1990 (33 U.S.C. 40)

The federal Oil Pollution Act of 1990 (33.U.S.C. 40) requires more stringent planning and spill prevention activities, improved preparedness and response capabilities, and ensures that responsible parties pay for oil spill cleanups. The act specifies that the responsible party is liable for specified damages resulting from the discharge and removal costs incurred. States may impose additional liability, funding mechanisms, removal requirements, fines, and penalties in addition to those imposed by the CWA.

B.1.18 Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.)

Hazardous waste is regulated primarily under the authority of the Resource Conservation and Recovery Act (42 U.S.C. 6901 et seq.). The act was established in 1976 to protect human health and the environment, reduce waste, conserve energy and natural resources, and eliminate generation of hazardous waste. Under the authority of the act, the regulatory framework for managing hazardous waste, including requirements for entities that generate, store, transport, treat, and dispose of hazardous waste is found in uses 40 CFR 260 through 299.

B.1.19 Hazardous Materials Regulations (49 CFR 171-180)

The Pipeline and Hazardous Materials Safety Administration regulates the movement of hazardous materials. Rail transportation of hazardous material is subject to hazardous materials regulations under 49 CFR 105–110, and 130, which are applicable to transportation of hazardous material by

any mode. The authority is the U.S. Department of Transportation (USDOT) Hazardous Materials Division, which delegates the authority to the Federal Railroad Administration (FRA). FRA oversees the regulations specific to rail transportation (49 CFR 171–180).

On May 8, 2015, the Pipeline and Hazardous Materials Safety Administration released a Final Rule (80 FR 26643) that adjusts standards and requirements in 49 CFR Parts 171, 172, 173, 174, and 179.

B.1.20 Highway Safety Act (23 U.S.C. 4), Railroad Safety Act (49 CFR 200–299)

The Highway Safety Act (23 U.S.C.) gives the Federal Highway Administration A regulatory jurisdiction over safety at federal highway/rail grade crossings. USDOT has promulgated rules addressing grade-crossing safety and provides funding for installation and improvement of warning devices. All traffic control devices installed at railroad facilities involving federal aid projects must comply with 23 CFR 655F. On certain projects where federal funds are used for the installation of warning devices, those devices must include automatic gates and flashing light signals.

B.1.21 Manual on Uniform Traffic Control Devices (23 U.S.C. 109(d))

The *Manual on Uniform Traffic Control Devices* (23 U.S.C. 109(d)) provides standards and guidelines for selection, design, and placement of traffic control devices for national uniformity.

B.1.22 Ports and Waterways Safety Act (33 U.S.C. 1221 et seq.)

The Ports and Waterways Safety Act of 1972, as amended (33 U.S.C. 1221 et seq.) provides primary authority to USCG to provide for navigation and vessel safety, protect the marine environment, and protect life, property, and structures in, on, or immediately adjacent to the navigable waters of the United States. USCG enforces all federal laws applicable to navigable waters and navigation in U.S. territorial waters and has federal oversight for ensuring the environmental safety of U.S. waters.

B.1.23 Port and Tanker Safety Act of 1978 (33 U.S.C. 1221 et seq.)

The Ports and Waterways Safety Act (33 U.S.C. 1221 et seq.), as amended by the Port and Tanker Safety Act of 1978 (Public Law 95-474), gives USCG broad and extensive authority to supervise and control all types of vessels, foreign and domestic, operating in U.S. navigable waters.[4] Both USCG and the U.S. Army Corps of Engineers (USACE) determine the physical navigation channel requirements and establish jointly the operational protocols for all vessels and boats in the channel.

B.1.24 Navigation and Navigable Waters (33 CFR)

Navigation and Navigable Waters (33 CFR) grants USCG much of the authority and responsibility to establish and enforce rules and regulations in U.S. navigable waters, through the Secretary of

[4] The U.S. Coast Guard also installs and maintains Federal Aids to Navigation—marine aids to navigation—in U.S. ports, including Grays Harbor in accordance with 33 CFR 62.

Homeland Security. USCG has the authority to issue regulations pertaining to anchorage areas, lightering zones, drawbridges, Regulated Navigation Areas, safety and security zones, special local regulations, and inland waterways.

B.1.24.1 Vessel Bridge-to-Bridge Radiotelephone Regulations (33 CFR 26)

Part 26 requires the use of certain vessels to carry a radiotelephone that is capable of transmitting and receiving messages through designated channels.

B.1.24.2 Inland Navigation Rules (33 CFR 83-90)

Subchapter E, Inland Navigation Rules, establishes rules for navigation of inland waters of the United States. Rules include positioning and technical details of lights, shapes, and sound signal appliances. It defines distress signals and pilot rules.

B.1.25 Pilotage Requirements (46 CFR 15.610 and 15.812)

All commercial vessel traffic engaged in trade moving in and out of Grays Harbor must be under the direction and control of either a federally licensed (USCG Master Mariner's license with tug endorsement) mariner or employ a state-licensed pilot, depending on whether the vessel is on a domestic or foreign voyage.[5] A vessel that has a U.S. flag and is engaged in trade contained within U.S. territories in accordance with the Jones Act (the Maritime Act of 1920) is said to be on a coastwise voyage and is exempt from Washington State mandatory pilotage (Revised Code of Washington [RCW] 88.16.070) requirements. However, the vessel does require a federally licensed captain who is issued a license from the USCG (46 U.S.C. 8502) (46 CFR 15.610 and 15.812) with appropriate endorsements based on the size and route of the vessel.

B.1.26 Anchorages under Ports and Waterways Safety Act (33 CFR 109)

Authorizes USCG to specify times of movement, restrict operations, and direct anchoring of vessels under hazardous conditions.

B.1.27 Financial Responsibility for Water Pollution (Vessels) and Oil Pollution Act 90 Limits of Liability (Vessels and Deepwater Ports) (33 CFR 138)

Financial Responsibility for Water Pollution (Vessels) and Oil Pollution Act 90 Limits of Liability (Vessels and Deepwater Ports) (33 CFR 138) establishes requirements for responsible parties to demonstrate financial ability to meet potential liability for costs and damages. As stated in 33 CFR 138.15, the requirement for a Certificate of Financial Responsibility is for vessels over 300 gross tons that use the navigable waters of the United States. 33 CFR 138.230 specifies limits of liability.

[5] State-licensed pilots are mariners familiar with the local waters and channel conditions that guide commercial trade vessels into and out of the Port of Grays Harbor. They are port employees but also serve the state.

B.1.28 Facilities Transferring Oil or Hazardous Materials in Bulk (33 CFR 154)

Under 33 CFR 154, facilities transferring oil or other hazardous materials in bulk must submit an Operations Manual to the USCG for approval. The manual will include site-specific information for operations, including oil transfers, testing and safety equipment. Once a facility receives approval from the USCG to operate, the facility operator is under obligation to ensure that all facility personnel use the procedures within the approved operations manual.

Facility Response Plans are required by the USCG for facilities that, because of their location, could reasonably be expected to cause at least substantial harm to the environment by discharging oil into or on the navigable waters, adjoining shorelines, or exclusive economic zone. The Facility Response plan has response criteria for specific operating environments and the type of oil that a facility stores or transfers. The facility will be required to have a Facility Response Plan.

A Facility Response Plan requires (33 CFR 154.1035):

1. An Emergency Response Action Plan that includes:
    a. Notification procedures.
    b. Facility's spill procedures for different spill sizes and procedures to prevent or mitigate a discharge of oil resulting from facility transfer operations.
    c. Facility's response activities.
    d. Fish and wildlife and sensitive environments.
2. Training and Exercise Procedures
3. Plan Review and Update Procedures

The Emergency Response Action Plan requirement for the worst-case discharge scenario requires that all fish and wildlife sensitive environments identified in the Area Contingency Plan that could be potentially impacted by the discharge be identified along with the response actions that the facility anticipates taking to protect these fish and wildlife and sensitive environments. The facility must also identify appropriate equipment (boom, oil recovery devices, and storage capacity for recovered oil) and required personnel available by contract with an oil spill removal organization or other approved means as described in 33 CFR 154.1028 to protect fish and wildlife sensitive environments that fall within the distances calculated using the methods in the regulation.

A facility owner/operator is required to review the facility response plan annually and submit any revisions to the USCG, Washington State, and all other holders of the response plan for information or approval as appropriate. The plan is valid for a period of up to 5 years.

B.1.29 Vessel Contingency and Response Plans (33 CFR 155)

Vessel Response Plan regulations for tank vessels are in 33 CFR 155 Subpart D. They are applicable to U.S.-registered and foreign-flag tank vessels. Vessel Response Plans include the following.

- Notification procedures.
- Shipboard spill mitigation procedures.

- Shore-based response activities.
- List of contacts
- Training procedures.
- Exercise procedures.
- Plan, review, update, revisions, amendment, and appeal procedures.
- Geographic-specific appendices

Plans must be submitted at least 60 days before the vessel intends to handle, store, transport, or transfer oil in U.S. waters. The plan remains valid for a period of up to 5 years from the date of approval. The Vessel Response Plan must be reviewed annually by the owner/operator, and plan amendments are submitted to the USCG for information or approval.

B.1.30 Oil and Hazardous Material Transfer Operations (33 CFR 156)

Oil and Hazardous Material Transfer Operations covers specific requirements for vessel and facility personnel conducting the transfer of oil or hazardous material on the navigable waters of the United States to, from, or within each vessel with a capacity of 250 barrels or more. The following requirements are included in the section.

- Advance notice of transfer to the USCG.
- Moorings of sufficient strength to keep the vessel against the dock during all expected conditions of surge, current, and weather.
- Transfer hoses and loading arms of sufficient length to allow the vessel to move to the limits of its moorings without placing strain on the hose, loading arm, or transfer piping system.
- Availability of discharge containment equipment.

USCG may require a facility operator to notify the local Captain of the Port 4 hours in advance of transfer operations (33 CFR 156.118).

B.1.31 Spill Prevention, Control, and Countermeasure Plans (40 CFR 112)

Spill prevention, control, and countermeasure plans ensure that facilities implement containment and other countermeasures that would prevent oil spills from reaching navigable waters. Plans are administered by EPA. The plan must be prepared and implemented prior to a facility beginning operations. Once implemented, the facility owner or operator must review and update it once every 5 years. The proposed facility will be required to develop and implement a spill prevention, control, and countermeasure plan.

B.1.32 Hazardous Materials Regulations (49 CFR 171-180)

The Pipeline and Hazardous Materials Safety Administration regulates the movement of hazardous materials. Rail transportation of hazardous material is subject to hazardous materials regulations under 49 CFR 105–110, and 130, which are applicable to transportation of hazardous material by

any mode. The authority is the USDOT Hazardous Materials Division, which delegates the authority to FRA. FRA oversees the regulations specific to rail transportation (49 CFR 171–180).

On May 8, 2015, the Pipeline and Hazardous Materials Safety Administration released a Final Rule (80 FR 26643) that adjusts standards and requirements in 49 CFR Parts 171, 172, 173, 174, and 179.

B.1.33 Oil Pollution Act of 1990 (33 U.S.C. 40)

The federal Oil Pollution Act of 1990 (33.U.S.C. 40) requires more stringent planning and spill prevention activities, improved preparedness and response capabilities, and ensures that responsible parties pay for oil spill cleanups. The act specifies that the responsible party is liable for specified damages resulting from the discharge and removal costs incurred. States may impose additional liability, funding mechanisms, removal requirements, fines, and penalties in addition to those imposed by the CWA.

B.1.34 Limits on Liability (33 U.S.C. 2704)

The Limits on Liability in 33 U.S.C. 2704(a)(4) establishes that the responsible party shall not incur costs with respect to each incident that exceeds $350,000,000 for any onshore facility.

B.1.35 Hazardous Materials Transportation Act (49 U.S.C. 51)

The Hazardous Materials Transportation Act regulates all aspects of hazardous materials packaging, handling, and transportation for vessel, truck, and rail. It designates the amount of a certain material that may be transported to limit an unreasonable risk to health and safety or property. The act prescribes regulations for safe transportation of hazardous materials in intrastate, interstate, and foreign commerce.

B.1.36 Interstate Commerce Commission Termination Act (49 U.S.C. 101)

The Interstate Commerce Termination Act of 1887 (49 U.S.C. 101) created the Interstate Commerce Commission, which oversaw the operations and economics of all U.S. railroads and established railroads as common carriers. As a common carrier, railroads cannot discriminate between shippers and may not refuse a reasonable request for shipment. The Interstate Commerce Commission was disbanded in 1995 and reestablished as the Surface Transportation Board. The act upholds the common carrier obligations of railroads and requires railroads to provide service on request.

In addition to overseeing operations and economics, the Surface Transportation Board also classifies railroads based on revenue thresholds adjusted for inflation. In 2013, Class I carriers were identified as railroads with revenues of $467.0 million or more. Class II carrier threshold revenues ranged from $37.4 million to less than $467.0 million. Class III carriers thresholds were less than $37.4 million. All switching and terminal carriers regardless of revenues are Class III carriers (U.S. Department of Transportation 2014).

B.1.37 Railroad Noise Emission Standards (40 CFR 201) and Railroad Noise Emission Compliance Regulations (49 CFR 210)

EPA and FRA have issued regulations that apply to rail operations: EPA's Railroad Noise Emission Standards (40 CFR 201) and FRA's Railroad Noise Emission Compliance Regulations (49 CFR 210). These regulations govern railroad noise levels at the source and specify certain noise limits for locomotives and rail cars. They provide general guidance applicable to calculating noise levels related to train operations and evaluating the relative magnitude of potential impacts.

B.1.38 Railroad Locomotive Safety Standards (49 CFR 200-299)

FRA implements the Railroad Safety Act (49 CFR 200–299). Regulations address detailed safety requirements related to track, operations, and rail cars.

B.1.39 Rail Oil Spill Response Plans (49 CFR 130)

The Pipeline and Hazardous Materials Safety Administration is responsible for regulating the transport of oil and hazardous materials on rail. A basic oil spill response plan is required for rail cars carrying liquid petroleum or non-petroleum oil with a capacity of 3,500 gallons or more. A comprehensive oil spill response plan is required for rail cars carrying liquid petroleum or non-petroleum oil in a quantity greater than 42,000 gallons per rail car.

The comprehensive oil spill response plan includes all of the basic oil spill response plan elements and also includes additional response coordination requirements; ensures equipment availability by contract; adds training and exercise requirements; and requires submission to the Administrator of FRA.

Since no oil is currently being transported on the PS&P line, no oil spill response plan is required. If the proposed action is permitted, a basic oil spill response plan would be required. Due to the capacity of the rail cars (roughly 30,000 gallons), a comprehensive oil spill response plan would not be required under current regulations. Federal agencies have proposed to revise the requirements for federal oil spill response plans from railroads.

B.1.40 Railroad Safety Act of 1970 (49 U.S.C. 20101–20144; 21301–21304)

The Railroad Safety Act (49 U.S.C. 20101–20144; 21301–21304) of 1970 gives FRA rulemaking authority over all areas of rail line safety. FRA has issued rules that impose minimum maintenance, inspection, and testing standards for at-grade crossing warning devices for highway/rail grade crossings on federal highways and state and local roads (49 CFR 234–236). FRA delegates jurisdiction to state and local law enforcement agencies for most aspects of highway/rail grade crossings, including warning devices and traffic law enforcement.

B.1.41 Railroad Safety Enforcement Procedures (49 CFR 200-209)

The Railroad Safety Enforcement Procedures grant FRA authority to regulate safety, including operations, engineers, and crew (e.g., control of alcohol and drug use), track, signaling, and rolling stock (e.g., locomotives and passenger and freight cars) for common carrier rail lines that are part of the general rail line system of transportation (49 CFR 200–209).

B.1.42 Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains (80 FR 26643)

The Pipeline and Hazardous Materials Safety Administration, in coordination with FRA, is adopting requirements designed to reduce the consequences and, in some instances, reduce the probability of accidents involving trains transporting large quantities of flammable liquids. It defines and regulates the operations of high-hazard flammable trains.

The Final Rule defines a high-hazard flammable train as one that comprises 20 or more loaded tank cars of a Class 3 flammable liquid in a continuous block or 35 or more loaded tank cars of a Class 3 flammable liquid across the entire train. The Final Rule restricts all high-hazard flammable train speeds to 50 miles per hour in all areas and all rail carriers must ensure that all high-hazard flammable trains have a functioning two-way end-of-train device or distributed power-braking system. It requires that existing tank cars must be retrofitted in accordance with the USDOT-prescribed retrofit design or performance standard and new tank cars are required to meet enhanced USDOT Specification 117 design or performance criteria. The rule establishes requirements for developing a sampling and testing program for all unrefined petroleum-based products, such as crude oil.

Existing tank cars must be retrofitted in accordance with the USDOT-prescribed retrofit design or performance standard. Retrofits must be completed based on a prescriptive retrofit schedule and a retrofit reporting requirement is triggered if initial milestone is not achieved. New tank cars constructed after October 1, 2015 are required to meet enhanced USDOT Specification 117 design or performance criteria.

Offerors or shippers of unrefined petroleum-based cargoes such as crude oil must develop and carry out a sampling and testing program for all unrefined petroleum-based products, such as crude oil, to address sampling prior to the initial offering of the material for transportation and when changes that may affect the properties of the material occur.

B.1.42.1 Rail Routing—Risk Assessment

High-hazard flammable train rail carriers must, not later than 90 days after the end of each calendar year, compile commodity data for the previous calendar year for the materials listed in paragraph (a) of 49 CFR 172.820 including flammable cargoes (such as crude oil). Commodity data must be collected by route, a line segment, or a series of line segments as aggregated by the rail carrier.

High-hazard flammable train rail carriers and emergency responders must perform a routing analysis that considers, at a minimum, 27 safety and security factors and select a route based on

findings. These planning requirements are prescribed in 49 CFR 172.820 and are expanded to apply to high-hazard flammable trains.[6] A rail carrier must use the results of the routing analysis (also referred to as a safety and security risk analysis) to select the route to be used in moving the materials.

B.1.42.2 Rail Routing—Notification

Rail carriers must identify a point of contact for routing issues involving the movement of crude oil and provide the contact information to the following groups.

- State and/or regional fusion centers.
- State, local, and tribal officials that may be affected by a rail carrier's routing decisions and who have contacted the carrier to discuss routing decisions.

In addition, the emergency order (Docket No. DOT-OST-2014-0067) published on May 7, 2014, requires all railroads that operate trains containing one million gallons or more of Bakken crude oil to notify State Emergency Response Commissions about the operation of these trains through their state.

B.2 State

B.2.1 State Building Code (RCW 19.27)

The Washington State Building Code (RCW 19.27) sets building standards that promote the health, safety, and welfare of occupants and users of building and structures. Under Chapter 19.27.031, the State of Washington has officially adopted multiple building codes by reference. Among these are the 2012 editions of both the International Building Code (IBC) and the International Fire Code (IFC), as published by the International Code Council (Chapters 51-50 and 51-54A of the Washington Administrative Code [WAC]). Compliance with these codes is typically required at the local level and enforced through the issuance of building permits and the performance of building inspections by city building departments.

Both the IBC and IFC contain specific design standards and seismic requirements for the construction of occupied and unoccupied structures to minimize the risk of damage to people and property from geologic hazards such as earthquakes. Two of the standards that are applicable to the proposed action include the American Society of Civil Engineers (ASCE) Standard 7-02 and the American Petroleum Institute (API) Standard 650.

B.2.1.1 ASCE 7-02, Minimum Design Loads for Buildings and Other Structures

Required under Section 1613 of the 2012 IBC, ASCE 7-02 provides the latest design and construction requirements for all structures and permanently attached non-structural components for dead, live, soil, flood, wind, snow, rain, ice, and earthquake loads, as well as their combinations. This standard

[6] Currently the requirements are applicable to a single carload of explosives, a quantity of a material poisonous by inhalation in a single bulk packaging, or a radioactive material.

is currently under revision to include an additional factor of safety for tsunami modeling, prediction, and inundation estimates. The revised guidance is expected to be released in 2016 as ASCE/SEI 7-10.

B.2.1.2 API 650, Welded Steel Tanks for Oil Storage

Required under Section 5704.2.7 of the 2012 IFC, by reference through the National Fire Protection Association's Flammable and Combustible Liquids Code (30), Chapter 4, Section 4.2.3.1.1(2). API 650 addresses the design and construction requirements for welded steel tanks used for oil storage under atmospheric pressures, including the minimum requirements for tanks subject to seismic loading.

B.2.2 Building Permit Application—Evidence of Adequate Water Supply (RCW 19.27.097)

RCW 19.27.097 requires each applicant for a building permit to provide evidence of an adequate water supply for the intended use of the building. In addition to other authorities, the county or city may impose conditions on building permits requiring connection to an existing public water system where the system is able to provide safe and reliable potable water to the applicant with reasonable economy and efficiency.

B.2.3 Clean Air Act (RCW 70.94)

The Washington State Clean Air Act (RCW 70.94) regulates stationary sources of emissions to protect air quality. The act is administered by Ecology at the state level and by local air agencies for several specific areas within Washington at the regional level. Ecology has established ambient standards for total suspended particulates and sulfur dioxide that are more stringent than the federal requirements. Annual standards are never to be exceeded. Short-term standards are not to be exceeded more than once per year unless noted. National and state ambient air quality standards are shown in Table 1.

The Olympic Region Clean Air Agency has local jurisdiction for Grays Harbor County. Prevention of Significant Deterioration permitting activities is administered by Ecology on a statewide basis. Businesses and industries that cause, or have the potential to cause, air pollution are required to receive approval from the local air agency prior to beginning construction. These are requirements of Washington's Clean Air Act and apply statewide (RCW 70.94). An approved notice of construction air permit is required prior to constructing, installing, establishing, or modifying any equipment or operations that may emit air pollution.

B.2.4 Controls for New Sources of Toxic Air Pollutants (WAC 173-460)

Ecology pursues reductions in air toxics, which it refers to as toxic air pollutants, listed under Controls for New Sources of Toxic Air Pollutants (WAC 173-460-150), from new or modified

stationary sources.[7] In general, all sources that require a notice of construction application are required to assess their toxic air pollutant emissions from stationary sources with a review of the best available control technology for toxic air pollutants, quantification of emissions, and human health protection demonstration. The objective is to reduce or eliminate toxic air pollutants from stationary sources prior to their generation whenever economically and technically practicable.

B.2.5 Greenhouse Gas Reporting Rule (WAC 173-441)

Reporting of Emissions of Greenhouse Gases (WAC 173-441) establishes mandatory GHG[8] reporting requirements for owners and operators of certain facilities that directly emit GHGs. According to WAC 173-441-030(1), the reporting requirements apply to industrial facilities that meet the following two criteria.

- Emit at least 10,000 metric tons per year of GHG in terms of carbon dioxide equivalents, including carbon dioxide from the combustion of biomass.
- Are part of an applicable source category listed in WAC 173-441-120 incorporated by reference from 40 CFR 98.

B.2.6 Ambient Air Quality Standards

Table 1 provides the federal and state ambient air quality standards.

[7] A stationary source refers to an emissions source of air pollution that does not move. Examples of stationary sources include power plants, factories, and dry cleaners.

[8] GHG emissions from the proposed action include carbon dioxide, methane, nitrous oxide, and fluorinated gases.

Table 1. Federal and Washington State Ambient Air Quality Standards

Pollutant	Federal		State
	Primary (protect public health)	Secondary (protect public welfare)	
Carbon monoxide			
8-hour average[a]	9 ppm	No standard	9 ppm
1-hour average[a]	35 ppm	No standard	35 ppm
Ozone			
8-hour average[b,c]	0.075 ppm	0.075 ppm	0.075 ppm
Total suspended particles			
Annual average	No standard	No standard	60 µg/m^3
24-hour average[a]	No standard	No standard	150 µg/m^3
PM_{10}			
24-hour average[a]	150 µg/m^3	150 µg/m^3	150 µg/m^3
$PM_{2.5}$ 5			
Annual average	12 µg/m^3	15 µg/m^3	12 µg/m^3
24-hour average[a]	35 µg/m^3	35 µg/m^3	35 µg/m^3
Lead			
Quarterly average	No standard	No standard	1.5 µg/m^3
Rolling 3-month average	0.15 µg/m^3	0.15 µg/m^3	No standard
Sulfur dioxide			
Annual average	No standard	No standard	0.02 ppm
24-hour average[a]	No standard	No standard	0.14 ppm
3-hour average[a]	No standard	0.50 ppm	0.50 ppm
1-hour average[d]	75 ppb	No standard	75 ppb
Nitrogen dioxide			
1-hour average	100 ppb	No standard	100 ppb
Annual average	53 ppb	53 ppb	52 ppb

Source: 173 WAC 470–475; U.S. Environmental Protection Agency 2015c

[a] Not to be exceeded on more than 1 day per calendar year as determined under the conditions indicated in 173 WAC 475.

[b] In March 2008, EPA lowered the federal standard for 8-hour ozone from 0.08 ppm to 0.075 ppm.

[c] To attain this standard, the 3-year average of the fourth-highest daily maximum 8-hour average ozone concentrations measured at each monitor within an area over each year must not exceed 0.075 ppm.

[d] The 0.25 ppm standard is not to be exceeded more than two times in 7 consecutive days.

ppm = parts per million; PM_{10} = particulate matter with a diameter of 10 micrometers or less; $PM_{2.5}$ = particulate matter with a diameter of 2.5 micrometers or less; µg/m^3 = micrograms per cubic meter

Ecology maintains a network of air quality monitoring stations throughout the state and the Olympic Region Clean Air Agency has an ambient monitoring station in Aberdeen. These stations are placed in areas where air quality problems are most likely to occur, usually in or near urban areas or close to large air pollution sources. A limited number of additional stations are located in remote areas to provide an indication of regional background air pollution levels.

Based on monitoring information collected over a period of years, EPA and Ecology designate regions as being attainment or nonattainment areas for regulated air pollutants. Attainment status

indicates that air quality in an area meets the federal, health-based ambient air quality standards. Nonattainment status indicates that air quality in an area does not meet those standards. If the measured concentrations in a nonattainment area improve to levels consistently below the federal standards, Ecology and EPA can reclassify the nonattainment area to a maintenance area. In that case, Ecology and the local clean air agency are required to implement maintenance plans to ensure ongoing emission reductions, and continuous compliance with the federal standards.

EPA has established *de minimis* threshold levels, which represent a screening level for which a conformity analysis must be prepared if various criteria pollutants emissions exceed the thresholds. Grays Harbor County meets all National Ambient Air Quality Standards, and the more stringent state standards set for total suspended particulates and sulfur dioxide (i.e., ambient levels of air pollutants are well below *de minimis* levels).

B.2.7 Water Pollution Control Act (RCW 90.48)

The Washington State Water Pollution Control Act (RCW 90.48) regulates the discharge of pollutants into waters of the state including streams, lakes, rivers, ponds, inland waters, salt waters, watercourses, and other surface and underground waters. In many of these types of waters, vegetation plays an important part in the integrity and function of these waters and can influence water quality and how flows moves through these systems. The overall goals are preventing and cleaning up water pollution in waters of the state and protecting the quality and integrity of these resources. In addition to the development and implementation of state water pollution regulations and water quality standards, RCW 90.48 also addresses all of federal water pollution control laws and regulations that were delegated to the state by EPA, including the NPDES program created under CWA Section 402.

B.2.8 National Pollutant Discharge Elimination System Permit Program (WAC 173-220)

WAC 173-220 establishes a state permit program applicable to the discharge of pollutants and other wastes and materials to the surface waters of the state. The permits issued under WAC 173-220 are designed to satisfy the requirements for discharge permits under section 402(b) of the Federal Water Pollution Control Act and RCW 90.48. Under this program, any entity who wishes to discharge wastewater or stormwater to waters of the United States from a point source as part of the construction or operation of a commercial or industrial facility must obtain the appropriate NPDES permits from the state (Ecology). If such discharges are to a publicly owned treatment works or to groundwater, then a state wastewater discharge permit is required.

The proposed action would discharge stormwater from portions of the project site to Grays Harbor via the existing Port of Grays Harbor's stormwater conveyance system during the construction and operations phases of the proposed action. Consequently, it would require two different NPDES permits: an NPDES Construction Stormwater Permit and an NPDES Industrial Stormwater Discharge Permit.

B.2.8.1 Construction Stormwater Permit

Projects that disturb one or more acres of soil, or that disturb less than one acre but are part of a larger common plan of development that in total disturbs 1 or more acres, are required to obtain coverage under the General Permit for Stormwater Discharges Associated with Construction

Activities. Construction activity subject to this permit includes clearing, grading, and disturbances to the ground such as stockpiling or excavation, but does not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. General Construction Permit applicants are required to prepare a Notice of Intent and a stormwater pollution prevention plan (SWPPP) and implement and maintain best management practices (BMPs) to avoid adverse impacts on receiving water quality as a result of construction activities, including earthwork consistent with the *Stormwater Management Manual for Western Washington* (Washington State Department of Ecology 2012).

Coverage under the general permit is obtained by submitting permit registration documents to Ecology that include a risk level assessment and a site-specific SWPPP identifying an effective combination of erosion control, sediment control, and non-stormwater BMPs. The general permit requires that the SWPPP define a program of regular inspections of the BMPs and, in some cases, sampling of water quality parameters to ensure water quality is maintained to acceptable levels during construction.

B.2.8.2 Industrial Stormwater Discharge Permit

Facilities conducting industrial activities that discharge stormwater to a surface waterbody or to a storm sewer system that drains to a surface waterbody are required to obtain this permit. Under this permit, the Permittee is authorized to discharge stormwater and conditionally approved non-stormwater discharges to waters of the state. All discharges and activities authorized by this permit shall be consistent with the terms and conditions of this permit.

The permit requires coverage for private entities, state, and local government facilities, and includes existing facilities and new facilities. Facilities conducting industrial activities including or referenced shall apply for coverage under this permit or apply for a Conditional No Exposure exemption, if eligible. Ecology may also require permit coverage for any facility on a case-by-case basis in order to protect waters of the state.

B.2.9 Ballast Water Management Law (RCW 77.120)

Washington's Ballast Water Management Law (RCW 77.120) addresses the management of ballast water on all vessels of 300 gross tons or more, United States and foreign, carrying, or capable of carrying, ballast water into the waters of the state after operating outside of the waters of the state. The owner or operator in charge of a vessel is required to file a ballast water reporting form at least 24 hours prior to arrival into waters of the state, and to ensure that the vessel does not discharge ballast water into the waters of the state except as authorized by this law. Discharge of ballast water into waters of the state is authorized only if there has been an open sea exchange, or if the vessel has treated its ballast water, to meet standards set by the department consistent with applicable state and federal laws.

Vessels used for the proposed action are expected to be over 300 gross tons and would need to carry ballast water. Consequently, they would be required to follow the ballast water regulations.

B.2.10 Water Resource Act of 1971 (RCW 90.54)

The Water Resources Act of 1971 (RCW 90.54) sets fundamentals of water resource policy for the state to ensure adequate protection and optimal utilization for the people of the state by providing

direction to state agencies and local governments. Fish and fish habitat needs are also often addressed in water resource inventory area plans in accordance with WAC 173-500. These plans involve many local stakeholders, including federal, tribal, state, and local agency representatives.

B.2.11 Natural Area Preserves Act (RCW 79.70)

The 1972 Washington Natural Area Preserves Act (RCW 79.70) establishes a framework for identifying and cataloging special-status plant species and regionally important or unique plant communities in Washington State. The study area supports plant communities and species classified and preserved under the act, which provides context for understanding how the plant species and quality of plant communities that are or could be present in the study area are determined and categorized.

The act authorizes the Washington State Department of Natural Resources to establish and manage a statewide system of natural areas for the preservation of the state's natural ecosystems, including native plants. This system has expanded to include lands managed by numerous federal and state agencies and private conservation organizations. The act also established the Washington Natural Heritage Program within the Washington Department of Natural Resources, which provides a scientific approach for identifying candidate sites for the natural areas system. Because Washington State is one of 18 states without a state-level endangered plant law (U.S. Forest Service 2014), the act also authorizes Washington Natural Heritage Program to track plant species and high-quality natural ecosystems in the state and to designate plants with a state status as threatened, sensitive, or endangered (Washington Native Plant Society 2014).

B.2.12 Noxious Weed Law (RCW 17.10) and Noxious Weed List and Schedule of Monetary Penalties (WAC 16-750)

Special-status plants can include species designated as noxious weeds by the Washington State Weed Control Board under Washington State's noxious weed law (RCW 17.10). The study area supports plant species regulated as noxious weeds under the law. Management of developed areas can also affect the spread of noxious weeds to adjacent undeveloped areas.

The State Noxious Weed List and Schedule of Monetary Penalties (WAC 16-750) establishes the list of noxious weeds and defines weeds to be within Classes A to C. These classes indicate the level of concern and specify mandatory control and prevention measures associated with each class—Class A weeds receiving the highest priority for eradication. Local weed control boards adopt lists specific to their areas.

Several plant species present in the study area are listed noxious weeds.

- Four species of cordgrass (*Spartina anglica*, *S. densiflora*, *S. patens*, and *S. alterniflora*), are Class A noxious weeds (Grays Harbor County Noxious Weed Control Board 2014), and USFWS has identified the presence of cordgrass in the Grays Harbor estuary (U.S. Fish and Wildlife Service 2014).
- Common reed (*Phragmites australis*), a Class B noxious weed (Grays Harbor County Noxious Weed Control Board 2014), has invaded parts of the Grays Harbor estuary, including low elevation salt marsh areas critical to migratory shorebirds (U.S. Fish and Wildlife Service 2014). Riparian and wetland species such as Japanese knotweed (*Polygonum cuspidatum*) and purple

loosestrife (*Lythrum salicaria*) are also Class B noxious weeds present in the study area (Grays Harbor County Noxious Weed Control Board 2014).

- Field bindweed (*Convolvulus arvensis*), evergreen blackberry (*Rubus laciniatus*), Himalayan blackberry (*Rubus armeniacus*), Canada thistle (*Cirsium arvense*), and bull thistle (*Cirsium vulgare*), as well as invasive reed canarygrass (*Phalaris arundinacea*) are Class C noxious weeds (Grays Harbor County Noxious Weed Control Board 2014) present in the study area.

B.2.13 State Environmental Policy Act (RCW 43.21C and WAC 197-11)

The State Environmental Policy Act (SEPA), enacted in 1971, requires that the impacts of all major actions sponsored, funded, permitted, or approved by state or local agencies be planned using "appropriate consideration to environmental values and amenities" with consideration of in order to prevent or eliminate damage to the environment. WAC 197-11 identifies the rules and procedures for the environmental review process and content. SEPA also mandates that each state and local agency adopt its own procedures to carry out the intent of the law.

B.2.14 Growth Management Act (RCW 36.70A)

The Growth Management Act (RCW 36.70A) requires the counties and cities of the state to prepare and adopt comprehensive plans that keep with the Growth Management Act planning goals (RCW 36.70A.020). The Growth Management Act defines a variety of critical areas, including fish and wildlife habitat, which are designated at the local level under city and county critical areas ordinances. It requires all counties and cities in Washington to adopt development regulations to protect designated critical areas, and protecting critical areas means to maintain their values and functions to ensure no net loss of these values and functions. Because the proposed action would occur within the jurisdiction of the Cities of Hoquiam and Aberdeen, the comprehensive plans of these cities are discussed under the local applicable regulations, below. Critical areas review may be required for actions proposed within critical areas.

B.2.15 Shoreline Management Act (RCW 90.58)

The Shoreline Management Act (RCW 90.58) establishes policies and objectives for managing the use, development, environmental protection, and public access of the state's shorelines. Under the Shoreline Management Act, both the Chehalis River and Grays Harbor are shorelines of statewide significance. The Shoreline Management Act is administered by local governments through Shoreline Master Programs, which are essentially shoreline-specific comprehensive plans, zoning ordinances, and development permit systems that regulate land use and development in and along shorelines of the State of Washington.

B.2.16 Department of Fish and Wildlife Permanent Regulations (WAC 232-12)

At the state level, WDFW is charged with managing wildlife resources, including designating and protecting state listed endangered, threatened, and candidate species as well as priority habitats and species. WAC 232-12-011 provides a list of wildlife species native to the state of Washington that are protected. WAC 232-12-014 provides a list of endangered species in Washington State. Although no

permit or approval is required specific to state-listed species, special consideration is given in terms of the potential impacts on these populations.

B.2.17 Washington Department of Fish and Wildlife North of Falcon Policy (Policy C-3608)

This policy guides WDFW staff in considering conservation, allocation, in-season management, and monitoring issues associated with the annual salmon fishery planning process known as North of Falcon. When considering management issues, staff will ensure that decisions are made consistent with: the statutory authority, *U.S. v. Washington: U.S. v. Oregon*, the ESA, the Puget Sound Chinook Harvest Management Plan, the Pacific Salmon Treaty, the Pacific Fishery Management Council's Framework Salmon Management Plan, pertinent state/tribal agreements; and the applicable WDFW Commission policies.

B.2.18 Maximum Environmental Noise Levels (WAC 173-60)

WAC 173-60-0403 defines the maximum permissible environmental noise levels at property boundaries. Permissible sound levels are based on the land use of the noise source and receiving property. Land uses are categorized into three environmental designation[s] for noise abatement (EDNA) classes.

The most noise-sensitive EDNA, Class A, includes residential properties and parks. Class B EDNAs involve "uses requiring protection against noise interference with speech." Class B EDNAs typically include commercial lands. The project site is designated as Class C, which typically includes industrial and agricultural properties. The regulation contains exemptions for particular sound sources, as noted below.

Table 2 summarizes the maximum permissible daytime environmental noise levels (per WAC 173-60-040) in terms of A-weighted decibels (dBA).[9]

Table 2. Washington Administrative Code Noise Level Limits

	EDNA of Receiving Property (dBA)		
EDNA of Noise Source	**Class A[a]**	**Class B**	**Class C**
Class A	55	57	60
Class B	57	60	65
Class C	60	65	70

[a] Between the hours of 10:00 p.m. and 7:00 a.m., the noise level limits are reduced by 10 dBA for receiving property within Class A.

dBA = A-weighted decibels; EDNA = environmental designations for noise abatement

[9] Sound pressure levels are measured in units of decibels (dB), a logarithmic scale employed to reduce the otherwise cumbersome large range of pressure values. Environmental sound measurements in decibels are often expressed in terms of A-weighted decibels (dBA), which mimic the frequency response of human hearing which is most sensitive in midrange frequencies.

These state regulations contain exemptions for particular sound sources. The following construction and operational noise sources associated with the proposed action are exempt from state noise regulations (WAC 173-060-050).

- Noise created by safety and protective devices, if noise suppression would defeat the safety release intent of the device.
- Noise created by warning devices not operated continuously for more than 5 minutes per incident.
- Noise created by motor vehicles when regulated by WAC 173-62.[10]
- Construction-related noise during daytime hours.[11]
- Sounds created by surface carriers engaged in interstate commerce by railroad.

B.2.19 Scenic Highways Regulations (RCW 47.39.020)

The Scenic Highways Regulations (RCW 47.39.020) address scenic highways and recreational areas and dictates that scenic and recreational areas be preserved and protected from inappropriate development. Protection includes managing land use outside the normal rights-of-way.

B.2.20 Fisheries (WAC 220)

WDFW is responsible for managing regulations related to fisheries. WAC 220 establishes fishing seasons, minimum and maximum size limits, regulations regarding sale of catch, and catch limits, among other restrictions.

B.2.21 Wildlife (WAC 232)

WDFW is responsible for managing regulations related to wildlife areas and game reserves. WAC 232 establishes hunting seasons and limits, falconry regulations, wildlife interaction regulations, and identifies game reserves throughout the state.

B.2.22 Indian Graves and Records (RCW 27.44)

RCW 27.44 provides protection for Native American graves and burial grounds, encourages voluntary reporting of said sites when they are discovered, and mandates a penalty for disturbance or desecration of such sites.

B.2.23 Archaeological Sites and Resources (RCW 27.53)

RCW 27.53 governs the protection and preservation of archaeological sites and resources and establishes the Washington State Department of Archaeology and Historic Preservation as the administering agency for these regulations.

[10] WAC 173-62: Motor vehicle noise performance standards.
[11] Defined as 7:00 a.m. to 10:00 p.m. in WAC and 7:00 a.m. to 8:00 p.m. in HMC.

B.2.24 Abandoned and Historic Cemeteries and Historic Graves (RCW 68.60)

RCW 68.60 provides for the protection and preservation of abandoned and historic cemeteries and historic graves.

B.2.25 Prohibit Methods of Sewage Disposal (RCW 43.20.050)

RCW 43.20.050 prohibits disposal of sewage and industrial waste in a manner that would negatively affect domestic water supply or endanger the health and well-being of the people of the state. Local officers and employees are changed with enforcement. The applicant would be required to dispose of sewage and industrial waste properly.

B.2.26 Model Toxics Control Act (RCW 70.105D and WAC 173-340)

The Model Toxics Control Act and its implementing regulations (RCW 70.105D and WAC 173-340) is a toxic waste cleanup law that went into effect in 1989. Ecology's Toxic Cleanup Program oversees investigation and cleanup under the act.

B.2.27 Sediment Management Standards (WAC 173-204)

The Sediment Management Standards was created under the authority of RCW 90.48, the Water Pollution Control Act; RCW 70.105D, the Model Toxics Control Act; RCW 90.70, the Puget Sound Water Quality Authority Act; RCW 90.52, the Pollution Disclosure Act of 1971; RCW 90.54, the Water Resources Act of 1971; and RCW 43.21C, the State Environmental Policy Act, to establish marine, low salinity and freshwater surface sediment management standards for Washington State. The purpose of this chapter is to reduce and ultimately eliminate adverse effects on biological resources and significant health threats to humans from surface sediment contamination by establishing standards for the quality of surface sediments; applying these standards as the basis for management and reduction of pollutant discharges; and providing a management and decision process for the cleanup of contaminated sediments. The standards apply to sediment quality and reduced pollutant discharges. They also provide a decision process for the cleanup of contaminated sediment sites.

B.2.28 Hazardous Substances Account Act (RCW 70.105 et seq.)

Proper site characterization and site remediation of hazardous materials is regulated by the state Hazardous Substances Account Act (Health and Safety Code Section 25300 et seq.).

B.2.29 Dangerous Waste Regulations (WAC 173-303)

Ecology is authorized by EPA to implement the federal hazardous waste rules in Washington State via the Dangerous Waste Regulations (WAC 173-303). The purposes of these regulations are to provide authorities and standards for designating, tracking, managing, and safely disposing of dangerous solid wastes.

B.2.30 Hazardous Waste Operations (WAC 296–843)

The Hazardous Waste Operations regulations (WAC 296–843) apply to employees working in operations involving hazardous waste at a treatment, storage, and disposal facility required to have a permit or interim status and regulated by agencies implementing the federal Resource Conservation and Recovery Act. They also apply to employees conducting initial investigations of government-identified sites before determining whether hazardous substances are present; to corrective actions involving clean-up operations at sites covered by the act, and to employees performing clean-up operations at an uncontrolled hazardous waste site.

B.2.31 Oil Spill Act (RCW 90.56)

The Washington State Oil and Hazardous Substance Spill Prevention and Response Act (RCW 90.56) establishes programs to reduce the risk and develop an approach to respond to oil and hazardous substance spills. Under state law (RCW 90.56.370), anyone responsible for spilling oil into state waters is liable for damages resulting from injuries to public resources and imposes penalties on any person who willfully or recklessly discharges oil into state waters.[12] The Oil Spill Act grants these types of enforcement (criminal and civil) and other broad powers of regulation to Ecology for a comprehensive, statewide, spill prevention and response program.

On May 14, 2015, the Governor signed House Bill 1449, changing several aspects of the regulatory programs covering the over-land and over-water transportation of oil. The following provisions in the bill amend RCW 90.56.

- Oil is redefined in oil spill prevention, cleanup, and financial responsibility laws to mean any kind of oil that is liquid at 25°C and one atmosphere of pressure, including any distillate of that oil. The definition also explicitly covers bitumen, synthetic crude, natural gas condensate.
- Railroads must submit oil spill contingency plans to Ecology in the same manner as terminals, refineries, and other covered facilities. However, railroads are not made subject to the oil spill prevention planning requirements placed on other facilities.
- The oil spill prevention-planning standard of best achievable protection is applied to oil spill contingency planning, which must include access to in-state equipment to respond to a worst case spill.
- Railroads that transport oil as bulk cargo, pipelines, and other facilities are required to submit advanced notice to the Ecology of transfers between rail facilities, vessels, and other facilities.
- Ecology must aggregate rail transfer data by county quarterly and publish it on its website.
- Vessel Traffic Management Assessment (Section 11) is contingent on funding and specific to vessel traffic in the Columbia River; therefore, regulations would not apply to the proposed action.

[12] The definition of oil within the act means oil of any kind including crude oil, petroleum, gasoline, fuel oil, diesel oil, biological oils and blends, oil sludge, oil refuse and oil mixed with wastes other than dredged spoil.

B.2.32 Oil Spill Natural Resources Damage Assessment (WAC 173-183)

The Oil Spill Natural Resource Damage Assessment rule (WAC 173-183) establishes procedures for convening a resource damage assessment committee, preassessment screening of damages, and selecting the damage assessment method. The rule lays out a simplified process, called a compensation schedule, to calculate damages based on the habitat and organisms potentially impacted by the spill, the type of oil spilled, and the volume of oil spilled. The objective of this process is to restore natural resources to a prespill condition.

Although states have limited regulatory authority over railroads, they may participate in FRA's rail safety activities, such as safety inspections. State rail safety inspectors are trained by FRA through an agreement that allows the state to enforce FRA regulations. State agencies also play other roles in the planning and oversight of railroads in Washington State.

B.2.33 Washington Utilities and Transportation Commission

Per agreements with FRA, the Washington Utilities and Transportation Commission inspects and issues violations for hazardous materials, track, signal and train control, and rail operations. The commission also regulates the construction, closure, or modification of public railroad crossings. In addition, the commission inspects and issues defect notices if a crossing does not meet minimum standards. However, the commission has no jurisdiction over public crossings in first-class cities,[13] including Aberdeen.

B.2.34 Transportation Regulations (RCW 81)

RCW 81 regulates transportation in Washington State. This includes administering railroad safety provisions allowed under 49 U.S.C. 20106 and state law (RCW 81.04.540), rules for the equipment used by common carriers (RCW 81.44), and railroad crossings (RCW 81.53). On May 14, 2015, the Governor signed House Bill 1449, changing several aspects of the regulatory programs covering the over-land and over-water transportation of oil. Provisions in the bill amend RCW 81 as follows.

- **RCW 81.04.** Railroads that transport oil as bulk cargo must provide the same financial assurances to Ecology (via the Washington Utilities and Transportation Commission) as facilities like oil refineries and terminals. The financial assurances must relate to the railroad company's ability to pay damages in the event of a spill or accident involving the transport of crude oil by the railroad company in Washington.
- **RCW 81.44.** Commission employees certified by FRA to perform hazardous materials inspections may enter the property of any business that receives, ships, or offers for shipment hazardous materials by rail. The term *business* is all-inclusive and is not limited to common carriers or public service companies.
- **RCW 81.44**.The purpose of the entry is limited to performing inspections, investigations, or surveillance of equipment, records, and operations relating to the packaging, loading, unloading,

[13] Per RCW 35.01.01, a first-class city is a city with a population of 10,000 or more at the time of organization or reorganization that has adopted a charter.

or transportation of hazardous materials by rail, pursuant only to the state participation program outlined in 49 CFR Part 212.

- **RCW 81.53**. The Washington Utilities and Transportation Commission must adopt safety standards for private road crossings of railroads used to transport crude oil. These safety standards must include signage requirements, Washington Utilities and Transportation Commission inspection and crossing improvement prioritization criteria, and requirements for railroad companies to pay for and complete improvement projects.
- **RCW 81.53.** The Washington Utilities and Transportation Commission may inspect private crossings and order railroads to improve private crossings.
- **RCW 81.53.** Within 35 days of the effective date of Section 21 of House Bill 1449, first-class cities must provide to the commission a list of all existing public crossings within the limits of a first-class city. Within 30 days of modifying, closing, or opening a grade crossing within the limits of a first-class city, the city must notify the commission in writing of the action taken, identifying the crossing by USDOT number.

B.2.35 Transportation System Policy Goals (RCW 47.04.280)

The Washington Transportation System Policy (RCW 47.04.280) establishes the following goals: economic vitality, preservation, safety, mobility, environment, and stewardship. The economic vitality goal is to develop transportation systems that promote growth and enhance the passenger and freight rail services to create a prosperous the economy. The preservation goal is to preserve or extend the life of previous investments in the transportation systems and services for future use. The safety goal is to ensure the safety and security of customers and the transportation system as well as provide necessary improvements. The mobility goal is to improve the predictability of the passenger and freight rail service throughout the state. The environment goal is to ensure that the quality of life in Washington is enhanced by transportation improvements that promote energy conservation, healthy communities, and protect the environment. The stewardship goal is to provide ongoing improvements to the quality, effectiveness, and efficiency of the transportation system (Washington State Department of Transportation 2014).

B.2.36 Motor Vehicles—Rules of the Road (RCW 46.61)

The rules-of-the-road (RCW 46.61) require all vehicles to stop within 50 feet but not less than 15 feet of the nearest at-grade rail crossings with stop signs or when railroad warning signals are activated. The rules prohibit the stopping or parking of a vehicle on a railroad track. Slow, low, and specialty vehicles (such as school buses) have specific requirements before crossing at-grade crossings, including notifying the railroad before entering the area and stopping at all highway rail crossings within at least 15 to 50 feet of the tracks unless signs or a police officer at the crossing indicates that stopping is not required.

B.2.37 Washington State Department of Transportation

The Washington State Department of Transportation (WSDOT) Freight Systems Division is responsible for the statewide freight transportation policy and its Rail Division oversees the management of the Amtrak Cascades intercity passenger rail service along the Pacific Northwest corridor. These divisions jointly develop the state rail plan (for both freight and passenger). WSDOT

also administers a grant program and a loan program to support freight rail capital investments for short-line railroads.

WSDOT has no regulatory authority as it pertains to freight rail operations. However, WSDOT is responsible for highway operations and maintenance at state highway railroad grade crossings and at state highway intersections and interchanges that can be affected by nearby local roadway crossings. As part of its local agency guidelines and highway design standards, WSDOT provides guidance to local agencies on grade-crossing design and safety. Guidance is provided in the following WSDOT documents.

- WSDOT Local Agency Guidelines M 36-63.26, November 2014, Chapter 32, Railroad/Highway Crossing Program
- WSDOT Design Manual M 22.01.10, July 2013**,** Chapter 1350, Railroad Grade Crossings

The Washington Utilities and Transportation Commission regulates railroad companies, roadway/rail grade crossings, and rail-related safety grants for grade crossings. Specific RCW sections that apply to this project are described below.

B.2.38 City Streets as Part of State Highways (RCW 47.24)

RCW 47.24 regulates the maintenance and jurisdictional control for city streets that are part of state highways. Specifically, RCW 47.24.020 authorizes WSDOT as the road authority for state highways, including state highways located within city limits.

B.2.39 Grade-Crossing Petitions (WAC 480-62-150)

State legislation requires a petition to be filed with the Washington Utilities and Transportation Commission whenever the commission itself or a railroad company, city, county, transportation department, or parks and recreation commission seeks to open a new crossing (at-grade, over, or under), close an existing crossing, construct supplemental safety measures including median barriers, realign highway or railroad tracks, widen highways, construct multiple tracks, change crossing surfaces, and modifying/upgrading crossing protection (WAC 480-62-150).

B.2.40 Railroads—Operating Requirements and Regulations (RCW 81.48)

Railroads facilitate interstate and intrastate commerce and are regulated almost exclusively by the federal government, preempting state and local authority. This preemption limits the state's authority even with regard to safety measures under the Federal Railroad Safety Act.

The railroad operating requirements and regulations penalize those who obstruct or delay trains; except to the extent preempted by federal law, regulate train speed within cities, towns, and at-grade crossings; outline the procedure to fix or change speed limits; require trains to make a complete stop at railroad crossings; and penalize violations of duty endangering safety (RCW 81.48).

B.2.41 Railroads—Crossings (RCW 81.53)

The railroad crossings regulation (RCW 81.53) establishes a legislative preference that highway rail crossings are constructed as grade-separated crossings, and requires Washington Utilities and

Transportation Commission authorization when at-grade crossings are constructed or modified; outlines petitions and requirements for changing crossings; poses a minimum clearance for under-crossings; establishes the railroad's duty to maintain crossings; apportions costs between railroads and road authorities for establishing and modifying crossings; outlines eminent domain; provides authority for the state to order closure of existing crossings; and lists minimum requirements for crossing protection devices.

B.2.42 Pilotage Act (RCW 88.16)

The Washington State Pilotage Act (RCW 88.16) establishes requirements for compulsory pilotage provisions in certain waters of the state, including Grays Harbor. A vessel that is either registered with a foreign flag or a U.S. flag but engaged in international trade is sailing on register and is required to enter Grays Harbor with a state-licensed pilot (RCW 88.16.070).

On May 14, 2015, the Governor signed House Bill 1449, changing several aspects of the regulatory programs covering the over-land and over-water transportation of oil. Provisions in the bill amend RCW 88.16 by permitting the Pilotage Commission to adopt rules to require tug escort requirements and other safety measures in state waters for oil tankers of greater than 40,000 deadweight tons, all articulated tug barges, and other towed waterborne vessels or barges within a 2-mile radius of the Grays Harbor pilotage district (RCW 88.16.050).

B.2.43 Vessel Oil Spill Prevention and Response (RCW 88.46)

RCW 88.46 establishes rules and regulations for tank vessels that carry oil and enter navigable waters of the state. Programs include tank vessel inspection, prevention plans, vessel screening, and contingency plans. On May 14, 2015, the Governor signed House Bill 1449, changing several aspects of the regulatory programs covering the over-land and over-water transportation of oil. Provisions in the bill amend RCW 88.46.

- Oil is redefined in oil spill prevention, cleanup, and financial responsibility laws to mean any kind of oil that is liquid at 25°C and one atmosphere of pressure, including any distillate of that oil. The definition also explicitly covers bitumen, synthetic crude, natural gas condensate.
- Railroads must submit oil spill contingency plans to the Ecology in the same manner as terminals, refineries, and other covered facilities. However, railroads are not made subject to the oil spill prevention planning requirements placed on other facilities.
- The oil spill prevention-planning standard of best achievable protection is applied to oil spill contingency planning, which must include access to in-state equipment to respond to a worst case spill.

B.2.44 Hazardous Chemical Emergency Response Planning and Community Right-to-Know Reporting (WAC 118-40)

The Hazards Chemical Emergency Response Planning and Community Right-to-Know Reporting (WAC 118-40) establishes requirements for federal, state, and local governments, and industry to improve hazardous chemical preparedness and response through coordination and planning; provisions include public notification about chemicals used at facilities.

B.2.45 Facility Oil Handling Standards (WAC 173-180)

The Facility Oil Handling Standards (WAC 173–180) establishes facility oil handling regulations for minimum design standards for oil storage tanks, including detailed requirements for primary and secondary containment. Additionally, these standards establish safe practices for handling and storing oils in bulk and requirements for regular inspection and reporting to Ecology.

B.2.46 Oil Spill Contingency Plan Requirements (WAC 173-182)

Requires larger oil handling facilities and commercial vessels to have state-approved oil spill contingency plans that describe their ability to respond to oil spills. Identifies specific standards for Grays Harbor.

B.2.47 Vessel Oil Transfer Advance Notice and Containment Requirements (WAC 173-184)

Requires facility operators who transfer oil to provide Ecology with a 24-hour advance notice of transfer.

B.2.48 Transport of Petroleum Products – Financial Responsibility (RCW 88.40)

RCW 88.40 defines and prescribes financial responsibility requirements for vessels that transport petroleum products across state waters and facilities that store, handle, or transfer oil or hazardous substances near navigable waters of the state. Tank vessels that transport oil in bulk as cargo may be required to demonstrate financial responsibility to pay $1,000,000,000.

B.2.49 Local Critical Areas Ordinance (HMC 11.06 and AMC 14.100)

The Critical Areas Ordinances in HMC 11.06 and AMC 14.100 address the designation and protection of certain ecosystems and land features known as critical areas per the requirements of the Washington State Growth Management Act (RCW 36.70A). As defined under the act, critical areas include several types of water resources such as wetlands, critical aquifer recharge areas, and frequently flooded areas. In addition, surface waters that provide habitat for certain fish and wildlife species are also regulated as critical areas.

The primary protection mechanisms enacted by these rules include restrictions and prohibitions on the type of development that can occur within and adjacent to these areas through the issuance of permits, and the requirement for compensatory mitigation should such areas be affected by development activities. Buffers are also required around both wetlands and surface waters that provide fish and wildlife habitat to protect these resources and the functions they perform. Development activities within these buffers are also regulated and subject to mitigation requirements. There are both geological hazardous areas and fish and wildlife habitat conservation areas on and around the project site.

In Hoquiam and Aberdeen, fish and wildlife habitat conservation areas include streams, areas that support endangered, threatened, and sensitive species, as well as specific types of vegetated habitats

such as eelgrass beds, waters of the state and their associated riparian areas, and state natural area preserves (HMC 11.06.230 and AMC 14.100.500).).

Fish and wildlife habitat conservation areas within 300 feet of the project site include Fry Creek, which lies along the northern and western sides of the project site as well as the Chehalis River shoreline and the open water and tidally exposed mudflats and eelgrass beds in Grays Harbor. No vegetative buffer is currently present on the project site; however, because the proposed action would encroach into a potential vegetative buffer on both Fry Creek and the Chehalis River, a critical area review of impacts from the proposed action would be required by the Cities of Hoquiam and Aberdeen.

One of the goals of AMC 14.100 is to "maintain healthy, functioning ecosystems through protection of unique, fragile, and valuable elements of the environment, including ground and surface waters, wetlands, and fish and wildlife and their habitats, and to conserve biodiversity of plant and animal species." HMC 11.06.240 indicates that, "development activities occurring on lands and waters containing documented habitats for plant and animal species in fish and wildlife habitat conservation areas shall result in no net loss of existing function." Further, HMC 11.06.260 requires that developments along the shoreline adjacent to Grays Harbor "maintain a riparian corridor of at least twenty-five feet along seventy-five percent of the shoreline length measured perpendicularly from the ordinary high water mark landward." Water-dependent developments that are not able to meet this standard may be assigned a buffer on a case-by-case basis. Wildlife and aquatic life and their habitats are also addressed under each City's respective Shoreline Master Program.

AMC 14.100.400–460 address geologically hazardous critical areas including areas susceptible to erosion, landsliding, seismic or other geological events, including tsunamis, mass wasting, debris flows, rock falls and differential settlement. A geotechnical assessment is required for geologically hazardous areas. A critical areas report will be required for a proposal within a seismic hazard area to address if the proposal conforms with applicable building codes especially as these apply to protection of structures from seismic events, if the City of Aberdeen deems the report necessary. If a site is determined to be subject to liquefaction, mitigation measures appropriate to the scale of the development will be recommended and implemented. A geotechnical report is valid for 5 years for a specific site and where the proposed land use activity and surrounding site conditions are unchanged. For tsunami hazard areas, a tsunami hazard analysis will include a complete discussion of the potential impacts on the site and an emergency management plan.

HMC 11.06.200 through 11.06.220 and AMC 14.100.400 through 14.100.430 address geologically hazardous critical areas including areas susceptible to erosion, sliding, earthquake or other geological events. Commercial, residential, or industrial development is regulated in such areas because certain uses could pose a threat to the health and safety of citizens. In Hoquiam, designated geologically hazardous areas include areas susceptible to one or more of the following types of hazards: erosion hazards, landslide hazards, seismic hazards, or areas subject to other geologic events such as coal mine hazards, volcanic hazards, mass wasting, debris flows, rockfalls, and differential settlement. Tsunami hazards are not explicitly listed under the HMC. Aberdeen identifies geologically hazardous areas as erosion hazards, landslide hazards, seismic hazards, and other geological events including tsunamis, mass wasting, debris flows, rock falls, and differential settlement. Both cities may require a technical assessment for development activities in a geologically hazardous area. The assessment must be prepared by a qualified expert and contain recommended mitigation measures. HMC 11.06.220 and AMC 14.100.430 address mitigation in geologically hazardous areas.

B.2.50 Land Development—Erosion and Settlement Control (HMC 10.05.120 and AMC 13.70)

Both Hoquiam (HMC 10.05.120) and Aberdeen (AMC 13.70) include regulations in their respective municipal codes that address the management and control of storm and surface water runoff on residential, commercial, industrial, and institutional development sites. The intent of these regulations is to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse impacts associated with increased storm and surface water runoff from development activities.

HMC 10.05.120 specifies that all new development shall minimize erosion and sedimentation caused by storm water runoff through minimizing removal of vegetation, use of temporary measures for sediment control during construction, and planting exposed areas promptly after construction. Aberdeen (AMC 13.70) specifies that the *Stormwater Management Manual of Western Washington* and Low Impact Development Approaches are to be used as minimum storm and surface water management. The applicant will be required to follow these regulations for erosion and settlement control.

B.2.51 Shoreline Management—(HMC 11.04 and AMC 16.20)

The City of Hoquiam and the City of Aberdeen have adopted Shoreline Master Programs (SMPs) that carry out responsibilities imposed by the Shoreline Management Act of 1971. Both Cities have adopted a regional SMP written for Grays Harbor County. The SMPs contain policies and regulations for different uses and development in and on shorelines of the state and the associated shorelands. Both the Chehalis River and Grays Harbor are both shorelines of statewide significance. The proposals trigger shoreline substantial development permits from both cities.

B.2.52 Adoption of International Fire Code 2012 Edition (HMC 2.38 and AMC 15.12)

Both Hoquiam and Aberdeen have officially adopted the IFC, which regulates and governs the safeguarding of life and property from fire and explosion hazards arising from the storage, handling and use of hazardous substances, materials and devices, and from conditions hazardous to life or property.

The ICF contains provisions that involve earth and geologic resources include the requirement that certain structures (e.g., aboveground storage tanks for flammable liquids) be constructed in accordance with industry standards (e.g., API 650) that include foundation and seismic loading specifications. The ICF also includes provisions regarding onsite fire safety standards and emergency management requirements. The applicant would have to ensure that buildings and operations meet the fire code. Relevant specifications include, but are not limited to, the number and distribution of fire hydrants, fire-resistance-rated construction, materials, fire protection systems, means of egress, construction requirements of existing buildings, fire safety during construction and demolition, hazardous materials, flammable and combustible liquids, gases, and fluids.

B.2.53 Adoption of International Building Code 2012 Edition (HMC 2.08 and AMC 15.08)

Both Hoquiam and Aberdeen have officially adopted the IBC, which has provisions for activities affecting earth and geologic resources include specific requirements for structural design (Chapter 16), structural testing (Chapter 17), soils and foundations (Chapter 18) and construction; grading, excavation, earthwork construction (Appendix J); and tsunami-generated flood hazards (Appendix M). These code sections include specific requirements for the incorporation of various analyses (e.g., climatic and geologic load analyses, geotechnical report, liquefaction potential evaluation), engineering design standards (e.g., ASCE-7-02), and the preparation of various plans (e.g., erosion control, stormwater drainage) related to earth and geologic resources.

B.2.54 Stormwater Management Regulations (HMC 10.05.120 and AMC 13.70)

Both the City of Hoquiam (HMC 10.05.120) and the City of Aberdeen (AMC 13.70) regulate management and control of storm and surface water runoff on residential, commercial, industrial, and institutional development sites. The intent of these regulations is to protect, maintain, and enhance the public health, safety, and general welfare by establishing minimum requirements and procedures to control the adverse impacts associated with increased storm and surface water runoff from development activities. Both Cities require developers to submit detailed storm and surface water drainage plans as part of a grading/fill, building, or other development permit application. Such plans must provide a detailed description of how storm and surface water runoff will be managed on the site, demonstrate that runoff from the proposed development will not cause flooding on adjacent properties, show that the proposed stormwater system has been designed and adequately sized to accommodate the appropriate storm event, and describe any required stormwater control infrastructure (e.g., oil-water separator, detention/retention facilities). Hoquiam and Aberdeen have both adopted the *Stormwater Manual for Western Washington* (Washington State Department of Ecology 2012) as the minimum standard for stormwater control and management.

B.2.55 Landscaping and Screening Ordinance (HMC 10.05.65)

The landscaping and screening regulations are intended to maintain and enhance the urban forest and providing landscaping and screening that will promote a healthy and aesthetically pleasing environment. Specific landscaping development standards are enumerated in HMC 10.05.065 and AMC 17.88.

The Hoquiam Landscaping and Screening Ordinance (HMC 10.05.65) requires that 18 inches total caliper of new trees be planted per gross acre of new development. Deciduous trees are to be a minimum of 2 inches caliper (as measured at 4.5 feet above the ground); coniferous trees are to be a minimum of 3 feet high. If a site's soils are not adequate for the long-term survival of trees, plantings in other, offsite locations acceptable to the City can be proposed, per HMC 10.05.65.3.

B.2.56 Public Noise Nuisances (HMC 3A.30)

HMC 3A.30 outlines local noise regulations. Noise limits defined in HMC apply to public noise nuisance, or "conduct which unreasonably disturbs or interferes with the peace, comfort, and repose

of another person." These local regulations contain exemptions for particular sound sources. The following construction and operational noise sources associated with the proposed action are exempt from local noise regulations (HMC 3A.30).

- Noise created by safety and protective devices, if noise suppression would defeat the safety release intent of the device.
- Noise created by motor vehicles when regulated by WAC 173-62.[14]
- Construction-related noise during daytime hours.[15]

B.2.57 Zoning (HMC 10.03 and AMC 17.00)

The Hoquiam and Aberdeen comprehensive plans classify land in their respective cities into various zoning districts that are assigned appropriate designations to regulate the use of land, buildings, and structures within each district. Regular land use zoning districts for Hoquiam under HMC 10.03 are low density residential (R-1); high density residential (R-2); general commercial (C-1); downtown commercial (C-2); industrial (I); and natural resource (NR). Regular land use zoning districts for Aberdeen under AMC 17.00 are single-family district (R-S); multiple-family district (R-M); residential professional (R-P); major institutional (M-I); commercial residential (C-R); downtown commercial (C-D); general commercial (C-G); light industrial (I-L); and Industrial (I).

B.2.58 Density and Dimensional Requirements (HMC 10.03.100)

The City of Hoquiam Density and Dimensional Requirements specify a maximum height standard (55 feet) for its Industrial District (HMC 10.03.100.3). As part of Hoquiam's development permit application, the applicant would be required to submit a conditional use permit, because the height of the proposed storage tanks (64 feet) would exceed the city's maximum.

B.2.59 Historic Preservation (HMC 10.06 and AMC 17.50)

Both the Cities of Aberdeen and Hoquiam maintain local registers of historic places, which include individually registered city landmarks, historic districts, or conservation districts (HMC 10.06 and AMC 17.50). The historic preservation commissions in each city are responsible for the administration and oversight of these regulations. Properties are nominated to the local registers of historic places and designated by city council resolution. Changes to the exteriors of listed properties in the cultural resources study area would be subject to review by these respective commissions.

B.2.60 Solid Waste and Recyclable Materials (HMC 3.16.030 and AMC 13.08)

Both the Cities of Hoquiam and Aberdeen regulate safe, reliable, and responsible use of public services by establishing a system for collection, removal, and disposal of solid waste and recyclables

[14] WAC 173-62: Motor vehicle noise performance standards.
[15] Defined as 7:00 a.m. to 8:00 p.m. in HMC.

and indicating other forms of disposal is unlawful. HMC 3.16.030 states that it is unlawful for a person to dispose of solid waste originating within the incorporated area of the city at a site or facility other than a disposal site or other solid waste handling facility designated by the county. AMC 13.08 mandates that using the established system for the collection, removal, and disposal of solid waste and recyclables is compulsory and mandatory for business establishments in the city. It is unlawful to bury, burn, dump, collect, remove, or in any manner dispose of solid waste and recyclables at any site other than a designated solid waste handling facility, with the exception of water paper, boxes, brush, ashes, and waste foods, which may be disposed of on private property following specific protocol. During construction and operations, the applicant will be required to dispose of solid waste and recyclable materials in accordance with these regulations.

B.2.61 Water System Regulations (AMC 13.56)

AMC 13.56 provides a set of requirements and specifications for use of City of Aberdeen water supply regarding connections and maintenance of pipelines, provisions to avoid insufficient supply for fire flow, permitting, emergency water use restrictions, and fire protection services. The City of Aberdeen would supply water at the project site and the applicant must abide by the specific use standards outlined in AMC 13.56.

B.2.62 Traffic Regulations (AMC 10.64 and HMC 1.45)

The City of Aberdeen regulates vehicle traffic on property owned by the Port of Grays Harbor (AMC 10.64) as well as industrial area traffic and emergency medical services in the area (AMC 13.80), and ambulance and emergency medical services utility. The City of Hoquiam regulates ambulance services (HMC 1.45) and an arterial street fund to pay the cost of construction, repairs, and improvements to arterial streets (HMC 1.88). WSDOT is the road authority for state highways, including state highways located within city limits (RCW 47.24.020).

B.3 Additional Oversight

B.3.1.1 U.S. Army Corps of Engineers

USACE provides environmental and navigational engineering services regarding the maintenance of maritime commerce on the nation's waterways. USACE is primarily responsible for maintaining the Grays Harbor navigation channel, including anchorage areas and turning basin, at its authorized depths and widths.

USACE performs periodic soundings of the navigation channel, anchorage areas, and the turning basins in Grays Harbor. Maintenance of these areas, plus the periodic soundings, provides critical information to the pilots at Grays Harbor so vessel movements can be scheduled most appropriately (WorleyParsons 2014).

B.3.1.2 U.S. Department of Transportation

USDOT is responsible for ensuring a safe and efficient transportation system, and has operating administrations with regulatory responsibilities over specific modes of transportation. The USDOT Maritime Administration deals directly with waterborne commerce activities. The Maritime Administration supports merchant mariners, vessels, terminals, ports and intermodal facilities by

providing financial assistance from federal funds and oversight of federal legislative activities. It also plays a key role in implementing U.S. marine transportation policies for meeting commercial vessel security needs (WorleyParsons 2014).

B.3.1.3 National Oceanic and Atmospheric Administration

NOAA is the lead federal agency for implementing the national Integrated Ocean Observing System that contributes to the greater Global Earth Observation System of Systems. NOAA actively monitors oceans (and the Great Lakes) and provides other government agencies, such as USCG and USACE, and industry with the information for timely and informed decisions. NOAA maintains a network of buoys, tidal stations, and satellite measurements that provide a continuous picture of the state of the ocean.

B.3.1.4 Grays Harbor Safety Committee

The Grays Harbor Safety Committee is a voluntary, local group formed to coordinate marine transportation safety issues (U.S. Coast Guard Navigation and Inspection Circular 1-00). The committee includes public and private stakeholders and regulatory agencies (USCG, USACE, and Ecology) with interests in assuring safe navigation to protect personnel, property, and environment on the waterways of Grays Harbor. The committee has developed a harbor safety plan for Grays Harbor that complements existing regulations by advising mariners of unique conditions and requirements in Grays Harbor and by providing standards of care and protocols for the area.

B.4 References

B.4.1 Written References

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Appendix C

Tsunami Impact Modeling and Analysis

COAST & HARBOR ENGINEERING
A Division of Hatch Mott MacDonald

Technical Memorandum
Westway and Imperium Terminal Services Expansion Projects EIS's
Tsunami Impact Modeling and Analysis

1. Introduction

This technical memorandum presents the results of analysis and numerical modeling of tsunami wave generation and propagation for the expansions projects proposed by Westway and Imperium Terminal Services Expansion Projects Environmental Impact Statements (EIS's) in Grays Harbor, Washington. The facilities are located on the north banks of the Chehalis River in the upland area of Terminals 1 and 2, as shown in the aerial photograph in Figure 1.

The analysis and numerical modeling included simulation of tsunami wave generation at the Cascadia Subduction Zone (CSZ), tsunami wave propagation toward the project site, and evaluation of possible inundation of these two facilities. The objectives of the modeling and analysis were as follows:

- Estimate elevation of inundation in the project area during the design tsunami event.
- Determine possible forces on oil tank structures from the tsunami wave during the design earthquake event.

The current tsunami modeling study (presented herein) incorporated lessons learned from recent earthquake events, specifically the 2011 Tohoku, Japan earthquake and the new Cascadia Subduction Zone (CSZ) rupture scenarios, developed and published by the Department of Geology and Mineral Industries (DOGAMI) in 2011 (Witter *et al.*, 2011). In addition, the modeling study incorporated further measures in anticipation of an update to the American Society of Civil Engineers Minimum Design Loads for Buildings and Other Structures (ASCE/SEI 7-10) to be released in 2016. This update will include a chapter on 'Tsunami Loads and Effects.'



Figure 1. Location of proposed Westway and Imperium Terminal Services Expansion Projects EIS's in Grays Harbor

2. Tsunami Modeling Methodology and Input Data

2.1. Modeling Inputs and Methodology

Prior to conducting the numerical modeling, CHE prepared the tsunami modeling methodology for this project. For this purpose, CHE prepared and issued the technical memorandum *Grays Harbor Tsunami Hydrodynamic Modeling Methodology* (CHE, 2014). The modeling methodology described in this document is consistent with past CHE project experiences that were conducted in coordination with DOGAMI and Federal Emergency Regulatory Commission (FERC). The following is a list of major modeling input parameters and modeling results evaluation procedures that were coordinated by this technical memorandum. Some of these parameters and procedures are further discussed in detail in the present technical memorandum.

- FERC's revised seismic design criterion (2007) requires that the seismic source used to generate a design tsunami event be consistent with a Safe Shutdown Earthquake (SSE) with a return period of 2,475 years. As documented in CHE's 2014 technical memorandum, DOGAMI recommended using their rupture Scenario L1 to best represent the 2,475-year hazard level design criteria outlined in the revised FERC seismic design criteria. Therefore, the earthquake source for this tsunami modeling effort meets FERC's criteria (See Section 2.2 for more details).
- Tsunami hydrodynamic modeling was conducted for three rupture scenarios for CSZ (also referenced as the seismic source for modeling): L1, L2, and L3 that were developed by DOGAMI. It was found that Scenario L1 is the most critical

event (Zhang, 2012) and produces the largest tsunami wave, compared to Scenarios L2 and L3. Therefore, this technical memorandum describes the results of only one modeling event: L1 (See Section 2.2).

- The model bathymetry was adjusted (i.e., raised at the areas of uplift and lowered at the areas of subsidence including the project site) before the start of the simulation to account for the L1 rupture scenario. The earthquake was modeled as a 10-sec seafloor deformation sequence, resulting in an initial surface slope and acceleration field that drives the subsequent fluid motion. Modeling was conducted using the 2-D version of the three-dimensional (3-D) hydrodynamic model SELFE (Zhang & Baptista, 2008). See Section 2.2 for more details.
- The initial, prior to earthquake, water surface elevation for the entire modeling grid was assigned to be at Mean High Water (MHW) elevation. The Aberdeen, WA NOAA Station database was used to define the MHW elevation for the modeling grid. Based on this database, MHW elevation is +7.82′ (+2.384 m) NAVD88 (See Table 1 below).
- As required by FERC, a safety factor of 1.3 was applied to the results of tsunami numerical modeling to further increase water surface elevations (WSEL) referenced to MHW in the project area. The factor is intended to account for uncertainties in the modeling.
- Initial water surface elevation will be raised an additional 0.75 feet (0.229 m) to incorporate the possible sea level rise by 2037, as provided by ICF International (ICF).
- The following scenarios were selected for modeling in coordination with ICF:
    - Scenario 1: Assuming both Westway Terminals LLC and Imperium Terminals Services tanks are constructed without incorporating sea level rise; and
    - Scenario 2: Assuming both Westway Terminals LLC and Imperium Terminals Services tanks are constructed with incorporating sea level rise.

Figure 2 shows a conceptual diagram that schematically demonstrates changes (modifications) in ground and water surface elevations with regard to all factors discussed above, including the safety factor. It should be noted that Figure 2 demonstrates the concept at the project site where subsidence occurs.

Table 1. NOAA Tidal Datums for Aberdeen, Washington

Aberdeen, WA TIDAL DATUMS[1]		
	Elevations	
Datum	(feet-MLLW)	(feet-NAVD88)
MEAN HIGHER HIGH WATER (MHHW)	10.11	8.52
MEAN HIGH WATER (MHW)	9.41	7.82
MEAN SEA LEVEL (MSL)	5.60	4.01
MEAN TIDE LEVEL (MTL)	5.44	3.85
NATIONAL GEODETIC VERTICAL DATUM (NGVD29)	4.88	3.29
NORTH AMERICAN VERTICAL DATUM-1988 (NAVD88)	1.59	0.00
MEAN LOW WATER (MLW)	1.47	-0.12
MEAN LOWER LOW WATER (MLLW)	0.00	-1.59
Notes: [1]Datums are from NOAA National Ocean Service website for Station 9441187 Aberdeen, WA accessed on 11/12/2014. Time Datum Analysis Period: 01/01/1983-04/30/1991 Tidal Epoch: 1983-2001		

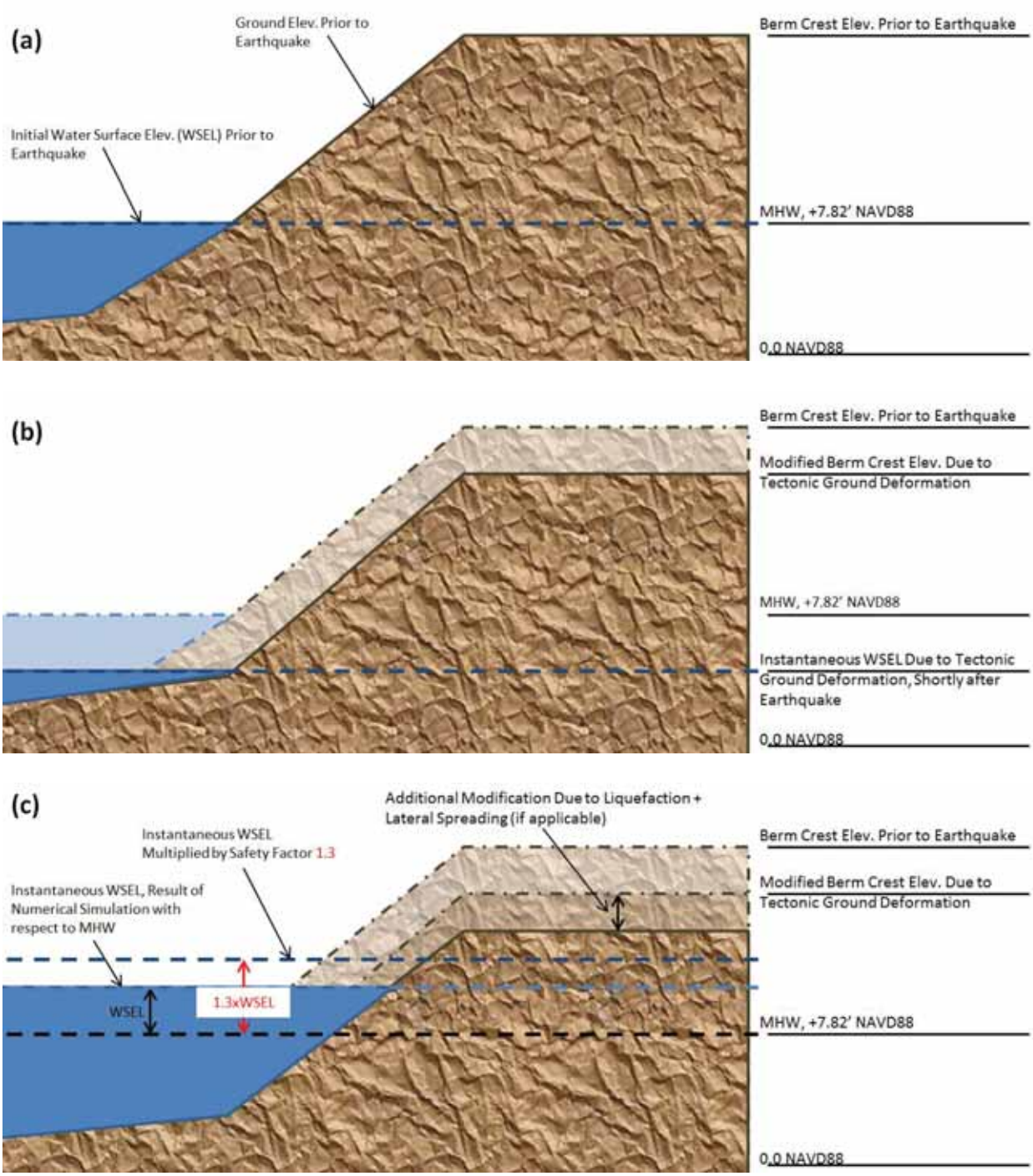


Figure 2. Schematic representation of elevations and implementation of safety factor required by FERC: (a) ground and water surface elevation (WSEL) prior to earthquake and tsunami; (b) ground and instantaneous (snapshot of) WSEL, result of numerical modeling shortly after Earthquake; and (c) maximum results of WSEL tsunami hydrodynamic modeling, adjusted by a safety factor of 1.3; incorporating liquefaction settlement and lateral spreading (if applicable). It should be noted that the hydrodynamic model determines response of water to the input land elevation deformations due to Earthquake.

2.2. Earthquake Source Model

The earthquake source model utilized for this study was based on DOGAMI's most recent study and official publication. DOGAMI has studied and developed 15 rupture scenarios for the Cascadia Subduction Zone (CSZ), recommended to be used in tsunami inundation studies (see Witter *et al.*, 2011 for more details). Among these 15 rupture scenarios, Scenarios L1, L2, and L3 represent events with three occurrences in 10,000 years, with L1 being the largest event. As documented in the CHE's 2013 memorandum, DOGAMI recommended using their rupture Scenario L1 to best represent the 2,475-year FERC criteria.

FERC requires the seismic source for generation of a tsunami event be consistent with the seismic source for the Safe Shutdown Earthquake (SSE) that has a return period of 2,475 years (FERC, 2007). As discussed above, rupture Scenario L1 developed by DOGAMI is estimated to correspond to a 3,333-year return period event that satisfies FERC criteria. Therefore, this event was used for tsunami wave generation for the Westway and Imperium Terminal Services Expansion Projects EIS's. CSZ dislocation maps corresponding to rupture scenario L1 (as well as other scenarios) were produced by DOGAMI and were purchased by CHE to be used as input for the numerical modeling.

Figure 3 shows vertical tectonic ground deformation for Scenario L1. Scenario L1 includes a subsidence of approximately 2.93 m (9.61 ft) at the project site. This subsidence was accounted for in the modeling effort by lowering the project site and the surrounding area by 9.61 ft.

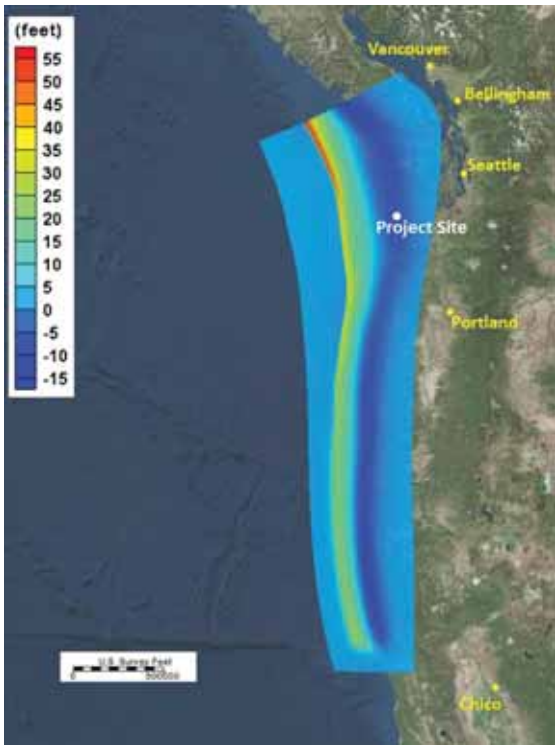


Figure 3. Tectonic vertical ground deformation in feet for CSZ rupture Scenario L1 (Witter *et al.*, 2011)

3. Tsunami Hydrodynamic Model and Modeling Grid

3.1. SELFE Model

Tsunami modeling was conducted using the hydrodynamic numerical model SELFE (Zhang and Baptista, 2008). SELFE is a three dimensional (3-D), unstructured-grid, fully nonlinear, semi-implicit Eulerian-Lagrangian finite element model. SELFE is capable of simulating tsunami wave generation in the open coast and propagation of the tsunami wave through river embayment to the project site. The SELFE model is currently being used by DOGAMI for developing inundation and evacuation maps for the entire coast of Oregon.

3.2. Numerical Modeling Grid and Bathymetry

An unstructured triangular grid was developed specifically for the present numerical modeling effort. The triangular grid extends approximately 200 miles offshore of the project site. The grid varies in resolution between approximately 4 miles at the offshore boundary to 32 ft at the project site, with a total of 645,590 calculation nodes. Figure 4 shows three views of the modeling grid.

Model bathymetry/topography data for numerical modeling was composed from:

- Bathymetry data provided by the Scripps Institute of Oceanography Global Grid (2009).
- Astoria V2 DEM provided by NOAA (2012).
- LiDAR data provided by FEMA (2010).
- Existing and Design Grading at the project site provided by the client.
- Bathymetry data used in the previous tsunami modeling study for the project site (Zhang, 2008 & 2012).
- Offshore bathymetry used in the recent tsunami modeling studies conducted by DOGAMI (Zhang, 2012).

Figure 5 shows a compiled bathymetry dataset representing the extent of the domain that was used for tsunami modeling in the study. Figures 6 and 7 show a close-up of local bathymetry and topography for Grays Harbor and in the vicinity of the project site, respectively.

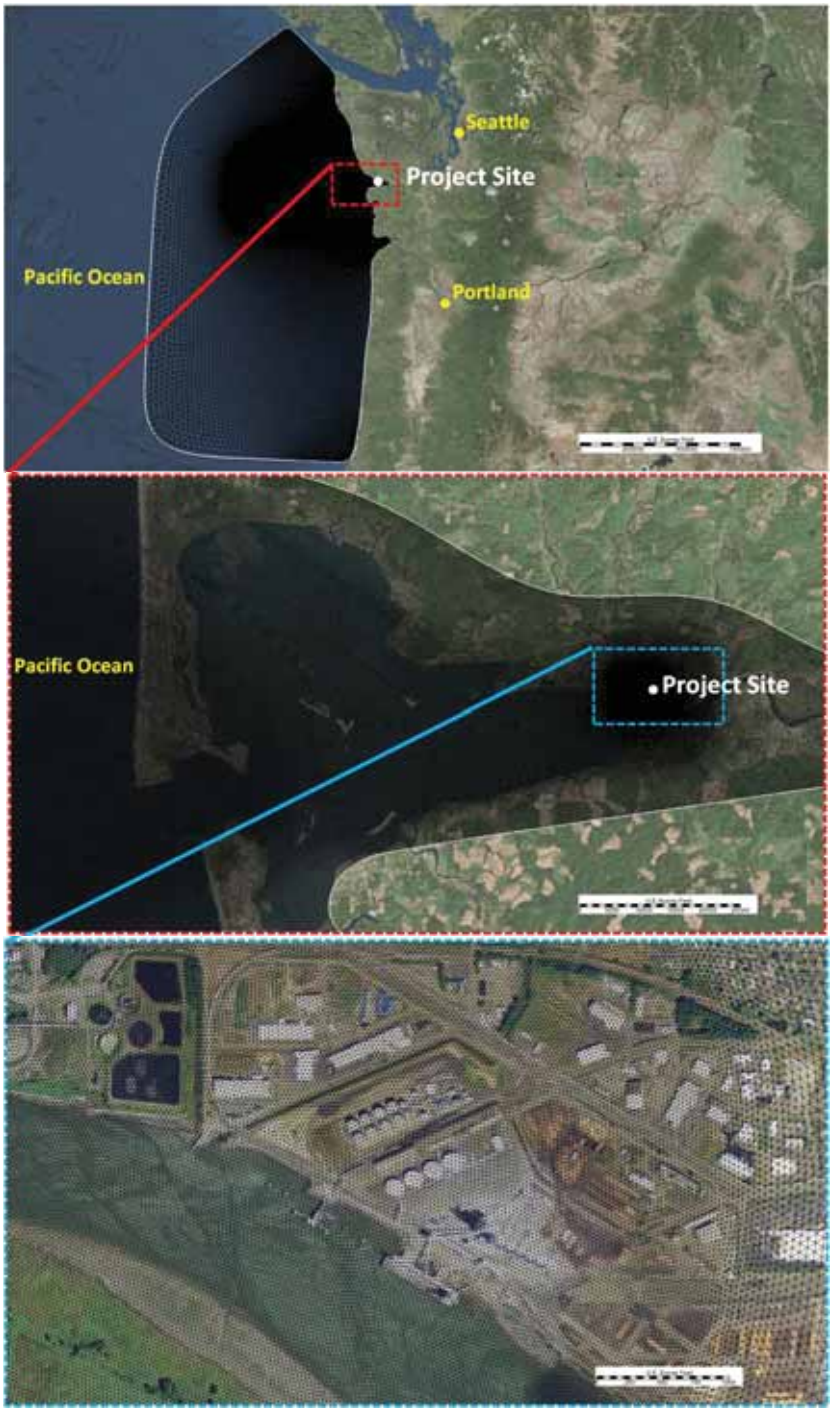


Figure 4. Three views of modeling grid extending approximately 200 miles offshore of project site

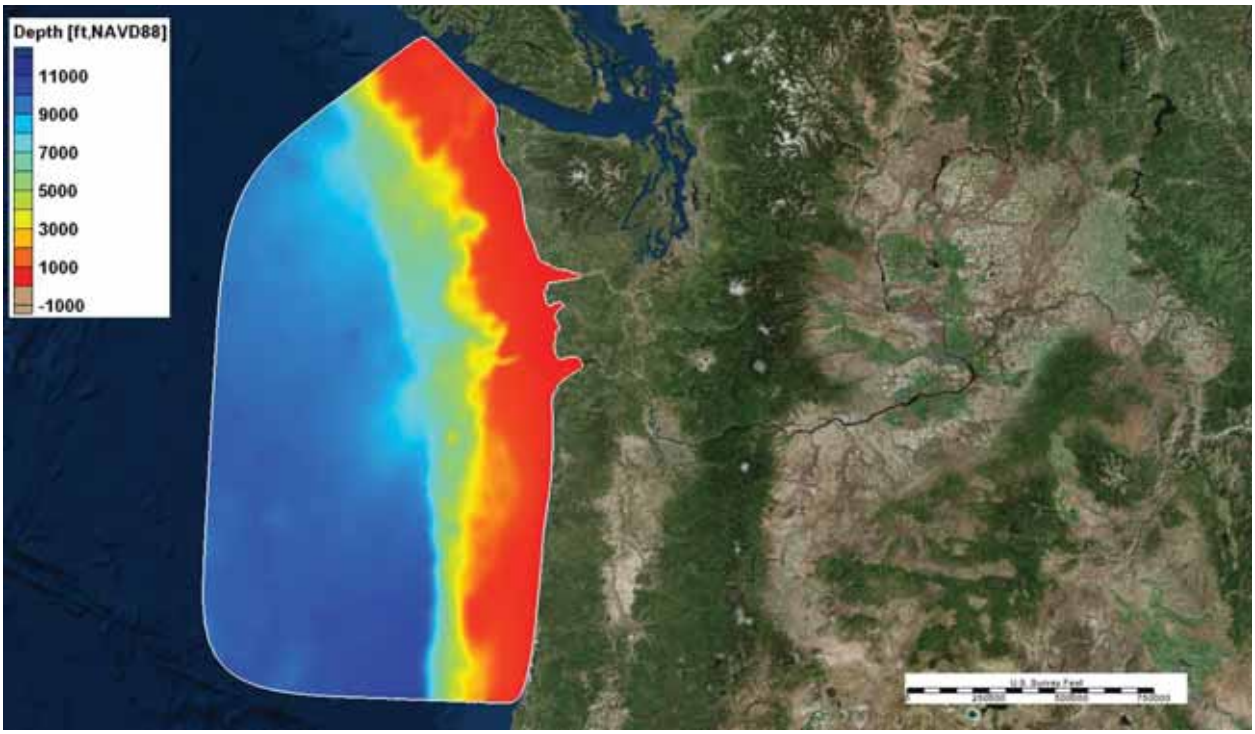


Figure 5. Model bathymetry for entire modeling grid used in numerical modeling

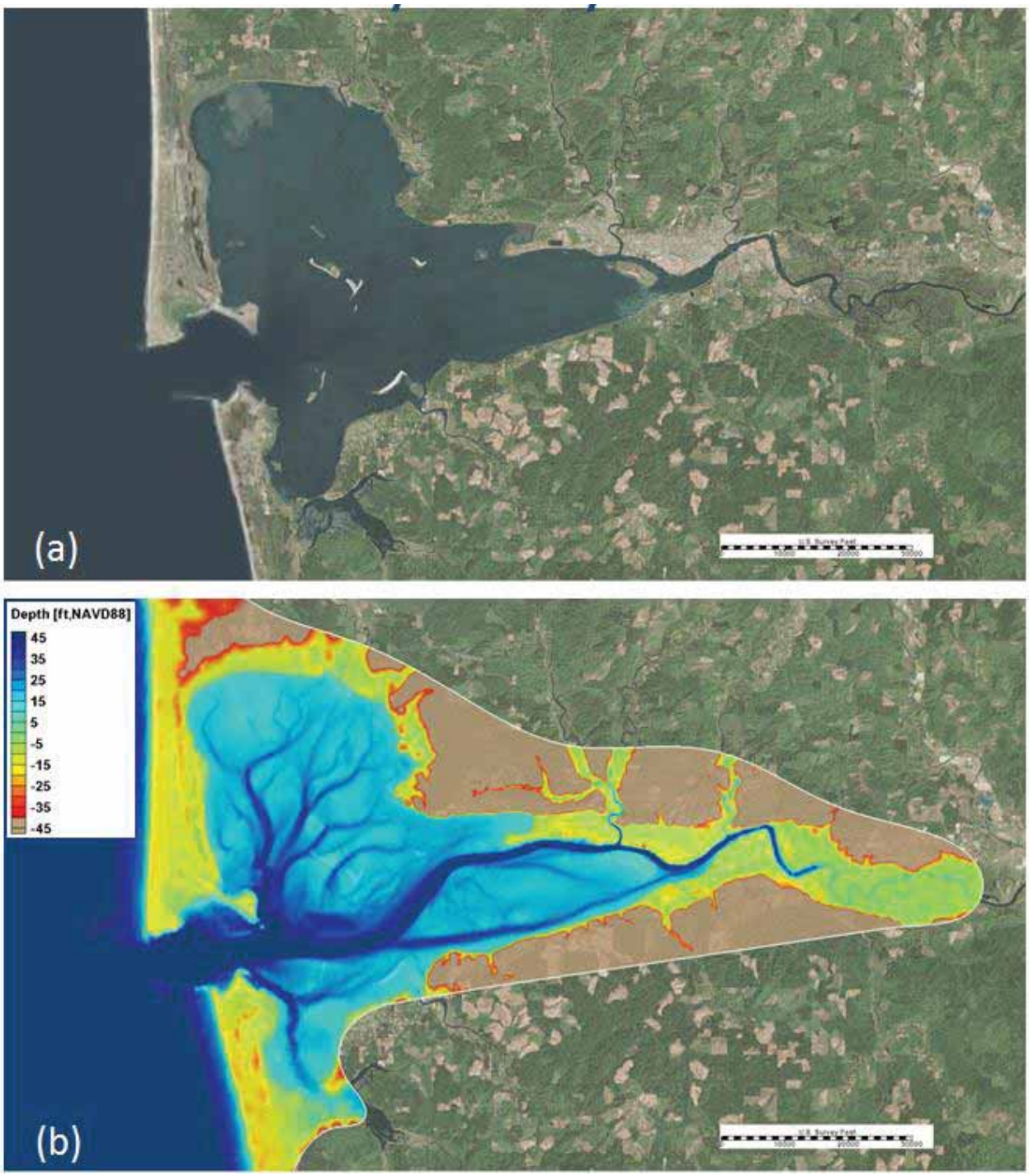


Figure 6. (a) Aerial imagery of Grays Harbor; (b) model bathymetry of Grays Harbor superimposed on aerial image used in numerical modeling

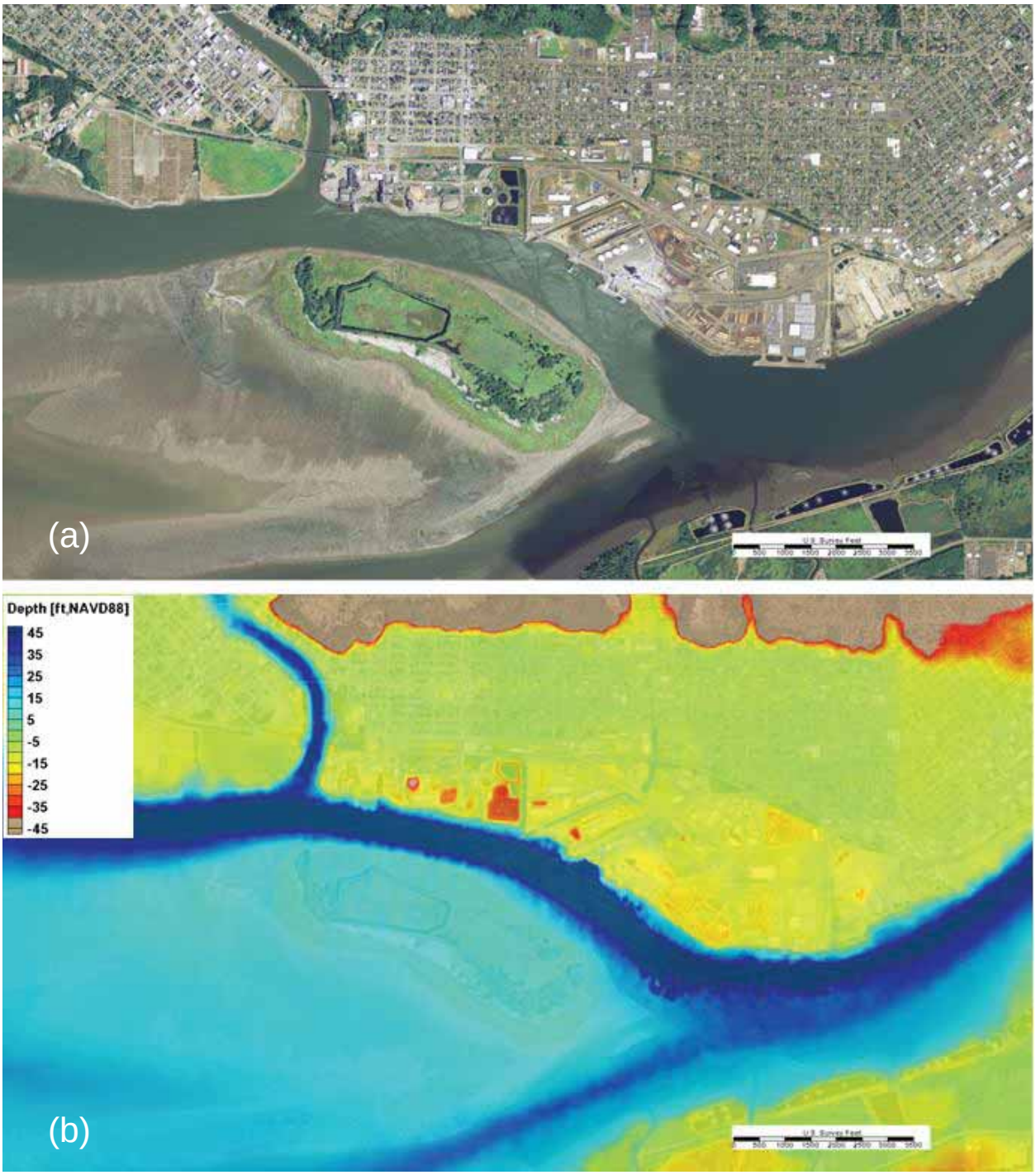


Figure 7. (a) Aerial imagery of Grays Harbor and Aberdeen; (b) model bathymetry of superimposed on aerial image used in numerical modeling

3.3. Tsunami Modeling Results

Figure 8 shows the extent of tsunami inundation (red line) in Grays Harbor and in the project vicinity. As discussed in Section 2.1, water surface elevations (the results of numerical modeling) were increased by a safety factor of 1.3 to account for uncertainties in overtopping of the berm predicted by the model. An adjustment was

conducted by increasing tsunami surface elevation at each node of the model (tsunami elevation referenced to MHW elevation[1]), multiplied by the 1.3 safety factor. For example, if the modeling results at a specific point indicate tsunami water surface elevation to be at elevation +5.0 ft, referenced to MHW (or +12.82 ft referenced to NAVD88), the adjusted water surface elevation was computed to be:

= +5.0 ft, referenced to MHW × 1.3 (safety factor)

= +6.5 ft, referenced to MHW (or +14.32 ft referenced to NAVD88).

In order to satisfy no-overtopping criteria for these facilities, the post-earthquake berm crest elevation (after tectonic subduction, liquefaction settlement, and lateral spreading) should be equal to or higher than the water elevation shown in the figure. For this purpose, the maximum adjusted water surface elevations were extracted from the model along the berm, and are shown in Figure 9 and tabulated in Table 2. It should be noted that proper design of berm crest elevation to prevent overtopping requires an iterative exercise with adjustments in berm height.



Figure 8. Extent of tsunami inundation shown by red line along with modeling boundary shown by white line for (a) Grays Harbor; and (b) project vicinity

[1] All modeling results in terms of water surface elevation are referenced to NAVD88 elevation.

Figure 9 shows a plan view of the adjusted water surface elevations in the vicinity of the project site at the instant of maximum inundation for Scenario in color format 1. Red color corresponds to higher water surface elevations. The figure shows that water surface elevations generated by tsunami vary in the vicinity of the project site and are typically higher closer to the shoreline. The figure shows that both Imperium Terminals LLC and Westway Terminals Services would experience overtopping except for the high-elevation hill in the Imperium Terminals LLC site.

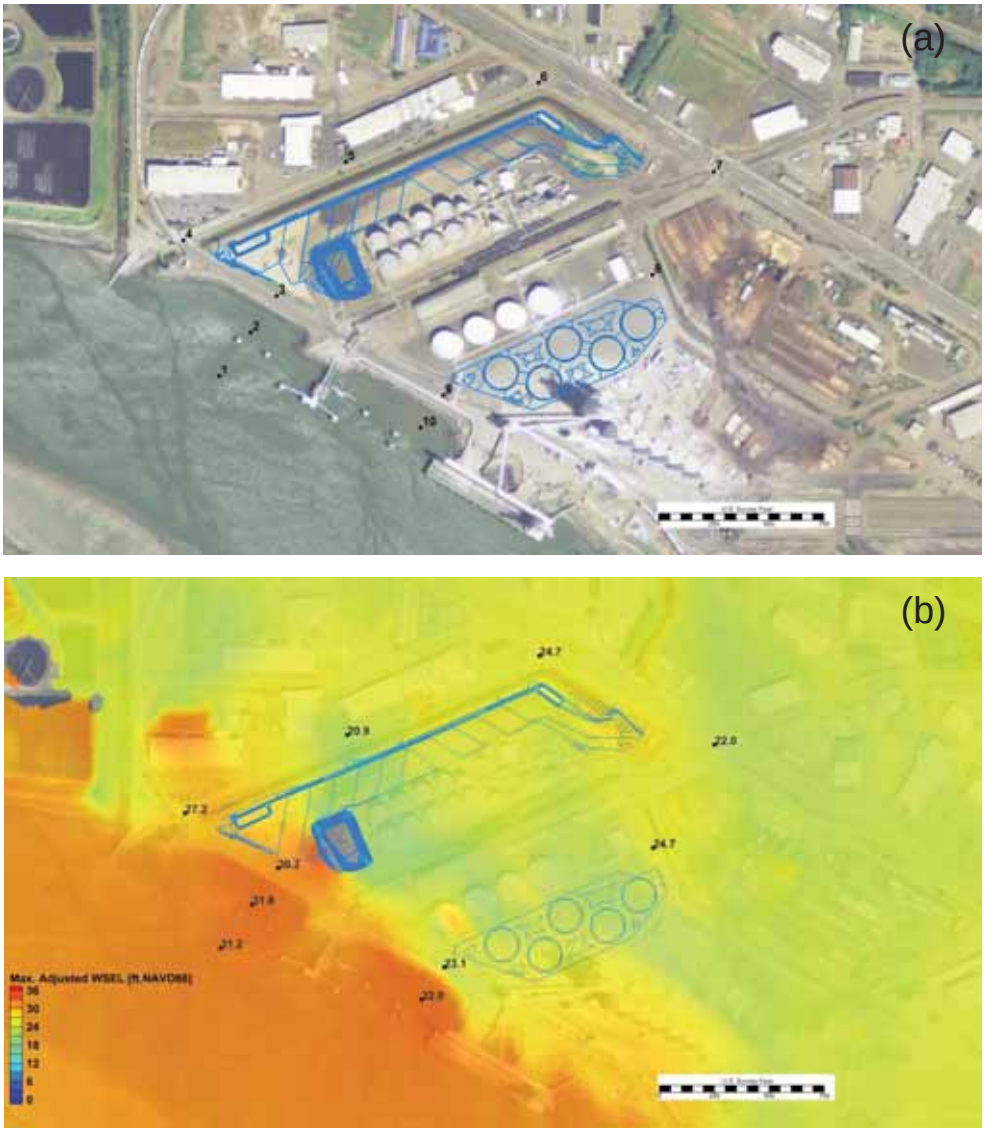


Figure 9. (a) Extraction points; and (b) maximum adjusted water surface elevations in project vicinity overlaid on aerial image for Scenario 1

Table 2. Results of Tsunami Hydrodynamic Modeling Extracted along Berm in terms of Adjusted Maximum WSEL for Scenarios 1 and 2

Pt #	Easting	Northing	Ground Elevation (ft,NAVD88)		Adjusted Maximum Water Surface Elevation (ft,NAVD88)	
	(UTM Zone 10, mNAD83)	(UTM Zone 10, mNAD83)	Prior to Earthquake	After Earthquake	Scenario 1	Scenario 2
1	434,681.5	5,201,756.1	-15.7	-18.6	31.1	32.1
2	434,725.3	5,201,816.6	-8.6	-11.5	31.8	32.7
3	434,761.2	5,201,867.1	3.9	1.0	30.2	31.1
4	434,632.2	5,201,943.3	4.6	1.6	27.2	28.2
5	434,857.6	5,202,052.1	4.9	1.9	20.9	23.3
6	435,124.5	5,202,162.0	4.3	1.4	24.7	25.6
7	435,367.8	5,202,038.6	4.5	1.6	22.0	23.3
8	435,282.6	5,201,895.1	2.9	0.0	24.7	26.4
9	434,992.2	5,201,729.1	4.2	1.2	23.1	23.9
10	434,960.8	5,201,684.3	-14.6	-17.5	32.0	32.9

Figures 10 and 11 demonstrate the extracted time history of adjusted water surface elevations and depth-averaged velocity respectively for point 1, offshore of the project site.

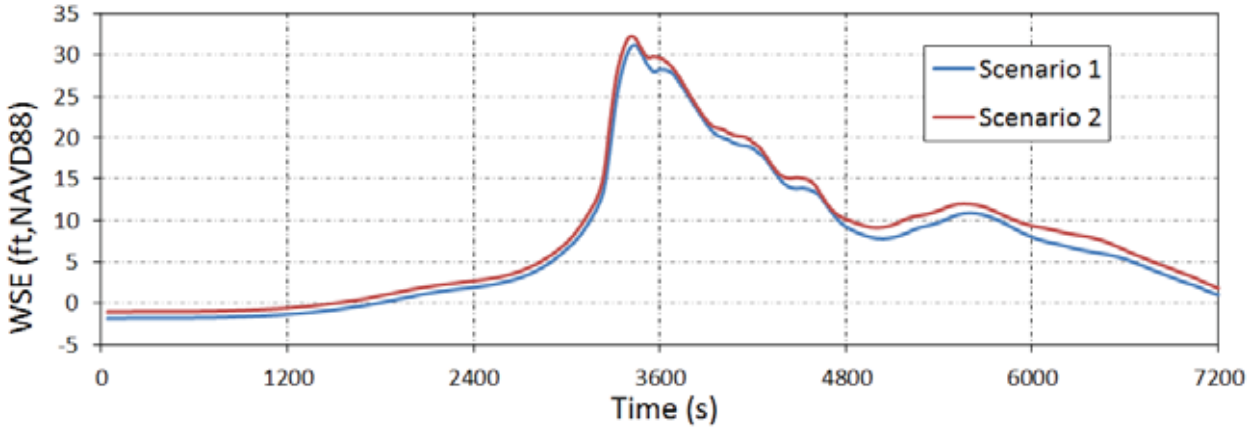


Figure 10. Time history of adjusted water surface elevations at extraction point 1 for Scenarios 1 and 2

The figure shows that water gradually starts to return after the rapid drop due to the earthquake. The tsunami wave arrives approximately at 3200 seconds past the earthquake and tsunami wave generation. The consequent waves are smaller than the first wave. It is also shown that accounting for Sea Level Rise (Scenario 2) results in slightly higher water surface elevations and larger velocities.

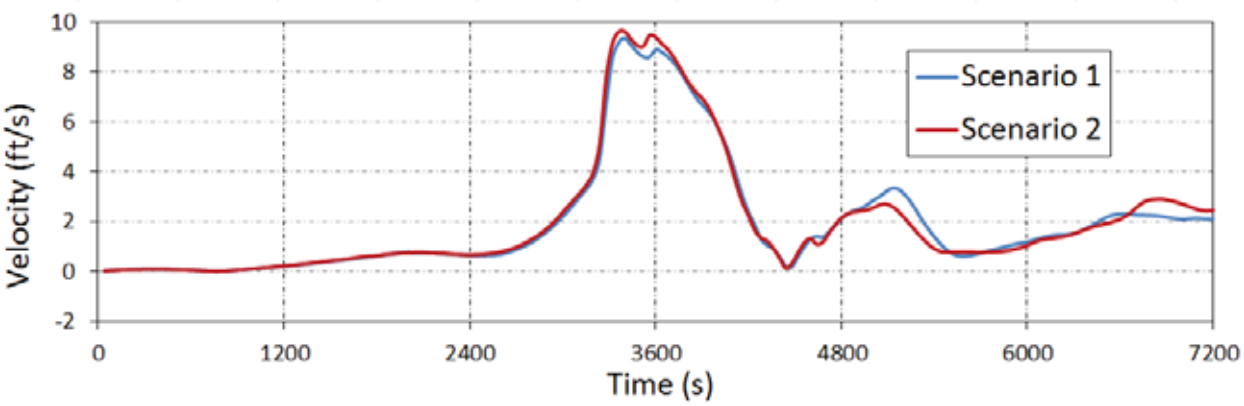


Figure 11. Time history of depth-averaged velocity by design tsunami event at extraction point 1 for Scenarios 1 and 2

3 Tsunami Force Calculations

Tsunami wave exerts forces on structures (obstacles to the flow) upon impact. Depending on the type of the structure and tsunami flow, the tsunami force can be comprised of the following components: (1) hydrostatic force; (2) buoyant force; (3) hydrodynamic force; (4) uplift force; (5) additional gravity loads from retained water on elevated floors. It should be noted that depending on the type of the structure, some of these components are not applicable. Force distribution for hydrostatic and hydrodynamic components is demonstrated in Fig. 12.

Calculation of tsunami forces herein is conducted according to FEMA P646 (2012)[2]. Results of force calculation for each tsunami force component are listed in Tables 3 and 4 for Westway Terminals LLC and Imperium Terminal Services Facilities, respectively. Calculation of floating debris impact force has been conducted assuming lumber or a wood log – oriented longitudinally as debris.

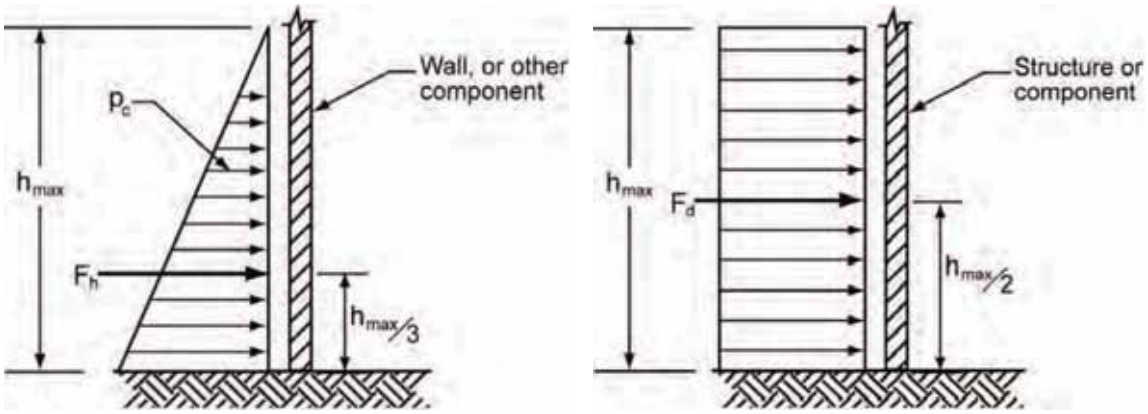


Figure 12. Force distribution and location of resultant force for tsunami Hydrostatic (left) and Hydrodynamic (right) force components (FEMA 2012).

[2] Please note that calculation of design runup elevation herein is conducted according to methodology described in Sections 2.1 and 3.3. This methodology has been previously approved by FERC and DOGAMI.

Table 3. Tsunami force calculations according to FEMA P646 (2012) for two scenarios: with and without Sea Level Rise for Westway Terminals LLC Facility

	Parameter	Symbol	Scenario 1	Scenario 2	Unit
Constants	Gravitational Acceleration	g	32.2	32.2	ft/s^2
	fluid density including sediments	ρ_s	2.3	2.3	slugs/ft^3
Inputs	Tank breadth (width)	b	150.0	150.0	ft
	Tank height	h_w	64.0	64.0	ft
	maximum water height above base	h_{max}	20.6	21.2	ft
	maximum momentum flux	$(hu^2)_{max}$	6130.6	6610.9	ft^3/s^2
	maximum runup	R	17.1	17.5	ft
	design runup elevation[2]	R^*	20.6	21.2	ft
	Drag Coefficient	C_d	2.0	2.0	-
	Hydrodynamic Mass Coefficient	C_m	0.0	0.0	-
	maximum flow velocity	u_{max}	19.0	19.5	ft/s
	mass of debris	m	30.8	30.8	slugs
	effective stiffness of debris	k	1.7E+05	1.7E+05	lbf/ft
Calculations	Hydrostatic Force	F_h	2,386	2,533	Kips
	Hydrodynamic Force	F_d	2,143	2,311	Kips
	Impulsive Force	F_s	3,214	3,466	Kips
	Floating Debris Impact Force	F_i	56	57	Kips
	Damming Force	F_{dm}	2,143	2,311	Kips

Table 4. Tsunami force calculations according to FEMA P646 (2012) for two scenarios: with and without Sea Level Rise for Imperium Terminal Services Facility

	Parameter	Symbol	Scenario 1	Scenario 2	Unit
Constants	Gravitational Acceleration	g	32.2	32.2	ft/s^2
	fluid density including sediments	ρ_s	2.3	2.3	$slugs/ft^3$
Inputs	Tank breadth (width)	b	95.0	95.0	ft
	Tank height	h_w	65.0	65.0	ft
	maximum water height above base	h_{max}	25.5	26.4	ft
	maximum momentum flux	$(hu^2)_{max}$	4184.8	4598.0	ft^3/s^2
	maximum runup	R	20.7	21.4	ft
	design runup elevation	R^*	25.5	26.4	ft
	Drag Coefficient	C_d	2.0	2.0	-
	Hydrodynamic Mass Coefficient	C_m	0.0	0.0	-
	maximum flow velocity	u_{max}	18.4	16.0	ft/s
	mass of debris	m	30.8	30.8	slugs
	effective stiffness of debris	k	1.7E+05	1.7E+05	lbf/ft
Calculations	Hydrostatic Force	F_h	2,320	2,490	Kips
	Hydrodynamic Force	F_d	926	1,018	Kips
	Impulsive Force	F_s	1,389	1,527	Kips
	Floating Debris Impact Force	F_i	54	47	Kips
	Damming Force	F_{dm}	926	1,018	Kips

4 Summary and Conclusions

Numerical simulation of tsunami generation and inundation was conducted to assess potential impacts and overtopping at the Westway Terminals LLC and Imperium Terminal Services Facilities. It was found that the berm surrounding the Westway Terminals LLC and Imperium Terminal Services will be overtopped.

Analysis also resulted in computation of tsunami forces on the tanks of the Westway Terminals LLC and Imperium Terminal Services Facilities. The forces are presented in Tables 3 and 4 and should be accounted in the structural design of the project.

It is shown that accounting for Sea Level Rise (Scenario 2) results in slightly higher water surface elevations, larger velocities and tsunami forces.

5 References

CHE. 2014. Technical Memorandum. Grays Harbor Tsunami Hydrodynamic Modeling Methodology. Coast & Harbor Engineering. Edmonds, WA.

FEMA. 2012. Guidelines for Design of Structures for Vertical Evacuation from Tsunamis. Federal Emergency Management Agency, National Earthquake Hazard Reduction Program. 2nd Edition. FEMA P-646 / April 2012.

FERC. 2007. *Draft-Seismic Design Guidelines and Data Submittal Requirements for LNG Facilities*. Federal Energy Regulatory Commission. Washington, D.C.

Witter, R. C., Y. Zhang, K. Wang, G. R. Priest, C. Goldfinger, L. L. Stimely, J. T. English, and P. A. Ferro. 2011. Special Paper 43, Simulating tsunami inundation at Bandon, Coos County, Oregon, using hypothetical Cascadia and Alaska earthquake scenarios.

Zhang, Y.-L. and Baptista, A.M. 2008. "SELFE: A semi-implicit Eulerian-Lagrangian finite element model for cross-scale ocean circulation", Ocean Modelling, 21(3-4), 71-96.

Zhang, Joseph Y., A. Baptista, K, Wang, C. Goldfinger, R. Witter, G. Priest, C. Peterson, and K. Cruikshank. 2007. "Hydrodynamic Simulations of Historic Tsunamis from the Cascadia Subduction Zone." OGI School of Science and Engineering. Oregon Health and Science University. Beaverton, OR.

Appendix D

Air Data

Existing Air Quality Conditions

Wind Frequency, Speed, and Direction

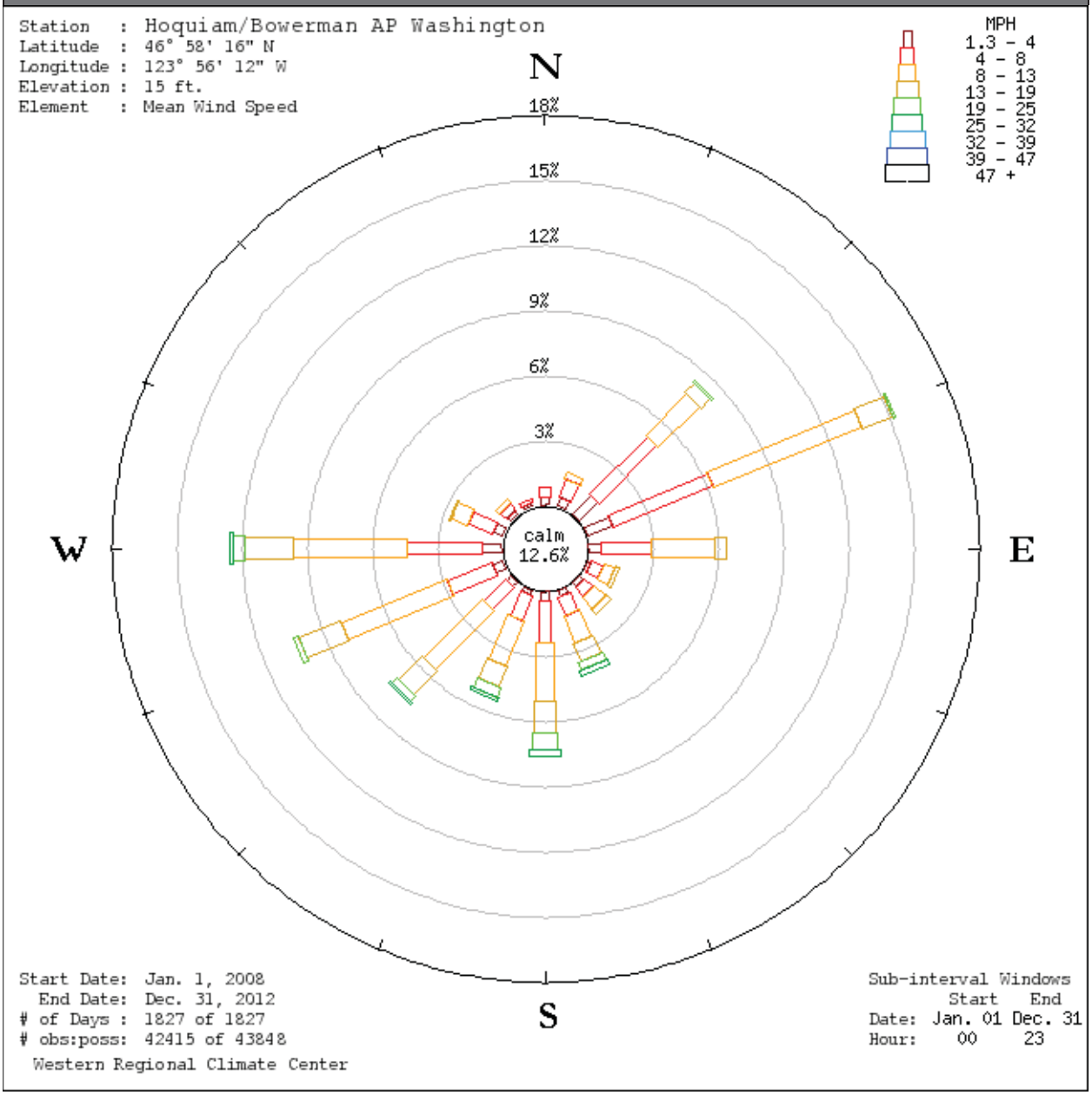
Figure 1 shows the wind rose for Bowerman Field (Hoquiam Airport) in Hoquiam, Washington, located 3.8 miles west of the project site. The wind rose consists of 16 "spokes" whose positions correspond to the major compass directions, and indicate the frequency of wind blowing from each direction. Longer arms indicate that the wind originates more frequently from the illustrated direction. Colored bands within each arm indicate the proportion of time that the wind blows with a given speed. Prevailing winds near the project site come from the west in April through September and from the east-northeast in October through March (Desert Research Institute Western Regional Climate Center 2013a).

In the summer months, average wind speed is 8.5 miles per hour (mph); the winter months have stronger winds with an average wind speed of 10.7 mph. December and January have the highest average wind speed at 11 mph (Desert Research Institute Western Regional Climate Center 2013b). Annual average wind speed is 9.3 mph. Calm conditions (less than 1.3 mph) occur about 12.6% of the time, predominately during the night and averaging a little over 17% of all nighttime hours.

Figure 2 shows the wind rose for Elma, Washington, which is located along the Puget Sound & Pacific Railroad (PS&P) rail line, approximately halfway between the project site and Centralia, Washington. Prevailing winds in Elma come from the west in April through September and from the east-southeast in October through March.

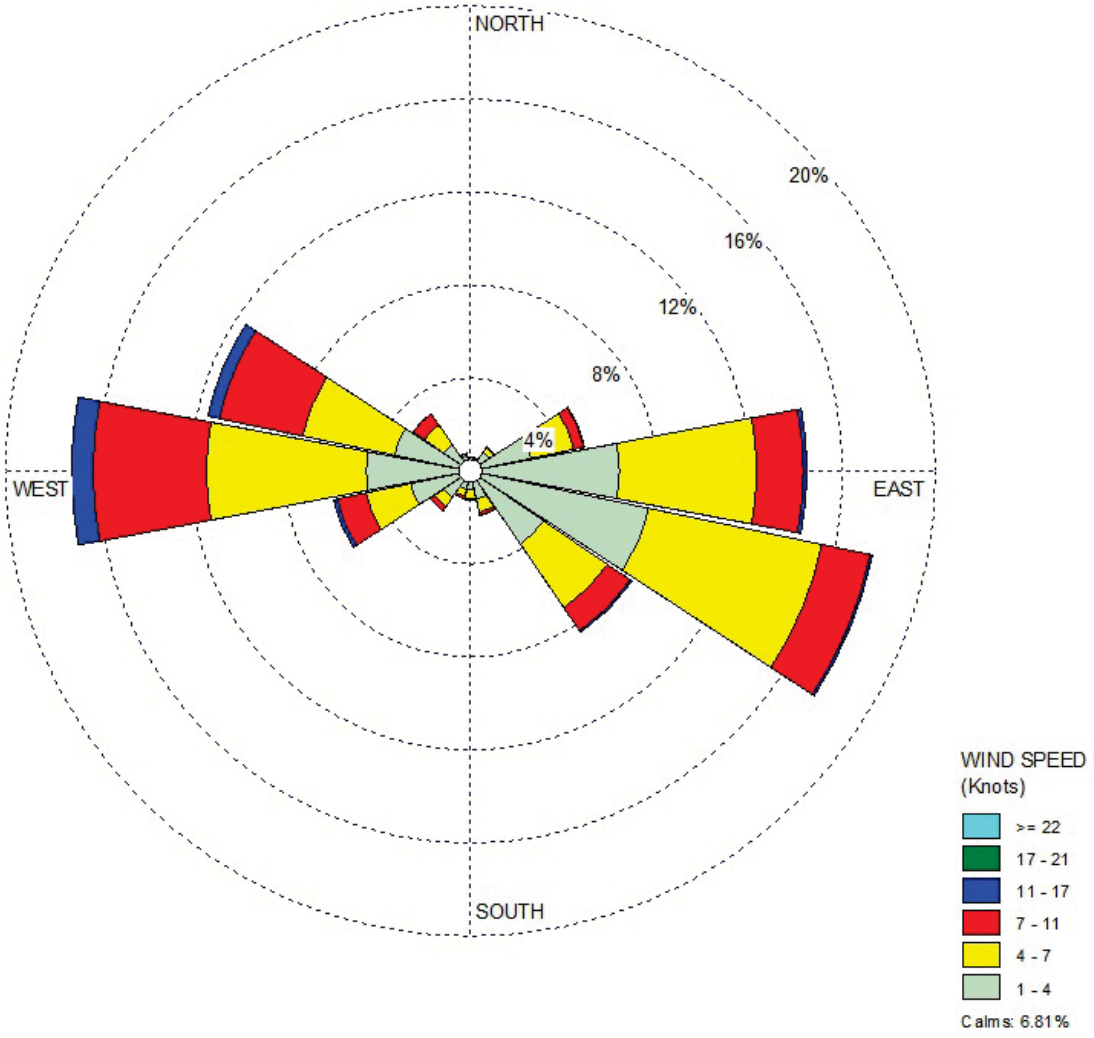
In the summer months, average wind speed is 6.4 mph; during the winter months, a lower average wind speed of 4.6 mph prevails at this inland location. Annual average wind speed is nearly half of that in Grays Harbor at 5.2 mph; however, calm conditions are less frequent, occurring about 6.8% of the time.

Figure 1. Bowerman Airport Wind Rose—January 1, 2008–December 31, 2012



Source: Washington State Department of Ecology 2014a

Figure 2. Elma Wind Rose—January 1, 2010–December 31, 2012



COMMENTS:	DATA PERIOD:	COMPANY NAME:	
	Start Date: 1/1/2010 - 00:00 End Date: 12/30/2012 - 23:00	MODELER:	
	CALM WINDS:	TOTAL COUNT:	
	6.81%	25336 hrs.	
	AVG. WIND SPEED:	DATE:	PROJECT NO.:
	4.51 Knots	10/20/2014	

Source: Washington State Department of Ecology 2014b

PM2.5 Monitoring in the Study Area

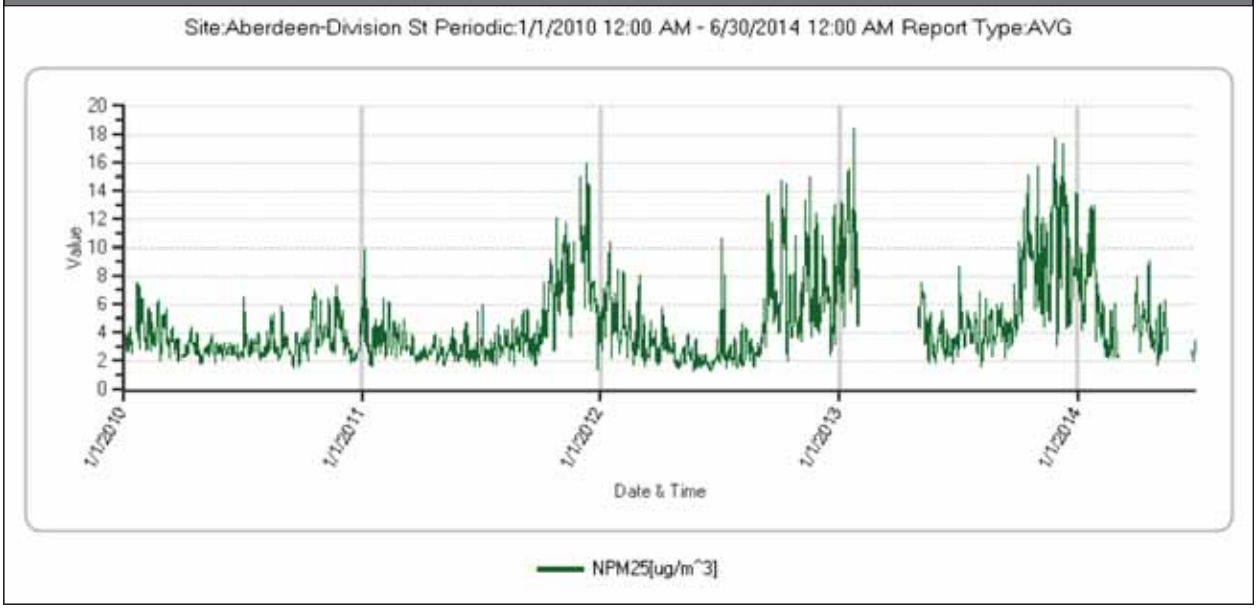
Three monitoring sites provide data on particulates less than 2.5 micrometers in diameter (PM2.5) in the study area: the Washington State Department of Ecology (Ecology) Harbor High School monitoring site and one site each in Chehalis and Oakville.

The Harbor High School monitoring site, approximately 1 mile from the project site, is representative of particulate matter levels near the project site and in Hoquiam and Aberdeen. Ecology has identified that the sources contributing to PM2.5 measured by this monitoring site are from home heating and mobile sources (cars and trucks). It is used by Ecology primarily to call for curtailment, if needed, during the home heating season. Figure 3 shows the daily average PM2.5 monitoring over the past 4.5 years at this monitoring site. The highest measured 24-hour concentration is just over 18 micrograms per cubic meter (µg/m^3), well below the PM2.5 air quality standard of 35 µg/m^3.

Two PM2.5 monitoring sites located in Chehalis and Oakville are representative of particulate matter levels along the PS&P rail line. Monitored data collected from January 1, 2010 through June 30, 2014, are shown in Figures 4 and 5.

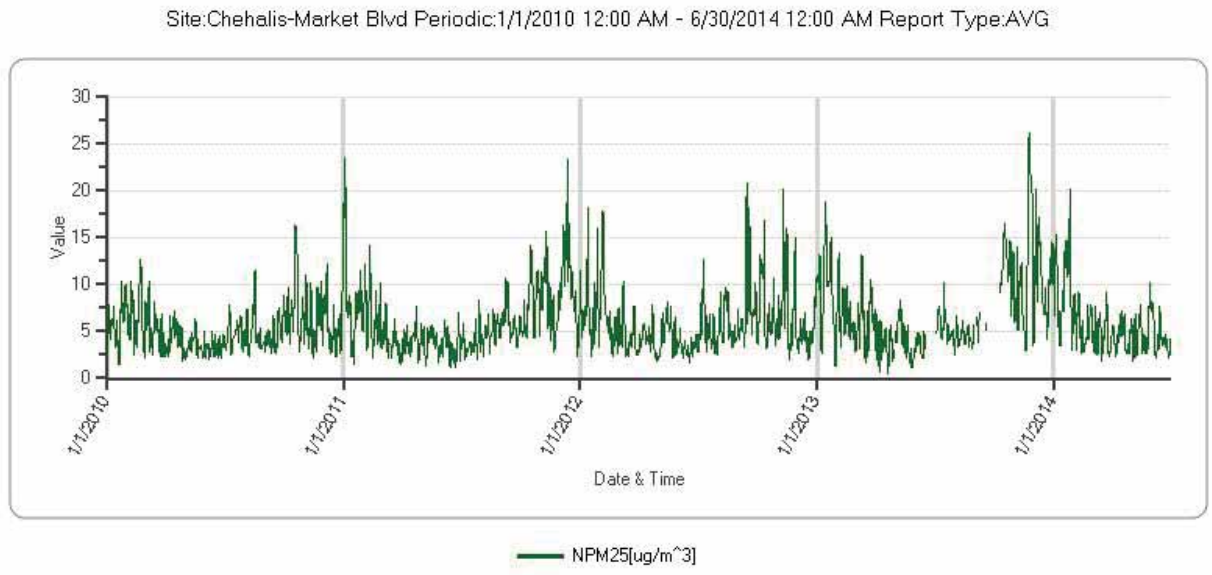
Figures 3 through 5 show how PM2.5 emissions peak in the fall and winter months and that the higher concentrations (above 20 µg/m^3) are relatively infrequent.

Figure 3. Harbor High School Daily Average PM2.5—January 01, 2010 to June 30, 2014



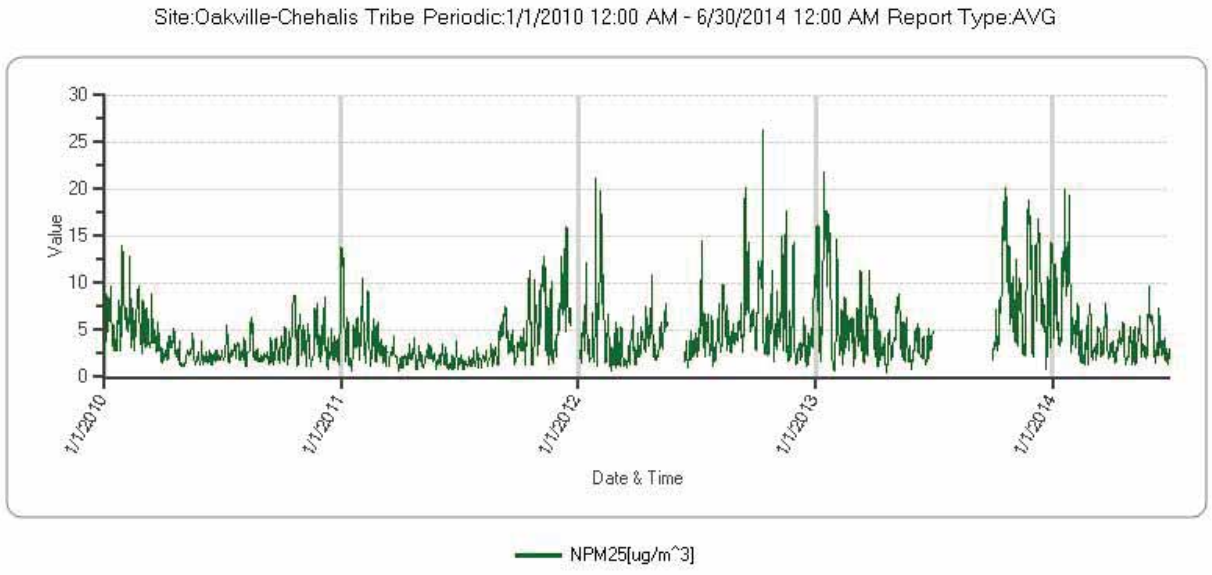
Source: Washington State Department of Ecology 2014a

Figure 4. Chehalis—Market Blvd Daily Average PM2.5—January 01, 2010 to June 30, 2014



Source: Washington State Department of Ecology 2014c

Figure 5. Oakville–Chehalis Tribe Daily Average PM2.5—January 01, 2010, to June 30, 2014



Source: Washington State Department of Ecology 2014b

Table 1 provides a statistical summary of Figures 3, 4, and 5 through 2013. The highest measured 24-hour concentration was at the Chehalis site at a little over 26 µg/m^3.

Table 1. PM2.5 Concentrations (µg/m^3) in and near the Study Area

	Monitoring Station		
Parameter	**Harbor High School**	**Chehalis**	**Oakville**
2010			
Minimum	1.6	1.5	0.9
Maximum	7.6	16.4	14
Average	3.4	5.2	3.6
Number	357	365	364
Data[%]	98%	100%	100%
2011			
Minimum	1.4	1.1	0.6
Maximum	16	23.5	16
Average	4.2	5.9	3.6
Number	355	363	352
Data[%]	97%	99%	96%
2012			
Minimum	1.3	1.6	0.7
Maximum	15	20.9	**26.4**
Average	4.5	5.8	5.0
Number	365	365	337
Data[%]	100%	100%	92%
2013			
Minimum	1.7	0.5	0.5
Maximum	**18.4**	**26.1**	21.8
Average	**6.6**	**7.1**	**6.3**
Number	276	314	272
Data[%]	76%	86%	75%

Source: Washington State Department of Ecology 2014b

Proposed Action

Criteria Air Pollutants and Toxic Air Pollutants

Construction

Tables 2 through 4 illustrate annual construction emissions for Phase 1 and 2.

Table 2. Annual Construction Emission (tons/year)—Phase 1

Sources	CO	NO_X	SO_X	VOC	PM10	PM2.5	CO_2e
Wind erosion					0.01	<0.01	
Pad construction activity					3.11	0.82	
Excavation	0.66	1.94	0.00	0.16	0.08	0.07	527
Total earth moving activities	*0.66*	*1.94*	*0.0042*	*0.16*	*3.20*	*0.89*	*527*
Pile driving	0.11	0.35	<0.01	0.03	0.01	0.01	89
Mechanical	1.19	4.44	<0.01	0.27	0.14	0.02	509
General construction	4.88	6.84	0.01	2.34	0.66	0.64	878
Off-site passenger vehicles	1.14	0.50	0.0026	0.07	0.0288	0.0222	224
Total Emissions	**7.97**	**14.07**	**0.020**	**2.88**	**4.04**	**1.58**	**2,228**
General Conformity *de minimis* levels for ozone maintenance areas (CFR 93.153)	100	100	100	100	100	100	

CFR = Code of Federal Regulations

Table 3. Annual Construction Emission (tons/year)—Phase 2

Sources	CO	NO_X	SO_X	VOC	PM10	PM2.5	CO_{2e}
Wind erosion					<0.01	<0.01	
Pad construction activity					0.05	0.01	
Excavation	0.16	0.48	0.0010	0.04	0.02	0.02	132
Total earth moving activities	*0.16*	*0.48*	*0.0010*	*0.04*	*0.07*	*0.03*	*132*
Pile driving	0.17	0.60	0.0012	0.05	0.01	0.01	148
Mechanical	0.41	1.52	0.0014	0.09	0.05	0.01	174
General construction	1.22	1.71	0.0018	1.32	0.16	0.16	220
Off-site passenger vehicles	0.27	0.12	0.0006	0.0172	0.0067	0.0052	52
Total Emissions	**2.23**	**4.43**	**0.006**	**1.52**	**0.30**	**0.22**	**727**
General Conformity *de minimis* levels for ozone maintenance areas (CFR 93.153)	100	100	100	100	100	100	

CFR = Code of Federal Regulations

Table 4. Maximum Daily Construction Emissions (pounds/day)—Phase 1

Sources	CO	NO_X	SO_X	VOC	PM10	PM2.5
Excavation	22.23	76.68	0.07	4.91	2.60	0.68
General construction	63.13	61.20	0.10	9.28	4.30	4.12
Off-site passenger vehicles	33.20	14.51	0.07	2.16	0.84	0.65
Total Emissions	**118.56**	**152.38**	**0.25**	**16.35**	**7.74**	**5.44**

Operations

Tables 5 through 7 illustrate estimated emissions of criteria air pollutants and toxic air pollutants under the proposed action.

Table 5. Estimated Emissions of Criteria Air Pollutants and Toxic Air Pollutants (pounds per year) Emitted On-Site under the Proposed Action

	Stationary Sources[a]						Total	
Pollutant	Fugitive Emissions[b]	Storage Tanks[c]	Tank Cleaning	Marine Vapor Combustion Unit[d]	Rail (Mobile Source)	Vessel (Mobile Source)	Stationary	Combined
Criteria Air Pollutants								
NO_X	–	–	–	30,915	7,134	25,855	30,915	63,904
PM10	–	–	–	917	265	465	917	1,648
PM2.5	–	–	–	917	257	428	917	1,603
VOC	400	21,872	2,159	98,048	419	967	123,379	124,765
CO	–	–	–	168,033	1,062	2,046	168,033	171,141
SO_2	–	–	–	8,472	4	744	8,472	9,220
Toxic Air Pollutants								
Benzene	3.9	57	3.3	316	8.4	19.3	380	408
Formaldehyde	–	–	–	32	62.9	145.1	32	240
Hydrogen sulfide	<0.1	49	8.9	174			232	232
Toluene	19	201	3.0	434	6.3	14.5	657	678
Sulfuric acid mist	–	–	–	610	–	–	610	610
n-hexane	4.2	79	7.3	834	0.7	1.6	925	927
Cyclohexane	3.3	99	8.0	420			530	530
Ethyl benzene	3.9	51	0.3	26			81	81
Ethanol	264	3,060	–	6,140			9,464	9,464

[a] Trinity Consultants 2015.

[b] Emissions are from losses during filling and draining.

[c] Leaks from valves and flanges.

[d] Vessel loading emissions are primarily from the marine vapor combustion unit. The marine vapor control system has a John Zink performance guarantee destruction efficiency of 98% minimum reduction in the total hydrocarbon vapor emissions routed through the marine vapor combustion unit.

NO_X = nitrogen oxides; PM10 = particulate matter with a diameter of 10 micrometers or less; PM2.5 = particulate matter with a diameter of 2.5 micrometers or less; VOC = volatile organic compound; CO = carbon monoxide; SO_2 = sulfur dioxide

Table 6. Annual Operational Emissions of Criteria Air Pollutants emitted within Gray Harbor County under the Proposed Action (tons/year) Compared to 2011 Gray Harbor County Emissions

Criteria Air Pollutant	Sources	Source Categories[a]					
		Facility Operations[b]	Rail[c, d]	Vessel[d]	On-Road Mobile	Other Sources	Total Emissions
NO_X	Proposed action	16	38.4	78.5	0.1	-	**132.5**
	Grays Harbor County	644	41	298	2,224	484	**3,692**
PM10	Proposed action	0.46	1.4	1.2	<0.01	-	**4.2**
	Grays Harbor County	410	1	10	83	1,681	**2,185**
PM2.5	Proposed action	0.46	0.9	1.1	0.00	-	**3.64**
	Grays Harbor County	375	1	9	66	723	**1,174**
VOC	Proposed action	61.7	2.5	3.5	0.01	-	**81.3**
	Grays Harbor County	141	2	8	1,139	19,451	**20,740**
CO	Proposed action	84	5.7	5.5	0.2	-	**95**
	Grays Harbor County	731	4.1	56	13,786	12,563	**27,140**
SO_X	Proposed action	4.2	0.0	1.90	<0.01	-	**10.57**
	Grays Harbor County	227.7	0.29	14.65	7.07	21.46	**271.2**

Sources: Grays Harbor County emissions: Washington State Department of Ecology 2014d; proposed action facility operations emissions: Trinity Consultants 2015.

[a] Source categories based on Washington State Department of Ecology 2014d.

[b] The proposed action on-site emissions include emissions from onsite rail and vessel operations. The county emissions represent those from all other industrial point sources.

[c] Based on estimate that 68% of the fuel consumption from rail transit along the PS&P occurs within Grays Harbor County.

[d] Rail and vessel emissions for the proposed action include emissions from on-site rail and vessel operations.

CO = carbon monoxide; NO_X = nitrogen oxides; SO_X = sulfur oxides; VOC = volatile organic compound; PM10 = particulate matter with a diameter of 10 micrometers or less; PM2.5 = particulate matter with a diameter of 2.5 micrometers or less

Table 7. Estimated Increased Emissions of Criteria Air Pollutants and Toxic Air Pollutants (pounds per year) from Off-Site Rail and Vessel Transport Related to the Proposed Action

	Rail		Vessel	
Pollutant	**2017**	**2037**	**2017**	**2037**
Criteria Air Pollutants				
NO_X	100,461	101,090	131,145	46,408
PM10	3,738	2,471	2,025	2,025
PM2.5	3,626	2,471	1,863	1,863
VOC	5,904	6,571	6,094	6,094
CO	14,952	14,952	8,911	8,911
SO_2	53	53	2,986	2,986
Toxic Air Pollutants				
Benzene	118.09	131.42	121.88	121.88
Formaldehyde	885.64	985.63	914.10	914.10
n-hexane	9.45	10.51	9.75	9.75
Toluene	88.56	98.56	91.41	91.41

NO_X = nitrogen oxides; PM10 = particulate matter with a diameter of 10 micrometers or less; PM2.5 = particulate matter with a diameter of 2.5 micrometers or less; VOC = volatile organic compound; CO = carbon monoxide; SO_2 = sulfur dioxide

Greenhouse Gas Emissions

Table 8 illustrates the annual average greenhouse gas (GHG) emissions from operation of the proposed action compared to statewide GHG emissions.

Table 8. Annual Average GHG Emissions (MT/yr CO_2e) from Operation of the Proposed Action Compared to Statewide 2011 GHG Emissions

Source Type	Washington State[a]	Proposed Action	Increase (%)
Rail transit	1,000,000	35,708[b]	3.571
Vessels transit	3,300,000	1,417[c]	0.043
Industrial sources only	3,700,000	6,634[d]	0.179
Total	**91,700,000**	**43,759**	**0.048**

[a] Washington State Department of Ecology 2014e.
[b] Rail transport throughout the state; includes on-site rail emissions.
[c] Includes emissions from vessels hoteling at the Terminal 1 dock (i.e., on-site vessel emissions).
[d] On-site stationary sources: Trinity Consultants 2015.

MT/yr CO_2e = metric tons per year of carbon dioxide equivalent

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Appendix E

FEMA Flood Insurance Rate Maps

Appendix F

Special-Status Species

Appendix F
Special-Status Species

Table 1. Special-Status Animal Species in the Study Area Counties

Common Name	Scientific Name	State Status	Federal Status	Grays Harbor County	Lewis County	Thurston County
Mammals						
Canada lynx	*Lynx canadensis*		FT		x	
Cascade red fox	*Vulpes vulpes cascadensis*	SC			x	
Fisher (west coast DPS)	*Martes pennanti*	SE	FC	x	x	x
Gray wolf	*Canis lupus*		FE		x	x
Grizzly bear	*Ursus arctos (= U. a. horribilis)*		FT		x	
Keen's long-eared bat	*Myotis evotis keenii*	SC		x		
Long-eared bat	*Myotis evotis*		FCo	x	x	x
Long-legged bat	*Myotis volans*		FCo	x	x	x
Olympic marmot	*Marmota olympus*	SC		x		
Olympia Mazama pocket gopher	*Thomomys mazama pugetensis*	ST	FT			x
Tenino Mazama pocket gopher	*Thomomys mazama tumuli*	ST	FT			x
Townsend's big-eared bat	*Corynorhinus townsendii*	SC	FCo	x	x	x
Western gray squirrel	*Sciurus griseus*	ST	FCo	x	x	x
Western pocket gopher	*Thomomys mazama*	ST		x	x	x
Wolverine	*Gulo gulo luscus*	SC	FP		x	x
Yelm Mazama pocket gopher	*Thomomys mazama yelmensis*	ST	FT			x
Marine Mammals						
Blue whale	*Balaenoptera musculus*	SE	FE	x		
Fin whale	*Baleanoptera physalus*		FE	x		
Gray whale	*Eschrichtius robustus*	SS		x		
Humpback whale	*Megaptera novaeangliae*	SE	FE	x		
Killer whale (southern resident)	*Orcinus orca*	SE	FE	x		
North pacific right whale	*Eubalaena japonica*		FE	x		
Northern sea otter	*Enhydra lutris kenyoni*		FCo	x		
Pacific harbor porpoise	*Phocoena phocoena*	SC		x		
Sei whale	*Balaenoptera borealis*		FE	x		
Sperm whale	*Physeter macrocephalus*	SE	FE	x		
Steller (northern) sea lion	*Eumetopias jubatus*	ST		x		

Common Name	Scientific Name	State Status	Federal Status	Grays Harbor County	Lewis County	Thurston County
Birds						
Aleutian Canada goose	*Branta canadensis leucopareia*		FCo	x		
Bald eagle	*Haliaeetus leucocephalus*	ST	FCo	x	x	x
Black-backed woodpecker	*Picoides arcticus*	SC			x	
Brandt's cormorant	*Phalacrocorax penicillatus*	SC		x		
Brown pelican (outer coast)	*Pelecanus occidentalis*	SE	FCo	x		
Common loon	*Gavia immer*	SS		x		x
Common murre	*Uria aalge*	SC		x		x
Golden eagle	*Aquila chrysaetos*	SC		x	x	x
Marbled murrelet	*Brachyramphus marmoratus*	ST	FT[a]	x	x	x
Northern goshawk	*Accipiter gentilis*	SC	FCo	x	x	x
Oregon vesper sparrow	*Pooecetes gramineus affinis*	SC	FCo		x	x
Peregrine falcon	*Falco peregrinus*	SS	FCo	x	x	x
Pileated woodpecker	*Dryocopus pileatus*	SC		x	x	x
Purple martin	*Progne subis*	SC		x	x	x
Short-tailed albatross	*Phoebastria albatrus*	SC	FE	x		
Slender-billed white-breasted nuthatch	*Sitta carolinensis aculeata*		FCo			x
Snowy plover	*Charadrius nivosus*	SE	FT[a]	x		
Spotted owl	*Strix occidentalis*	SE	FT[a]	x	x	x
Streaked horned lark	*Eremophila alpestris strigata*	SE	FP[b]	x		x
Tufted puffin	*Fratercula cirrhata*	SC	FCo	x		
Vaux's swift	*Chaetura vauxi*	SC		x	x	x
Western grebe	*Aechmophorus occidentalis*	SC		x		x
Yellow-billed cuckoo	*Coccyzus americanus*	SC	FC	x		x
Fish						
Black rockfish	*Sebastes melanops*	SC		x		
Bocaccio rockfish	*Sebastes paucispinis*	FE		x		
Brown rockfish	*Sebastes auriculatus*	FCo	SC	x		
Bull trout	*Salvelinus confluentus*	SC	FT[a]	x	x	x
Canary rockfish	*Sebastes pinniger*	FT		x		
China rockfish	*Sebastes nebulosus*	SC		x		
Chinook salmon	*Oncorhynchus tshawytscha*	SC	FT	x	x	x
Chum salmon	*Oncorhynchus keta*	SC	FT	x	x	x
Coastal cutthroat trout (SW Washington DPS)	*Oncorhynchus clarki clarki*		FCo	x	x	x
Coho	*Oncorhynchus kisutch*	SC	FCo	x	x	x
Copper rockfish	*Sebastes caurinus*	FCo	SC	x		

Common Name	Scientific Name	State Status	Federal Status	Grays Harbor County	Lewis County	Thurston County
Eulachon	*Thaleichthys pacificus*	SC	FT	x	x	
Green sturgeon	*Acipenser medirostris*		FT	x		
Greenstriped rockfish	*Sebastes elongatus*	SC		x		
Leopard dace	*Rhinichthys falcatus*	SC			x	
Mountain sucker	*Catostomus platyrhynchus*	SC			x	
Olympic mudminnow	*Novumbra hubbsi*	SS		x	x	x
Pacific hake	*Merluccius productus*	SC	FCo	x		
Pacific cod	*Gadus macrocephalus*	SC	FCo	x		
Pacific herring	*Clupea pallasi*	SC	FC	x		
Pacific lamprey	*Entosphenus tridentata*		FCo	x	x	x
River lamprey	*Lampetra ayresi*	SC	FCo	x	x	x
Quillback rockfish	*Sebastes maliger*	FCo	SC	x		
Redstripe rockfish	*Sebastes proriger*	SC		x		
Sockeye salmon	*Oncorhynchus nerka*	FT/FE	SC	x		x
Steelhead trout	*Oncorhynchus mykiss*	SC	FT	x	x	x
Tiger rockfish	*Sebastes nigrocinctus*	SC		x		
Walleye pollock	*Theragra chalcogramma*	SC	FCo	x		
Widow rockfish	*Sebastes entomelas*	SC		x		
Yelloweye rockfish	*Sebastes ruberrimus*	FT		x		
Yellowtail rockfish	*Sebastes flavidus*	SC		x		
Reptiles						
Green sea turtle	*Chelonia mydas*	ST	FE	x		
Leatherback sea turtle	*Dermochelys coriacea*	SE	FE	x		
Loggerhead sea turtle	*Caretta caretta*	ST	FT	x		
Olive Ridley sea turtle	*Lepidochelys olivacea*		FE	x		
Pacific (western) pond turtle	*Actinemys marmorata*	SE	FCo	x	x	x
Amphibians						
Cascades frog	*Rana cascadae*		FCo	x	x	x
Cascade torrent salamander	*Rhyacotriton cascadae*	SC			x	x
Columbia torrent salamander	*Rhyacotriton kezeri*		FCo	x	x	
Dunn's salamander	*Plethodon dunni*	SC		x	x	
Larch Mountain salamander	*Plethodon larselli*	SS	FCo		x	
Olympic torrent salamander	*Rhyacotriton olympicus*		FCo	x		
Oregon spotted frog	*Rana pretiosa*	SE	FT			x
Tailed frog	*Ascaphus truei*		FCo	x	x	x
Van Dyke's salamander	*Plethodon vandykei*	SC	FCo	x	x	x
Western toad	*Bufo boreas*	SC	FCo	x	x	x
Invertebrates						
Beller's ground beetle	*Agonum belleri*	SC	FCo			x
Blue-gray taildropper	*Prophysaon coeruleum*	SC			x	

Common Name	Scientific Name	State Status	Federal Status	Grays Harbor County	Lewis County	Thurston County
Johnson's hairstreak	*Mitoura johnsoni*	SC		x	x	
Leschi's millipede	*Leschius mcallisteri*	SC				x
Makah copper	*Lycaena mariposa charlottensis*	SC	FCo	x		
Mardon skipper	*Polites mardon*	SE	FCo			x
Newcomb's littorine snail	*Algamorda newcombiana*		FCo	x		
Olive-sided flycatcher	*Contopus cooperi*		FCo	x	x	x
Olympia oyster	*Ostrea conchaphila*	SC		x		x
Oregon silverspot	*Speyeria zerene hippolyta*	SE	FT	X		
Pacific clubtail	*Gomphu kurilis*	SC				x
Puget blue	*Plebejus icarioides blackmorei*	SC		x		x
Taylor's checkerspot	*Euphydryas editha taylori*	SE	FP[b]		x	x
Valley silverspot	*Speyeria zerene bremnerii*	SC	FCo		x	x

Sources: National Oceanic and Atmospheric Administration 2014a, 2014b, 2014c; U.S. Fish and Wildlife Service 2014; Washington Department of Fish and Wildlife 2014.

SE = state endangered; ST = state threatened; SC = state candidate; SS = state sensitive; FE = federal endangered; FT = federal threatened; FP = federal proposed; FC = federal candidate; FCo = federal species of concern; DPS = distinct population segment

[a] Critical habitat designated

[b] Critical habitat proposed

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Appendix G

Noise Data

Table 1. Horn Noise Levels (Existing and Proposed Action)

Receiver Name	Land Use Category	Distance (ft)	Existing Ambient Level (Ldn [Measured])	Project Noise Level (Ldn)	Combined Level (Ldn)	Increase over Existing (dB)	Moderate Impact Threshold (Ldn)	Severe Impact Threshold (Ldn)	Impact?	Moderate Contour Distance (ft)	Severe Contour Distance (ft)
Loc 1	2 - Nighttime Use	47	80.7	70.4	81.1	0.4	66	75	Moderate	92	23
Loc 2	2 - Nighttime Use	44	79.8	70.9	80.3	0.5	66	75	Moderate	93	23
Loc 3	2 - Nighttime Use	44	77.2	70.9	78.1	0.9	66	74	Moderate	93	27
Loc 4	2 - Nighttime Use	110	71.8	64.9	72.6	0.8	66	71	None	93	43
Loc 5	2 - Nighttime Use	131	70.3	63.7	71.2	0.9	65	69	None	107	58
Loc 6	2 - Nighttime Use	45	71	70.7	73.9	2.9	66	70	Severe	93	50
Loc 8	2 - Nighttime Use	177	67.7	61.8	68.7	1	63	68	None	147	68
Loc 9	2 - Nighttime Use	184	67.5	61.5	68.5	1	63	68	None	146	68
Loc 10	2 - Nighttime Use	259	69.7	59.3	70.1	0.4	65	69	None	108	58
Loc 11	2 - Nighttime Use	188	67.3	61.4	68.3	1	63	67	None	147	80
Loc 12	2 - Nighttime Use	26	70.8	74.3	75.9	5.1	66	70	Severe	93	50
Loc 13	2 - Nighttime Use	84	68.3	66.6	70.6	2.3	63	68	Moderate	146	68
Loc 14	2 - Nighttime Use	65	71.5	68.3	73.2	1.7	66	71	Moderate	93	43
Loc 15	2 - Nighttime Use	90	69.3	66.2	71	1.7	64	69	Moderate	126	59
Loc 16	2 - Nighttime Use	230	72	60.1	72.3	0.3	66	71	None	93	43
Loc 18	2 - Nighttime Use	93	69	66	70.8	1.8	64	69	Moderate	126	59
Loc 19	2 - Nighttime Use	104	70.3	65.2	71.5	1.2	65	69	Moderate	107	58
Loc 20	2 - Nighttime Use	297	62.3	58.4	63.8	1.5	59	64	None	271	126

Table 2. Wayside Noise Levels (Existing and Proposed Action)

Receiver Name	Land Use Category	Distance (ft)	Existing Ambient Level (Ldn [Measured])	Project Noise Level (Ldn)	Combined Level (Ldn)	Increase over Existing (dB)	Moderate Impact Threshold (Ldn)	Severe Impact Threshold (Ldn)	Impact?	Moderate Contour Distance (ft)	Severe Contour Distance (ft)
Loc 1	2 - Nighttime Use	47	80.7	64.2	80.8	0.1	66	75	None	36	< 10
Loc 2	2 - Nighttime Use	44	79.8	64.6	79.9	0.1	66	75	None	35	< 10
Loc 3	2 - Nighttime Use	44	77.2	64.6	77.4	0.2	66	74	None	35	10
Loc 4	2 - Nighttime Use	110	71.8	58.6	72	0.2	66	71	None	35	16
Loc 5	2 - Nighttime Use	131	70.3	57.5	70.5	0.2	65	69	None	41	22
Loc 6	2 - Nighttime Use	45	71	64.4	71.9	0.9	66	70	None	35	19
Loc 8	2 - Nighttime Use	177	67.7	55.5	68	0.3	63	68	None	56	26
Loc 9	2 - Nighttime Use	184	67.5	55.3	67.8	0.3	63	68	None	56	26
Loc 10	2 - Nighttime Use	259	69.7	53	69.8	0.1	65	69	None	41	22
Loc 11	2 - Nighttime Use	188	67.3	55.1	67.6	0.3	63	67	None	56	30
Loc 12	2 - Nighttime Use	26	70.8	68	72.6	1.8	66	70	Moderate	35	19
Loc 13	2 - Nighttime Use	84	68.3	60.4	68.9	0.6	63	68	None	56	26
Loc 14	2 - Nighttime Use	65	71.5	62	72	0.5	66	71	None	35	16
Loc 15	2 - Nighttime Use	90	69.3	59.9	69.8	0.5	64	69	None	48	22
Loc 16	2 - Nighttime Use	230	72	53.8	72.1	0.1	66	71	None	35	16
Loc 18	2 - Nighttime Use	93	69	59.7	69.5	0.5	64	69	None	48	22
Loc 19	2 - Nighttime Use	104	70.3	59	70.6	0.3	65	69	None	41	22
Loc 20	2 - Nighttime Use	297	62.3	52.1	62.7	0.4	59	64	None	103	48

Table 3. Cumulative Horn Noise Levels (Existing and Proposed Action)

Receiver Name	Land Use Category	Distance (ft)	Existing Ambient Level (Ldn [Measured])	Project Noise Level (Ldn)	Combined Level (Ldn)	Increase over Existing (dB)	Moderate Impact Threshold (Ldn)	Severe Impact Threshold (Ldn)	Impact?	Moderate Contour Distance (ft)	Severe Contour Distance (ft)
Loc 1	2 - Nighttime Use	47	80.7	73.7	81.5	0.8	66	75	Moderate	153	38
Loc 2	2 - Nighttime Use	44	79.8	74.1	80.8	1	66	75	Moderate	153	38
Loc 3	2 - Nighttime Use	44	77.2	74.1	78.9	1.7	66	74	Severe	153	45
Loc 4	2 - Nighttime Use	110	71.8	68.2	73.4	1.6	66	71	Moderate	154	72
Loc 5	2 - Nighttime Use	131	70.3	67	72	1.7	65	69	Moderate	178	96
Loc 6	2 - Nighttime Use	45	71	74	75.8	4.8	66	70	Severe	154	83
Loc 8	2 - Nighttime Use	177	67.7	65.1	69.6	1.9	63	68	Moderate	244	113
Loc 9	2 - Nighttime Use	184	67.5	64.8	69.4	1.9	63	68	Moderate	243	113
Loc 10	2 - Nighttime Use	259	69.7	62.6	70.5	0.8	65	69	None	179	97
Loc 11	2 - Nighttime Use	188	67.3	64.7	69.2	1.9	63	67	Moderate	244	132
Loc 12	2 - Nighttime Use	26	70.8	77.6	78.4	7.6	66	70	Severe	154	83
Loc 13	2 - Nighttime Use	84	68.3	69.9	72.2	3.9	63	68	Severe	242	112
Loc 14	2 - Nighttime Use	65	71.5	71.6	74.6	3.1	66	71	Severe	154	71
Loc 15	2 - Nighttime Use	90	69.3	69.5	72.4	3.1	64	69	Severe	209	97
Loc 16	2 - Nighttime Use	230	72	63.4	72.6	0.6	66	71	None	154	72
Loc 18	2 - Nighttime Use	93	69	69.3	72.1	3.1	64	69	Severe	210	97
Loc 19	2 - Nighttime Use	104	70.3	68.5	72.5	2.2	65	69	Moderate	178	96
Loc 20	2 - Nighttime Use	297	62.3	61.7	65	2.7	59	64	Moderate	450	209

Table 4. Cumulative Wayside Noise Levels (Existing and Proposed Action)

Receiver Name	Land Use Category	Distance (ft)	Existing Ambient Level (Ldn [Measured])	Project Noise Level (Ldn)	Combined Level (Ldn)	Increase over Existing (dB)	Moderate Impact Threshold (Ldn)	Severe Impact Threshold (Ldn)	Impact?	Moderate Contour Distance (ft)	Severe Contour Distance (ft)
Loc 1	2 - Nighttime Use	47	80.7	65.2	80.8	1	66	75	None	42	10
Loc 2	2 - Nighttime Use	44	79.8	65.7	80	0	66	75	None	42	11
Loc 3	2 - Nighttime Use	44	77.2	65.7	77.5	0	66	74	None	42	12
Loc 4	2 - Nighttime Use	110	71.8	59.7	72.1	0	66	71	None	42	19
Loc 5	2 - Nighttime Use	131	70.3	58.6	70.6	0	65	69	None	49	27
Loc 6	2 - Nighttime Use	45	71	65.5	72.1	1	66	70	None	42	23
Loc 8	2 - Nighttime Use	177	67.7	56.6	68	0	63	68	None	66	31
Loc 9	2 - Nighttime Use	184	67.5	56.3	67.8	0	63	68	None	66	31
Loc 10	2 - Nighttime Use	259	69.7	54.1	69.8	0	65	69	None	49	26
Loc 11	2 - Nighttime Use	188	67.3	56.2	67.6	0	63	67	None	66	36
Loc 12	2 - Nighttime Use	26	70.8	69.1	73	2	66	70	Moderate	42	23
Loc 13	2 - Nighttime Use	84	68.3	61.5	69.1	1	63	68	None	67	31
Loc 14	2 - Nighttime Use	65	71.5	63.1	72.1	1	66	71	None	42	19
Loc 15	2 - Nighttime Use	90	69.3	61	69.9	1	64	69	None	57	26
Loc 16	2 - Nighttime Use	230	72	54.9	72.1	0	66	71	None	42	19
Loc 18	2 - Nighttime Use	93	69	60.8	69.6	1	64	69	None	57	26
Loc 19	2 - Nighttime Use	104	70.3	60.1	70.7	0	65	69	None	49	27
Loc 20	2 - Nighttime Use	297	62.3	53.2	62.8	1	59	64	None	122	57

Table 5. Proposed Action Noise Impacts

Grade Crossing	Type	Segment	Description	Moderate Impacts, Horn	Severe Impacts, Horn	Moderate Impacts, Wayside
1	Public	A	B St	12		
2	Public	A	N Tower Ave	6		
3	Public	A	N Pearl St	6		
4	Public	A	E St	8		
5	Public	A	F St	8		
6	Public	A	G St	6		
7	Public	A	H St	8		
8	Public	A	J St	15		
9	Public	B	Foron Rd	1		
10	Public	B	Kuper Rd			
11	Public	B	Robert Thompson Rd	2		
12	Public	B	Hoss Rd			
13	Public	B	222nd Ave SW	1		
14	Private	B	Private Drive	2		
15	Private	B	Private Drive	2		
16	Public	B	216th Ave SW	4	1	
17	Private	B	Private drive	3		
18	Public	B	Old Highway 99 SW	6		
19	Public	B	Crossway St SW	1		
20	Public	B	Tea St SW	2		
21	Public	C	Joselyn St SW	1		
22	Private	C	Private drive			
23	Public	C	183rd Ave SW	2	1	
24	Public	C	Littlerock Rd SW	3		
25	Private	D	Private drive	2		
26	Private	D	Private drive	2		
27	Public	D	Gate Rd SW	1		
28	Public	D	Hunter Loop Rd SW	1		
29	Private	D	Private drive	4		
30	Private	D	Private drive			
31	Private	E	Private drive			
32	Public	E	Blockhouse Rd			
33	Public	E	Merry Rd			
34	Public	E	Murrey St	2		
35	Public	E	Newton St	4		
36	Public	E	Shelton Rd	2		
37	Private	E	Private drive	4		
38	Public	E	Elma Gate Rd W			
39	Private	E	Private drive	6		

Grade Crossing	Type	Segment	Description	Moderate Impacts, Horn	Severe Impacts, Horn	Moderate Impacts, Wayside
40	Private	E	Private drive	2		
41	Private	E	Private drive			
42	Private	E	Private drive			
43	Public	F	Porter Creek Rd W	4		
44	Private	F	Private drive			
45	Private	F	Private drive	16	4	
46	Private	F	Private drive	8	2	
47	Public	F	Dunlap Rd	2	2	
48	Private	F	Private drive			
49	Private	F	Private drive	4		
50	Private	F	Private drive	2		
51	Public	F	N Blockhouse Rd			
52	Public	F	Unnamed Road	2		
53	Public	F	N Blockhouse Rd	2		
54	Public	F	Twidwell Rd			
55	Public	G	N 2nd St	26	8	
56	Public	G	N 3rd St		2	
57	Public	G	N 5th St	4	2	
58	Public	G	N 6th St	6	8	
59	Public	G	N 9th St	10		
60	Public	G	N 10th St	6	2	
61	Public	G	N 11th St	16	10	4
62	Public	G	N 13th St	14	10	6
63	Public	G	N 17th St	8	6	4
64	Public	G	Cider Rd	12		
65	Public	G	Hurd Rd	18		
66	Public	G	Newman Creek Rd	6		
67	Private	G	Private drive	4		
68	Public	G	ONeill Rd			
69	Private	G	Private Drive	2		
70	Public	G	Moore Rd	2		
71	Public	G	Hewitt St	10		
72	Public	G	Monte-Elma Rd	4		
73	Public	H	Old Monte Brady Rd	10		
74	Private	H	Private drive			
75	Public	H	Winkleman Rd N			
76	Public	H	Fairbairn Rd	2		
77	Private	H	Private parking lot			
78	Public	H	Glenn Rd N	4		
79	Public	H	Monte Brady Rd	4		
80	Public	H	Old Beacon Rd	4		

Grade Crossing	Type	Segment	Description	Moderate Impacts, Horn	Severe Impacts, Horn	Moderate Impacts, Wayside
81	Private	H	Private drive	4		
82	Public	H	S Sylvia St			
83	Public	H	S Main St			
84	Public	H	S 1St St			
85	Public	I	County Farm Rd	12	2	
86	Public	I	Devonshire Rd	2		
87	Public	I	Heikkinen Rd	2		
88	Public	I	Alder Grove Rd			
89	Private	I	Private drive	1		
90	Public	I	Central park Dr			
91	Private	I	Private drive	9	6	14
92	Private	I	Private drive			
93	Public	J	E Sargent Blvd	1		
94	Public	J	S Fleet St			
95	Public	J	S Tyler St			
96	Public	J	S Chehalis St			
97	Private	J	Private parking lot			
98	Private	J	Private drive			
99	Private	J	Private drive	8		
100	Public	J	W Wishkah St	10		
101	Public	J	W 1st St	8		
102	Public	J	N Maple St			
103	Public	J	Port Industrial Rd			
Total				**398**	**66**	**28**

Table 6. Cumulative Noise Impacts

Grade Crossing	Type	Segment	Description	Moderate Impacts, Horn	Severe Impacts, Horn	Moderate Impacts, Wayside	Severe Impacts, Wayside
1	Public	A	B St	20			
2	Public	A	N Tower Ave	12			
3	Public	A	N Pearl St	12			
4	Public	A	E St	16			
5	Public	A	F St	18			
6	Public	A	G St	14			
7	Public	A	H St	15			
8	Public	A	J St	36			
9	Public	B	Foron Rd	5			
10	Public	B	Kuper Rd				
11	Public	B	Robert Thompson Rd	6	1		
12	Public	B	Hoss Rd				
13	Public	B	222nd Ave SW	3			
14	Private	B	Private Drive	6	2		
15	Private	B	Private Drive	4	2		
16	Public	B	216th Ave SW	4	3	1	
17	Private	B	Private drive	7	2		
18	Public	B	Old Highway 99 SW	7	3		
19	Public	B	Crossway St SW	2	1		
20	Public	B	Tea St SW	3	1		
21	Public	C	Joselyn St SW	4			
22	Private	C	Private drive				
23	Public	C	183rd Ave SW	5	2	2	
24	Public	C	Littlerock Rd SW	9	2	1	
25	Private	D	Private drive	3	1		
26	Private	D	Private drive	7			
27	Public	D	Gate Rd SW	3	1		
28	Public	D	Hunter Loop Rd SW	4	1		
29	Private	D	Private drive	6	2		
30	Private	D	Private drive				
31	Private	E	Private drive				
32	Public	E	Blockhouse Rd				
33	Public	E	Merry Rd	1			
34	Public	E	Murrey St	7			
35	Public	E	Newton St	5	1		
36	Public	E	Shelton Rd	6			
37	Private	E	Private drive	4			
38	Public	E	Elma Gate Rd W				
39	Private	E	Private drive	4	2		
40	Private	E	Private drive	8			

Grade Crossing	Type	Segment	Description	Moderate Impacts, Horn	Severe Impacts, Horn	Moderate Impacts, Wayside	Severe Impacts, Wayside
41	Private	E	Private drive	4			
42	Private	E	Private drive	2			
43	Public	F	Porter Creek Rd W	6	4		
44	Private	F	Private drive	1			
45	Private	F	Private drive	18	6	4	
46	Private	F	Private drive	14	4	2	
47	Public	F	Dunlap Rd	4	4	2	
48	Private	F	Private drive	4			
49	Private	F	Private drive	6	4		
50	Private	F	Private drive	8	2		
51	Public	F	N Blockhouse Rd	4			
52	Public	F	Unnamed Road		2		
53	Public	F	N Blockhouse Rd	16			
54	Public	F	Twidwell Rd				
55	Public	G	N 2nd St	30	32	8	
56	Public	G	N 3rd St	12	2		
57	Public	G	N 5th St	20	6	2	
58	Public	G	N 6th St	18	14	6	
59	Public	G	N 9th St	10	6		
60	Public	G	N 10th St	12	8	2	
61	Public	G	N 11th St	14	24	4	4
62	Public	G	N 13th St	24	20	6	4
63	Public	G	N 17th St	20	10	4	2
64	Public	G	Cider Rd	20	2		
65	Public	G	Hurd Rd	20	10		
66	Public	G	Newman Creek Rd	6	4		
67	Private	G	Private drive	12	2		
68	Public	G	ONeill Rd	2			
69	Private	G	Private Drive	10			
70	Public	G	Moore Rd	2	2		
71	Public	G	Hewitt St	14	4		
72	Public	G	Monte-Elma Rd	22	2		
73	Public	H	Old Monte Brady Rd	14	6		
74	Private	H	Private drive	2			
75	Public	H	Winkleman Rd N				
76	Public	H	Fairbairn Rd	6			
77	Private	H	Private parking lot				
78	Public	H	Glenn Rd N	4	2		
79	Public	H	Monte Brady Rd	6	2		
80	Public	H	Old Beacon Rd	8	4		
81	Private	H	Private drive	2	2		

Grade Crossing	Type	Segment	Description	Moderate Impacts, Horn	Severe Impacts, Horn	Moderate Impacts, Wayside	Severe Impacts, Wayside
82	Public	H	S Sylvia St				
83	Public	H	S Main St				
84	Public	H	S 1St St	2			
85	Public	I	County Farm Rd	2	12	2	
86	Public	I	Devonshire Rd	6			
87	Public	I	Heikkinen Rd	2			
88	Public	I	Alder Grove Rd	6			
89	Private	I	Private drive	2	1		
90	Public	I	Central park Dr	7		4	
91	Private	I	Private drive	8	14	24	
92	Private	I	Private drive	12		4	
93	Public	J	E Sargent Blvd		1		
94	Public	J	S Fleet St				
95	Public	J	S Tyler St				
96	Public	J	S Chehalis St				
97	Private	J	Private parking lot				
98	Private	J	Private drive	4			
99	Private	J	Private drive	10	2		
100	Public	J	W Wishkah St	12	4		
101	Public	J	W 1st St	20	2		
102	Public	J	N Maple St				
103	Public	J	Port Industrial Rd				
Total				**756**	**253**	**78**	**10**

WILSON IHRIG
ACOUSTICS, NOISE & VIBRATION
CALIFORNIA
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WESTWAY-IMPERIUM EXPANSION PROJECT

GRAYS HARBOR

HOQUIAM, WASHINGTON

PUGET SOUND AND PACIFIC RAIL CORRIDOR

LONG TERM AMBIENT NOISE SURVEY

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INTRODUCTION

The purpose of this report is to document the execution and results of a long term noise survey performed in the Puget Sound and Pacific (PSAP) rail corridor between Centralia, WA and Aberdeen, WA over the course of three weeks from March 28 through April 16 2015. A full six days of data were collected at eighteen locations. Descriptions of the noise monitoring locations, equipment and procedures are provided. A summary of the acquired data and a complete set of daily plots of hourly statistical noise levels are included.

NOISE MONITORING LOCATIONS

Noise monitoring locations were selected with consideration of 1) proximity of residences to PSAP grade crossings, 2) density of residential areas and 3) accessibility of structures on which to install noise monitors (utility poles or trees) while avoiding private property. Permits to mount equipment to utility poles were obtained from Centralia City Light and Grays Harbor Public Utility District.

Satellite views of the PSAP corridor with the monitoring locations are shown in Figure 1, Figure 2, and Figure 3. A summary of primary noise sources observed at each location is included in Table 1 below. Measurements were not made at previously selected Location 7 in Rochester and Location 17 in Aberdeen since permission to use those utility poles was denied and representative alternatives could not be identified.

Table 1 Summary of existing noise sources

Loc	Approx. Address	Observed noise sources (in addition to trains)
1	1023 B St, Centralia	Infrequent local traffic
2	1102 G St, Centralia	Infrequent local traffic
3	1103 J St, Centralia	Infrequent local traffic
4	3900 Kuper Rd, Centralia	Cars and heavy trucks on Kuper Road
5	Old Hwy 9 & Tea St SW, Rochester	Old Hwy 9 traffic (mostly cars)
6	19318 Grand Mound Way, Rochester	Hwy 12 traffic (cars and trucks), infrequent local traffic
8	180th @ Little Rock, Rochester	Local traffic
9	205 Murrey, Oakville	Infrequent local traffic, Hwy 12 traffic
10	22 Evergreen Village Ln, Elma	Hwy 12 traffic (cars and trucks)
11	513 N 13th ST, Elma	Infrequent local traffic, light industrial
12	502 N 13th ST, Elma	Infrequent local traffic
13	57 Hurd Rd, Elma	Infrequent local traffic
14	510 Foss Ave, Satsop	Infrequent local traffic
15	78 Devonshire, Montesano	Infrequent local traffic
16	140 S Chehalis St, Aberdeen	Hwy 12 traffic (cars and trucks)
18	2100 1st St, Aberdeen	Local traffic, light industrial
19	11846 170th Ave, Rochester	Infrequent local traffic
20	7220 Central Park Dr, Aberdeen	Local traffic

NOISE MONITORING EQUIPMENT

A total of nine Type I noise monitor setups were used in the survey and included Larson Davis (L-D) Model 700, 812 or 820 digital logging sound level meters. A list of the equipment included in each setup is provided in Table 2. Each noise monitor setup was contained in a weatherproof security box with a sealed lead-acid battery and desiccant. The microphones with preamplifiers were inserted at the end of an attached "gooseneck" containing the microphone cable, and protected by waterproofed windscreens.

Table 2 Noise monitoring equipment

Noise Monitor Setup	Digital Logging Sound Level Meter	Microphone Preamplifier	Microphone
A	L-D Model 812 S/N 0435	L-D Model PRM828 S/N 1666	L-D Model 2541 S/N 4402
B	L-D Model 812 S/N 0439	L-D Model PRM828 S/N 1556	G.R.A.S. 40AE S/N 31776
C	L-D Model 812 S/N 0576	L-D Model PRM828 S/N 1396	L-D Model 2541 S/N 5704
D	L-D Model 812 S/N 0748	L-D Model PRM828 S/N 2465	PCB 377B02 S/N 101840
E	L-D Model 820 S/N 0453	L-D Model PRM828 S/N 0901	B&K Type 4155 S/N 1582458
F	L-D Model 820 S/N 1592	L-D Model PRM828 S/N 2513	PCB 377B02 S/N 108657
G	L-D Model 700 S/N 1576	L-D Model 785 S/N 0291	B&K Type 4155 S/N 1703442
H	L-D Model 700 S/N 2062	L-D Model 785A S/N 0253	B&K Type 4155 S/N 1287509
I	L-D Model 700 S/N 0790	L-D Model 785 S/N 0332	B&K Type 4155 S/N 1265455

NIST-traceable calibration with B&K Type 4230 Acoustical Calibrator S/N 1510494

PROCEDURES

The meters were programmed to store A-weighted sound pressure level data at one hour intervals with statistical levels of L_2, L_8, L_{25}, and L_{90}. The L_2, L_8 and L_{25} metrics were selected to correspond with allowable noise limit exceedance durations of 1.5, 5, and 15 minutes specified in WAC 173-60-040. The meters were calibrated prior to each deployment and the calibration was checked at the completion of each measurement period. Calibration was provided by a NIST-traceable acoustical calibrator producing a 1000 Hz tone at a level of 93.8 decibels referenced to the standard 20 micropascals.

All noise monitors were mounted on safely-accessible wood utility poles or tree trunks with the microphone at a height of approximately 10 feet above ground level. Photographs of many of the noise monitor installations are shown in Figure 4 through Figure 15. The installations shown are representative of the remaining locations where good quality images were not obtained.

At the completion of each measurement, the data logged by the sound level meters were downloaded to laptop computer. The daily noise metrics were computed, and hourly noise levels were plotted using WIA proprietary software.

RESULTS

All post-measurement calibration checks were determined to be within 0.5 decibels of the initial calibration, with the exception of the meter at Location 2 in Centralia whose calibration check was 3.8 decibels lower. Data from Location 2 should be used with caution.

A summary of daily noise descriptors for each day of measurement at all locations is included in Table 3. Note that the L_{dn} and CNEL values are generally within one decibel, which is typical of environmental noise dominated by daytime human activity. The hourly statistical noise levels for each 24 hour period of measurement and at all eighteen locations are plotted Figure 16 through Figure 123. The hourly L_{eq} for six days of measurement at Locations 1 through 20 are plotted in in Figure 124 through Figure 141.

Table 3: Summary of daily noise descriptors

LOCATION	DATE	Ldn (dBA)	CNEL (dBA)	Leq_day (dBA)	Leq_night (dBA)
Loc 1 1023 B St, Centralia, WA **Setup F**	Sat, Apr 4, 2015	83	83	77	76
	Sun, Apr 5, 2015	72	72	69	65
	Mon, Apr 6, 2015	81	82	65	75
	Tue, Apr 7, 2015	79	79	73	72
	Wed, Apr 8, 2015	83	83	73	77
	Thu, Apr 9, 2015	86	86	75	80
Loc 2 1102 G St, Centralia, WA **Setup B**	Sat, Apr 4, 2015	81	81	76	74
	Sun, Apr 5, 2015	72	72	66	66
	Mon, Apr 6, 2015	79	80	66	73
	Tue, Apr 7, 2015	82	82	71	76
	Wed, Apr 8, 2015	82	82	75	76
	Thu, Apr 9, 2015	83	83	75	77
Loc 3 1103 J St, Centralia, WA **Setup E**	Sat, Apr 4, 2015	82	82	74	76
	Sun, Apr 5, 2015	71	71	59	65
	Mon, Apr 6, 2015	73	74	59	66
	Tue, Apr 7, 2015	78	78	70	72
	Wed, Apr 8, 2015	78	78	63	72
	Thu, Apr 9, 2015	81	81	74	75
Loc 4 3900 Kuper Rd, Centralia, WA **Setup C**	Sat, Apr 11, 2015	70	72	70	60
	Sun, Apr 12, 2015	73	73	63	67
	Mon, Apr 13, 2015	70	70	68	63
	Tue, Apr 14, 2015	73	73	72	66
	Wed, Apr 15, 2015	71	72	71	63
	Thu, Apr 16, 2015	74	74	70	67
Loc 5 Old Hwy 9 & Tea St SW, Rochester, WA **Setup D**	Sat, Apr 11, 2015	68	70	67	59
	Sun, Apr 12, 2015	68	70	65	61
	Mon, Apr 13, 2015	71	72	66	64
	Tue, Apr 14, 2015	71	71	70	62
	Wed, Apr 15, 2015	70	71	70	62
	Thu, Apr 16, 2015	74	74	71	67

LOCATION	DATE	Ldn (dBA)	CNEL (dBA)	Leq_day (dBA)	Leq_night (dBA)
Loc 6 19318 Grand Mound Way, Rochester, WA **Setup D**	Sat, Apr 4, 2015	72	73	72	62
	Sun, Apr 5, 2015	69	70	70	58
	Mon, Apr 6, 2015	71	71	67	64
	Tue, Apr 7, 2015	71	72	72	62
	Wed, Apr 8, 2015	71	71	69	62
	Thu, Apr 9, 2015	72	73	72	62
Loc 8 180th @ Little Rock, Rochester, WA **Setup C**	Sat, Apr 4, 2015	68	69	68	59
	Sun, Apr 5, 2015	67	68	68	57
	Mon, Apr 6, 2015	66	67	66	58
	Tue, Apr 7, 2015	68	68	67	59
	Wed, Apr 8, 2015	67	68	66	59
	Thu, Apr 9, 2015	70	70	66	63
Loc 9 205 Murrey, Oakville, WA **Setup G**	Sat, Mar 28, 2015	66	67	65	58
	Sun, Mar 29, 2015	61	61	63	48
	Mon, Mar 30, 2015	72	72	56	66
	Tue, Mar 31, 2015	72	72	62	66
	Wed, Apr 1, 2015	67	67	60	60
	Thu, Apr 2, 2015	67	67	63	61
Loc 10 22 Evergreen Village Lane, Elma, WA **Setup H**	Sat, Mar 28, 2015	68	68	65	61
	Sun, Mar 29, 2015	62	63	63	53
	Mon, Mar 30, 2015	71	71	66	64
	Tue, Mar 31, 2015	72	72	68	65
	Wed, Apr 1, 2015	73	73	69	66
	Thu, Apr 2, 2015	72	72	68	65
Loc 11 513 N 13th ST, Elma, WA **Setup D**	Sat, Mar 28, 2015	68	69	59	60
	Sun, Mar 29, 2015	62	62	63	51
	Mon, Mar 30, 2015	66	67	60	60
	Tue, Mar 31, 2015	70	70	61	63
	Wed, Apr 1, 2015	69	70	67	62
	Thu, Apr 2, 2015	69	69	68	61

LOCATION	DATE	Ldn (dBA)	CNEL (dBA)	Leq_day (dBA)	Leq_night (dBA)
Loc 12 502 N 13th ST, Elma, WA **Setup A**	Sat, Mar 28, 2015	70	72	58	63
	Sun, Mar 29, 2015	67	67	69	47
	Mon, Mar 30, 2015	73	73	71	64
	Tue, Mar 31, 2015	76	76	66	69
	Wed, Apr 1, 2015	66	68	66	52
	Thu, Apr 2, 2015	73	74	71	65
Loc 13 57 Hurd Rd, Elma, WA **Setup C**	Sat, Mar 28, 2015	68	70	56	60
	Sun, Mar 29, 2015	66	66	68	48
	Mon, Mar 30, 2015	70	71	68	63
	Tue, Mar 31, 2015	71	72	66	64
	Wed, Apr 1, 2015	64	66	65	51
	Thu, Apr 2, 2015	71	72	67	63
Loc 14 510 Foss Ave, Satsop, WA **Setup E**	Sat, Mar 28, 2015	71	73	62	64
	Sun, Mar 29, 2015	68	68	71	43
	Mon, Mar 30, 2015	75	75	69	68
	Tue, Mar 31, 2015	75	75	67	68
	Wed, Apr 1, 2015	67	69	67	52
	Thu, Apr 2, 2015	73	74	71	65
Loc 15 78 Devonshire, Montesano, WA **Setup B**	Sat, Mar 28, 2015	69	71	63	60
	Sun, Mar 29, 2015	67	67	69	53
	Mon, Mar 30, 2015	72	73	67	66
	Tue, Mar 31, 2015	68	70	69	55
	Wed, Apr 1, 2015	67	68	68	56
	Thu, Apr 2, 2015	73	75	68	65
Loc 16 140 S Chehalis ST, Aberdeen, WA **Setup F**	Sat, Mar 28, 2015	72	72	64	65
	Sun, Mar 29, 2015	67	68	69	55
	Mon, Mar 30, 2015	75	76	69	69
	Tue, Mar 31, 2015	74	74	68	67
	Wed, Apr 1, 2015	70	72	69	61
	Thu, Apr 2, 2015	74	74	69	68

LOCATION	DATE	Ldn (dBA)	CNEL (dBA)	Leq_day (dBA)	Leq_night (dBA)
Loc 18 2100 1st ST, Aberdeen, WA **Setup I**	Sat, Mar 28, 2015	74	74	62	68
	Sun, Mar 29, 2015	65	66	66	56
	Mon, Mar 30, 2015	67	68	62	61
	Tue, Mar 31, 2015	71	71	72	60
	Wed, Apr 1, 2015	72	72	69	65
	Thu, Apr 2, 2015	65	65	63	58
Loc 19 11846 170th Ave, Rochester, WA **Setup A**	Sat, Apr 4, 2015	72	72	69	65
	Sun, Apr 5, 2015	62	63	65	45
	Mon, Apr 6, 2015	66	68	67	48
	Tue, Apr 7, 2015	72	72	62	66
	Wed, Apr 8, 2015	74	75	64	68
	Thu, Apr 9, 2015	76	76	67	69
Loc 20 7220 Central Park Dr, Aberdeen, WA **Setup A**	Sat, Apr 11, 2015	60	62	62	46
	Sun, Apr 12, 2015	64	64	56	58
	Mon, Apr 13, 2015	64	65	58	57
	Tue, Apr 14, 2015	62	62	62	53
	Wed, Apr 15, 2015	64	64	62	56
	Thu, Apr 16, 2015	60	62	61	46

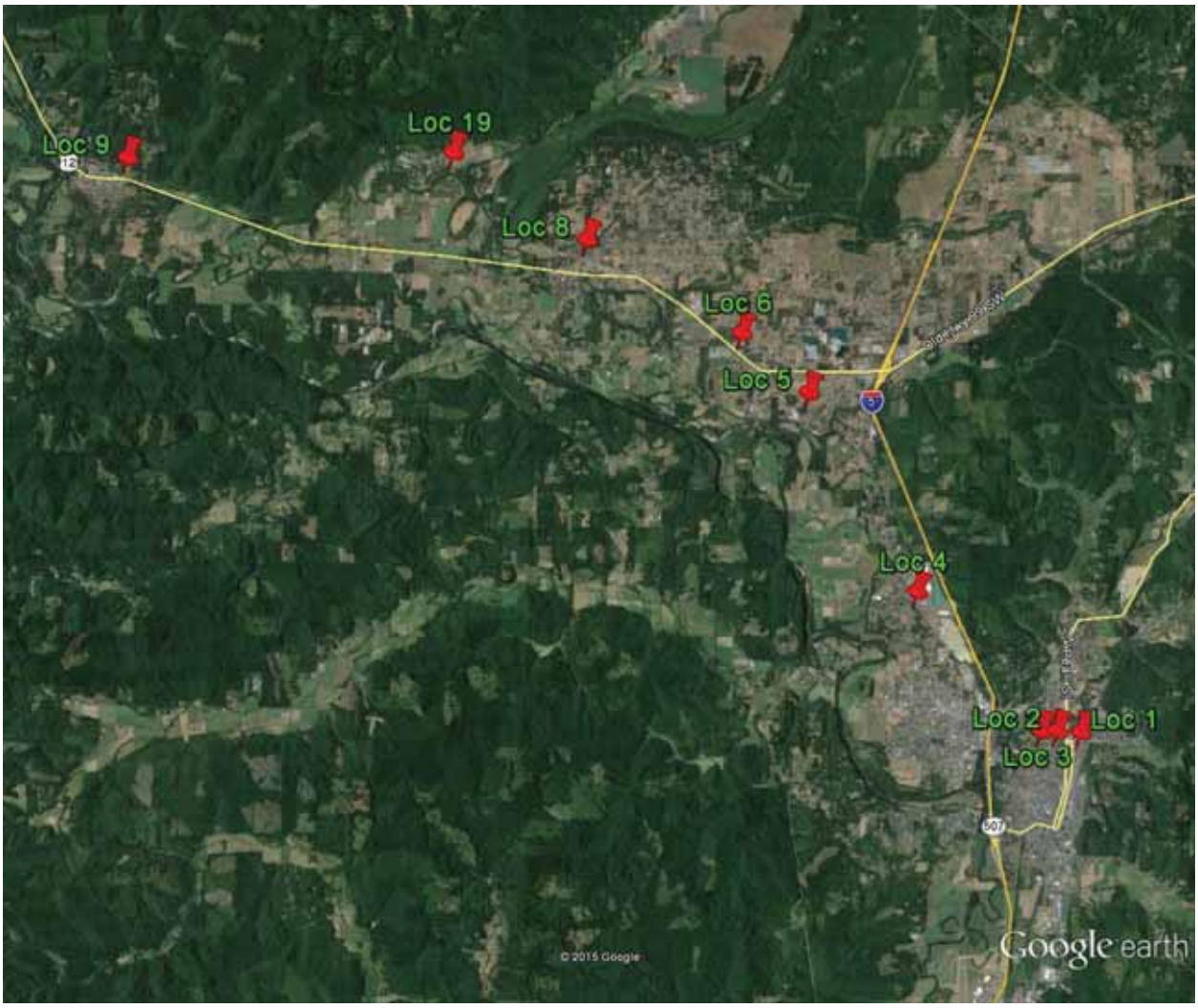


Figure 1: Centralia, Rochester, and Oakville Survey Locations

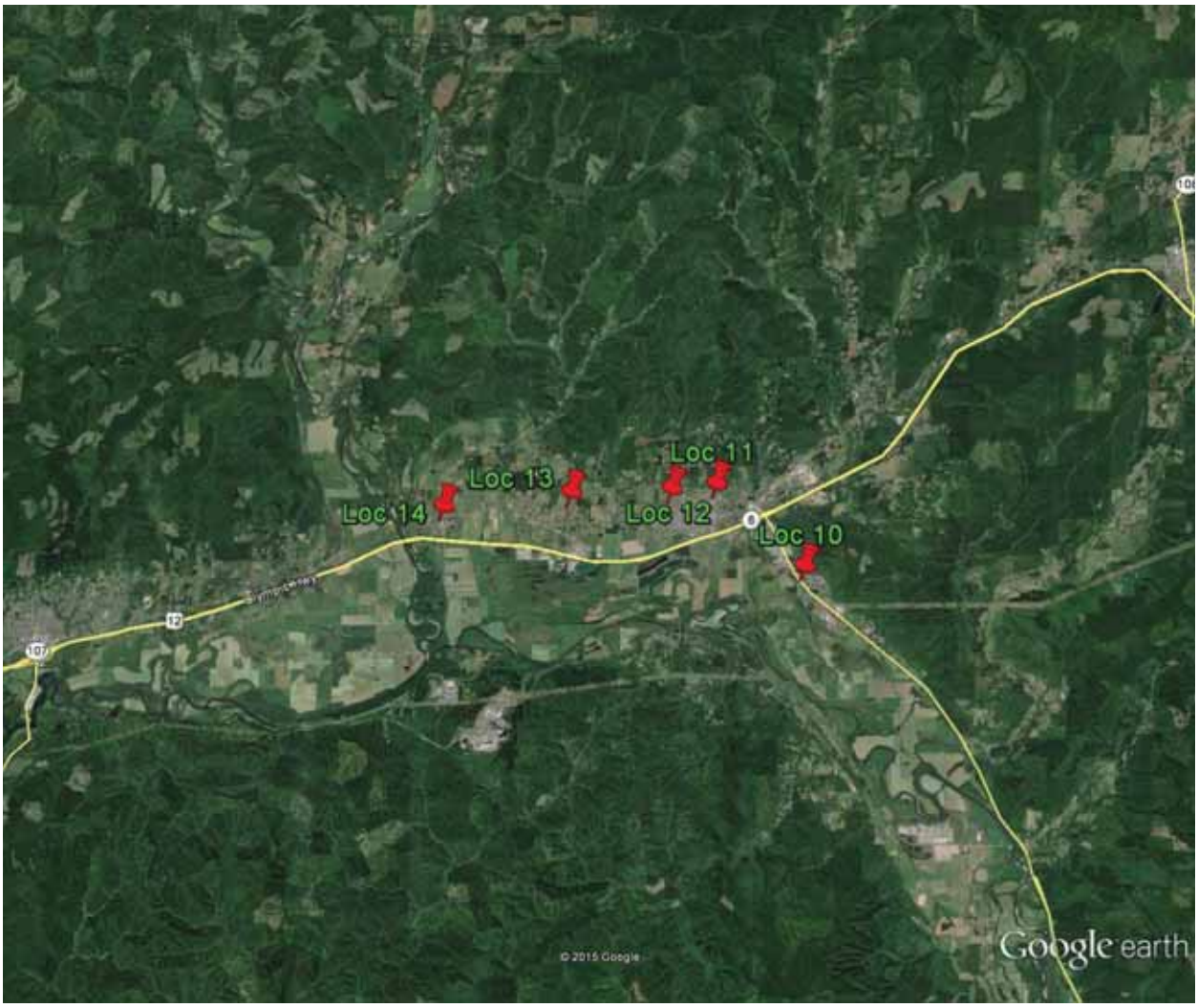


Figure 2: Elma & Satsop Survey Locations



Figure 3: Aberdeen Survey Locations



Figure 4: Location 1 noise monitor installation



Figure 5: Location 2 noise monitor installation



Figure 6: Location 3 noise monitor installation



Figure 7: Location 5 noise monitor installation



Figure 8: Location 6 noise monitor installation



Figure 9: Location 11 noise monitor installation



Figure 10: Location 12 noise monitor installation



Figure 11: Location 13 noise monitor installation



Figure 12: Location 14 noise monitor installation



Figure 13: Location 15 noise monitor installation



Figure 14: Location 16 noise monitor installation



Figure 15: Location 20 noise monitor installation

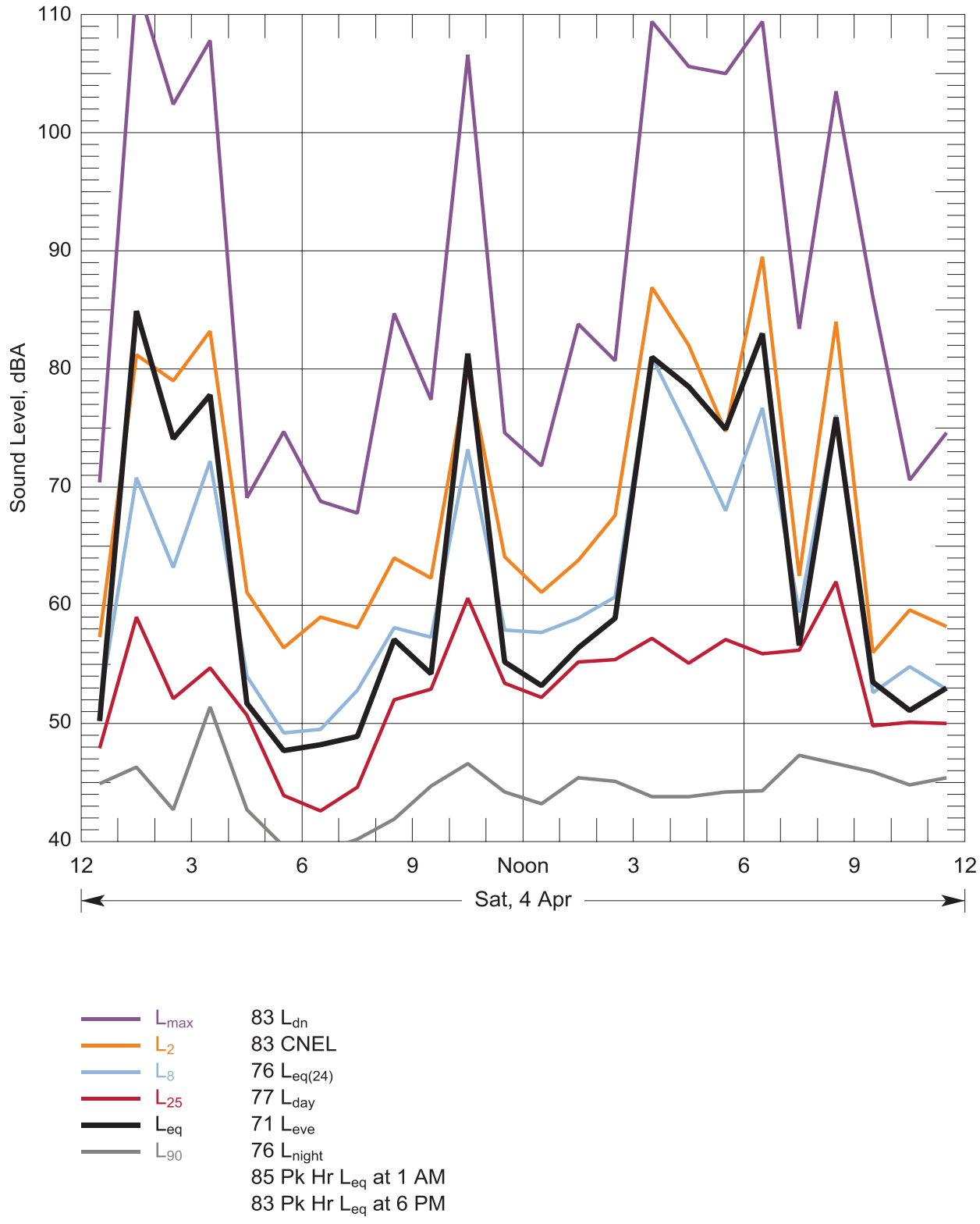


Figure 16: Hourly statistical summary of noise levels measured at Location 1 - 1023 B St, Centralia on 04 Apr, 2015 and daily-average descriptors

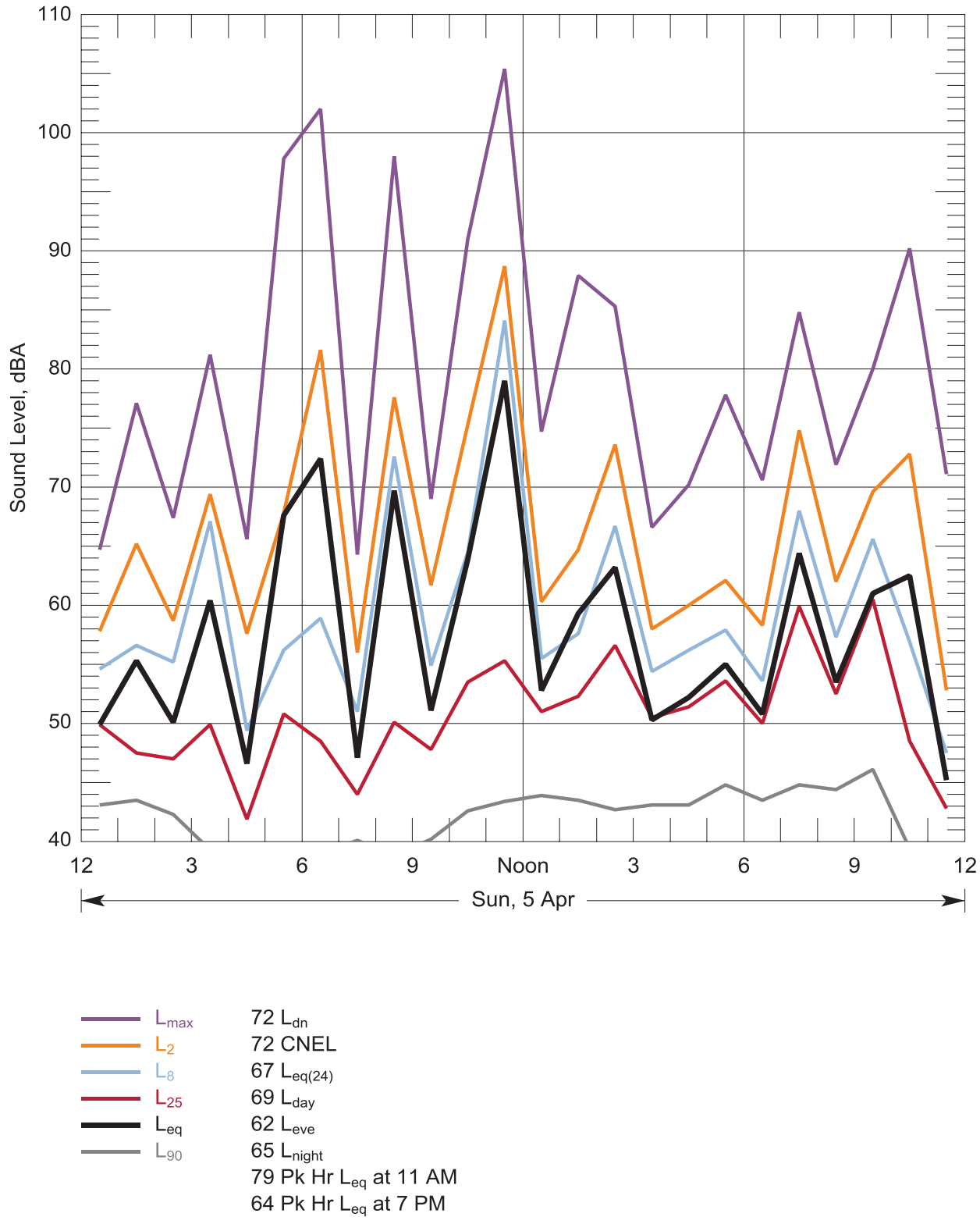


Figure 17: Hourly statistical summary of noise levels measured at Location 1 - 1023 B St, Centralia on 05 Apr, 2015 and daily-average descriptors

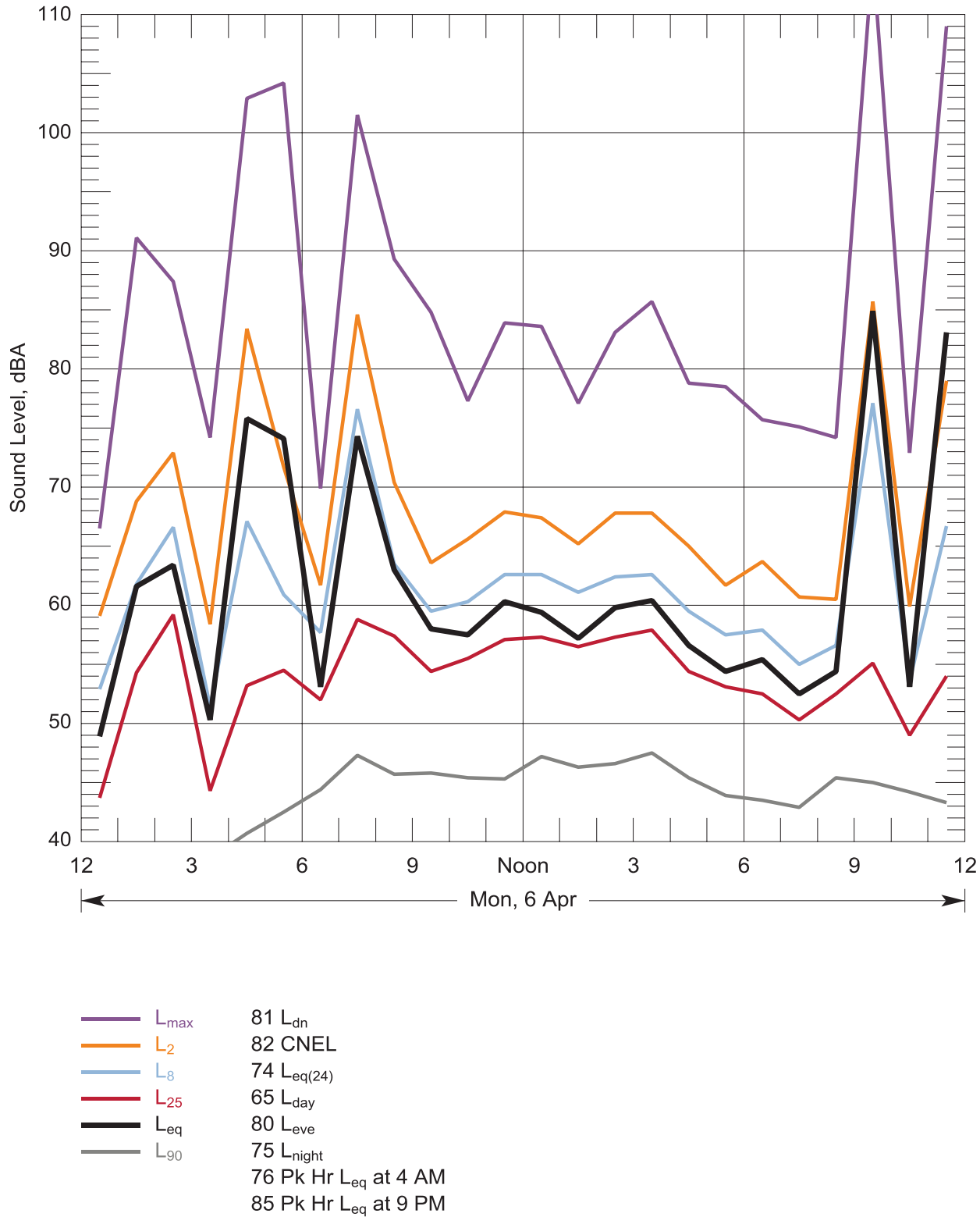


Figure 18: Hourly statistical summary of noise levels measured at Location 1 - 1023 B St, Centralia on 06 Apr, 2015 and daily-average descriptors

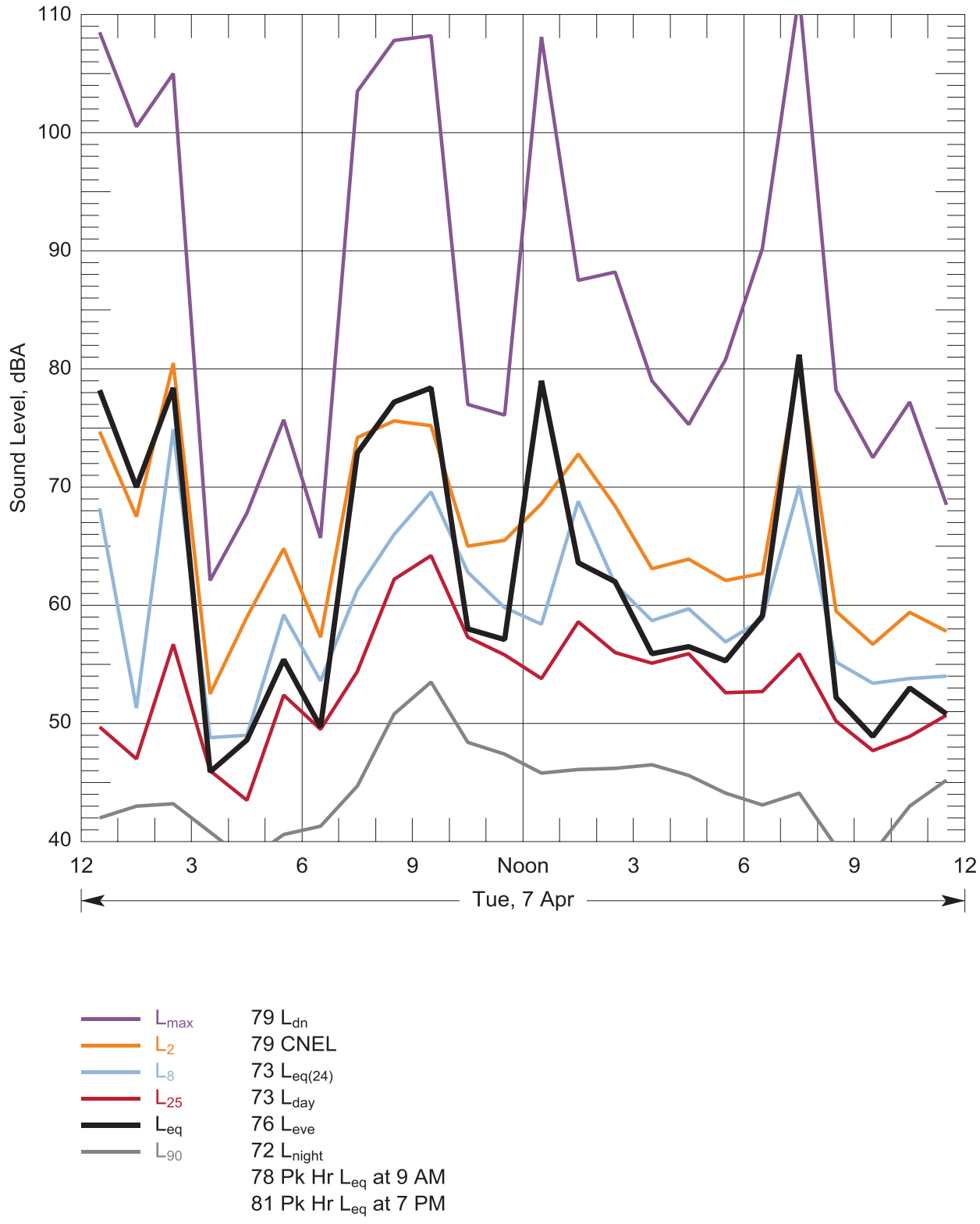


Figure 19: Hourly statistical summary of noise levels measured at Location 1 - 1023 B St, Centralia on 07 Apr, 2015 and daily-average descriptors

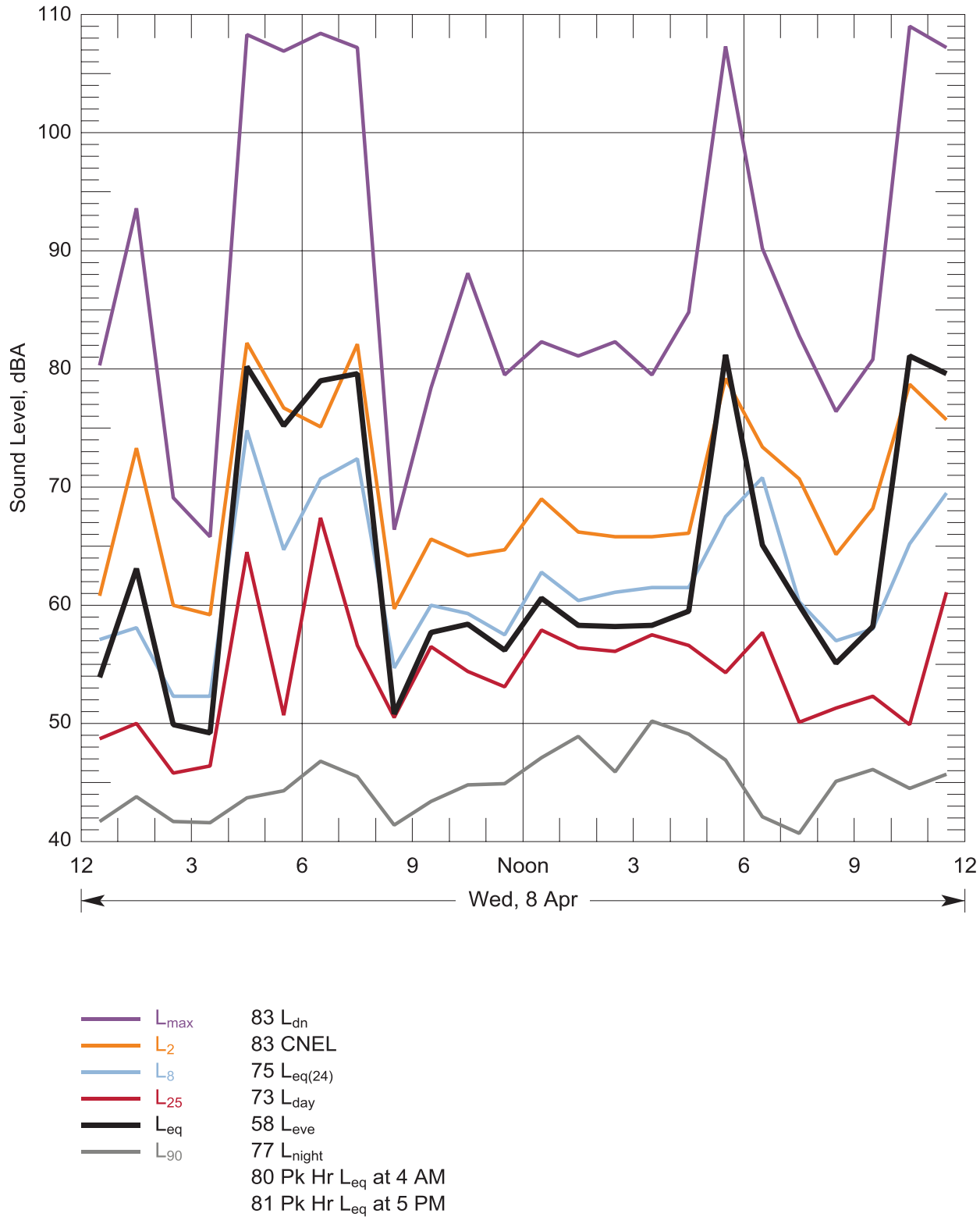


Figure 20: Hourly statistical summary of noise levels measured at Location 1 - 1023 B St, Centralia on 08 Apr, 2015 and daily-average descriptors

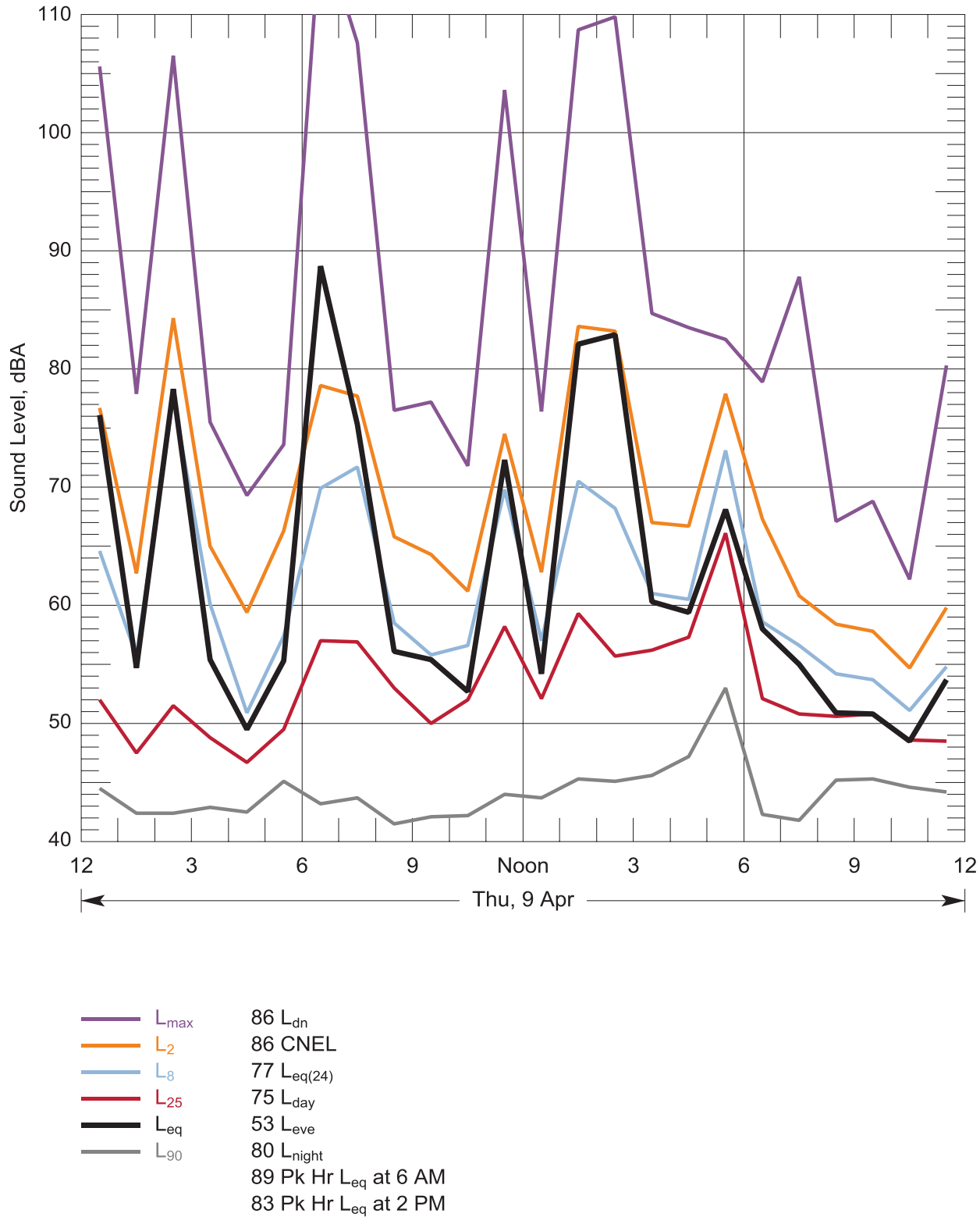


Figure 21: Hourly statistical summary of noise levels measured at Location 1 - 1023 B St, Centralia on 09 Apr, 2015 and daily-average descriptors

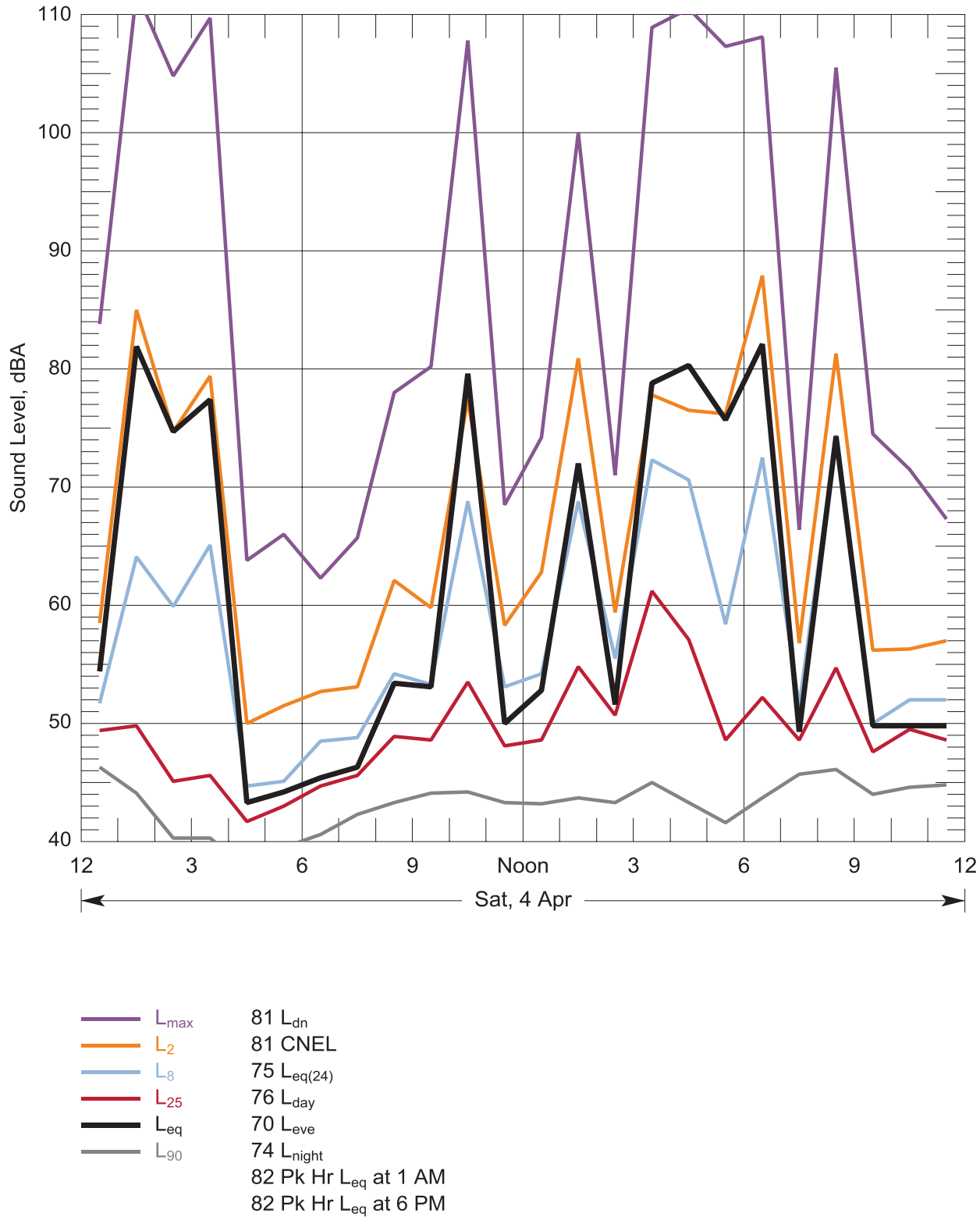


Figure 22: Hourly statistical summary of noise levels measured at Location 2 - 1102 G St, Centralia on 04 Apr, 2015 and daily-average descriptors

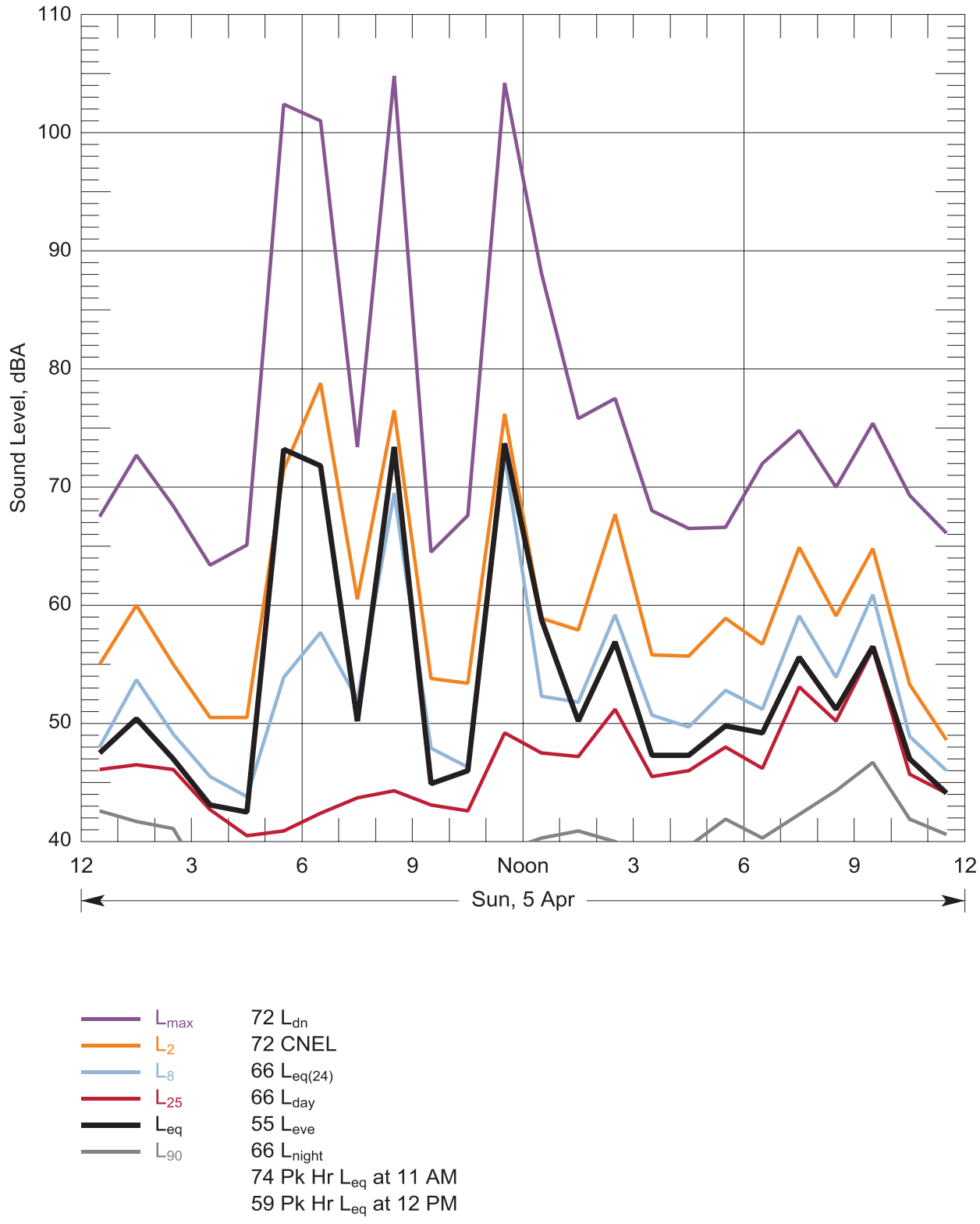


Figure 23: Hourly statistical summary of noise levels measured at Location 2 - 1102 G St, Centralia on 05 Apr, 2015 and daily-average descriptors

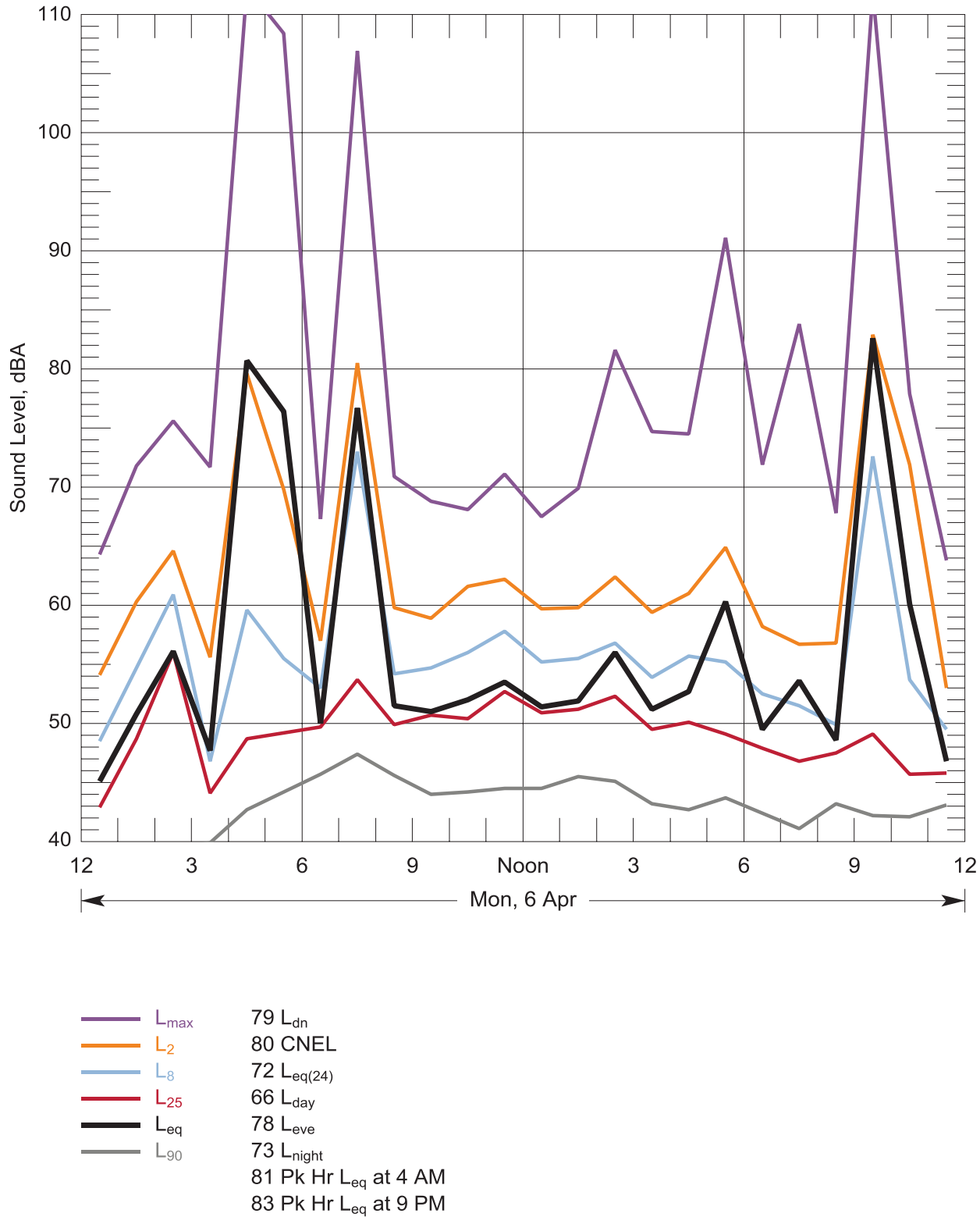


Figure 24: Hourly statistical summary of noise levels measured at Location 2 - 1102 G St, Centralia on 06 Apr, 2015 and daily-average descriptors

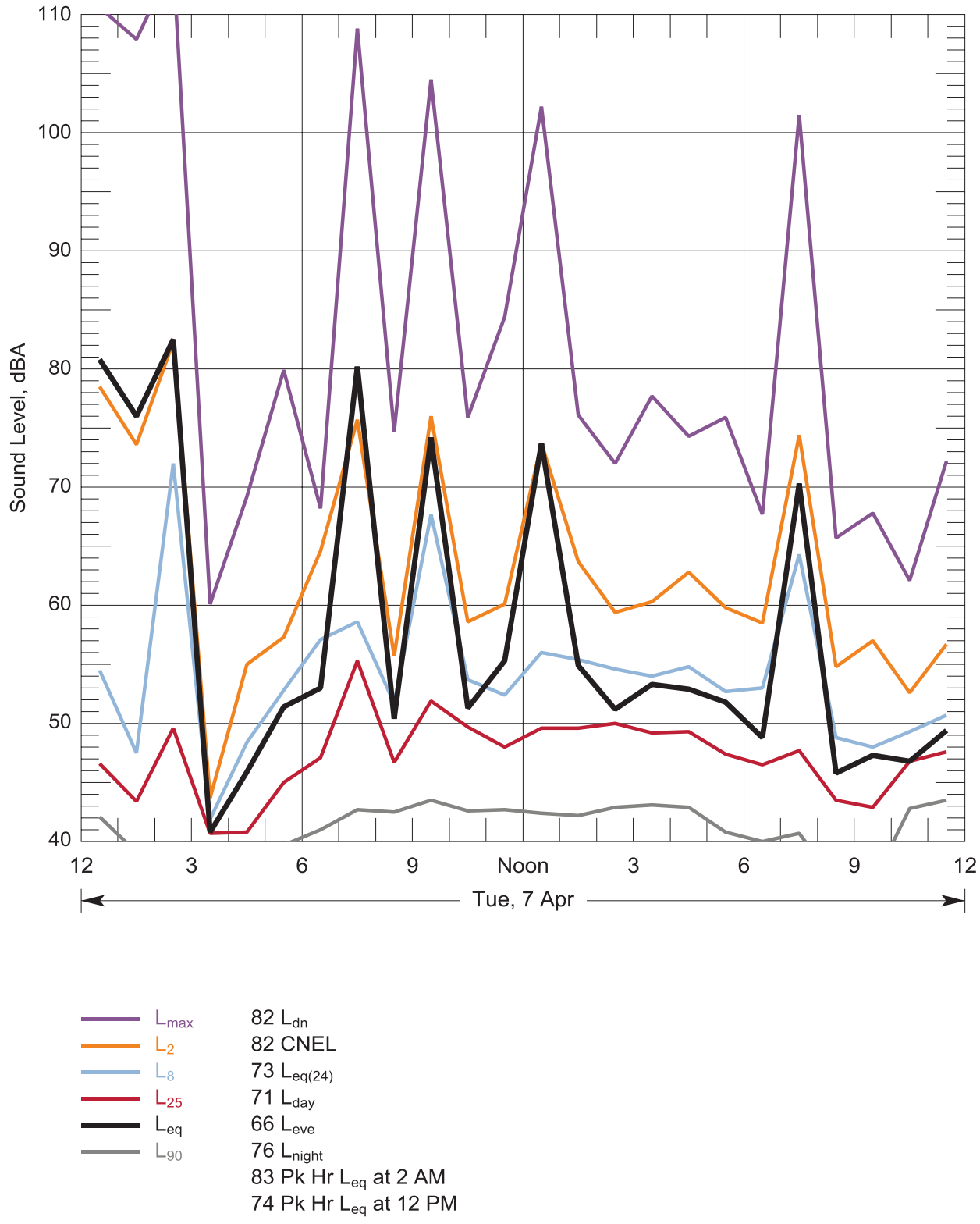


Figure 25: Hourly statistical summary of noise levels measured at Location 2 - 1102 G St, Centralia on 07 Apr, 2015 and daily-average descriptors

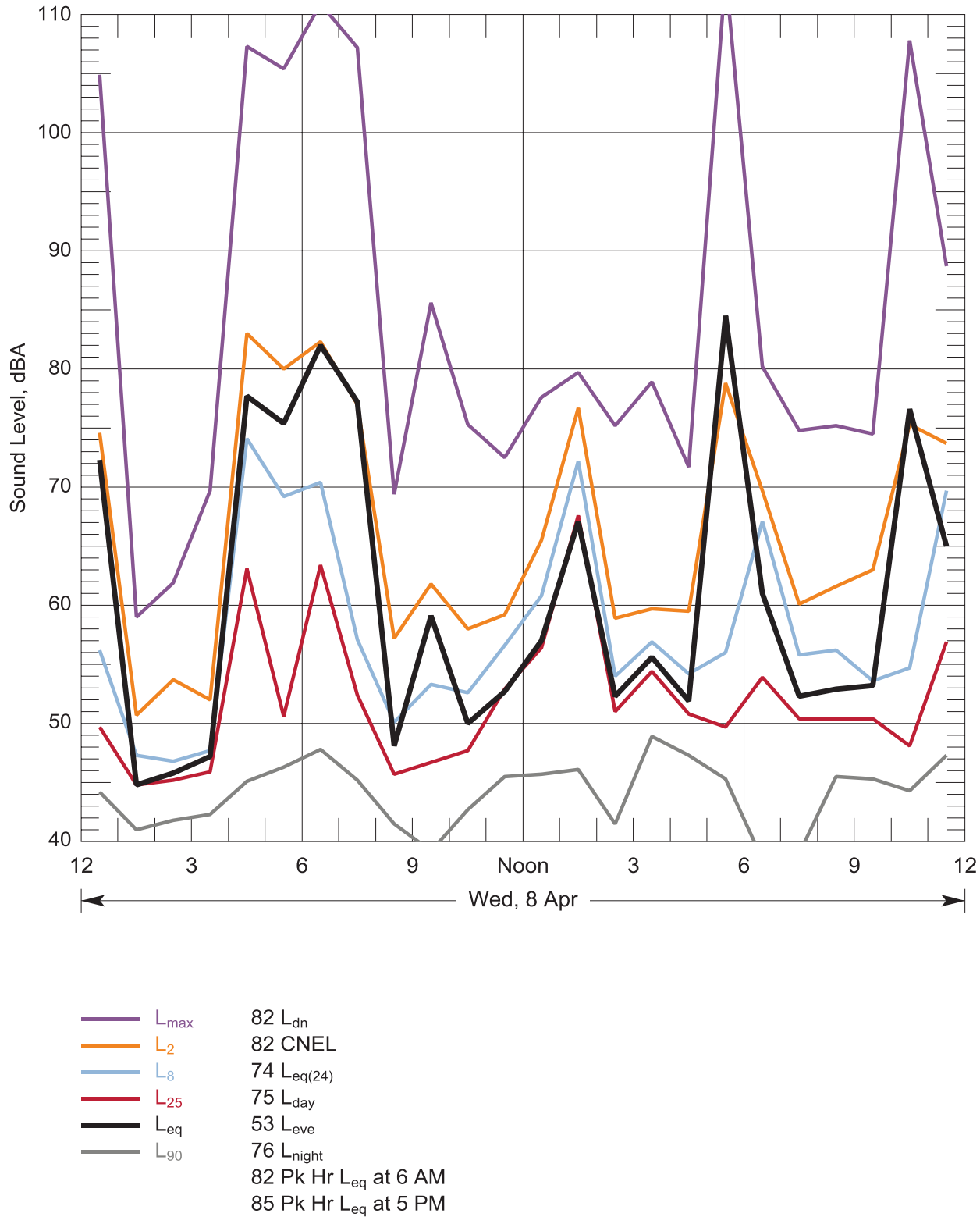


Figure 26: Hourly statistical summary of noise levels measured at Location 2 - 1102 G St, Centralia on 08 Apr, 2015 and daily-average descriptors

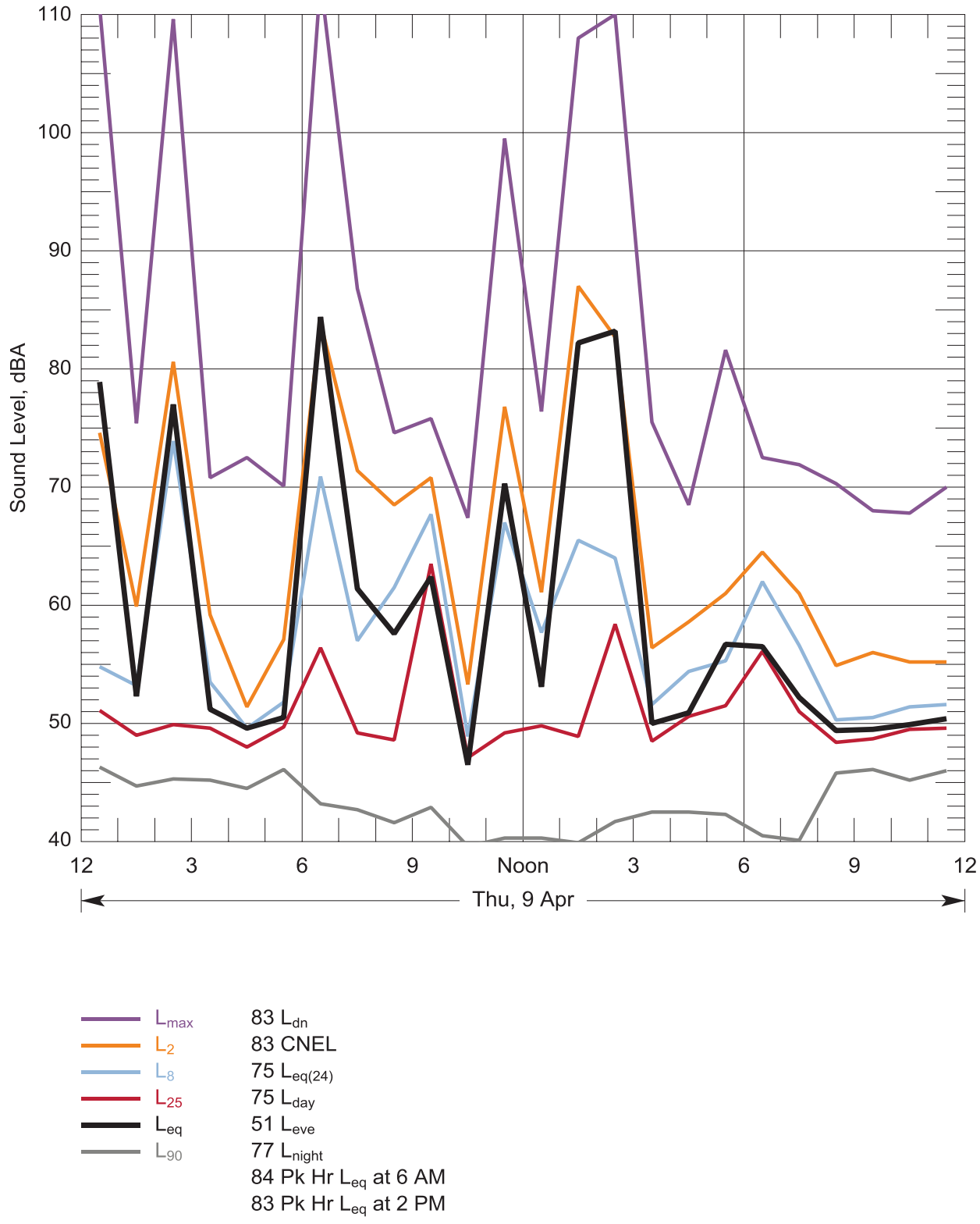


Figure 27: Hourly statistical summary of noise levels measured at Location 2 - 1102 G St, Centralia on 09 Apr, 2015 and daily-average descriptors

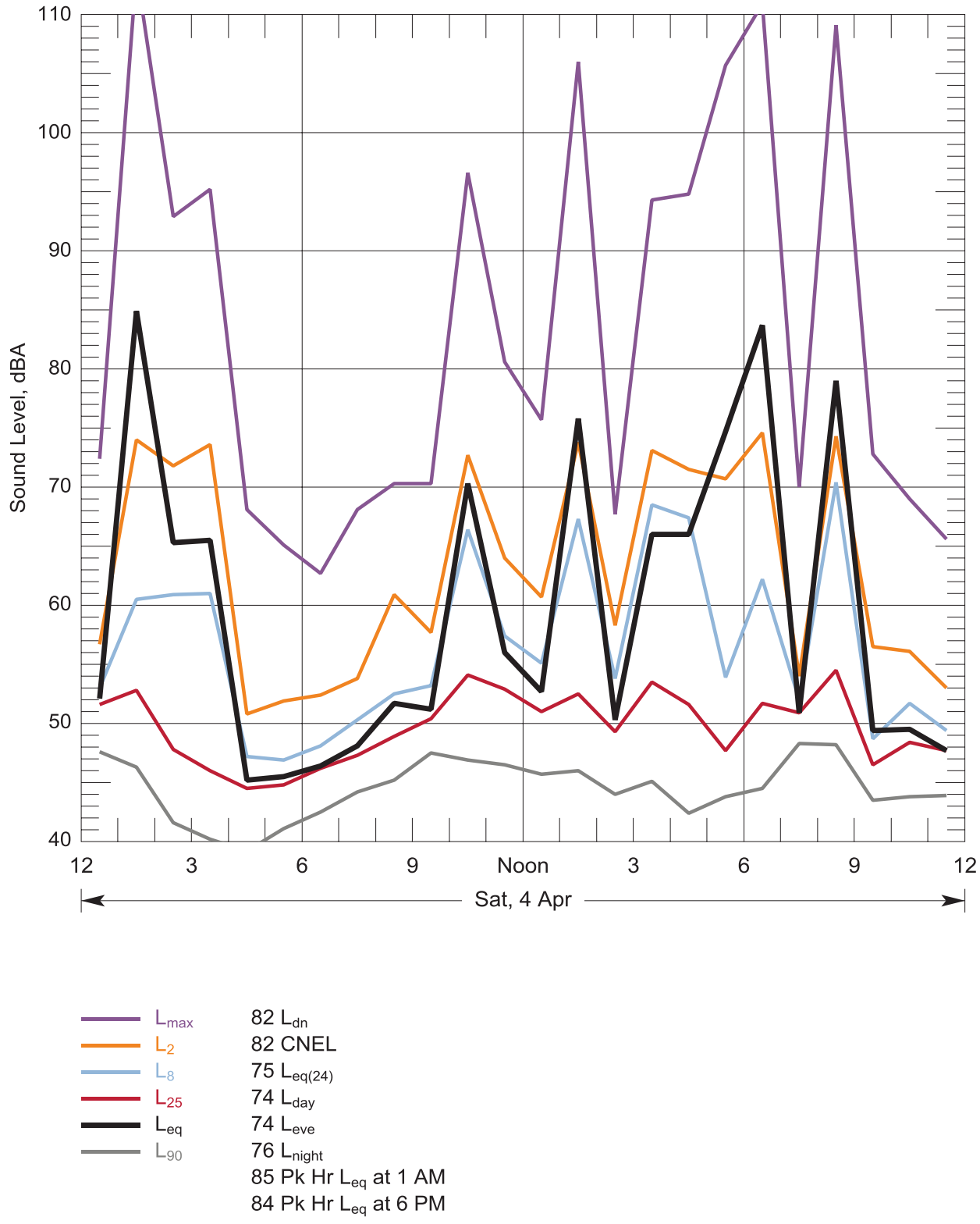


Figure 28: Hourly statistical summary of noise levels measured at Location 3 - 1103 J St, Centralia on 04 Apr, 2015 and daily-average descriptors

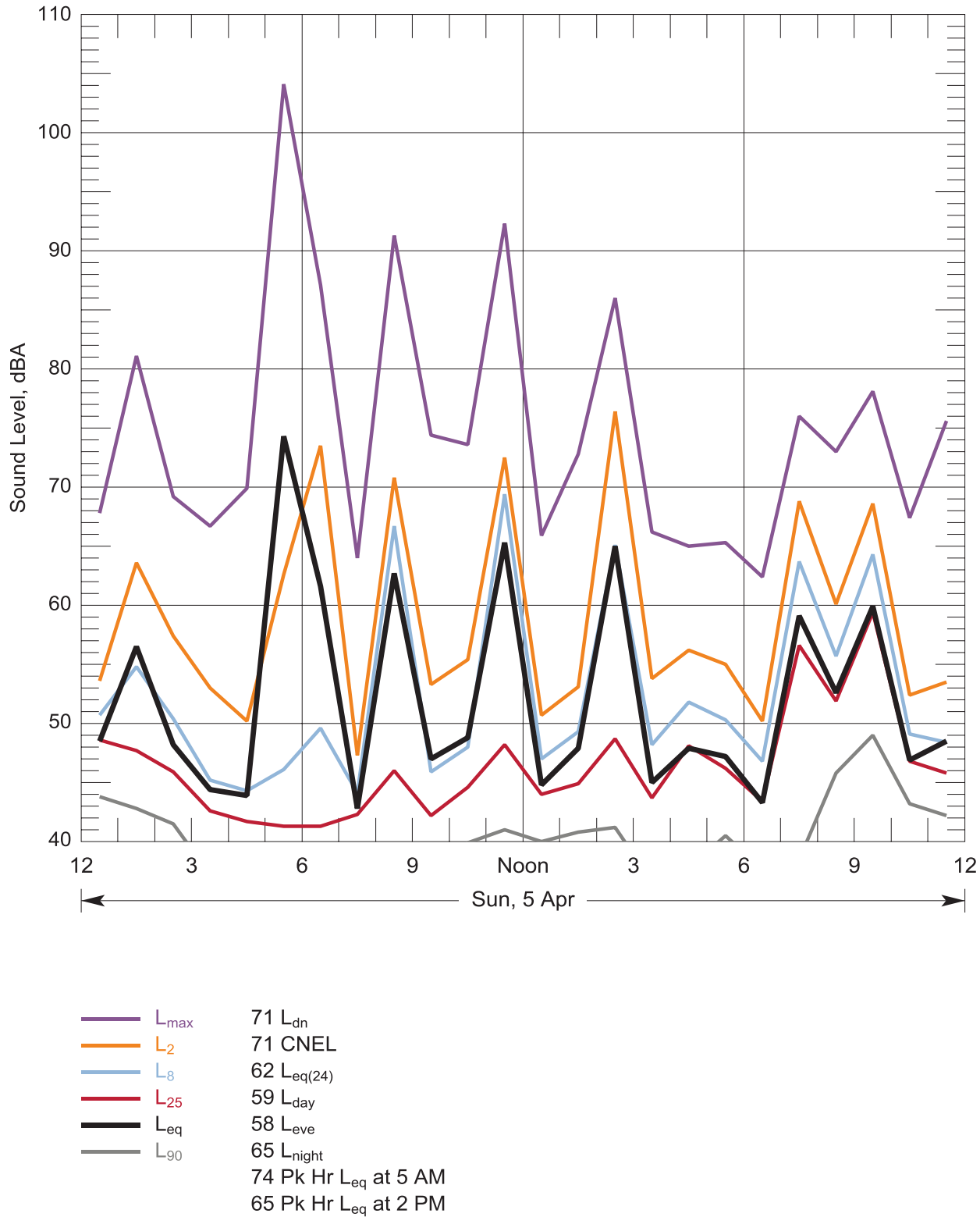


Figure 29: Hourly statistical summary of noise levels measured at Location 3 - 1103 J St, Centralia on 05 Apr, 2015 and daily-average descriptors

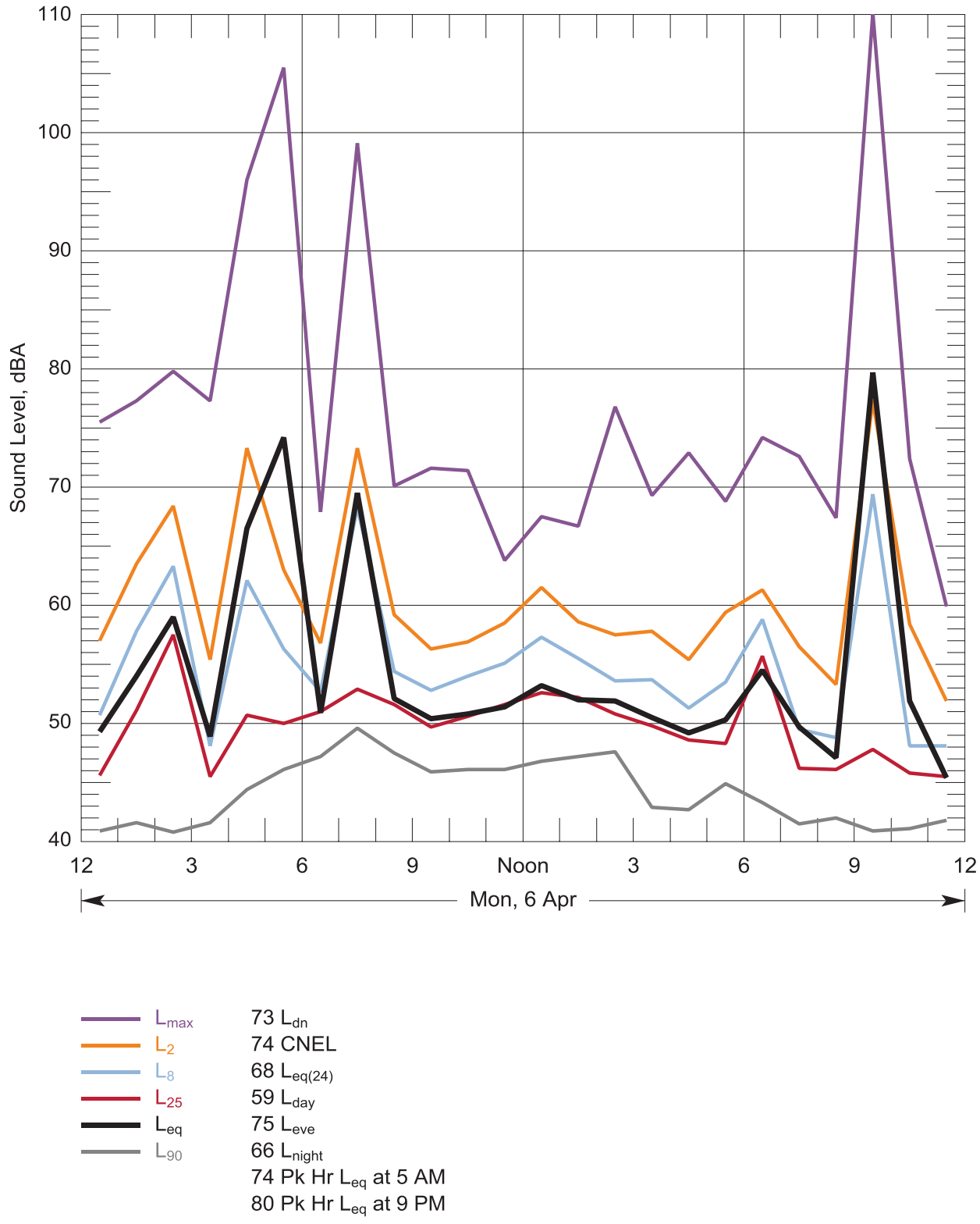


Figure 30: Hourly statistical summary of noise levels measured at Location 3 - 1103 J St, Centralia on 06 Apr, 2015 and daily-average descriptors

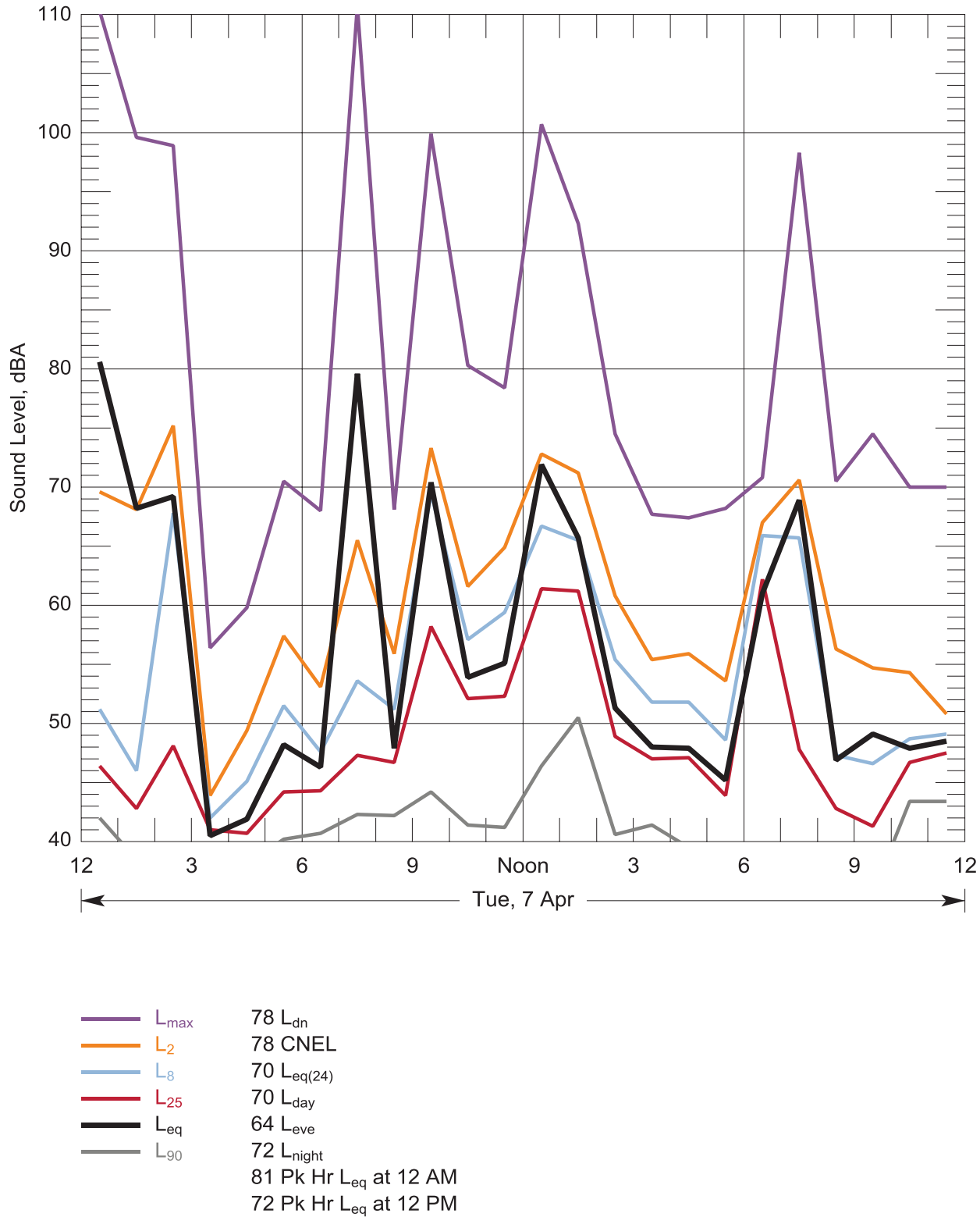


Figure 31: Hourly statistical summary of noise levels measured at Location 3 - 1103 J St, Centralia on 07 Apr, 2015 and daily-average descriptors

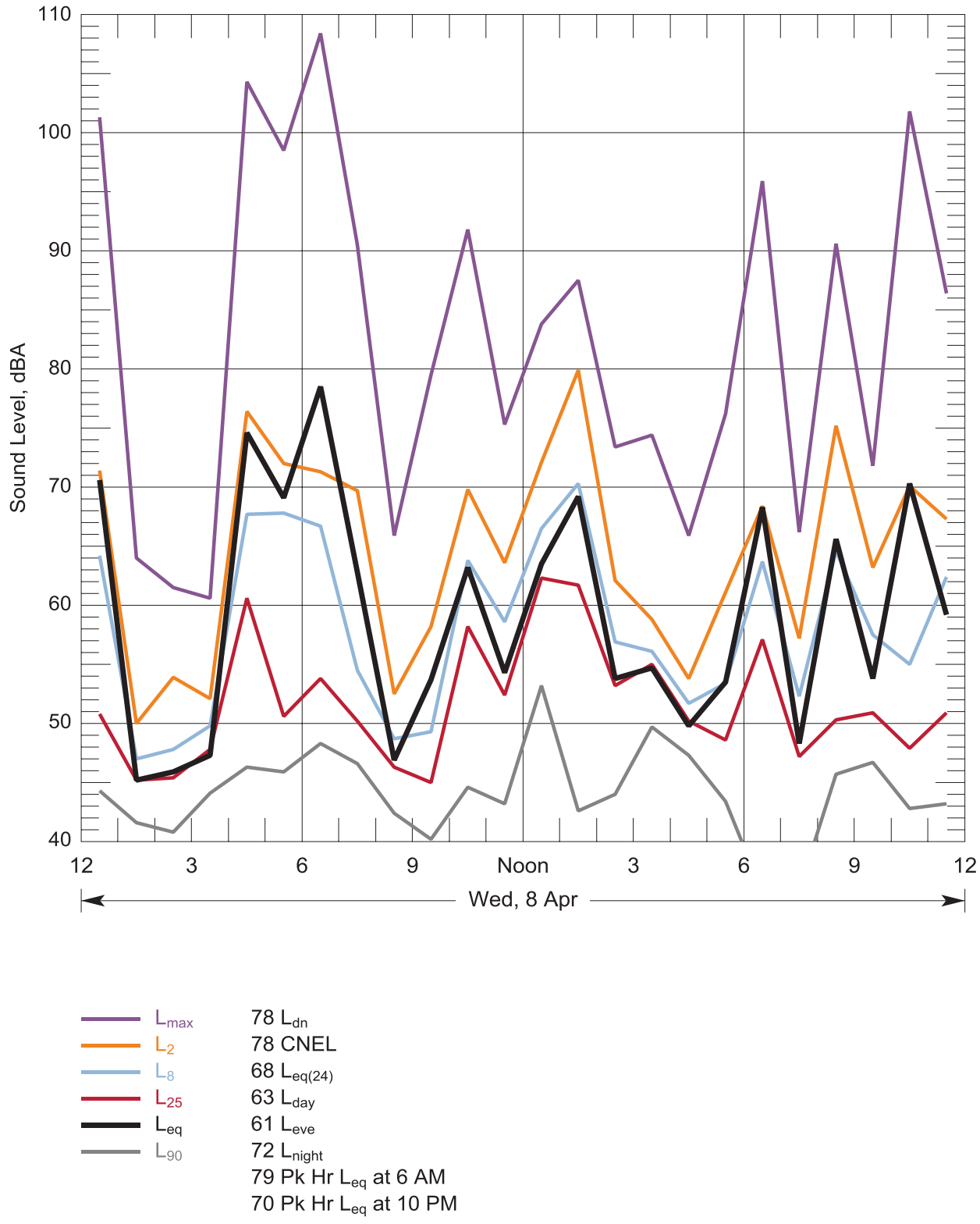


Figure 32: Hourly statistical summary of noise levels measured at Location 3 - 1103 J St, Centralia on 08 Apr, 2015 and daily-average descriptors

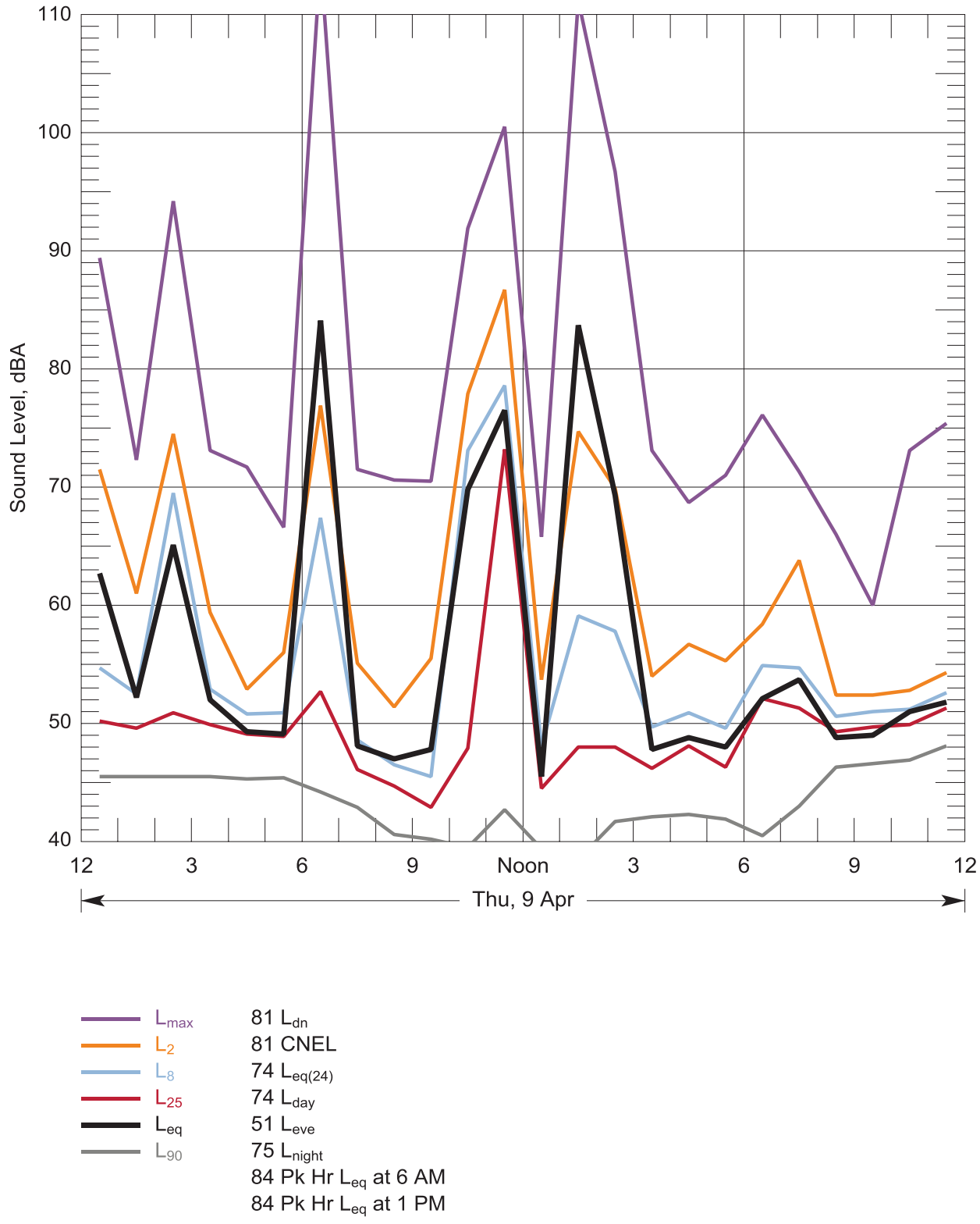


Figure 33: Hourly statistical summary of noise levels measured at Location 3 - 1103 J St, Centralia on 09 Apr, 2015 and daily-average descriptors

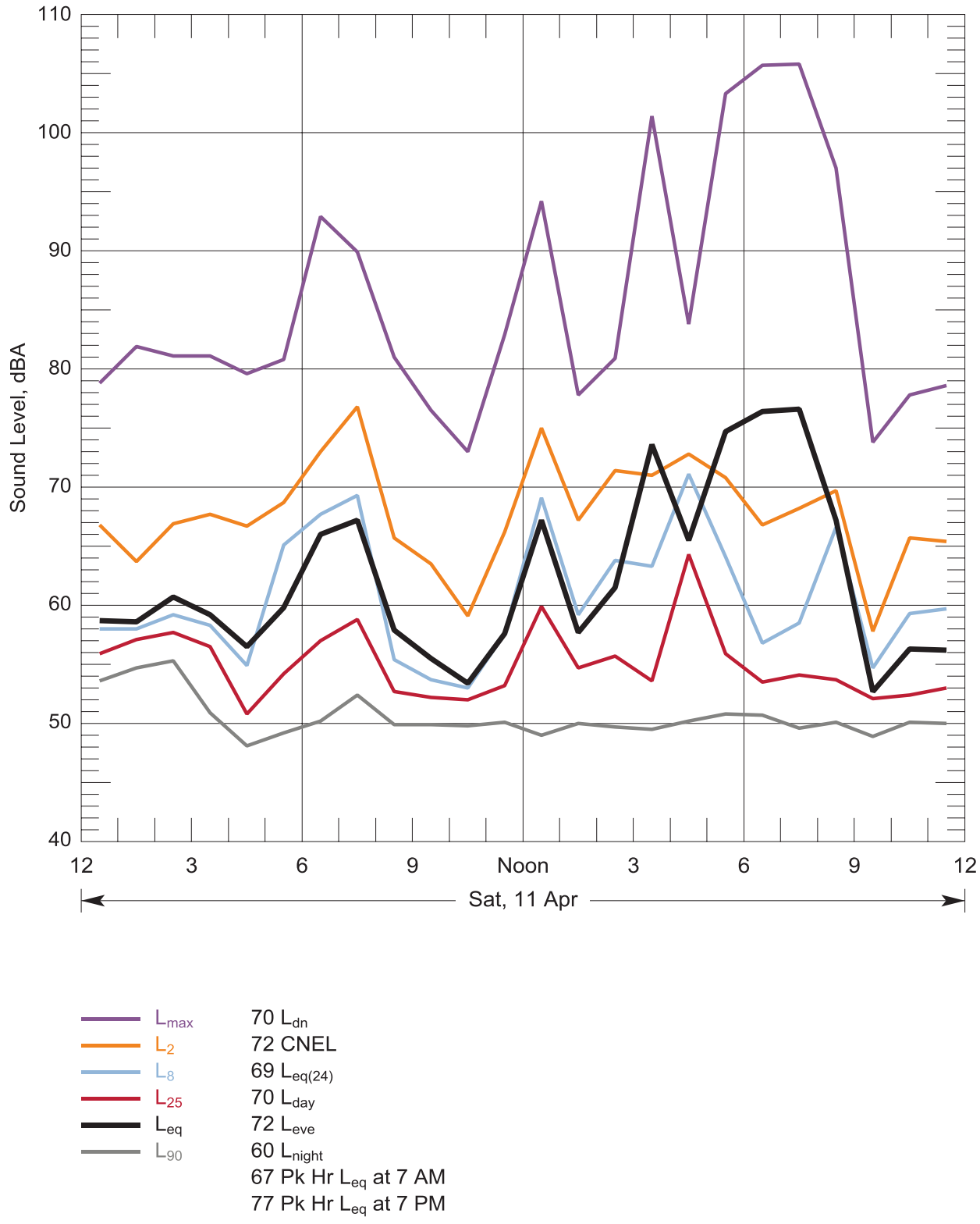


Figure 34: Hourly statistical summary of noise levels measured at Location 4B – 3900 Kuper Rd, Centralia on 11 Apr, 2015 and daily-average descriptors

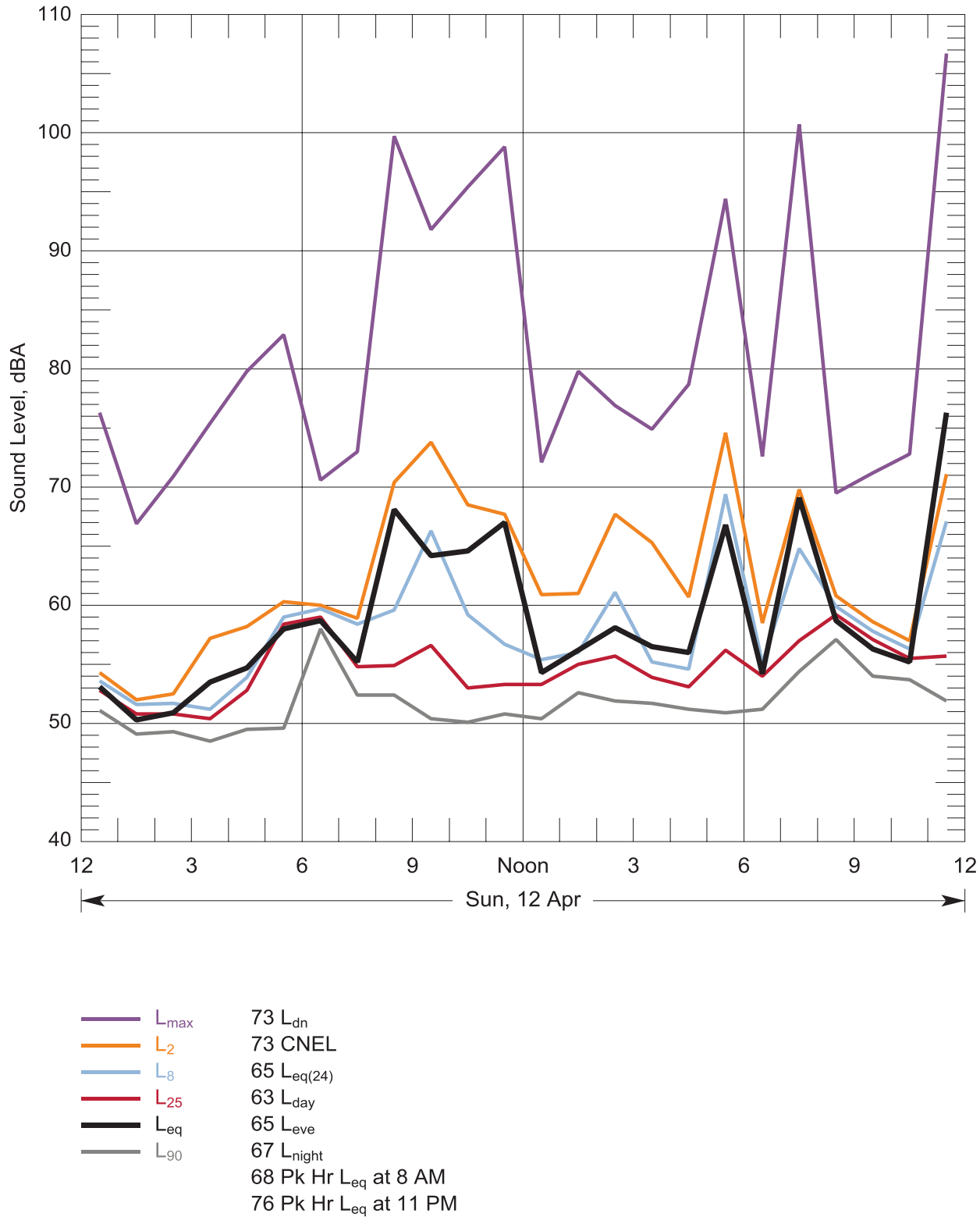


Figure 35: Hourly statistical summary of noise levels measured at Location 4B – 3900 Kuper Rd, Centralia on 12 Apr, 2015 and daily-average descriptors

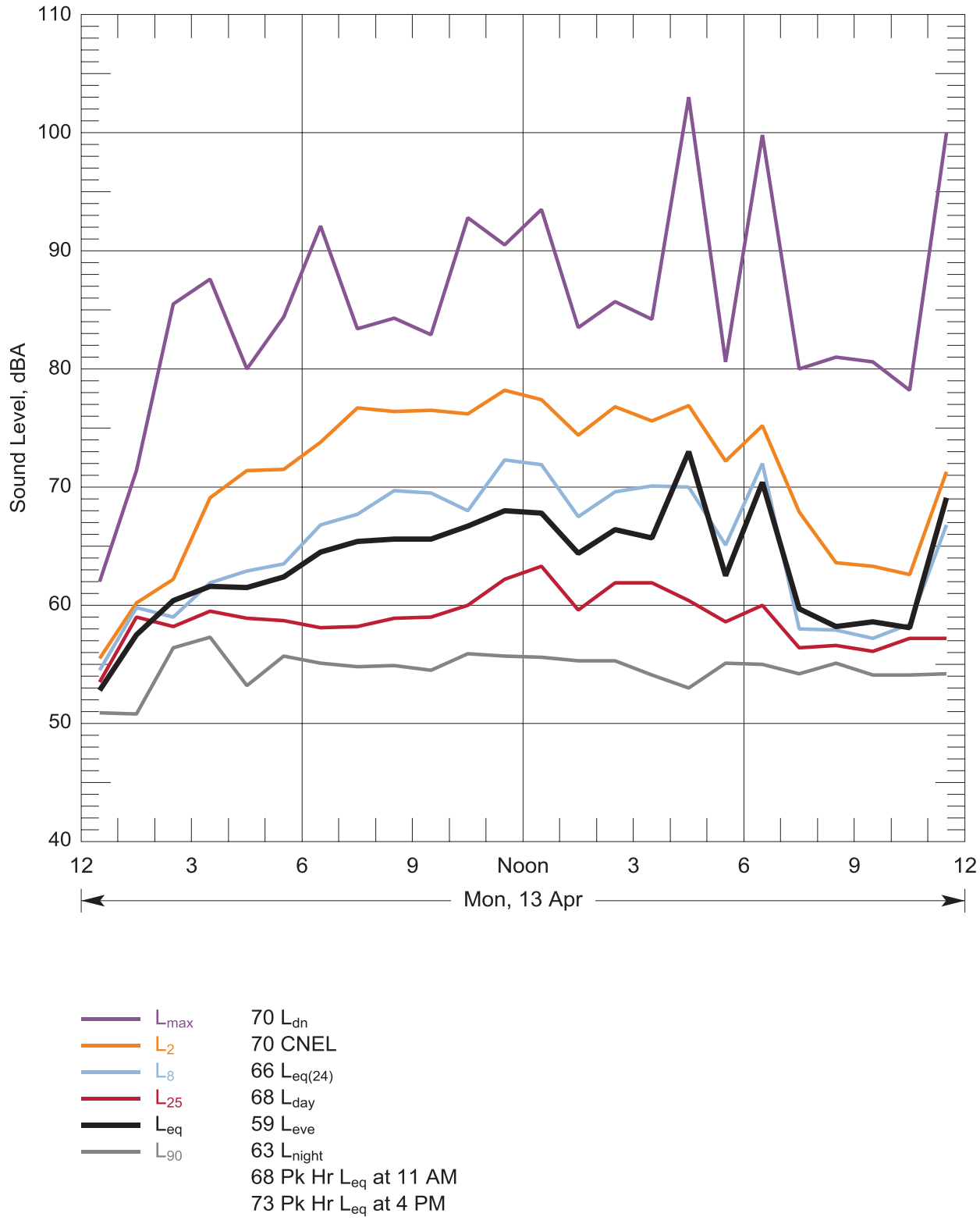


Figure 36: Hourly statistical summary of noise levels measured at Location 4B – 3900 Kuper Rd, Centralia on 13 Apr, 2015 and daily-average descriptors

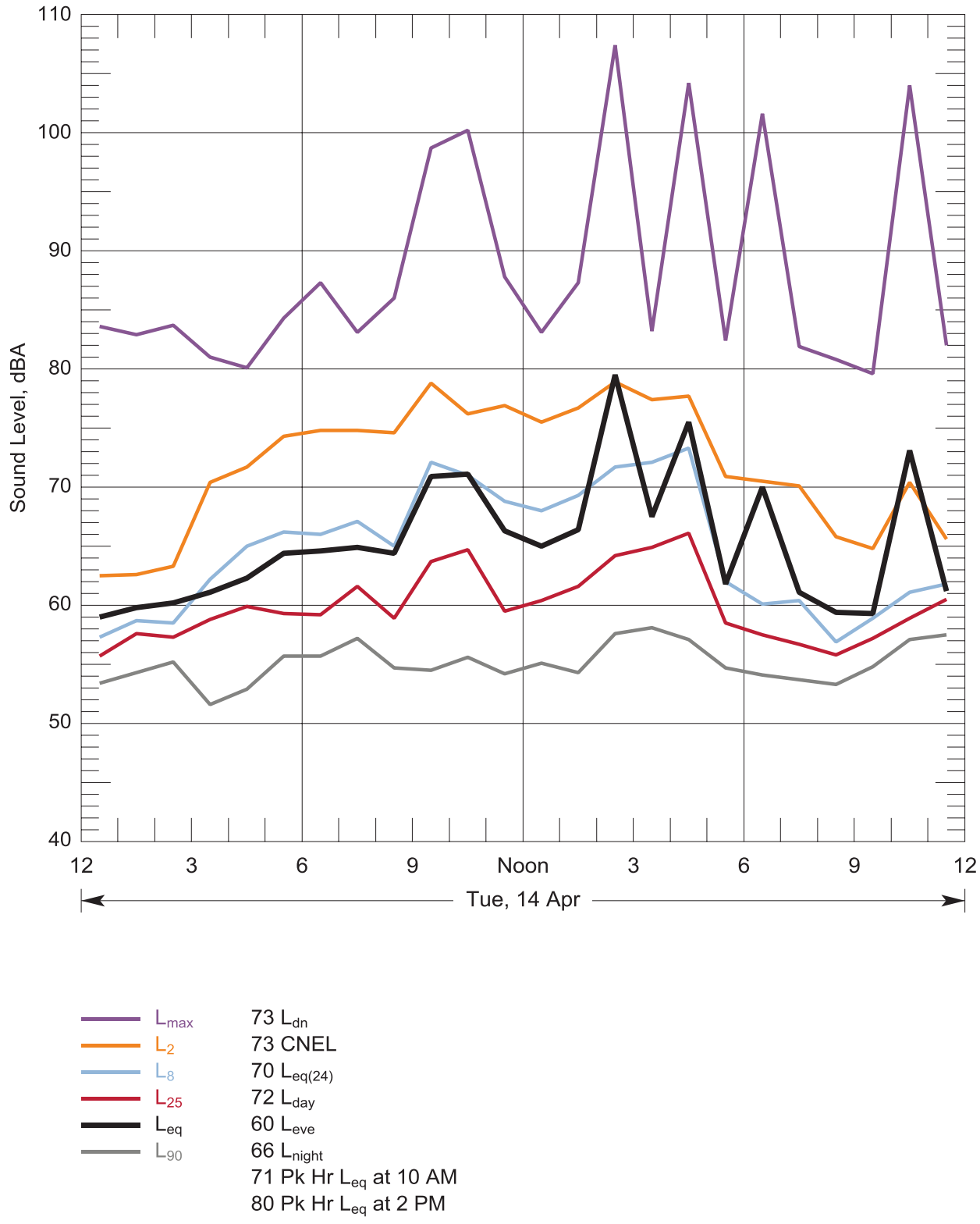


Figure 37: Hourly statistical summary of noise levels measured at Location 4B – 3900 Kuper Rd, Centralia on 14 Apr, 2015 and daily-average descriptors

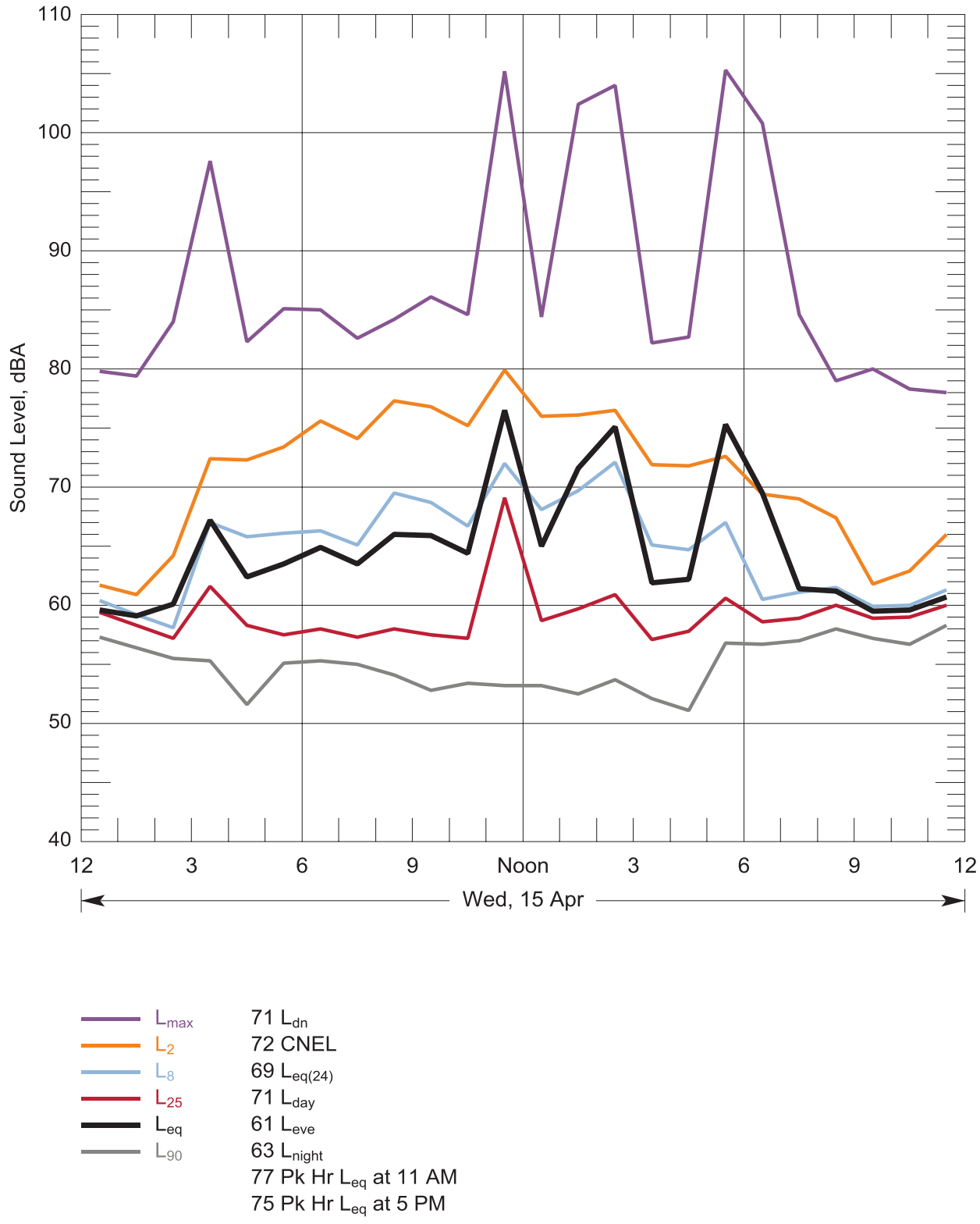


Figure 38: Hourly statistical summary of noise levels measured at Location 4B – 3900 Kuper Rd, Centralia on 15 Apr, 2015 and daily-average descriptors

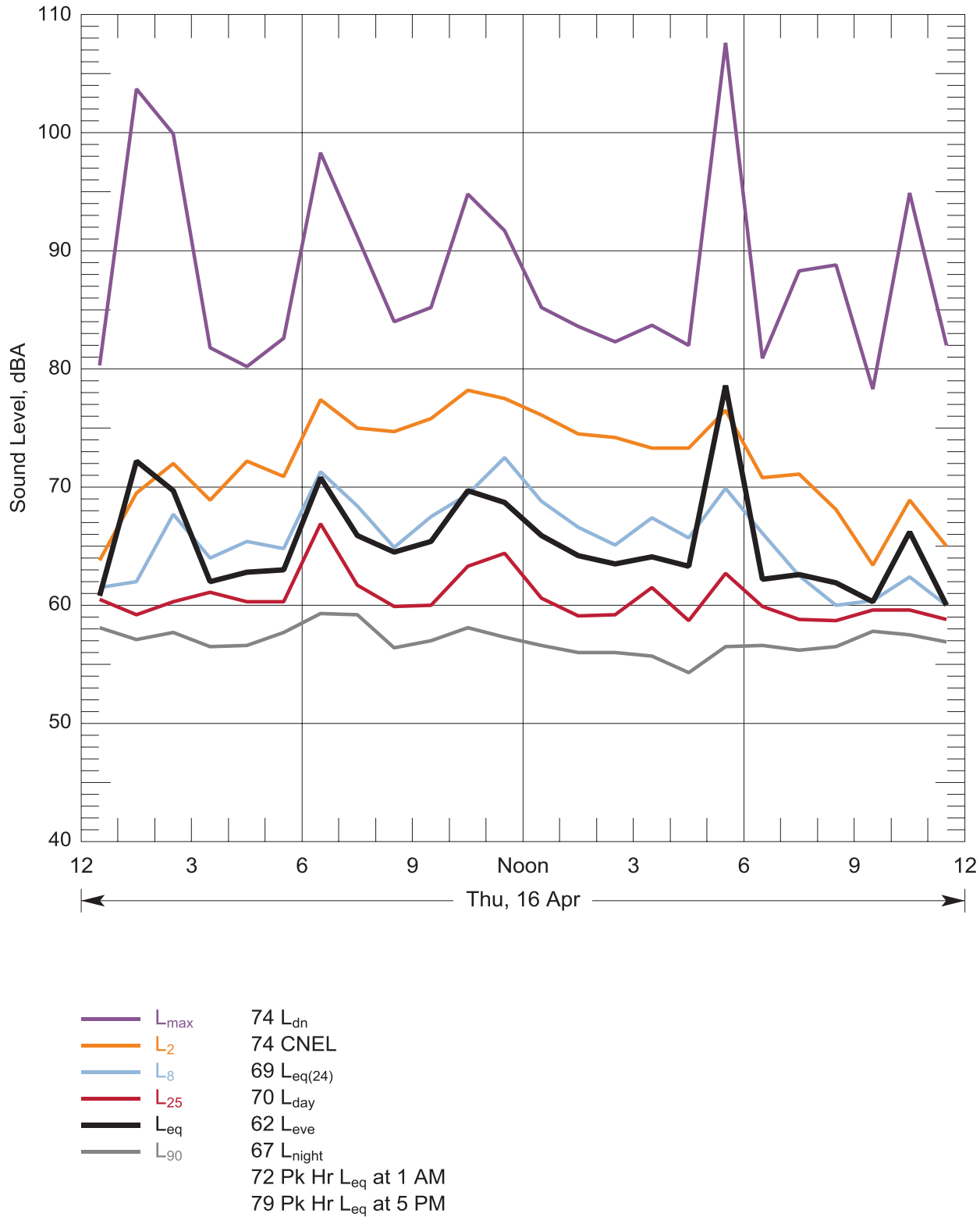


Figure 39: Hourly statistical summary of noise levels measured at Location 4B – 3900 Kuper Rd, Centralia on 16 Apr, 2015 and daily-average descriptors

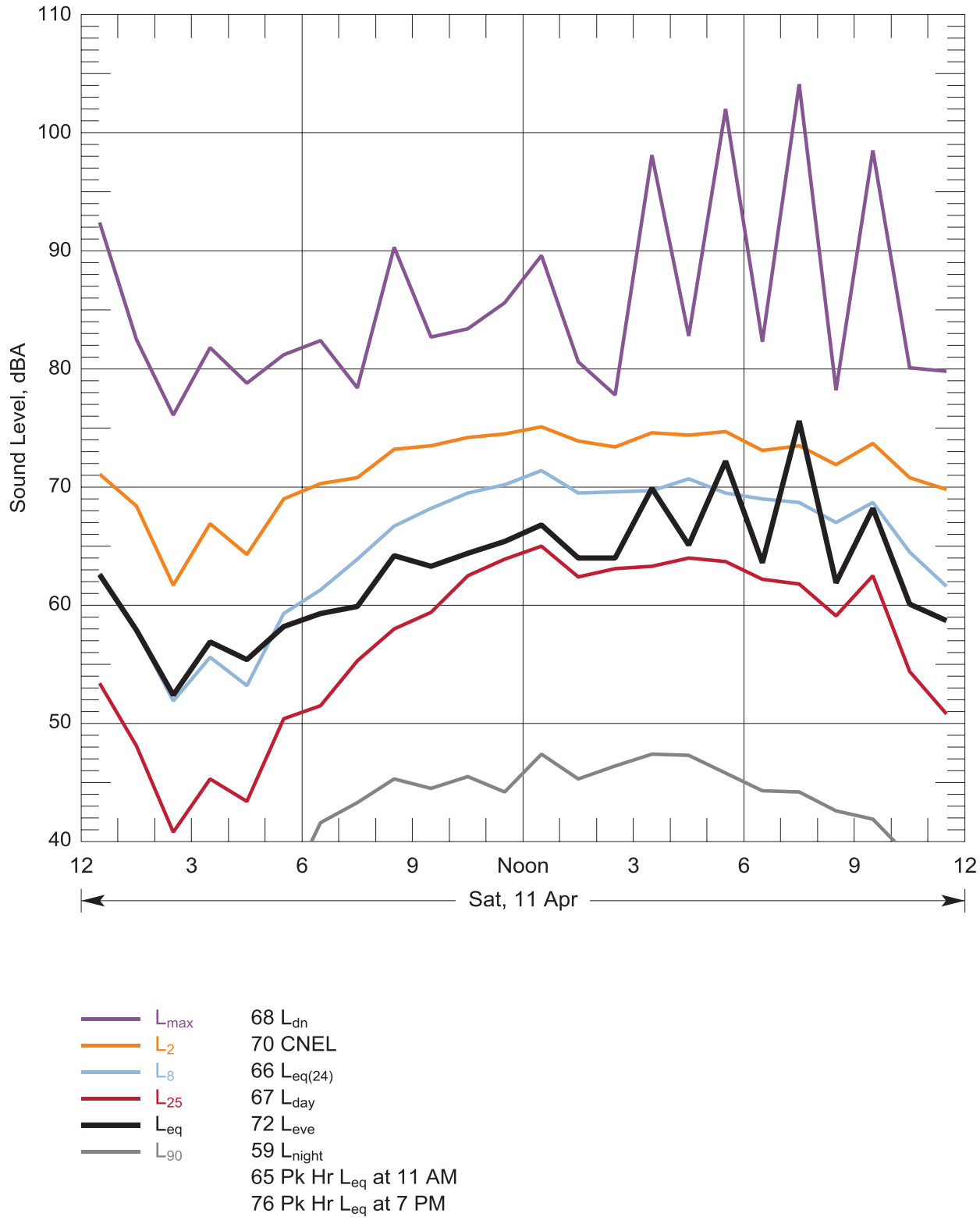


Figure 40: Hourly statistical summary of noise levels measured at Location 5 Alt – Old Hwy 9 & Tea St. SW, Rochester on 11 Apr, 2015 and daily-average descriptors

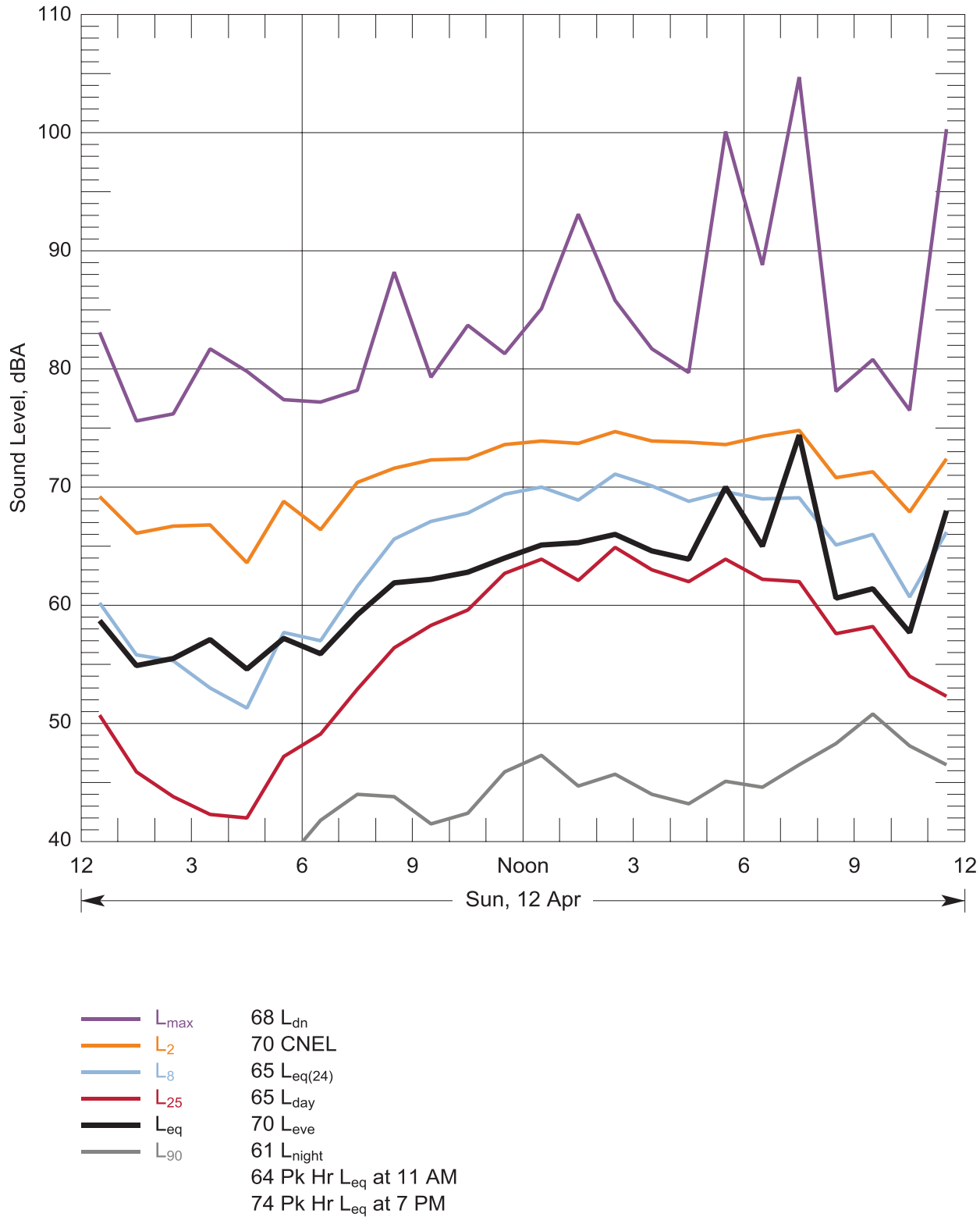


Figure 41: Hourly statistical summary of noise levels measured at Location 5 Alt – Old Hwy 9 & Tea St. SW, Rochester on 12 Apr, 2015 and daily-average descriptors

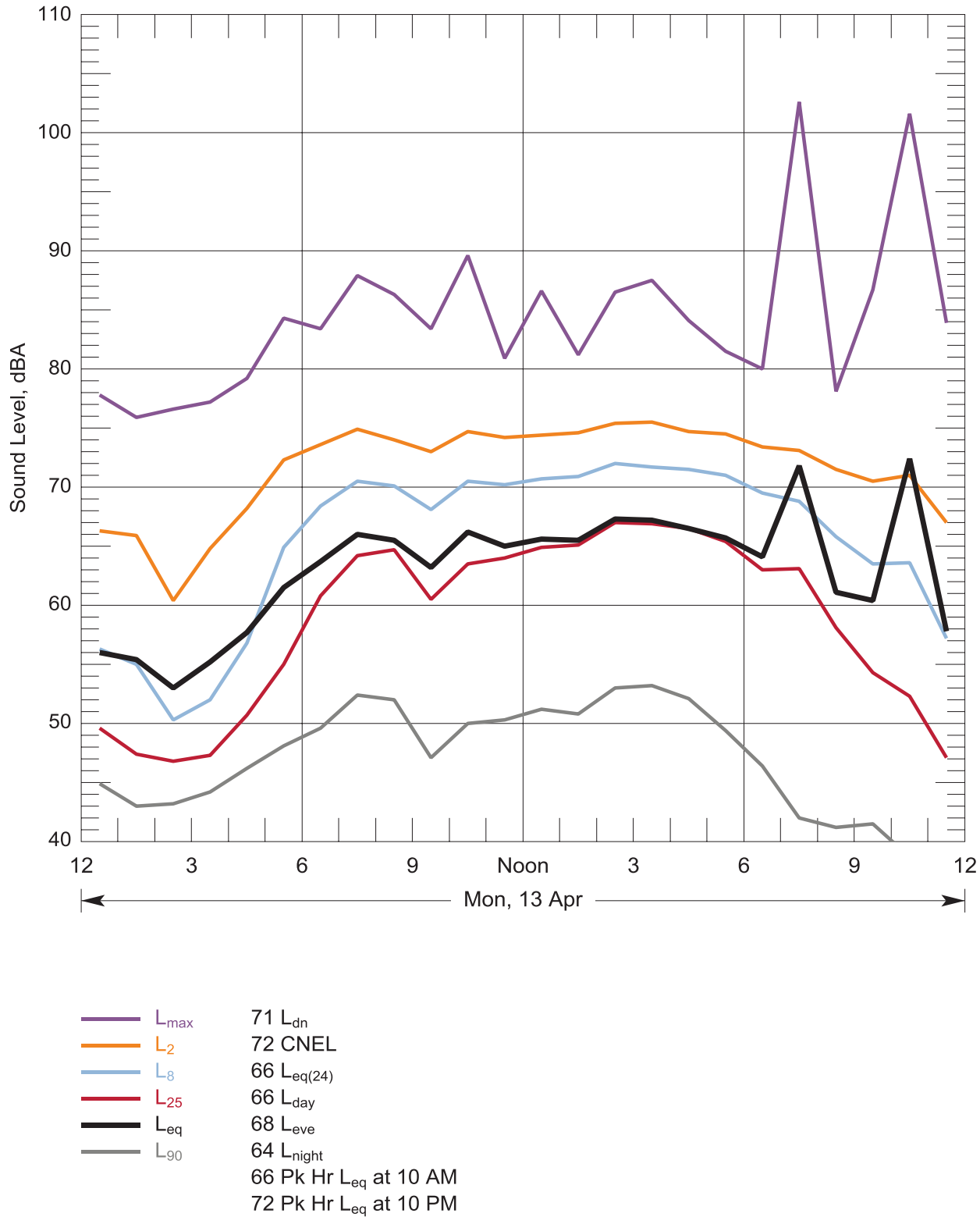


Figure 42: Hourly statistical summary of noise levels measured at Location 5 Alt – Old Hwy 9 & Tea St. SW, Rochester on 13 Apr, 2015 and daily-average descriptors

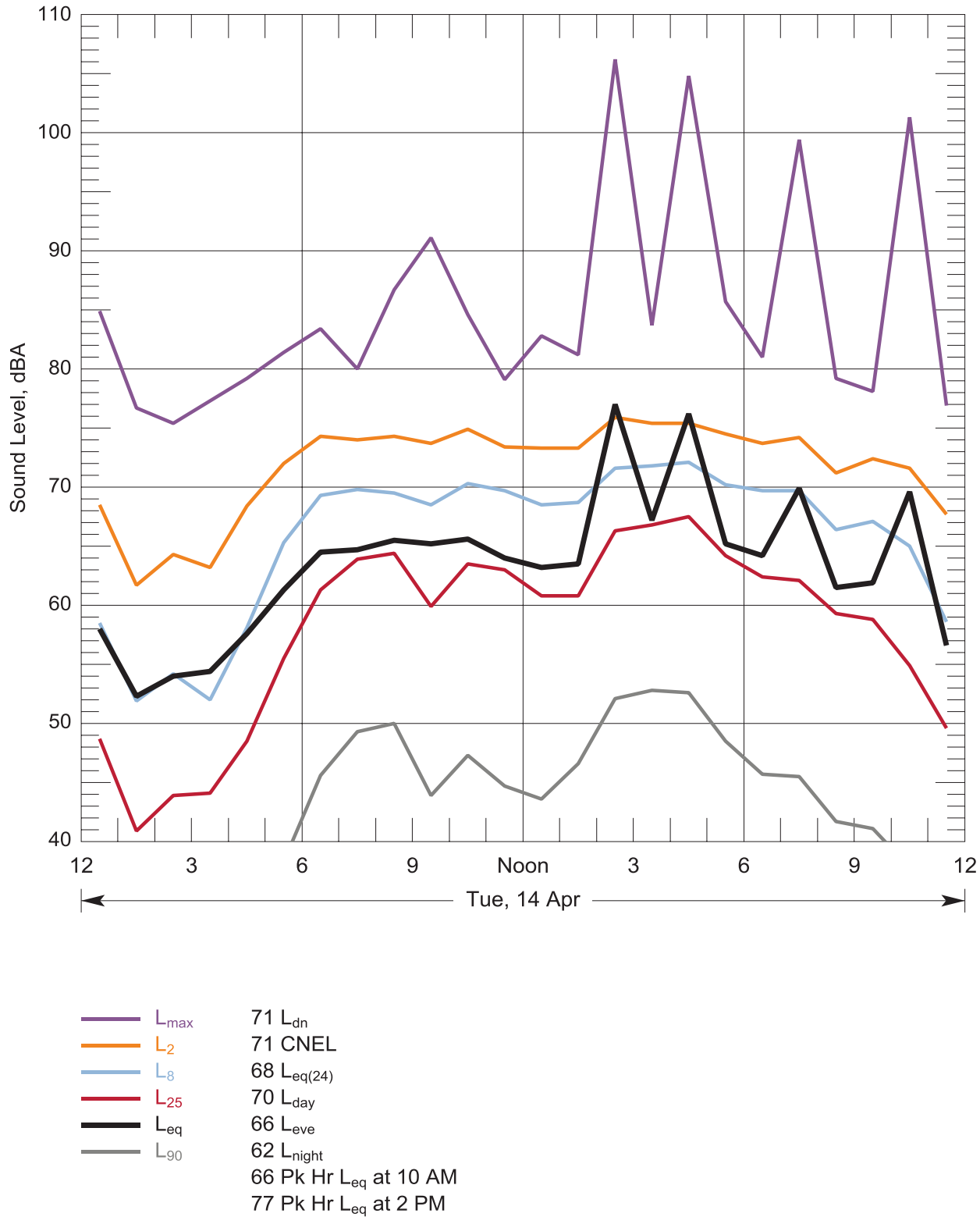


Figure 43: Hourly statistical summary of noise levels measured at Location 5 Alt – Old Hwy 9 & Tea St. SW, Rochester on 14 Apr, 2015 and daily-average descriptors

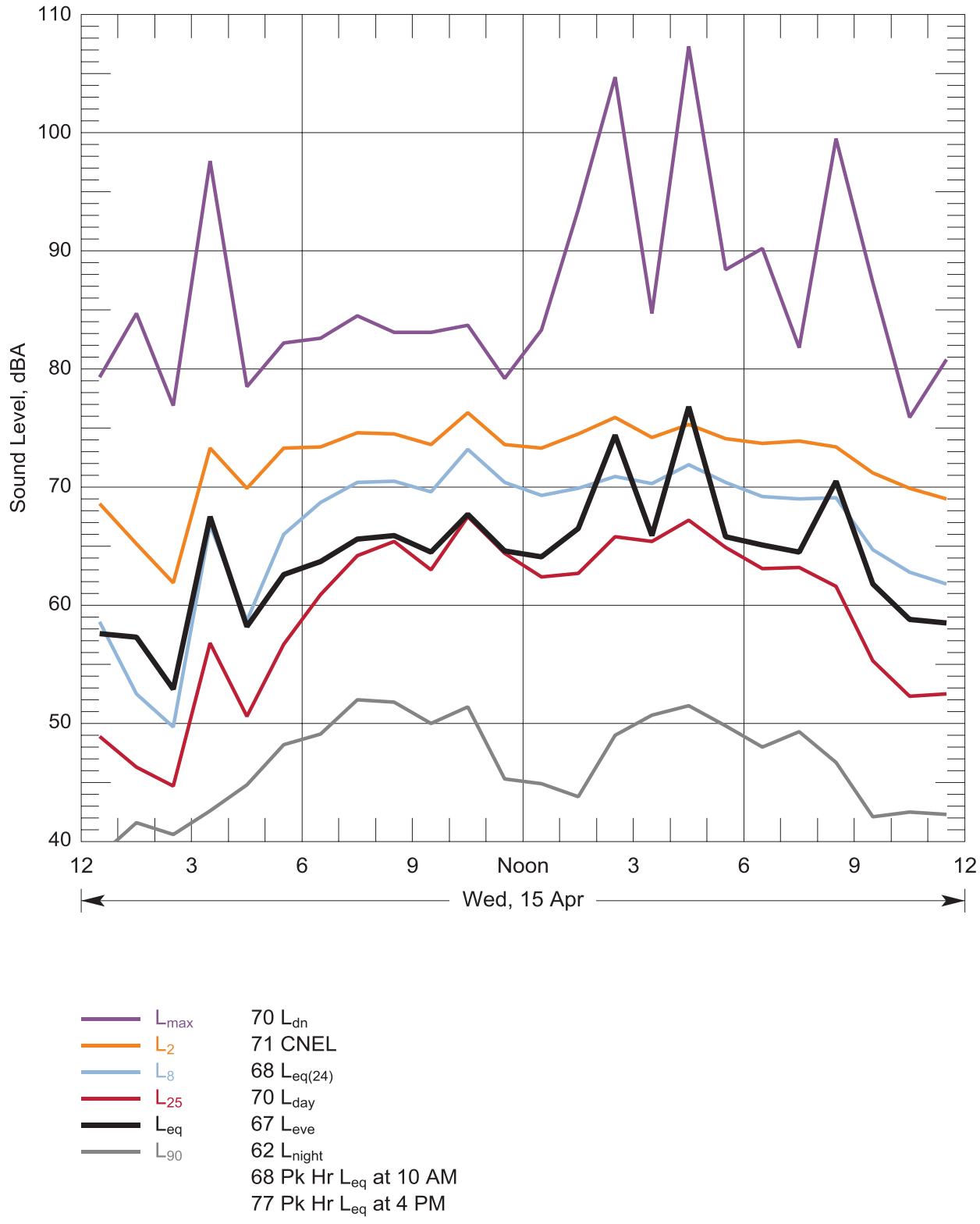


Figure 44: Hourly statistical summary of noise levels measured at Location 5 Alt – Old Hwy 9 & Tea St. SW, Rochester on 15 Apr, 2015 and daily-average descriptors

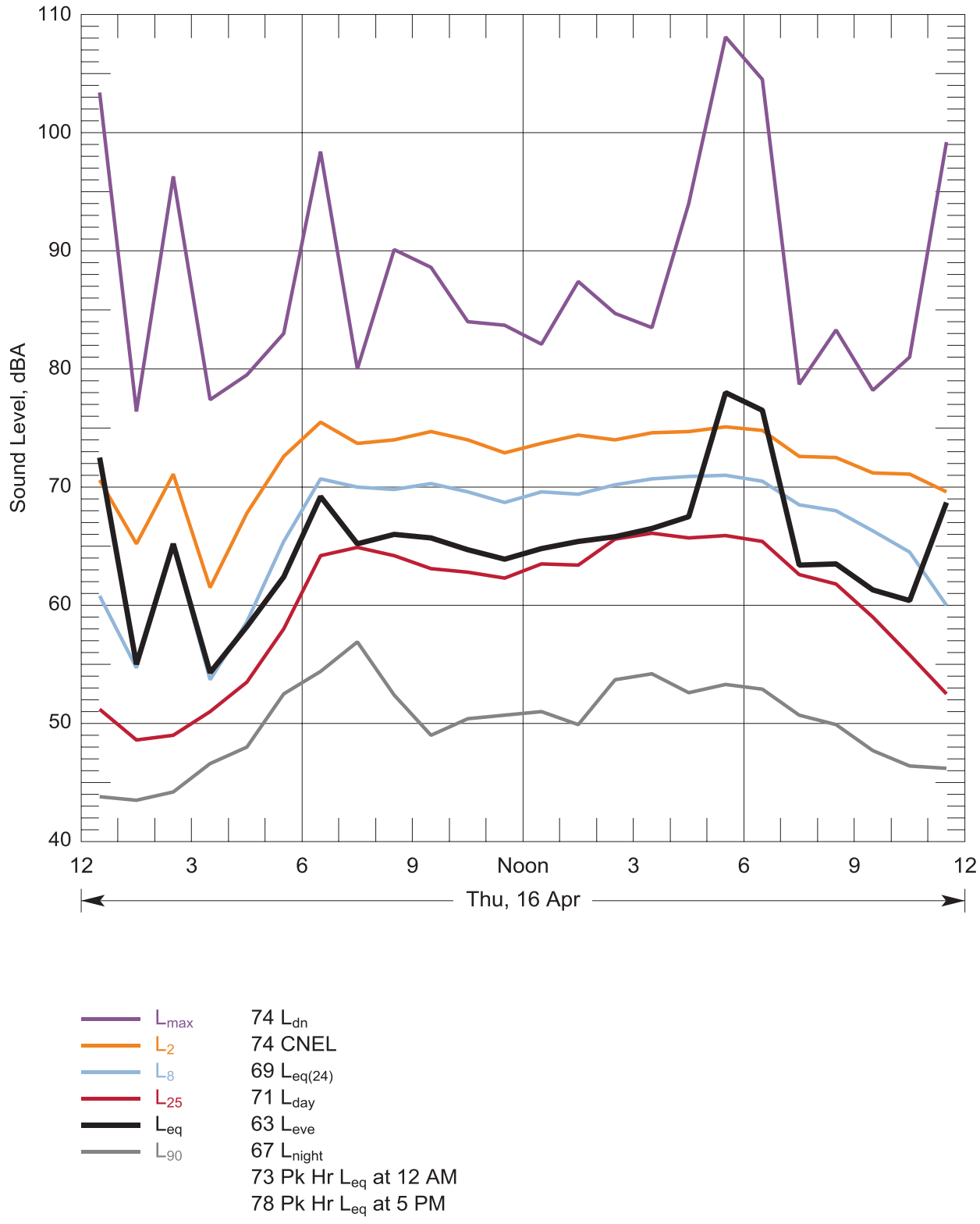


Figure 45: Hourly statistical summary of noise levels measured at Location 5 Alt – Old Hwy 9 & Tea St. SW, Rochester on 16 Apr, 2015 and daily-average descriptors

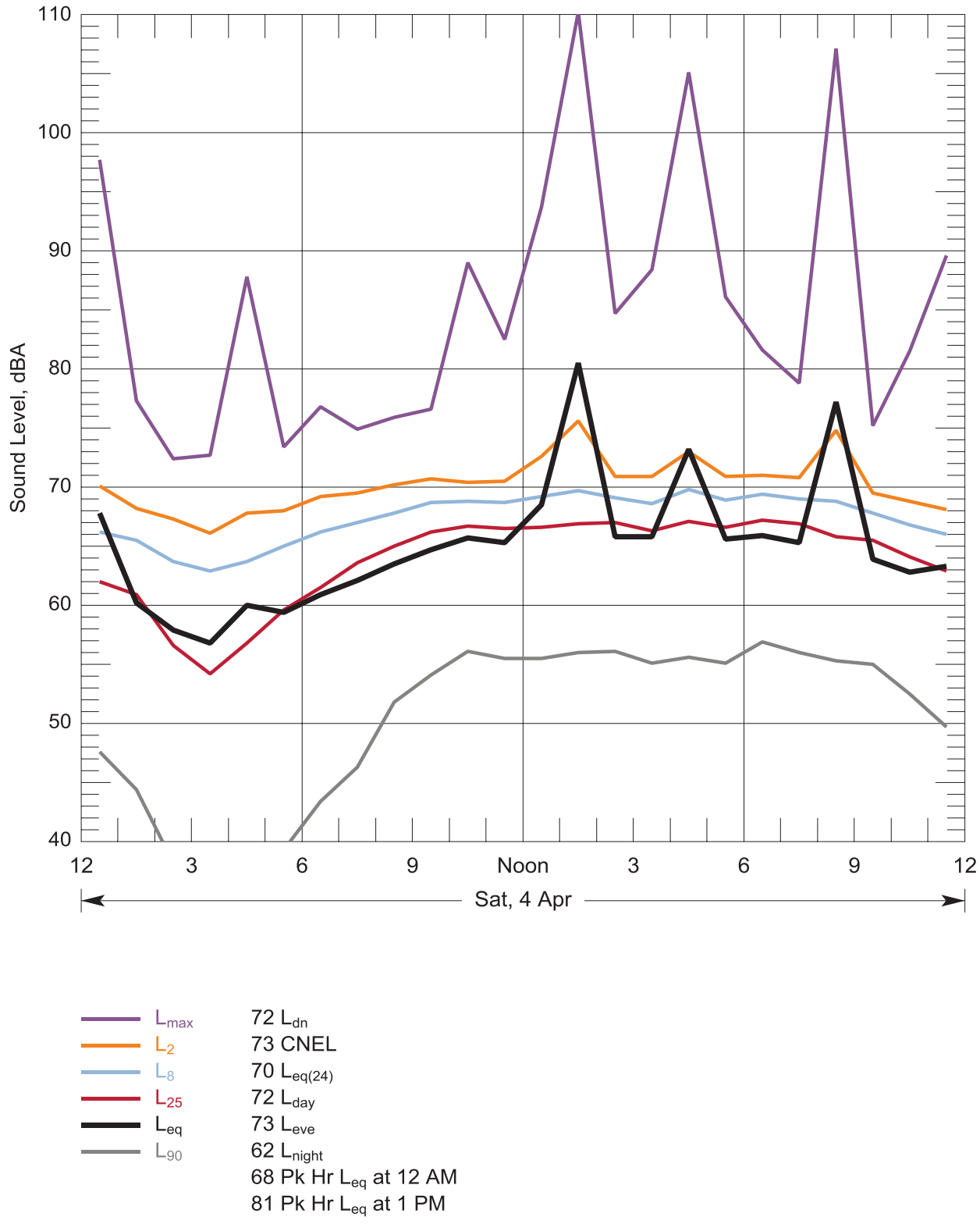


Figure 46: Hourly statistical summary of noise levels measured at Location 6 – 19318 Grand Mound Way, Rochester on 04 Apr, 2015 and daily-average descriptors

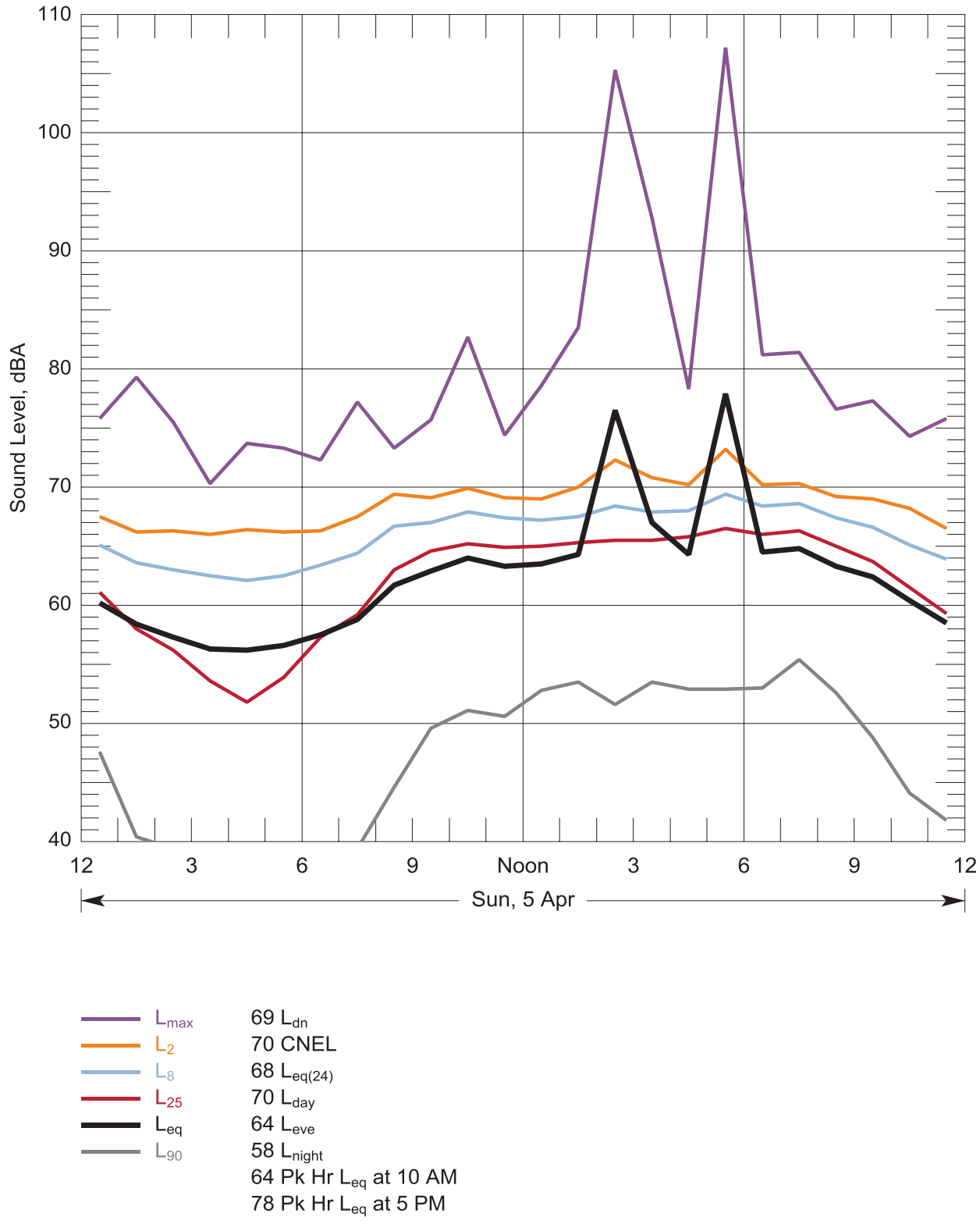


Figure 47: Hourly statistical summary of noise levels measured at Location 6 – 19318 Grand Mound Way, Rochester on 05 Apr, 2015 and daily-average descriptors

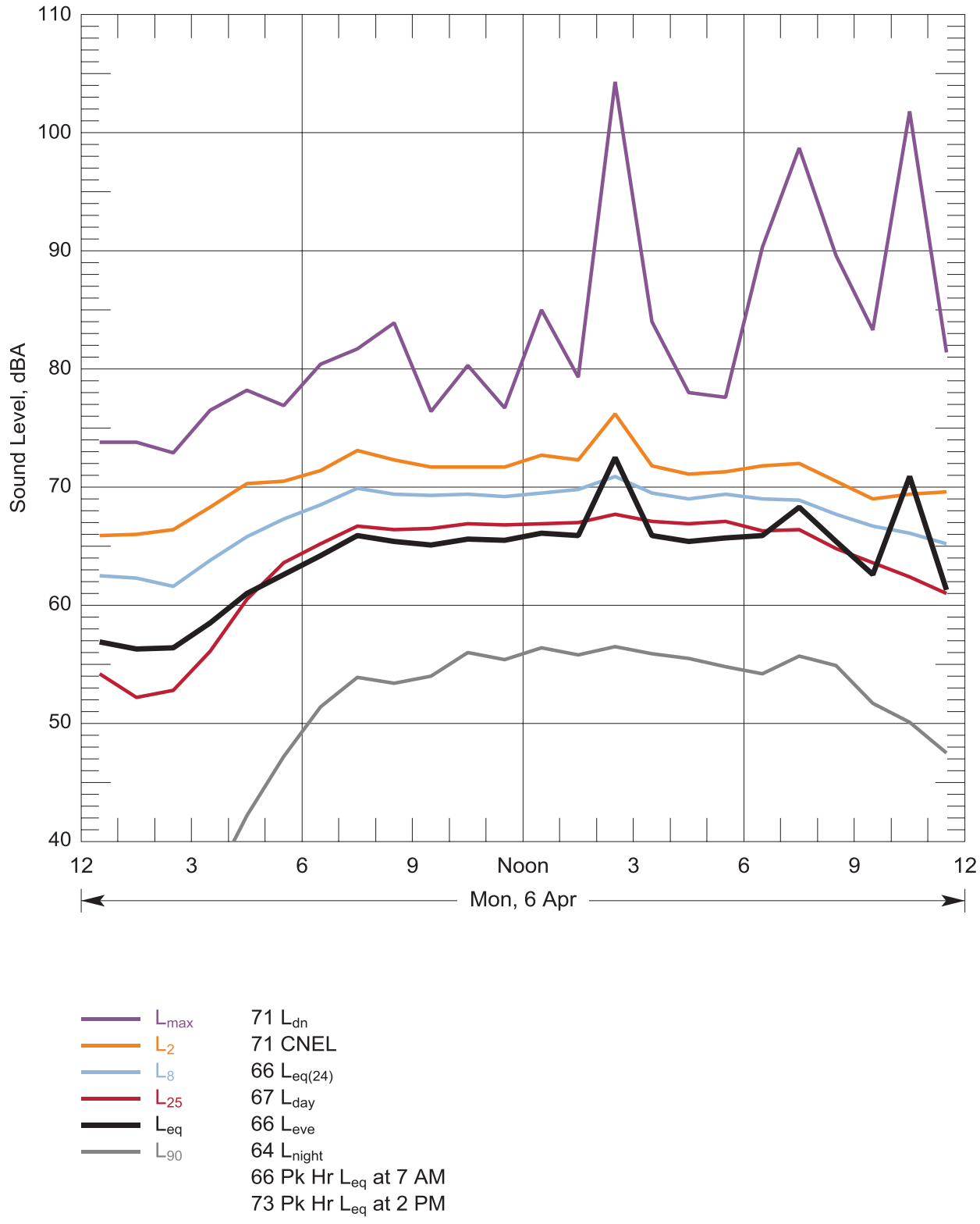


Figure 48: Hourly statistical summary of noise levels measured at Location 6 – 19318 Grand Mound Way, Rochester on 06 Apr, 2015 and daily-average descriptors

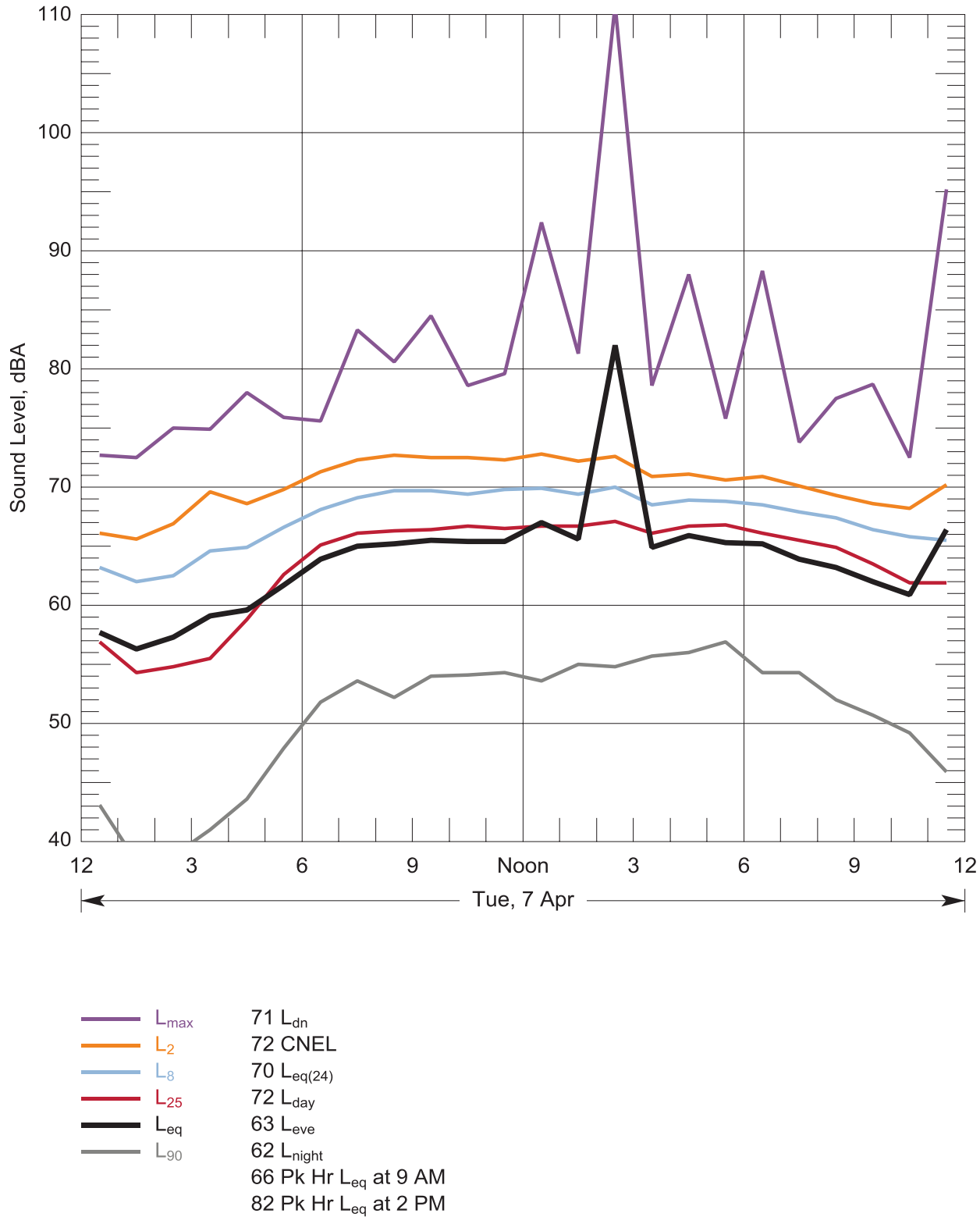


Figure 49: Hourly statistical summary of noise levels measured at Location 6 – 19318 Grand Mound Way, Rochester on 07 Apr, 2015 and daily-average descriptors

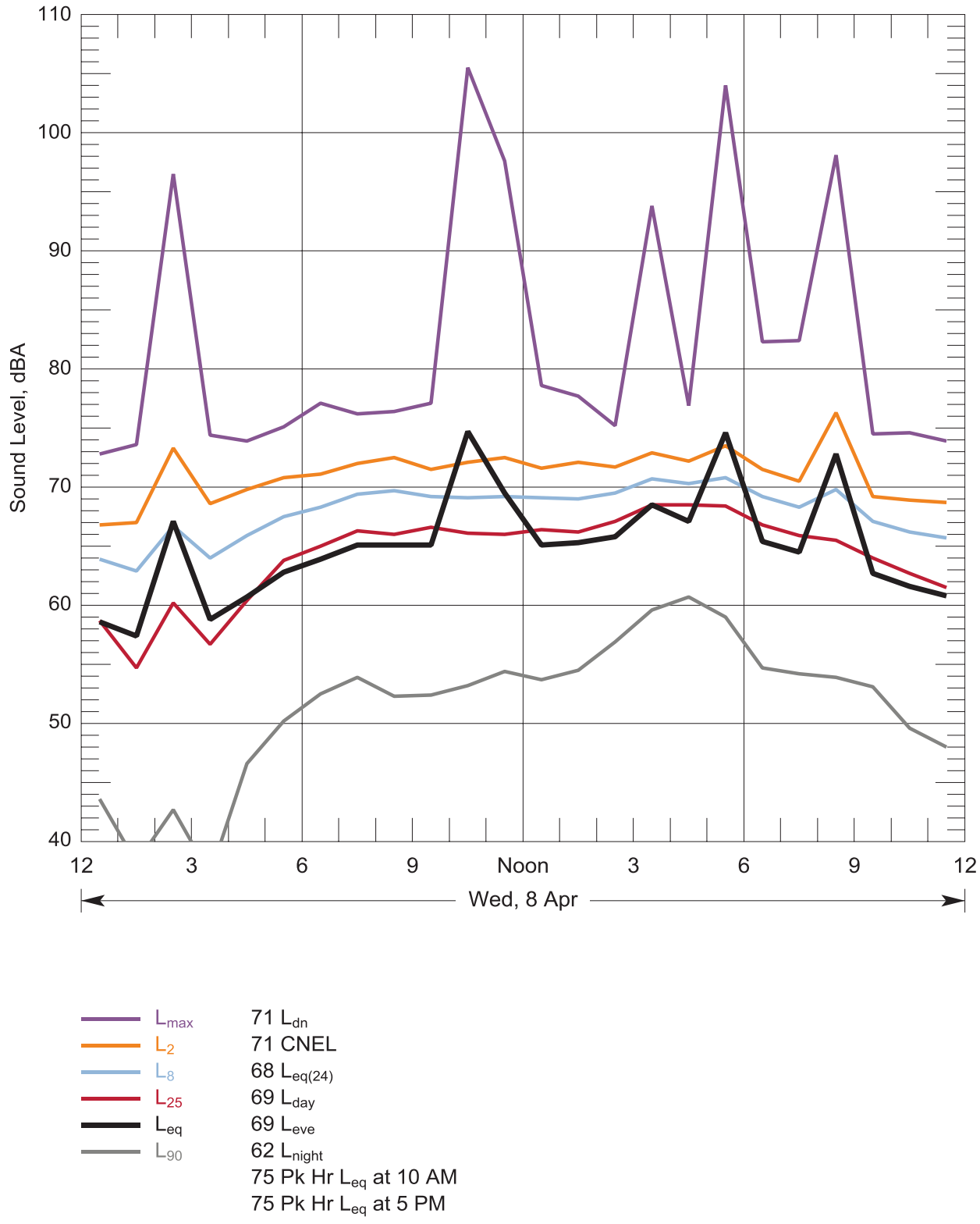


Figure 50: Hourly statistical summary of noise levels measured at Location 6 – 19318 Grand Mound Way, Rochester on 08 Apr, 2015 and daily-average descriptors

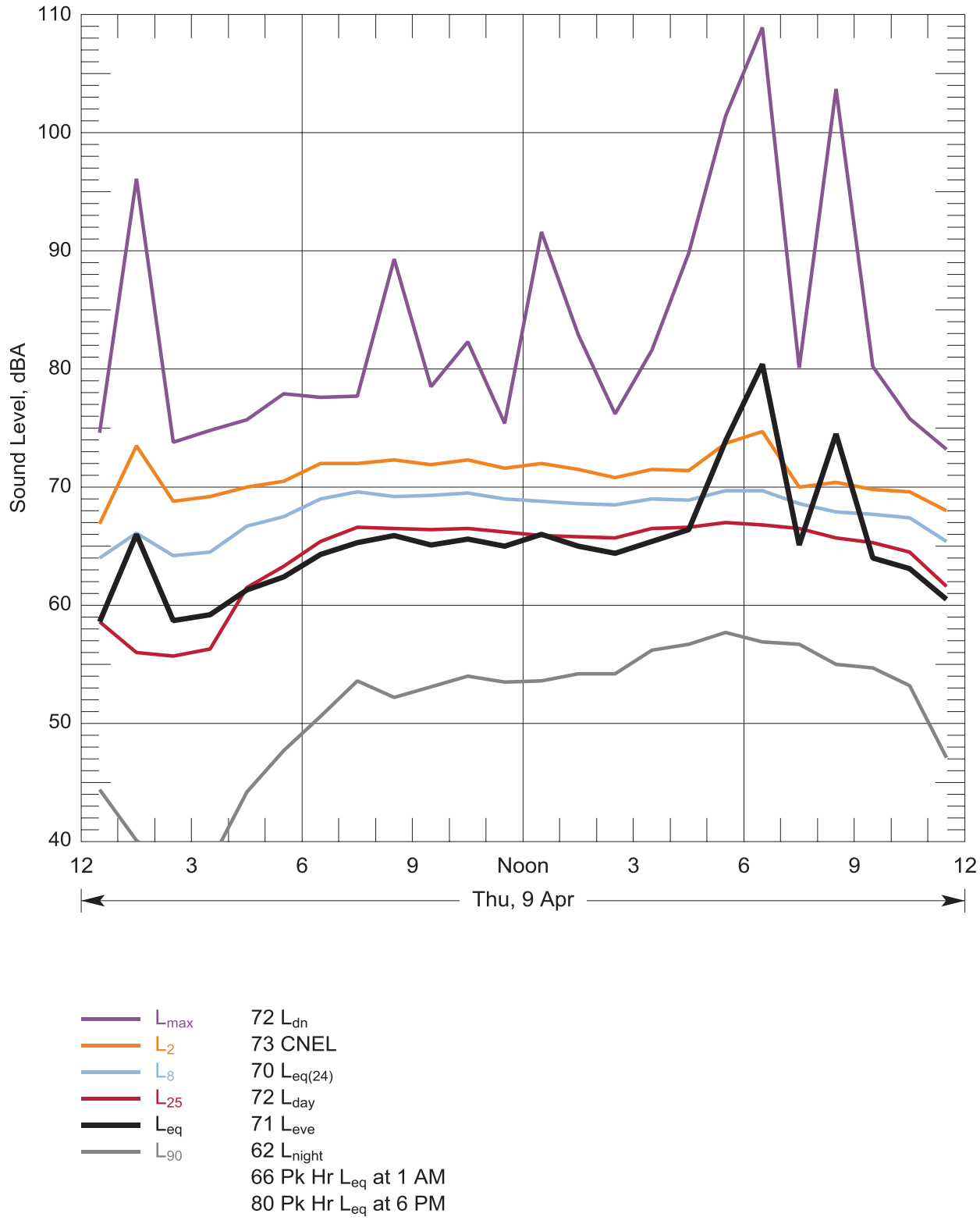


Figure 51: Hourly statistical summary of noise levels measured at Location 6 – 19318 Grand Mound Way, Rochester on 09 Apr, 2015 and daily-average descriptors

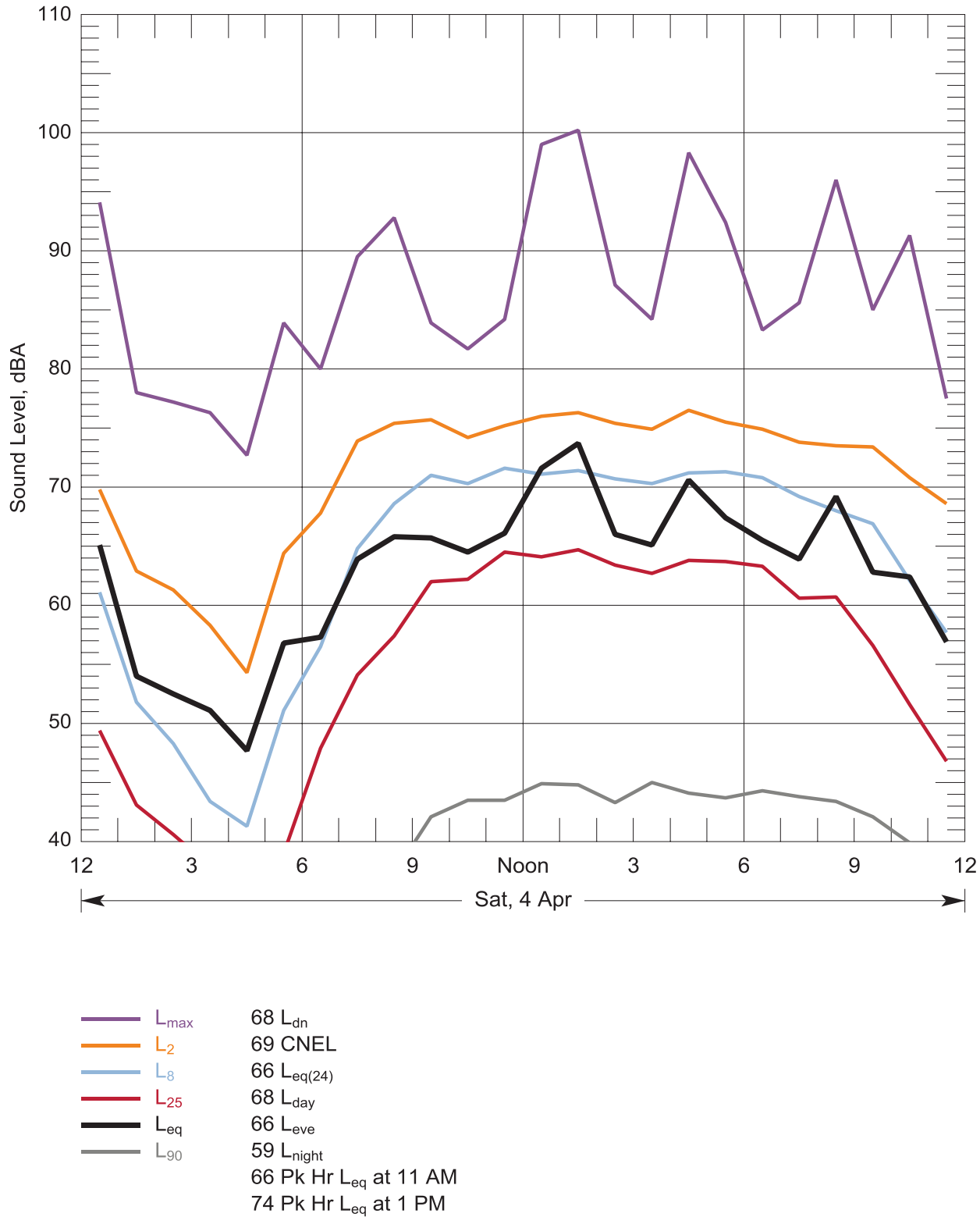


Figure 52: Hourly statistical summary of noise levels measured at Location 8 - 180th & Little Rock, Rochester on 04 Apr, 2015 and daily-average descriptors

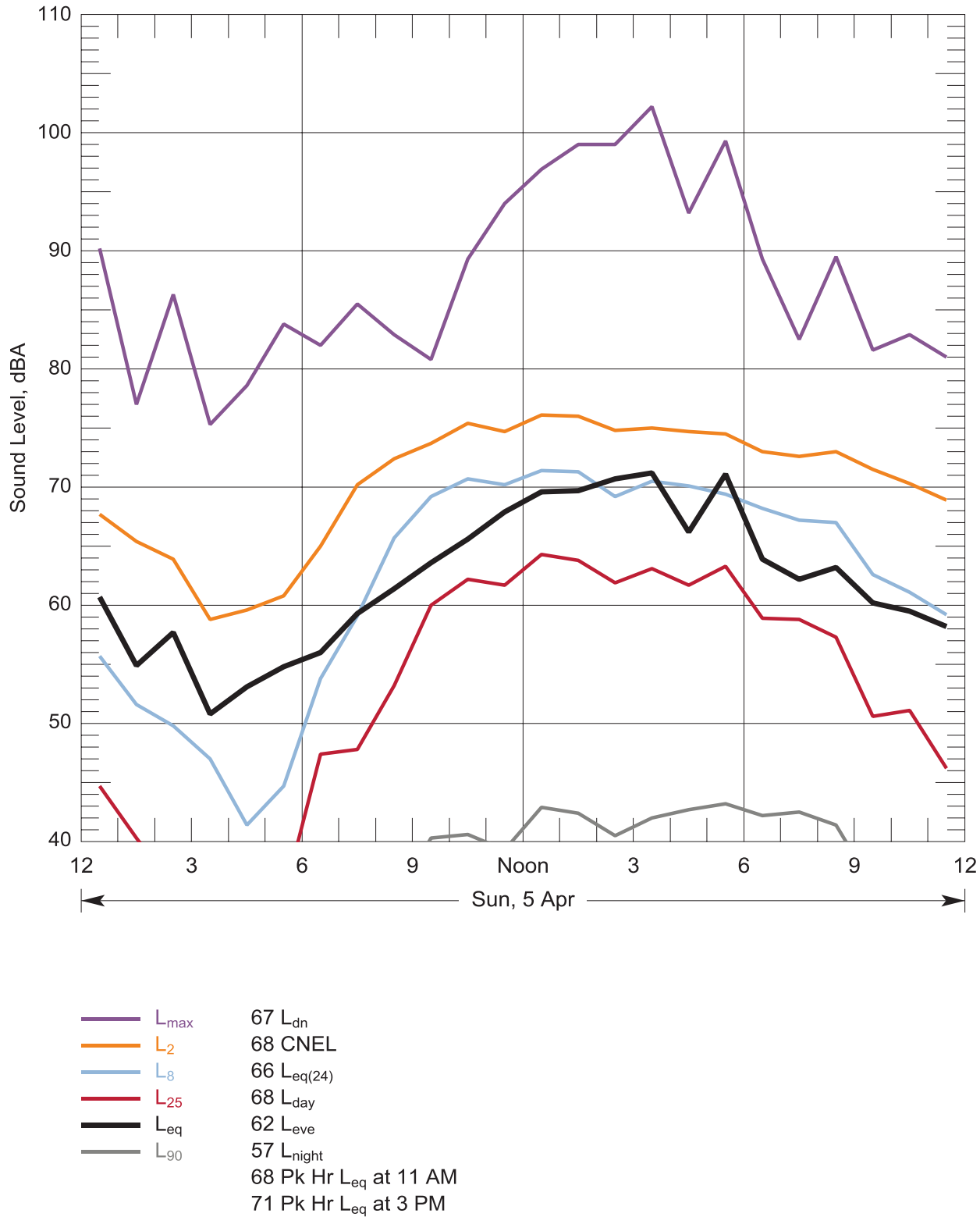


Figure 53: Hourly statistical summary of noise levels measured at Location 8 - 180th & Little Rock, Rochester on 05 Apr, 2015 and daily-average descriptors

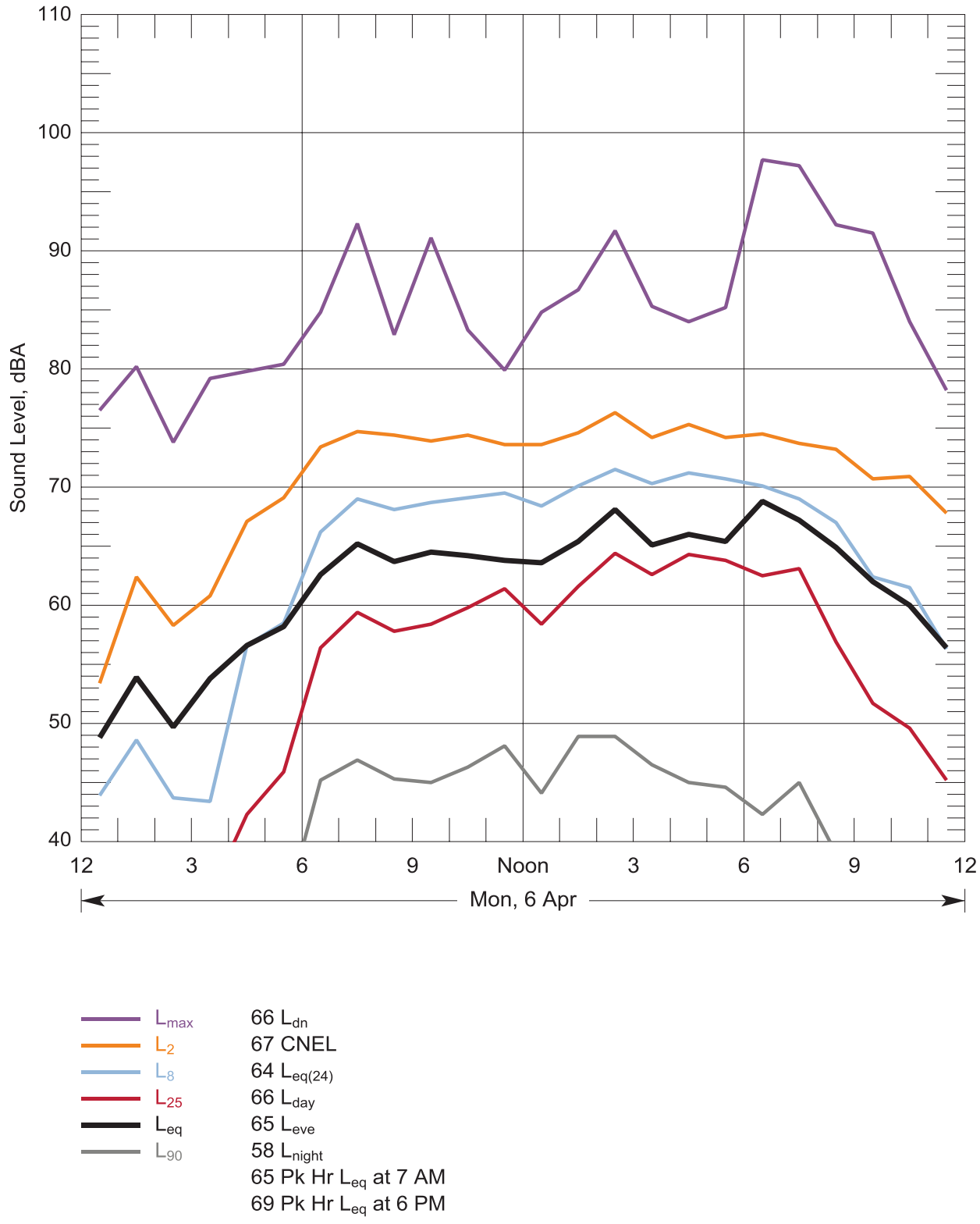


Figure 54: Hourly statistical summary of noise levels measured at Location 8 - 180th & Little Rock, Rochester on 06 Apr, 2015 and daily-average descriptors

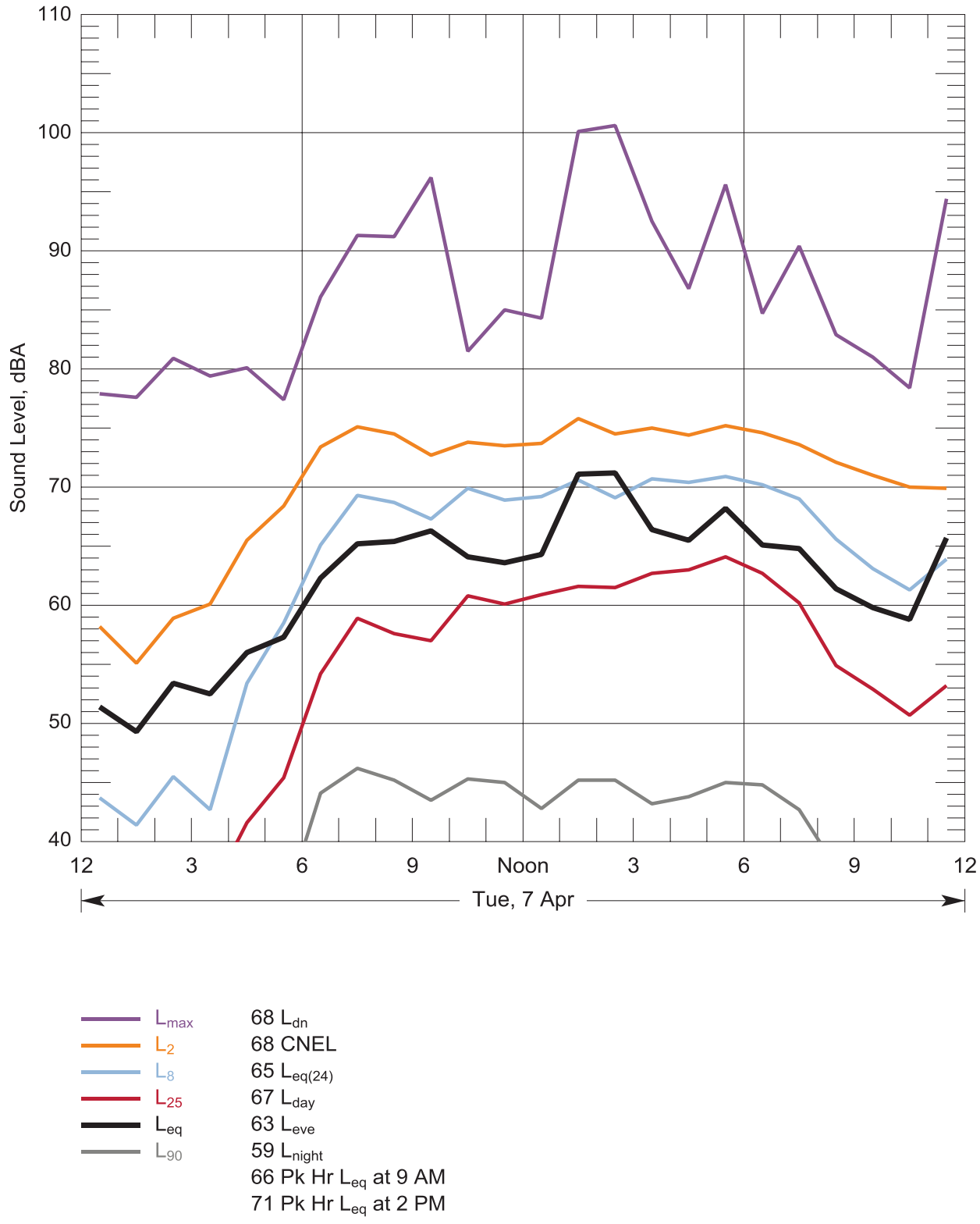


Figure 55: Hourly statistical summary of noise levels measured at Location 8 - 180th & Little Rock, Rochester on 07 Apr, 2015 and daily-average descriptors

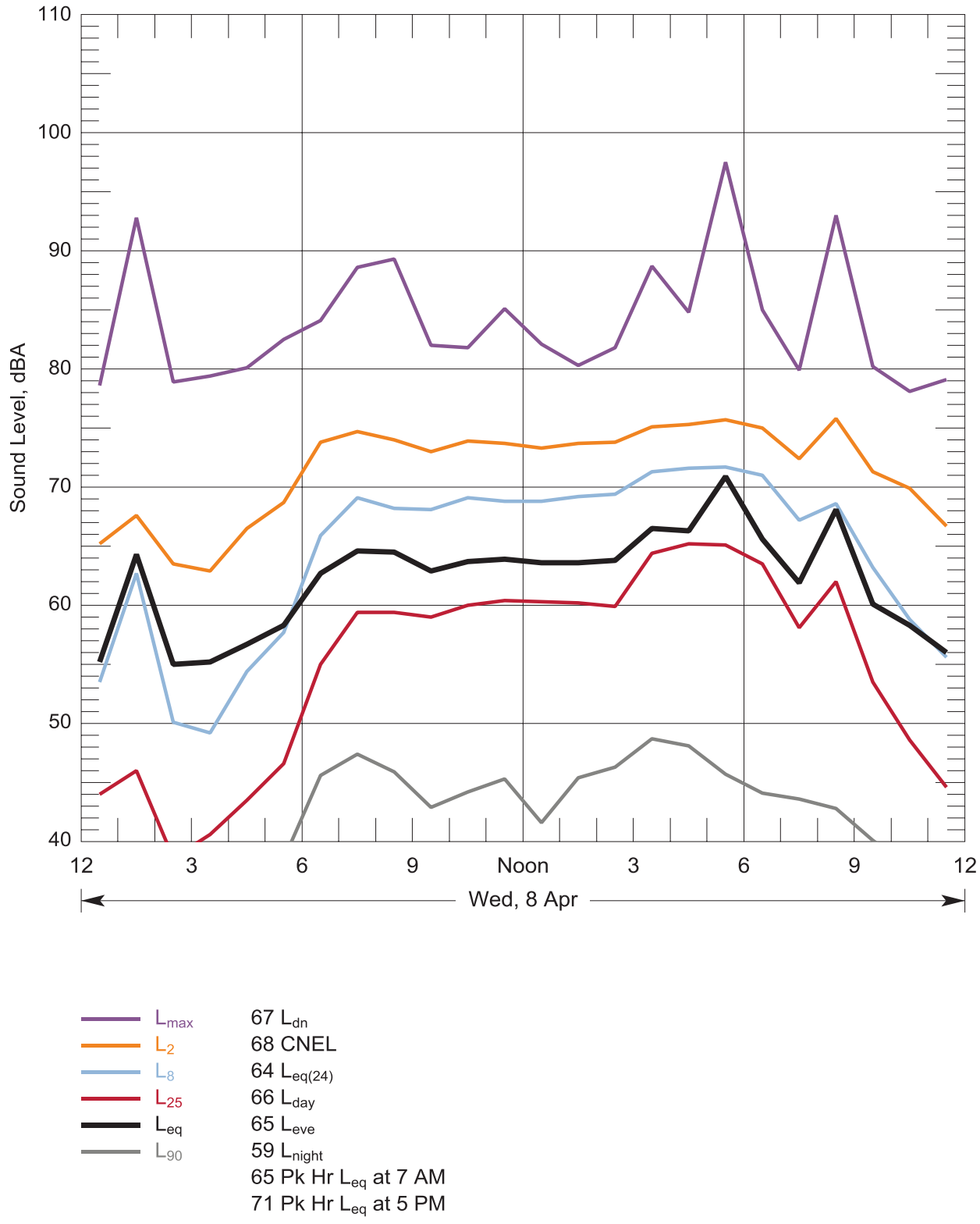


Figure 56: Hourly statistical summary of noise levels measured at Location 8 - 180th & Little Rock, Rochester on 08 Apr, 2015 and daily-average descriptors

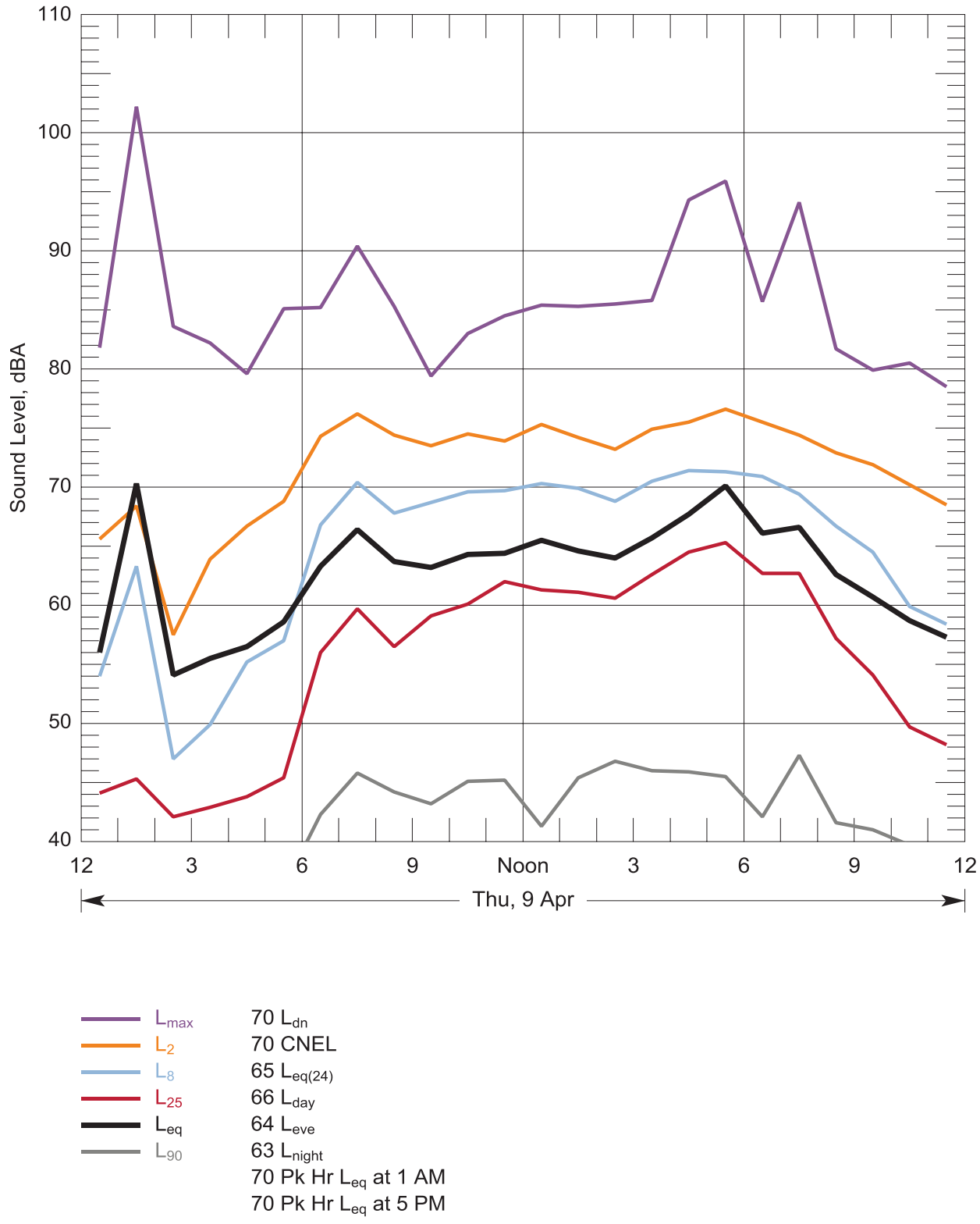


Figure 57: Hourly statistical summary of noise levels measured at Location 8 - 180th & Little Rock, Rochester on 09 Apr, 2015 and daily-average descriptors

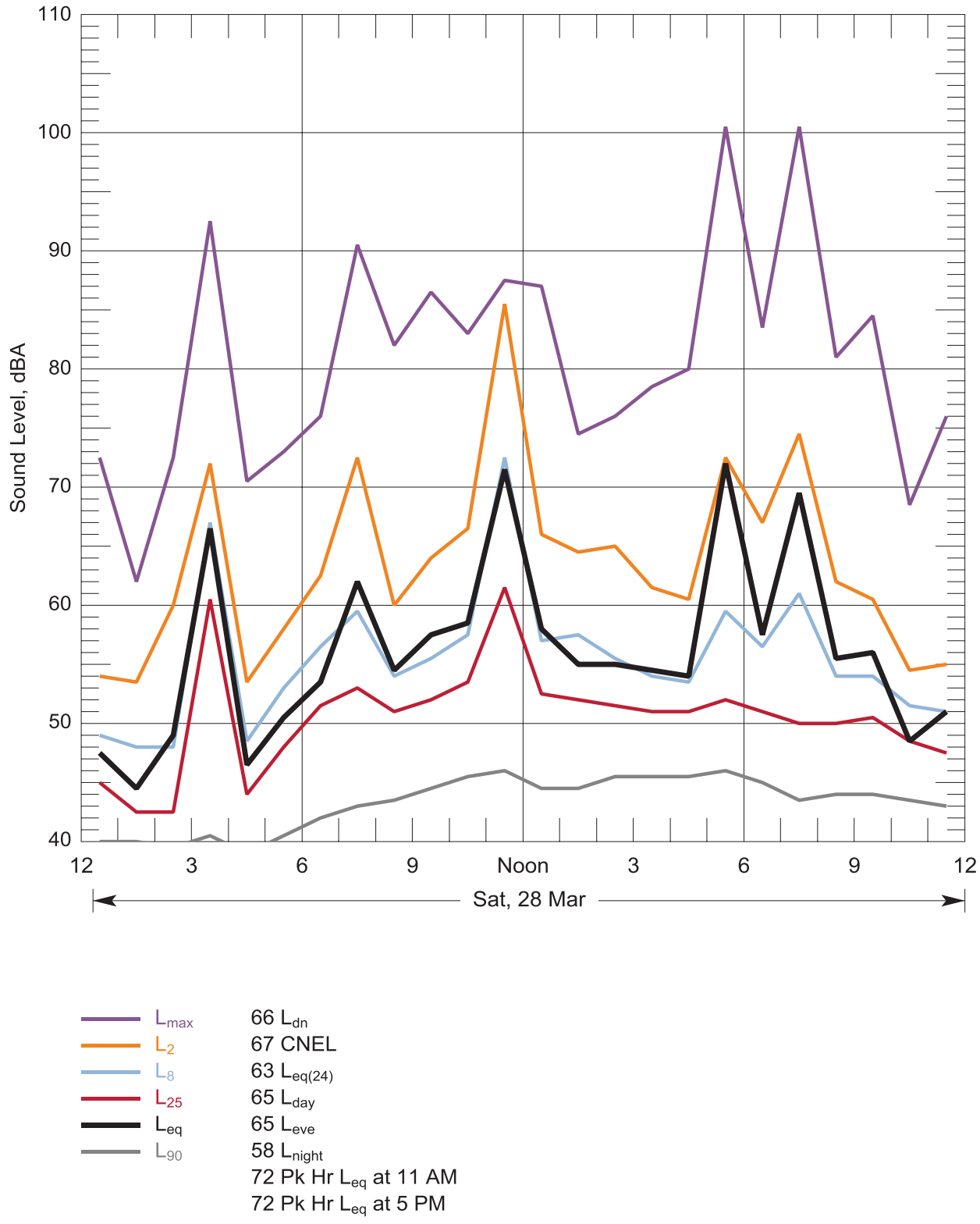


Figure 58: Hourly statistical summary of noise levels measured at Location 9 - 205 Murrey, Oakville on 28 Mar, 2015 and daily-average descriptors

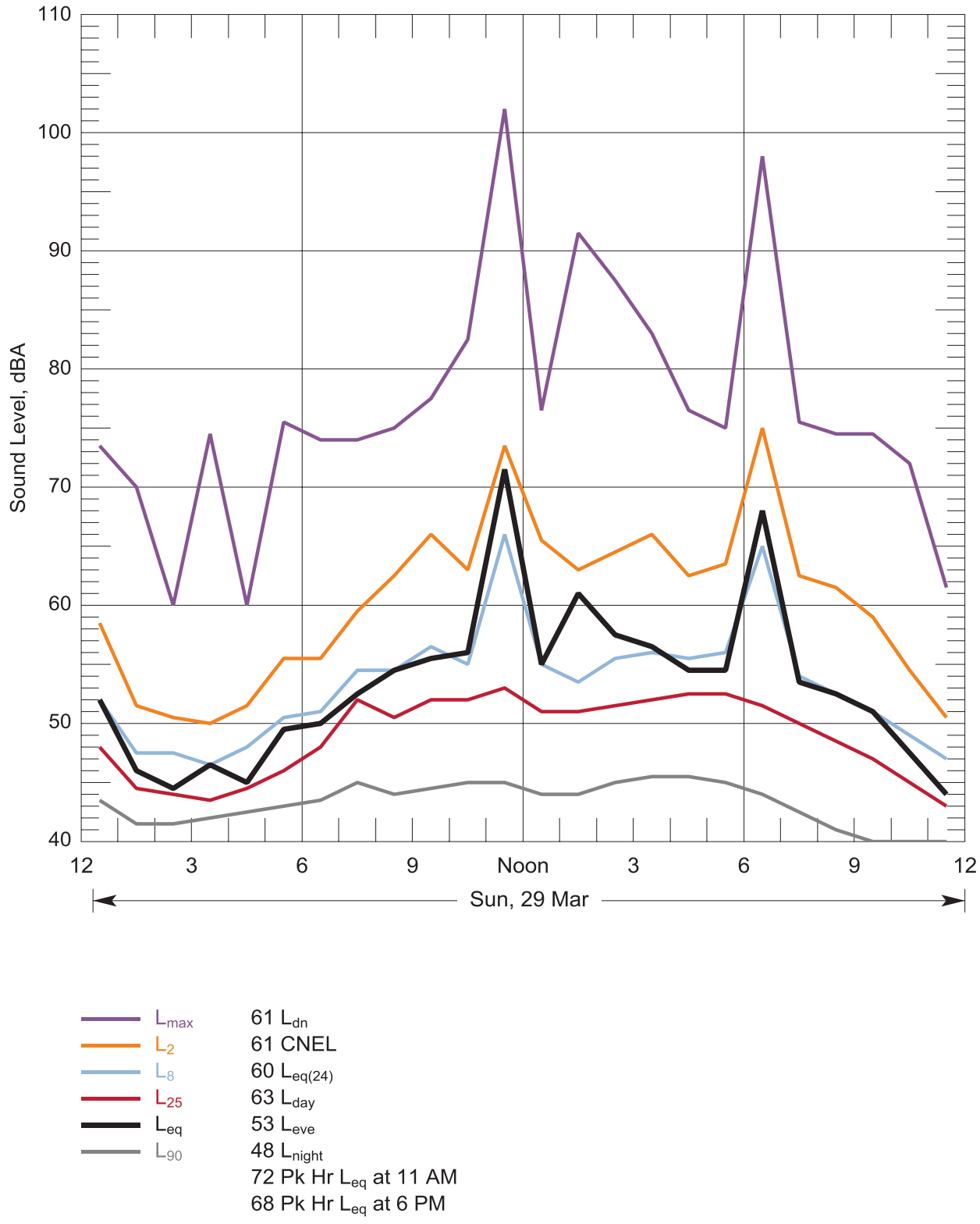


Figure 59: Hourly statistical summary of noise levels measured at Location 9 - 205 Murrey, Oakville on 29 Mar, 2015 and daily-average descriptors

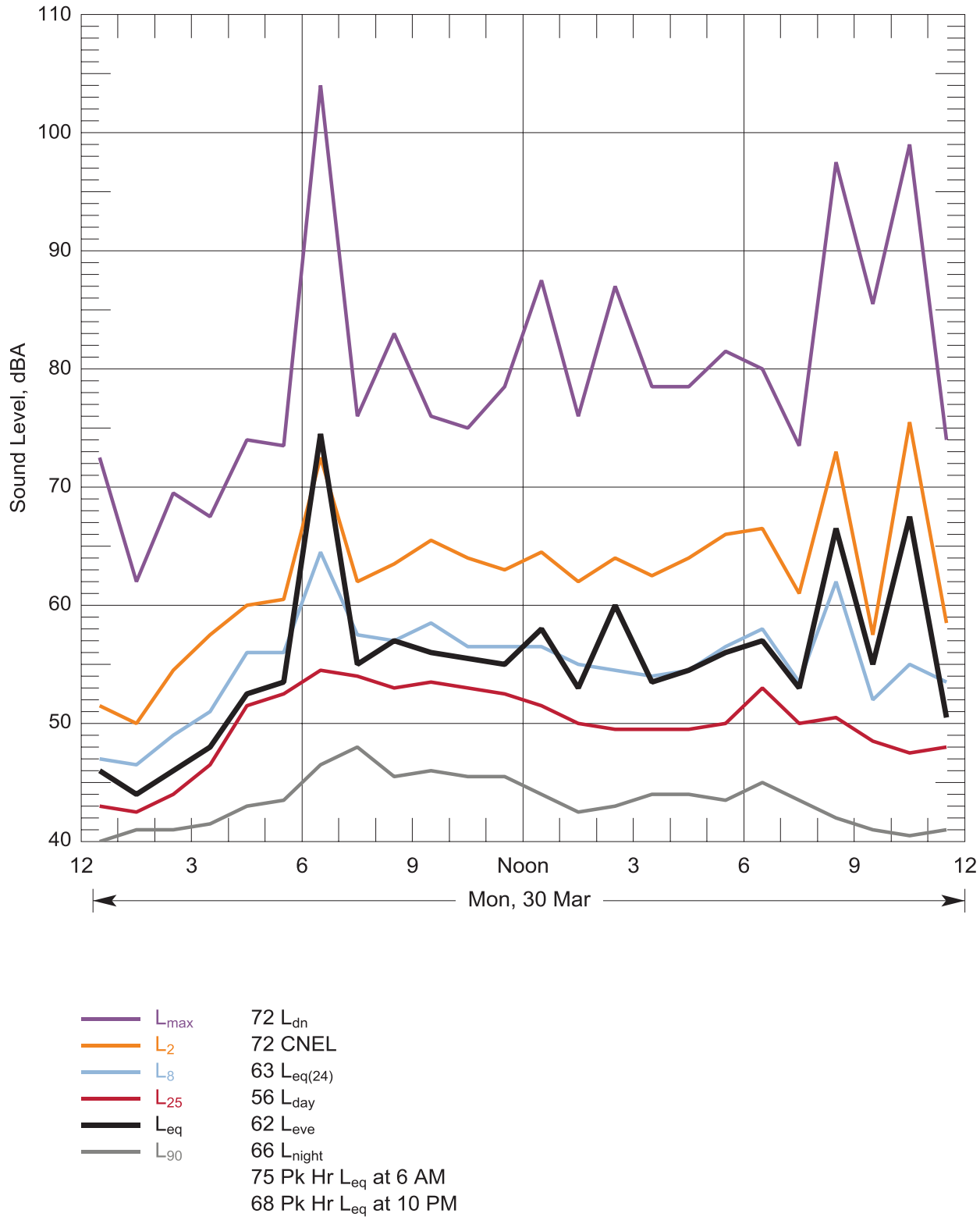


Figure 60: Hourly statistical summary of noise levels measured at Location 9 - 205 Murrey, Oakville on 30 Mar, 2015 and daily-average descriptors

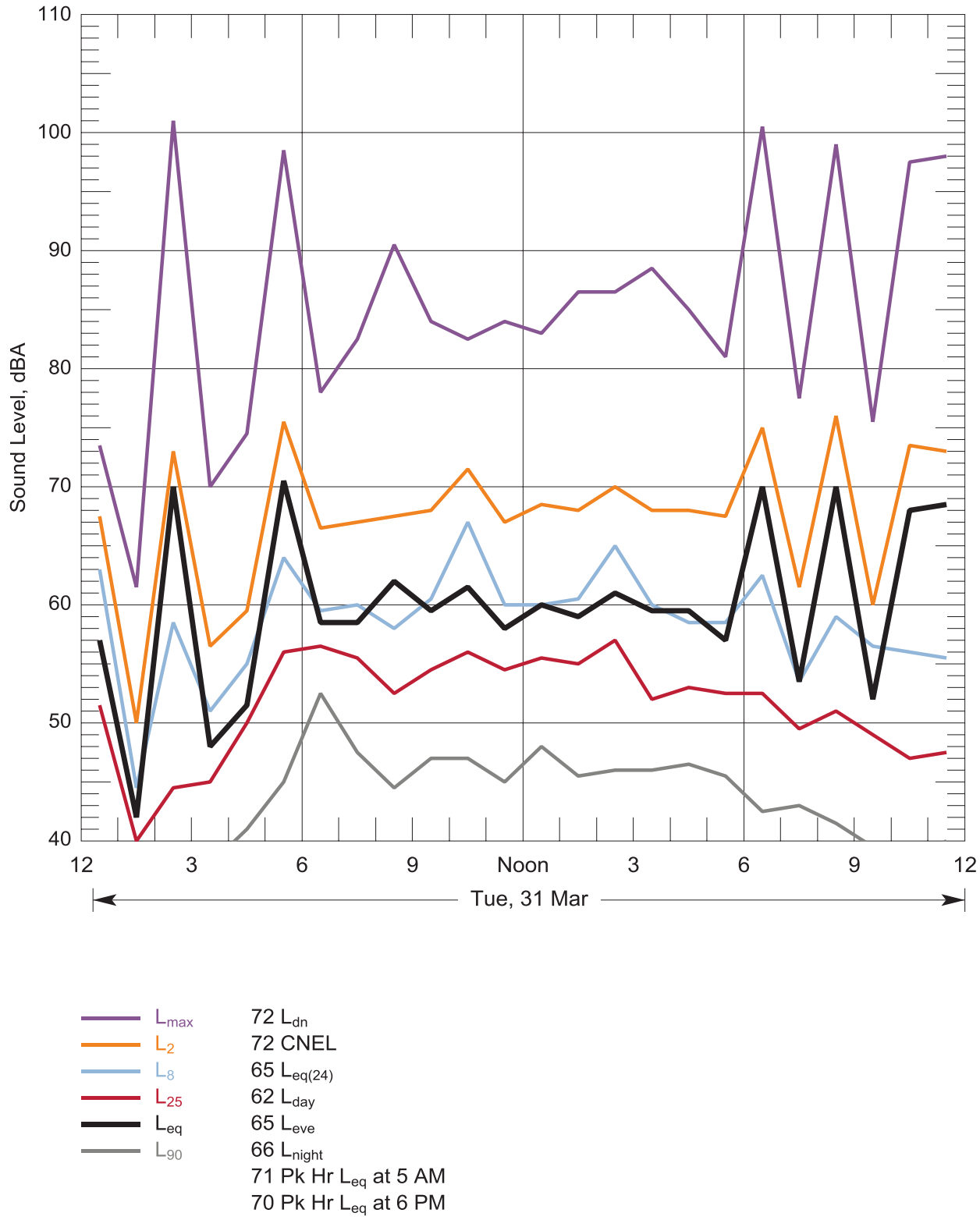


Figure 61: Hourly statistical summary of noise levels measured at Location 9 - 205 Murrey, Oakville on 31 Mar, 2015 and daily-average descriptors

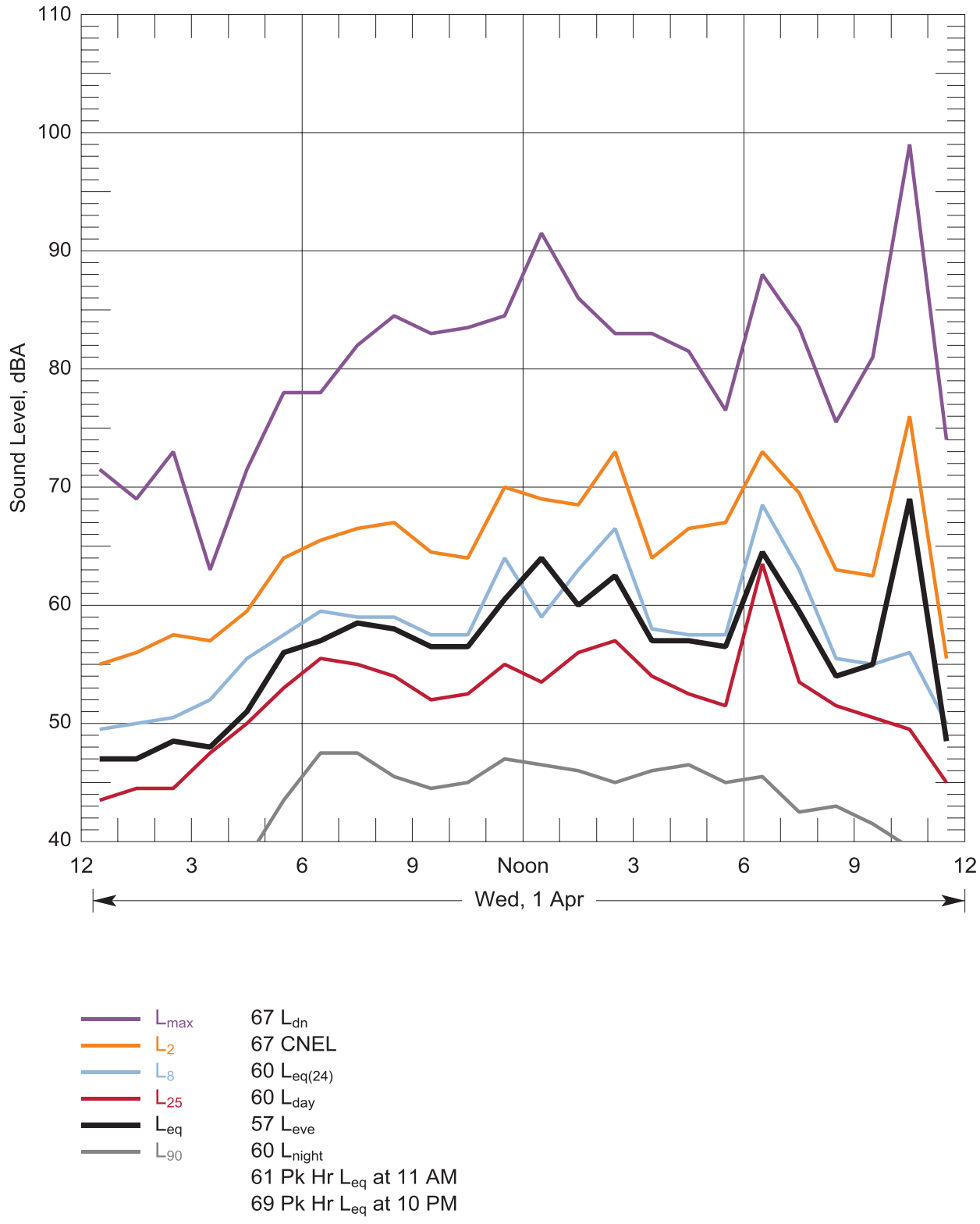


Figure 62: Hourly statistical summary of noise levels measured at Location 9 - 205 Murrey, Oakville on 01 Apr, 2015 and daily-average descriptors

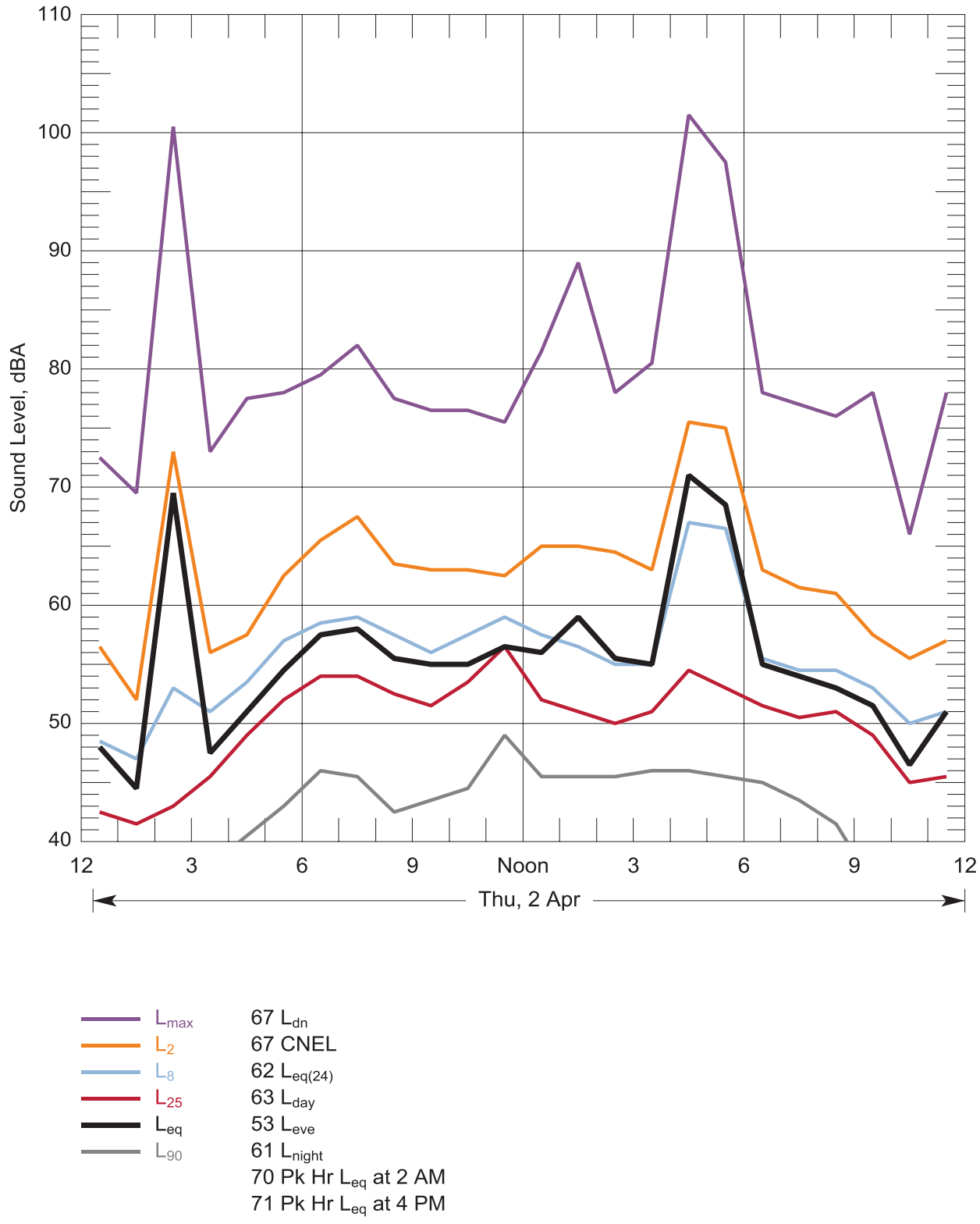


Figure 63: Hourly statistical summary of noise levels measured at Location 9 - 205 Murrey, Oakville on 02 Apr, 2015 and daily-average descriptors

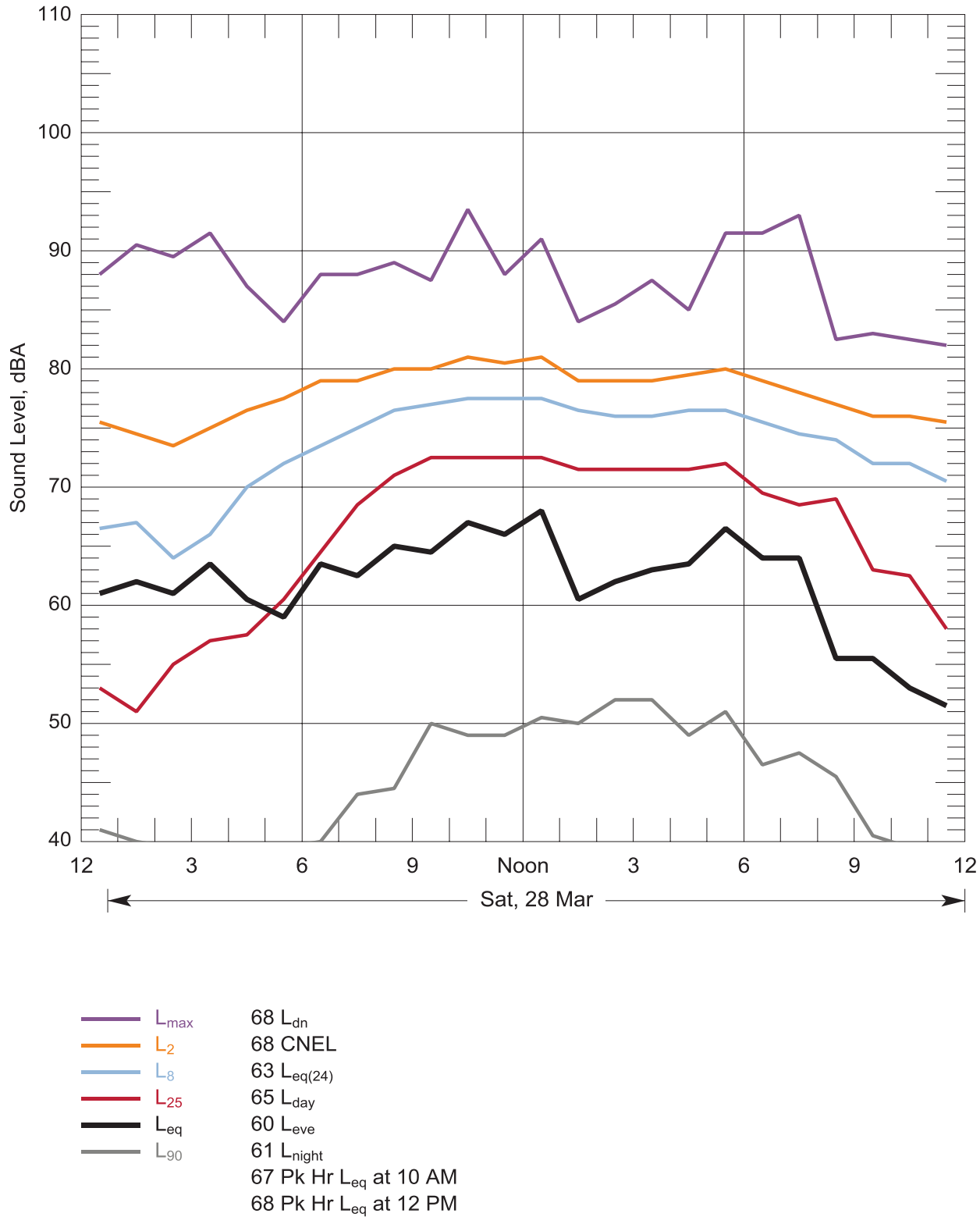


Figure 64: Hourly statistical summary of noise levels measured at Location 10 – 22 Evergreen Village Lane, Elma on 28 Mar, 2015 and daily-average descriptors

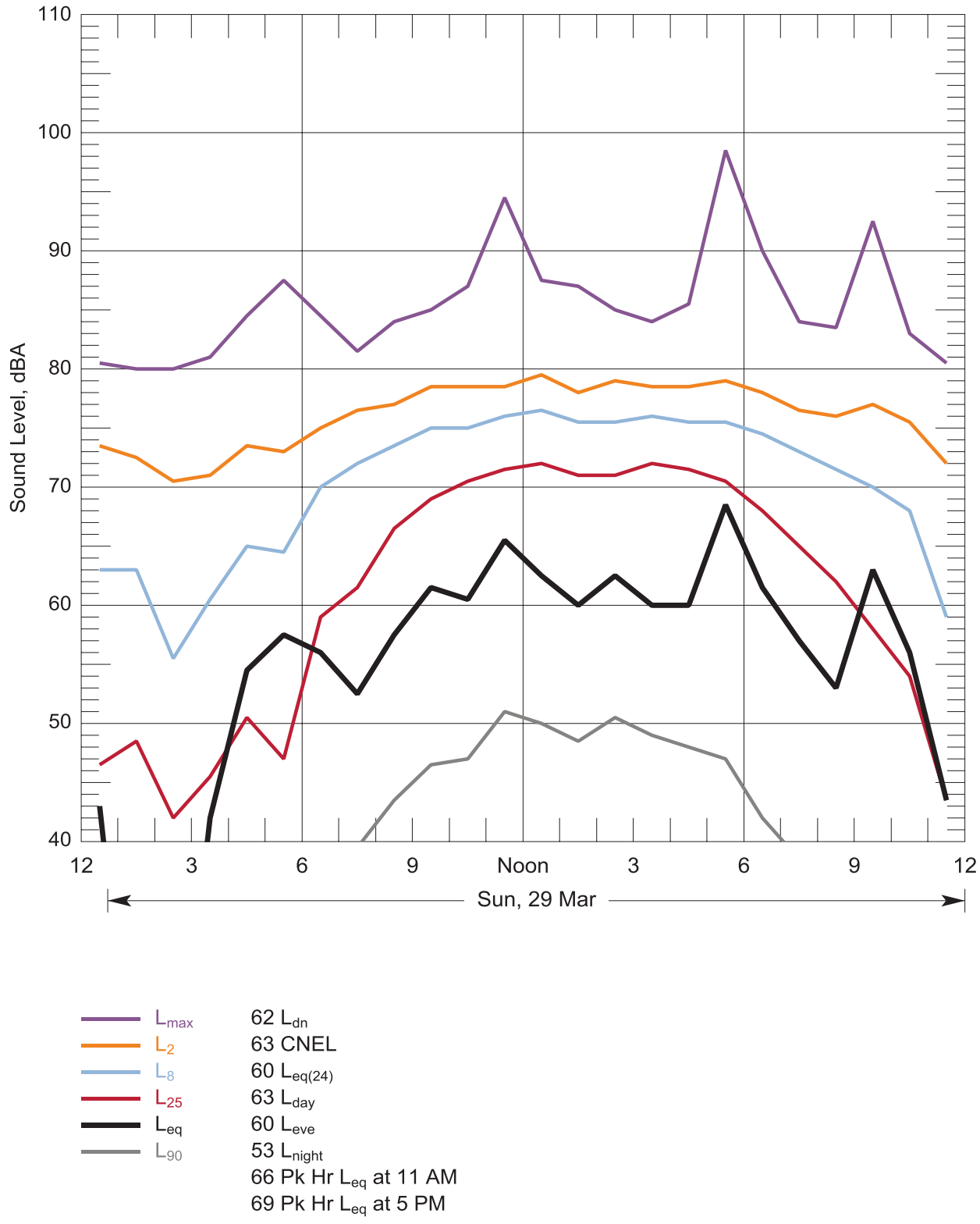


Figure 65: Hourly statistical summary of noise levels measured at Location 10 – 22 Evergreen Village Lane, Elma on 29 Mar, 2015 and daily-average descriptors

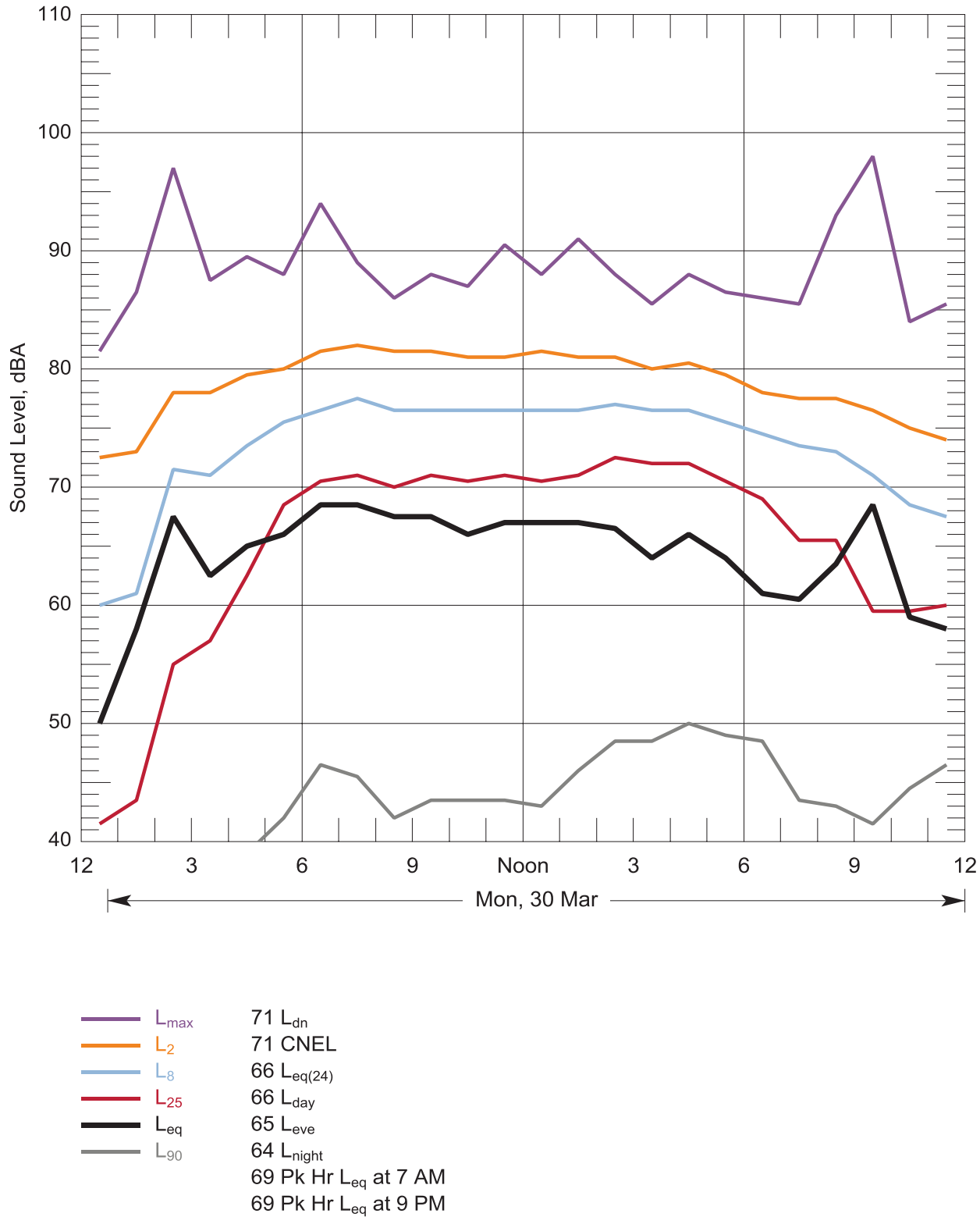


Figure 66: Hourly statistical summary of noise levels measured at Location 10 – 22 Evergreen Village Lane, Elma on 30 Mar, 2015 and daily-average descriptors

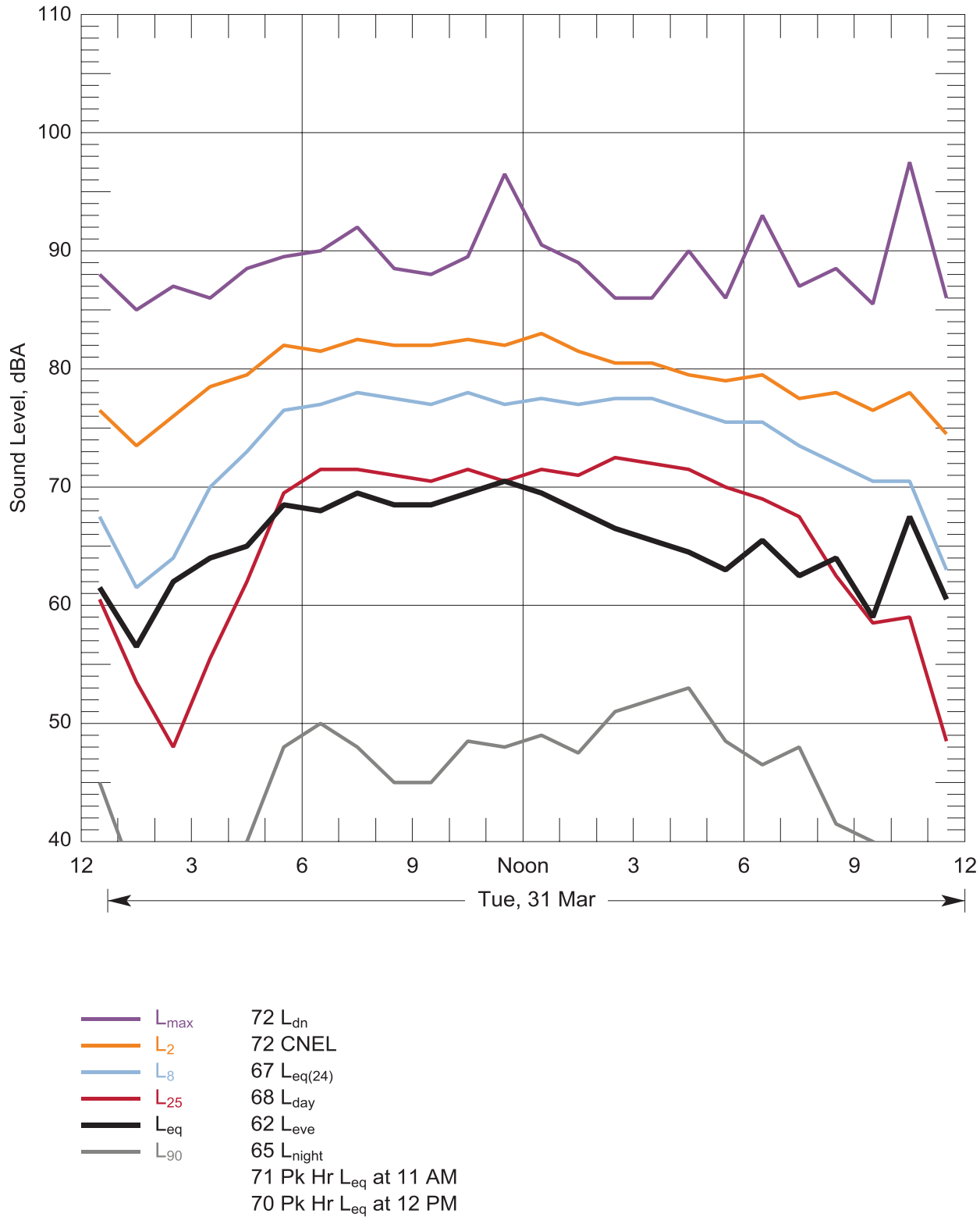


Figure 67: Hourly statistical summary of noise levels measured at Location 10 – 22 Evergreen Village Lane, Elma on 31 Mar, 2015 and daily-average descriptors

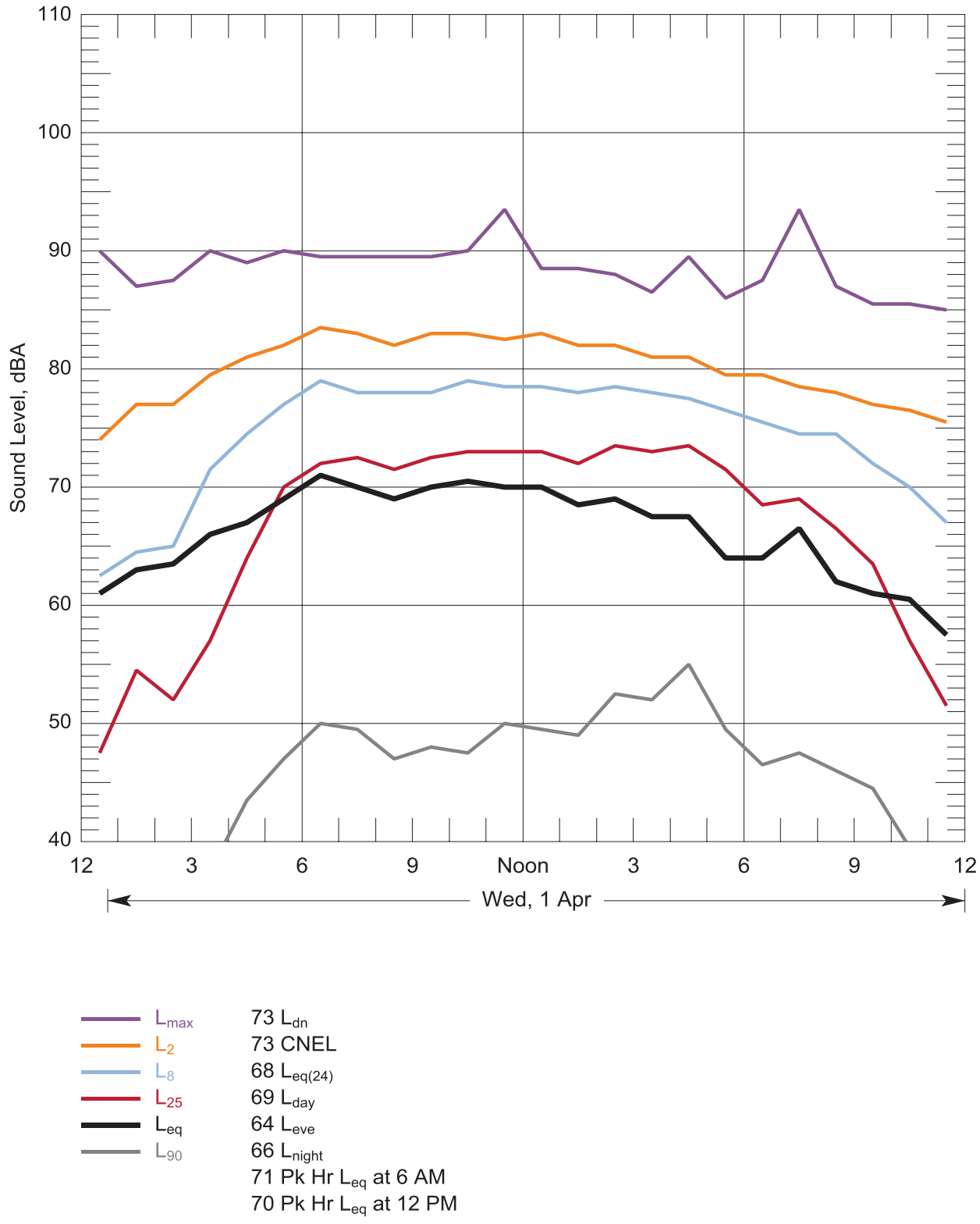


Figure 68: Hourly statistical summary of noise levels measured at Location 10 – 22 Evergreen Village Lane, Elma on 01 Apr, 2015 and daily-average descriptors

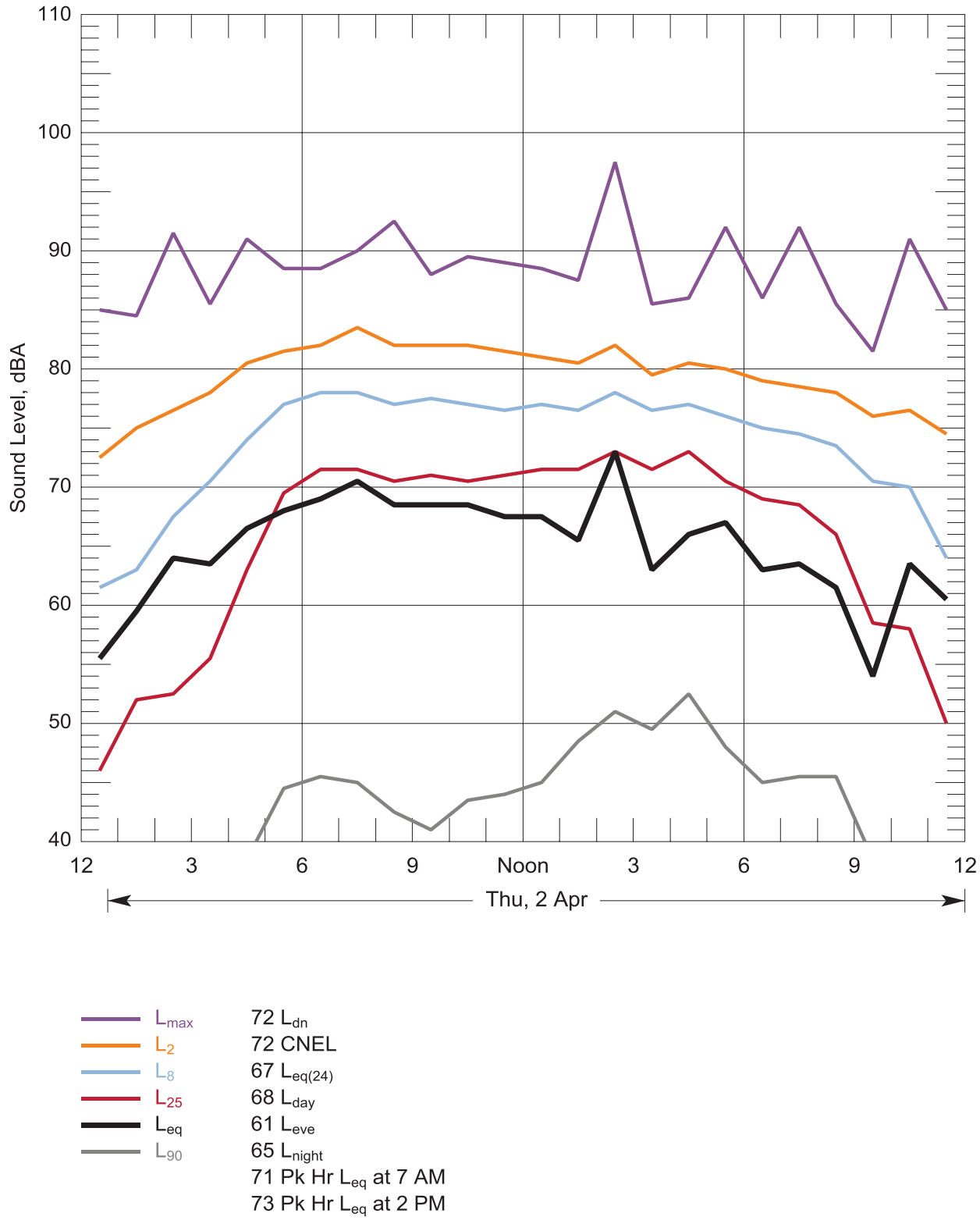


Figure 69: Hourly statistical summary of noise levels measured at Location 10 – 22 Evergreen Village Lane, Elma on 02 Apr, 2015 and daily-average descriptors

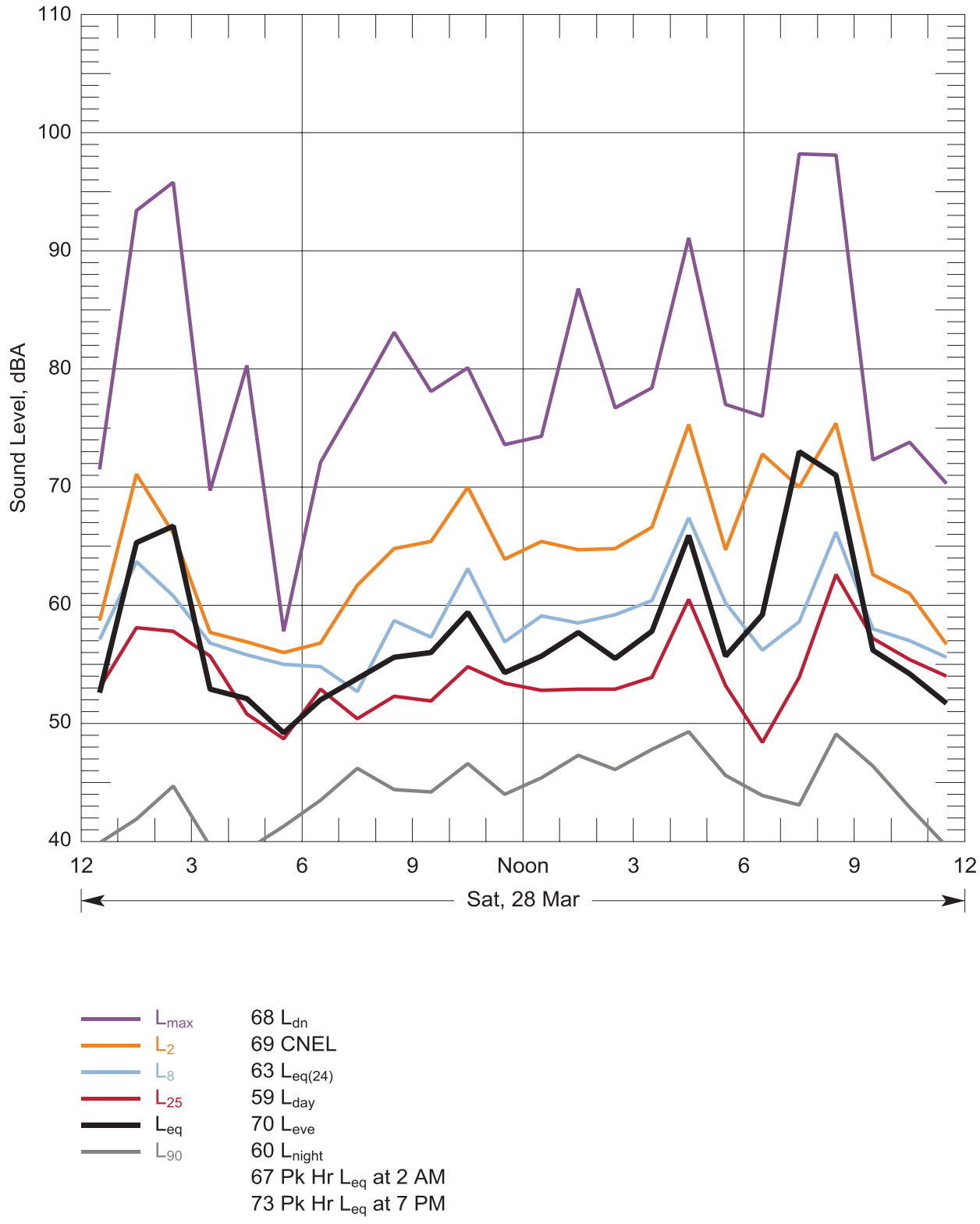


Figure 70: Hourly statistical summary of noise levels measured at Location 11 – 513 N 13th St, Elma on 28 Mar, 2015 and daily-average descriptors

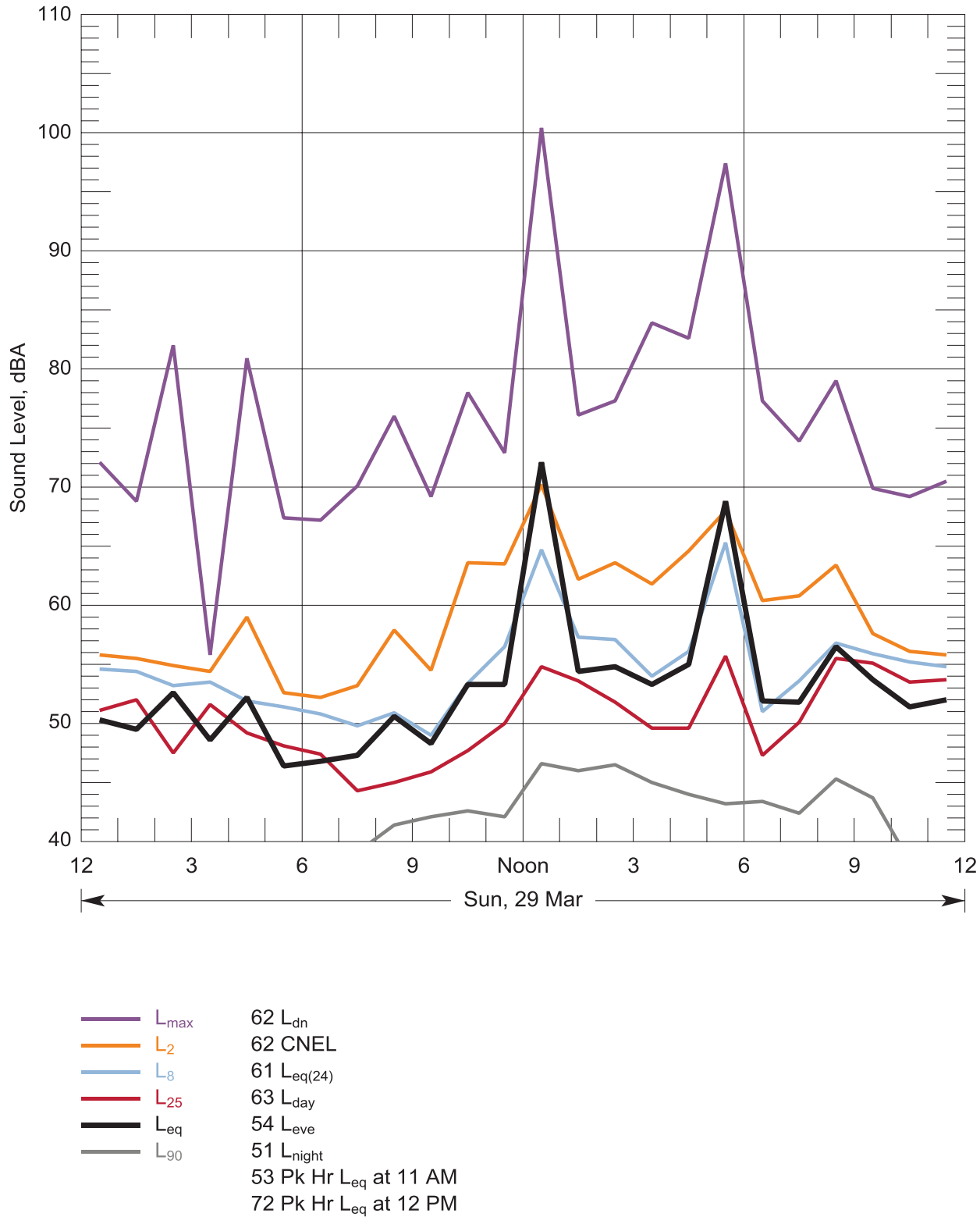


Figure 71: Hourly statistical summary of noise levels measured at Location 11 – 513 N 13th St, Elma on 29 Mar, 2015 and daily-average descriptors

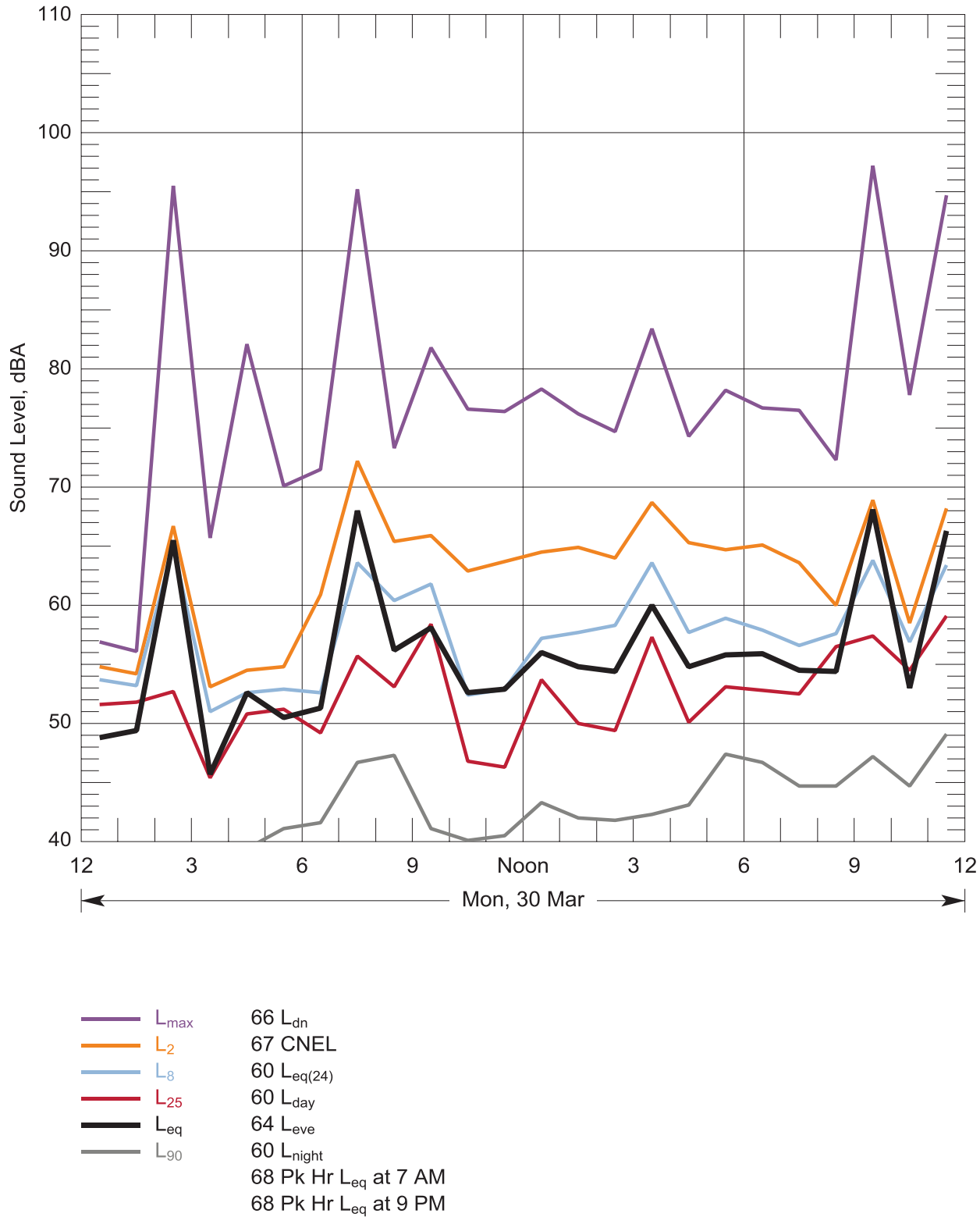


Figure 72: Hourly statistical summary of noise levels measured at Location 11 – 513 N 13th St, Elma on 30 Mar, 2015 and daily-average descriptors

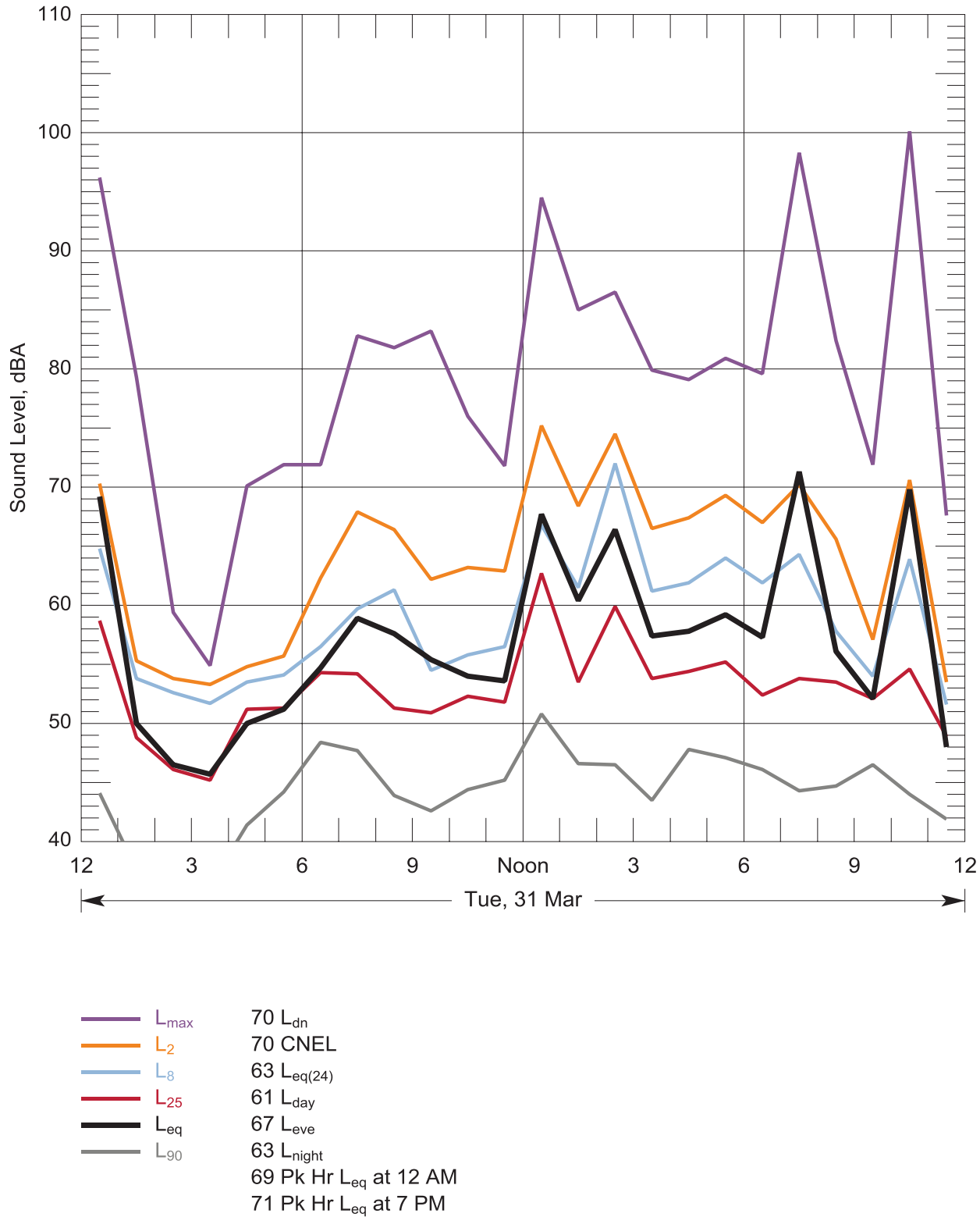


Figure 73: Hourly statistical summary of noise levels measured at Location 11 – 513 N 13th St, Elma and daily-average descriptors

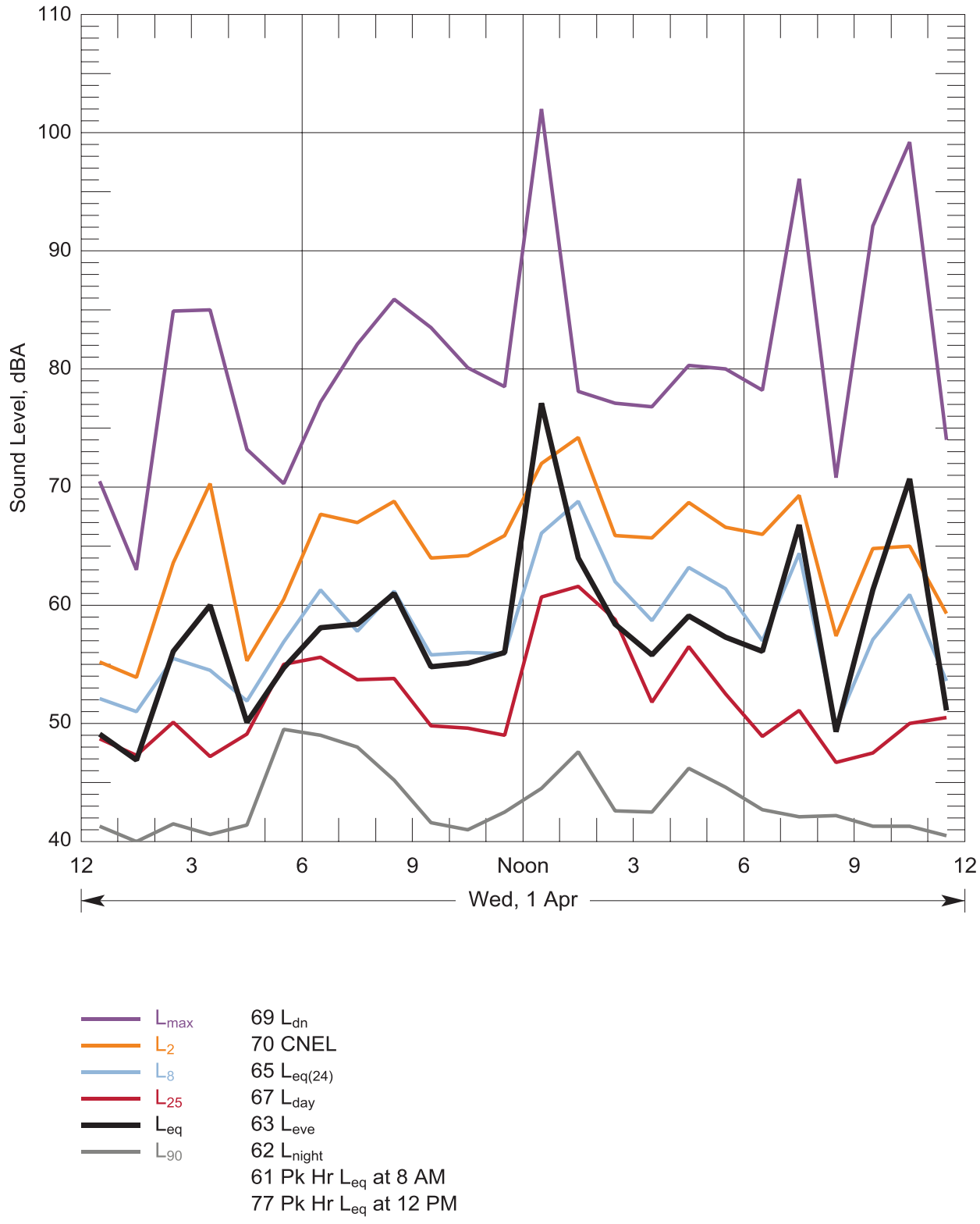


Figure 74: Hourly statistical summary of noise levels measured at Location 11 – 513 N 13th St, Elma on 01 Apr, 2015 and daily-average descriptors

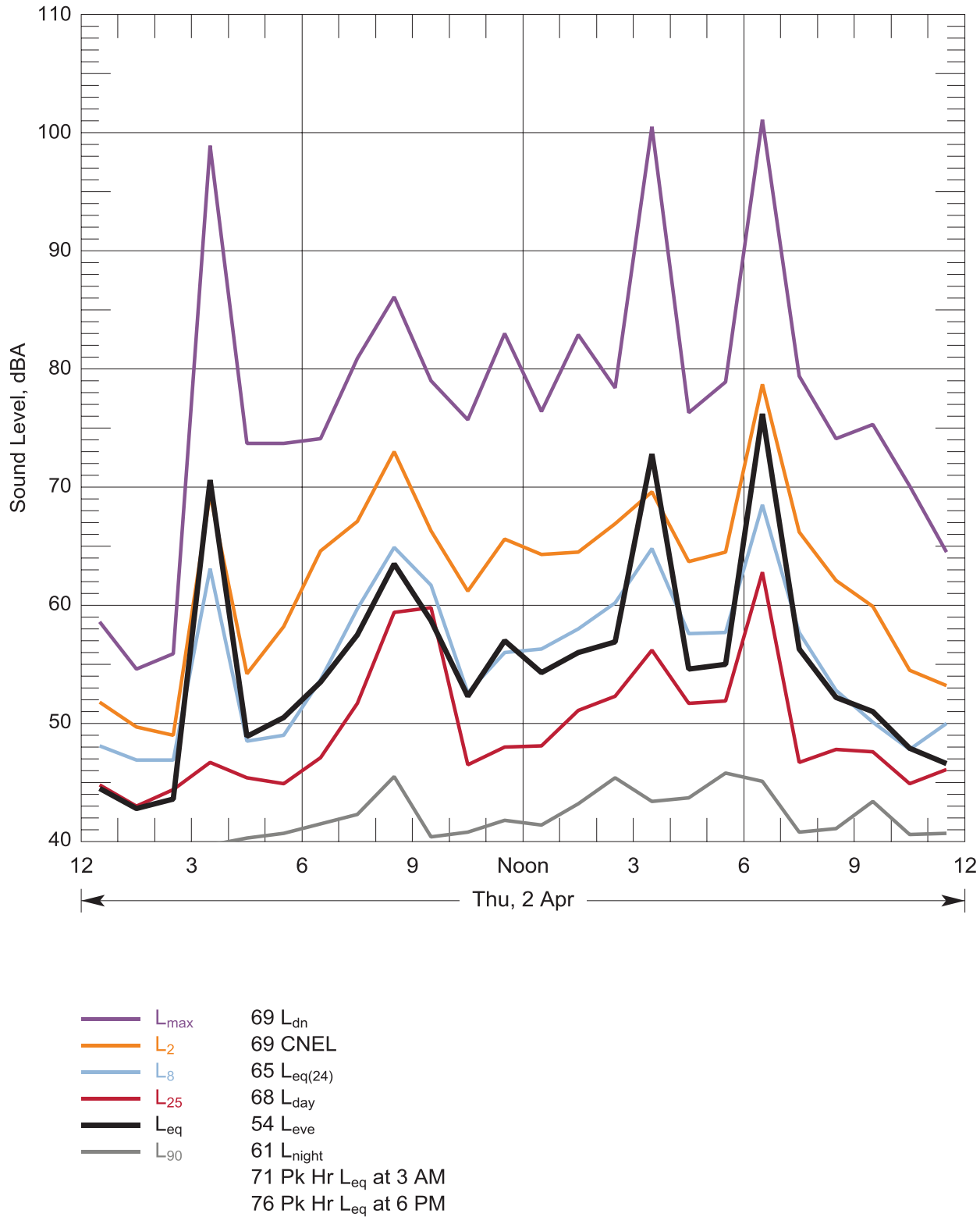


Figure 75: Hourly statistical summary of noise levels measured at Location 11 – 513 N 13th St, Elma on 02 Apr, 2015 and daily-average descriptors

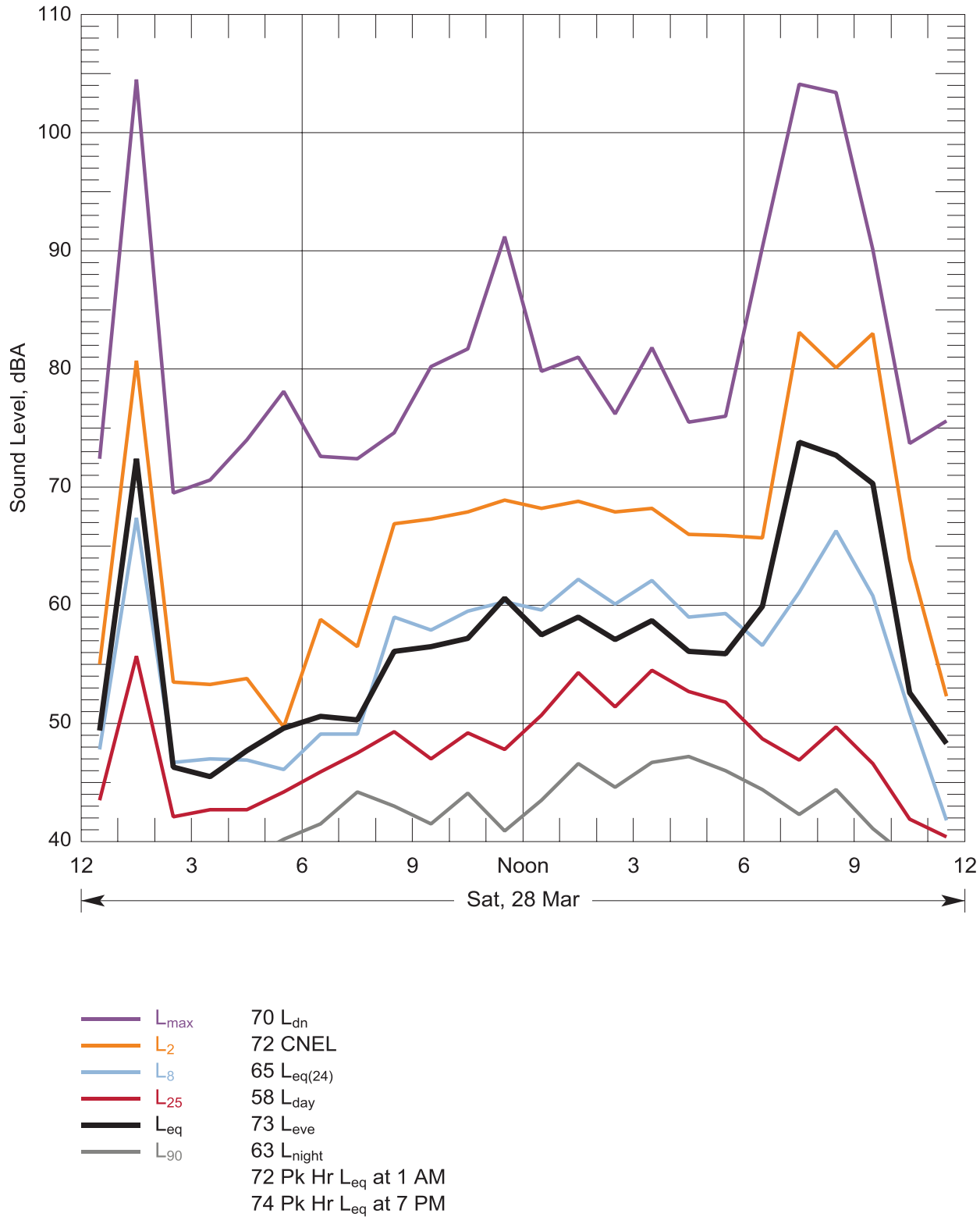


Figure 76: Hourly statistical summary of noise levels measured at Location 12 - 502 N 13th St, Elma on 28 Mar, 2015 and daily-average descriptors

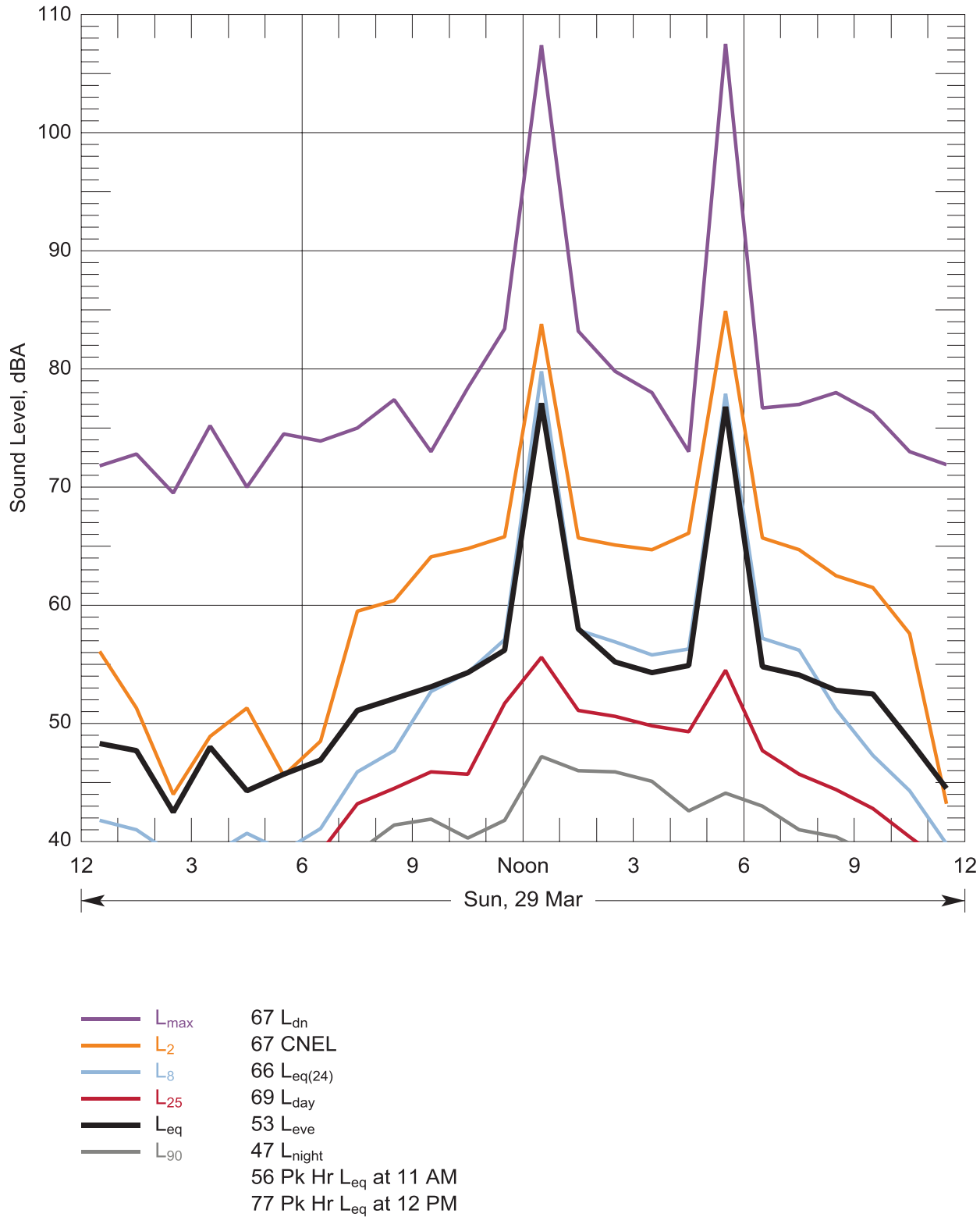


Figure 77: Hourly statistical summary of noise levels measured at Location 12 - 502 N 13th St, Elma on 29 Mar, 2015 and daily-average descriptors

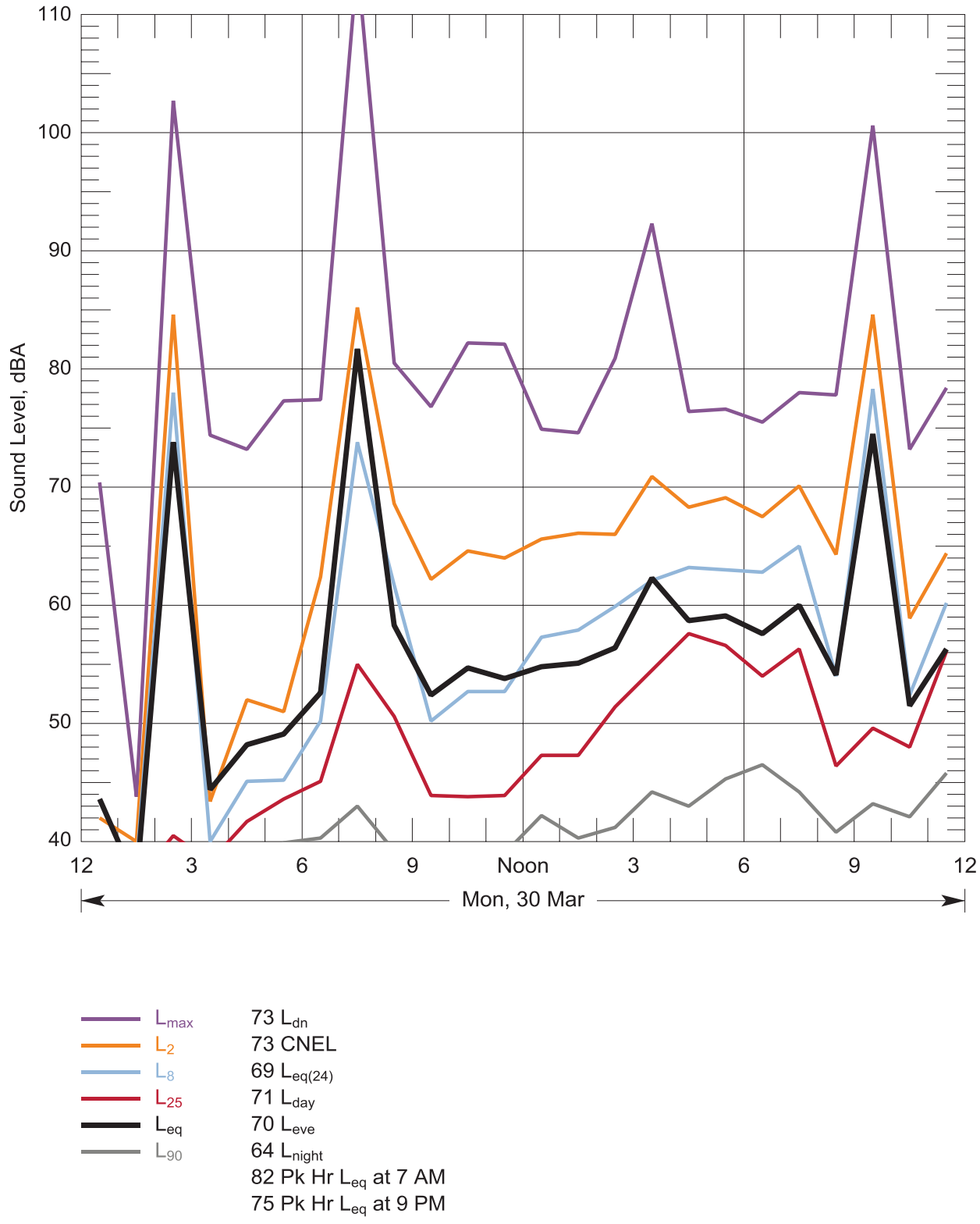


Figure 78: Hourly statistical summary of noise levels measured at Location 12 - 502 N 13th St, Elma on 30 Mar, 2015 and daily-average descriptors

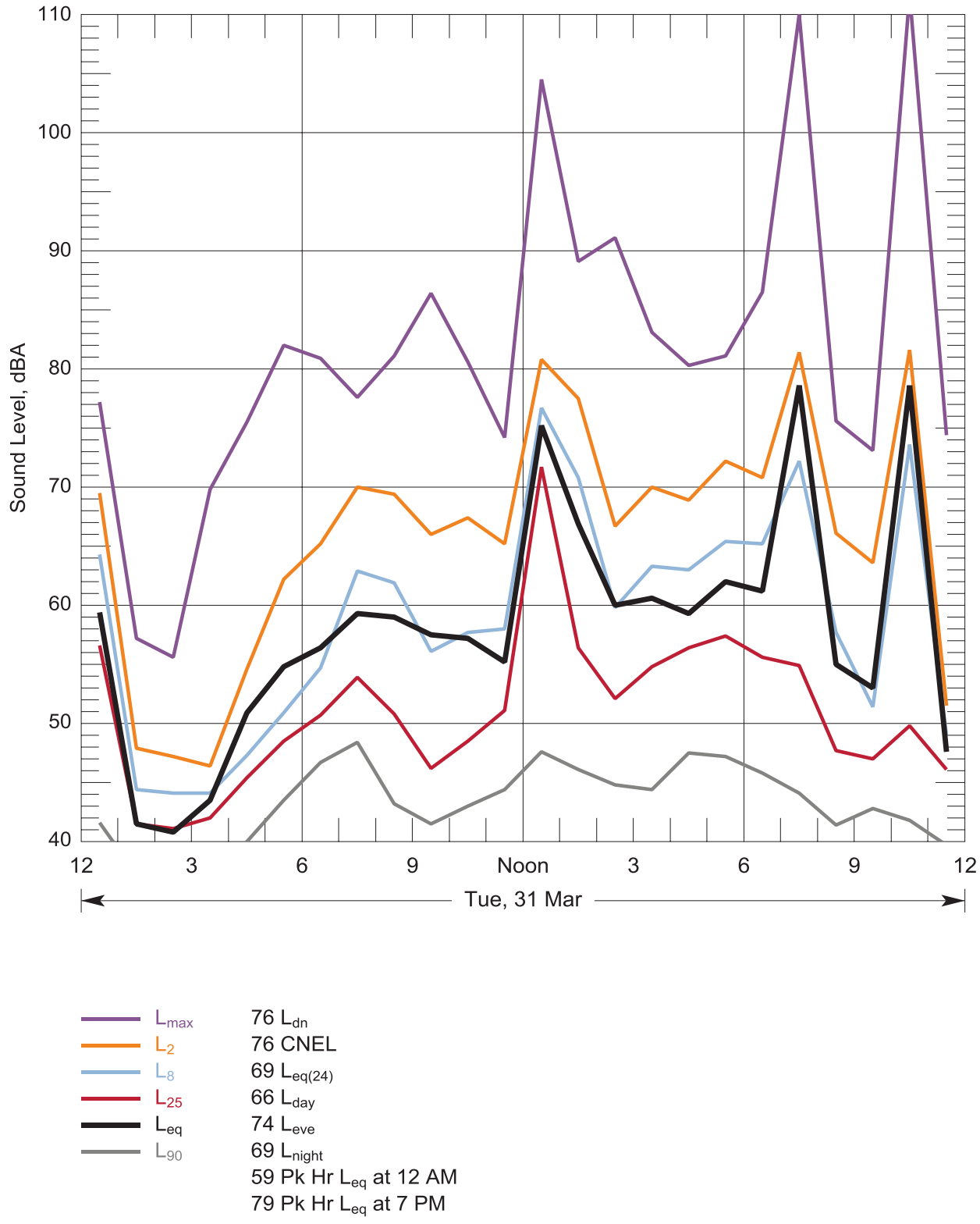


Figure 79: Hourly statistical summary of noise levels measured at Location 12 - 502 N 13th St, Elma on 31 Mar, 2015 and daily-average descriptors

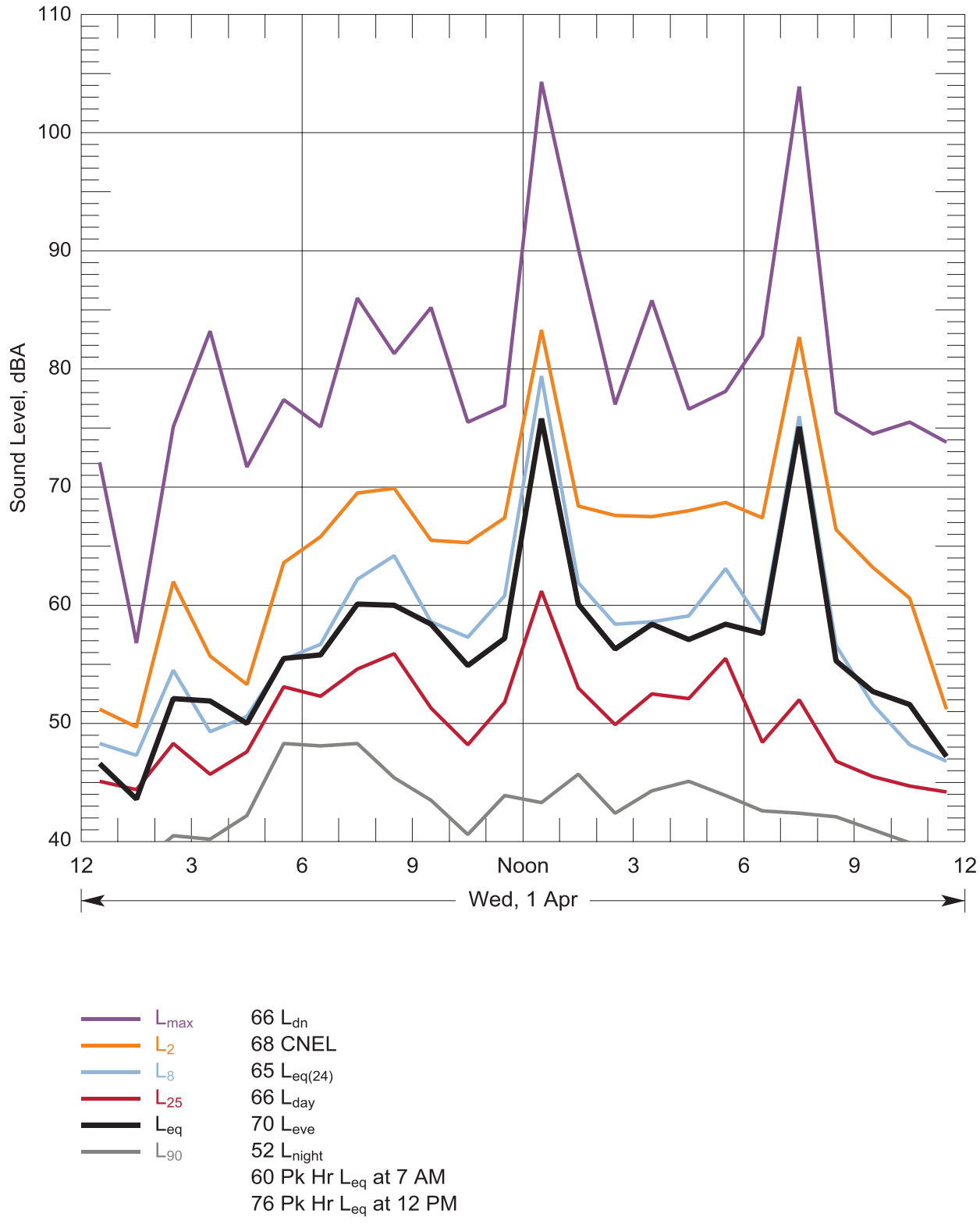


Figure 80: Hourly statistical summary of noise levels measured at Location 12 - 502 N 13th St, Elma on 01 Apr, 2015 and daily-average descriptors

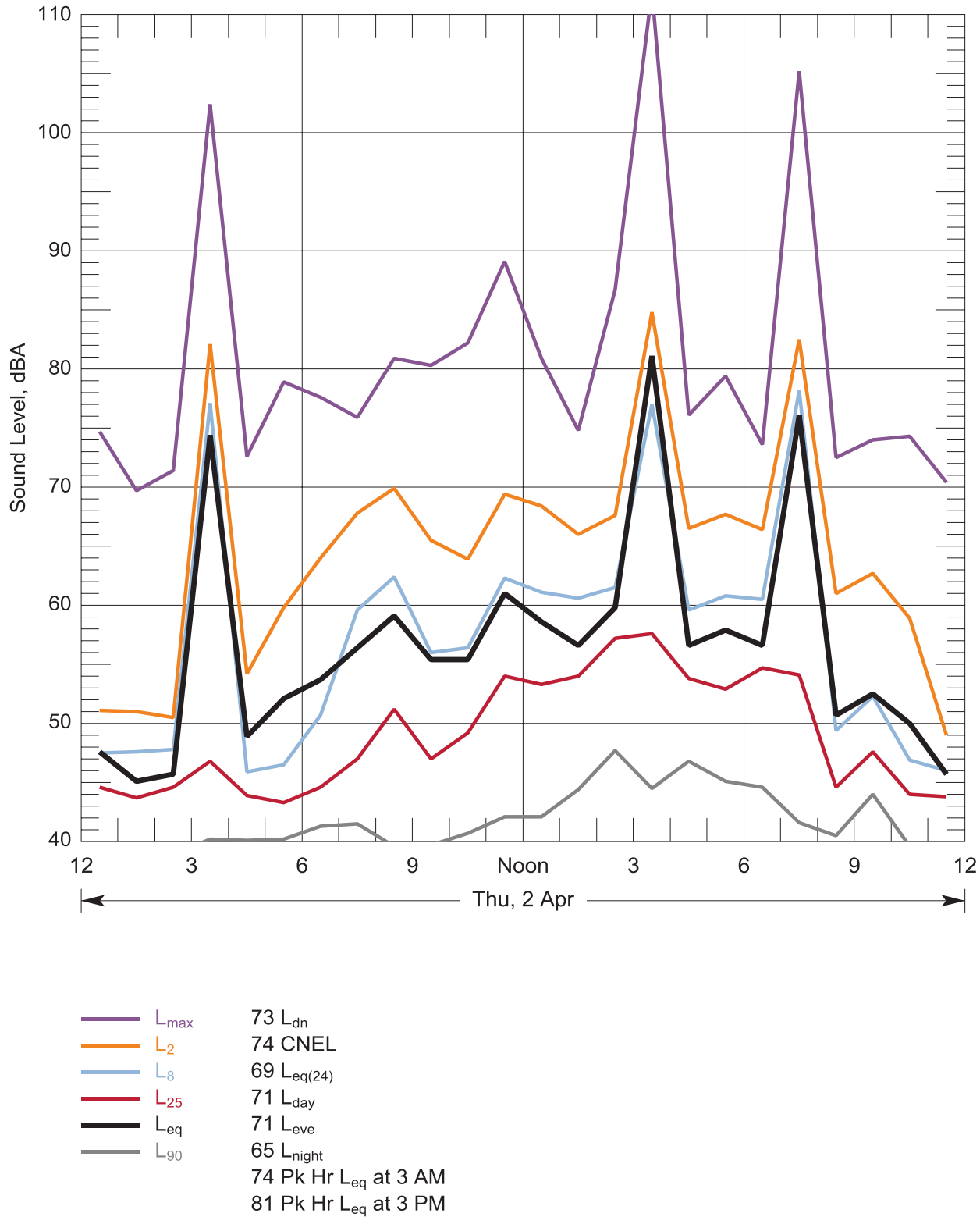


Figure 81: Hourly statistical summary of noise levels measured at Location 12 - 502 N 13th St, Elma on 02 Apr, 2015 and daily-average descriptors

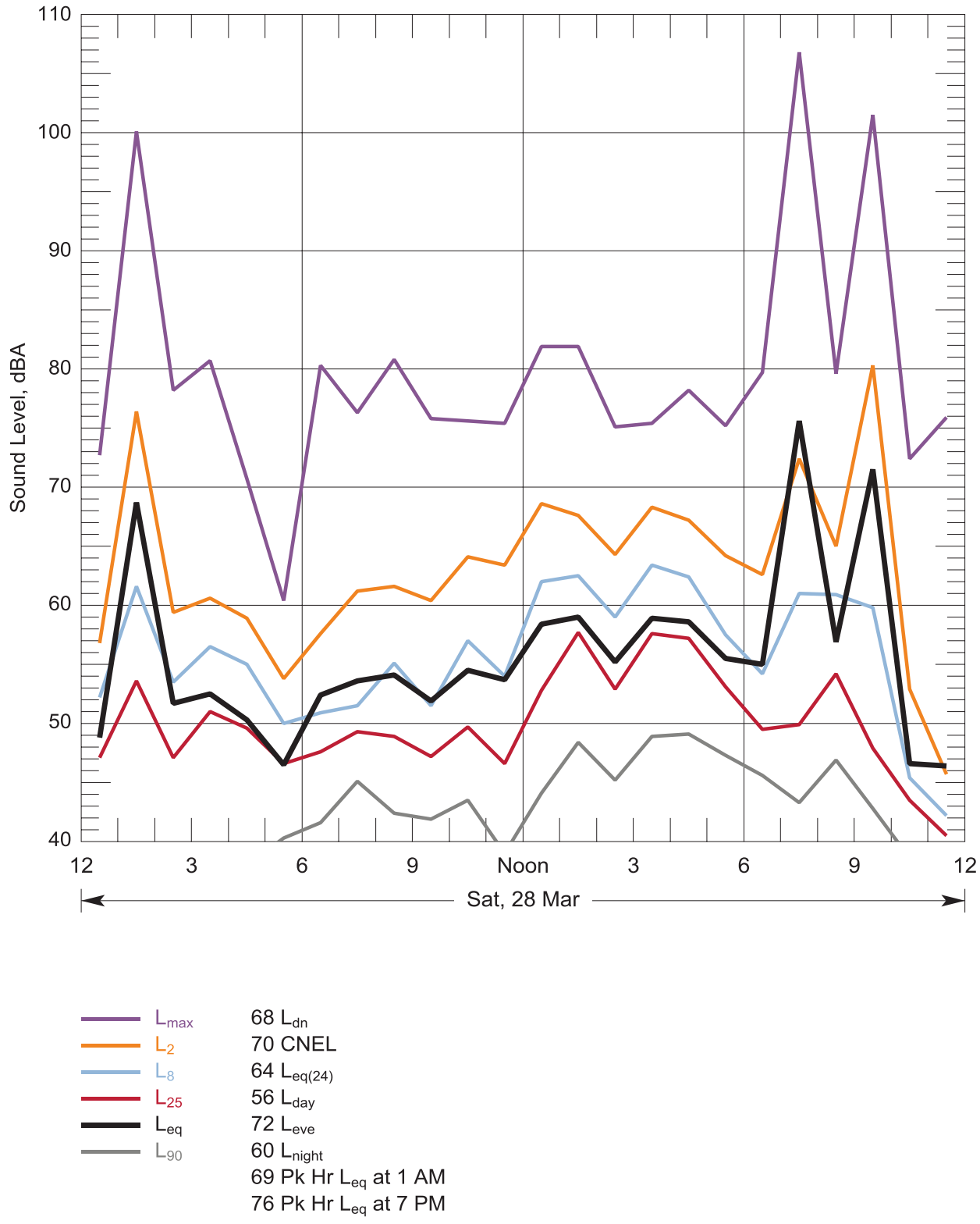


Figure 82: Hourly statistical summary of noise levels measured at Location 13 - 57 Hurd Rd, Elma on 28 Mar, 2015 and daily-average descriptors

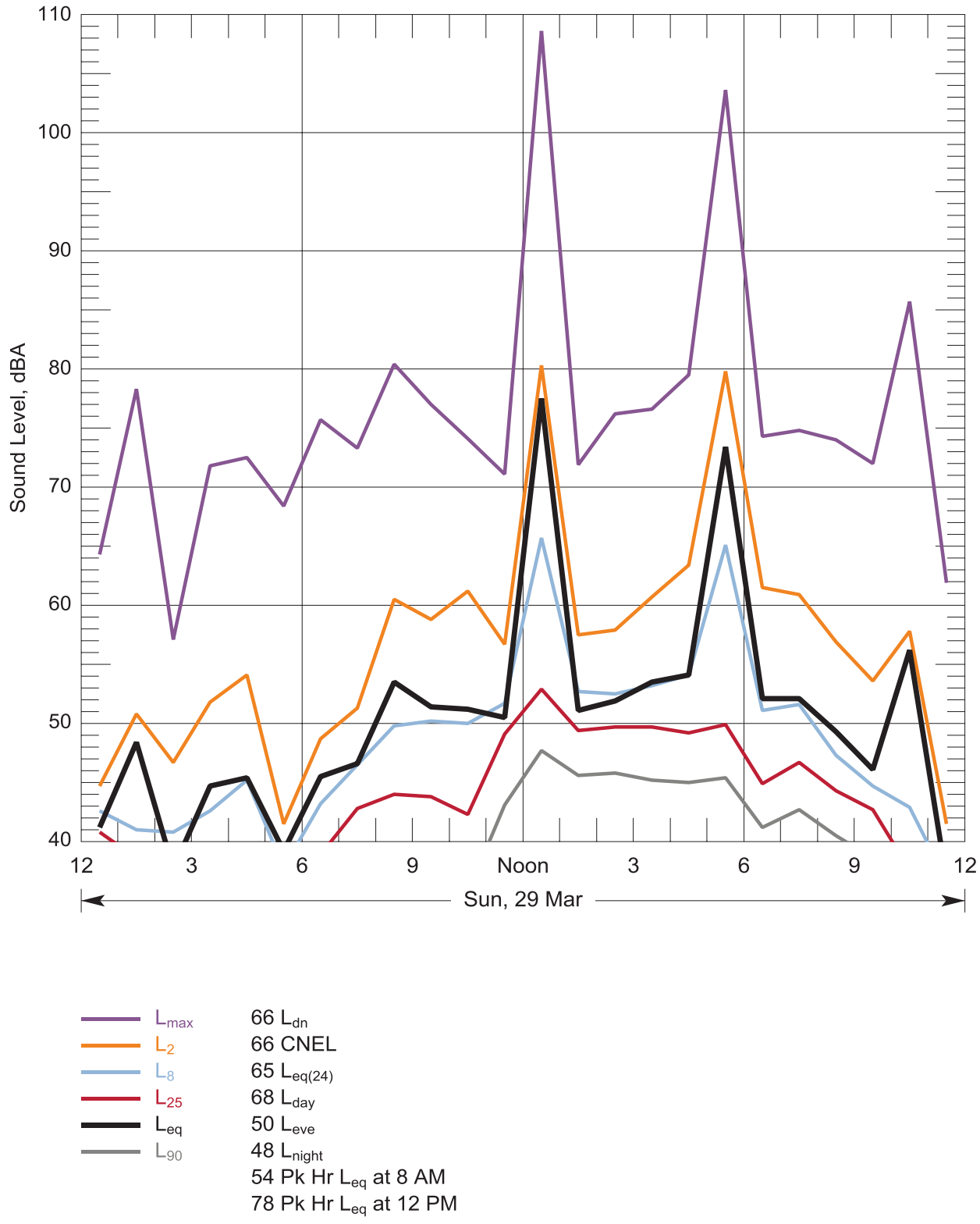


Figure 83: Hourly statistical summary of noise levels measured at Location 13 - 57 Hurd Rd, Elma on 29 Mar, 2015 and daily-average descriptors

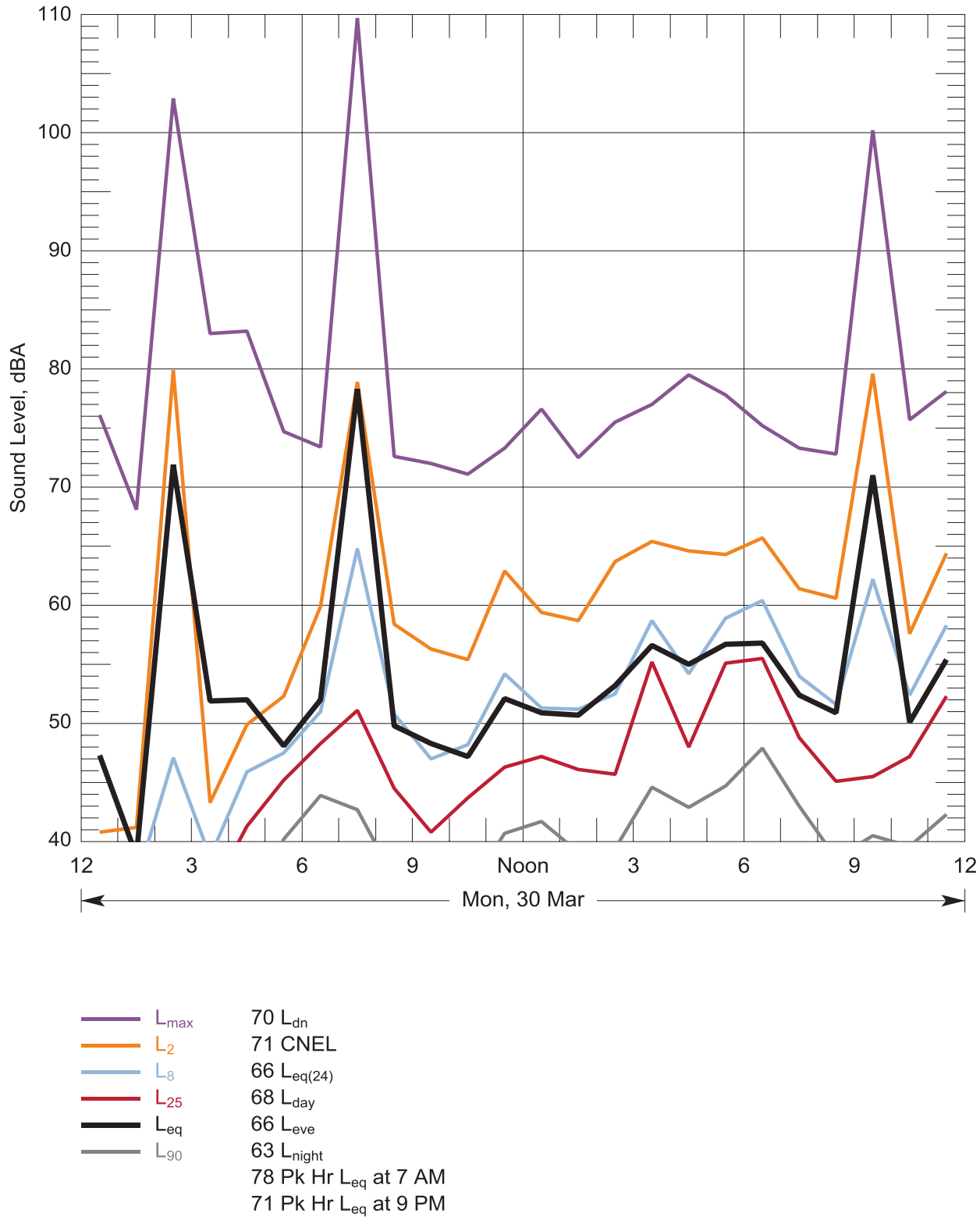


Figure 84: Hourly statistical summary of noise levels measured at Location 13 - 57 Hurd Rd, Elma on 30 Mar, 2015 and daily-average descriptors

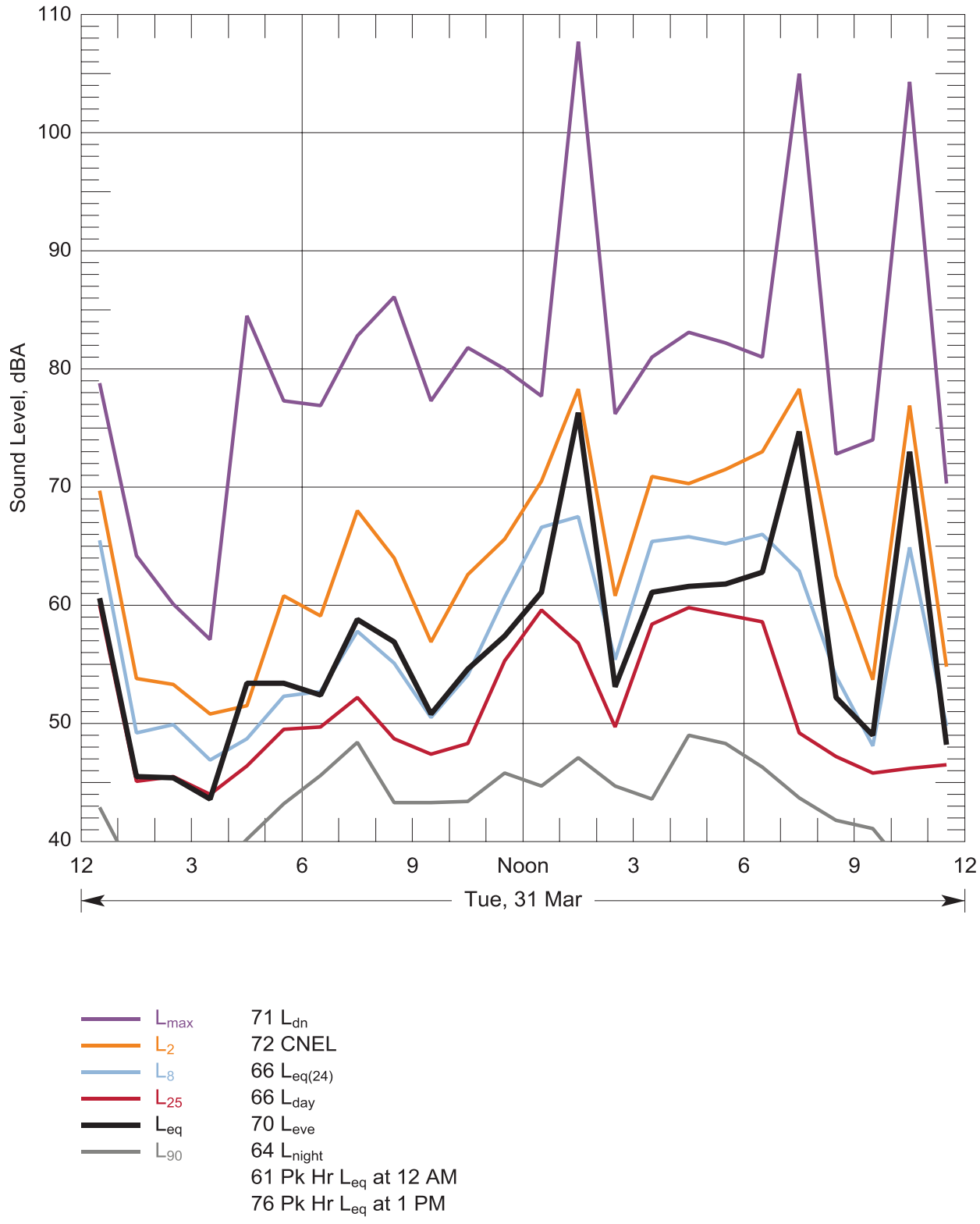


Figure 85: Hourly statistical summary of noise levels measured at Location 13 - 57 Hurd Rd, Elma on 31 Mar, 2015 and daily-average descriptors

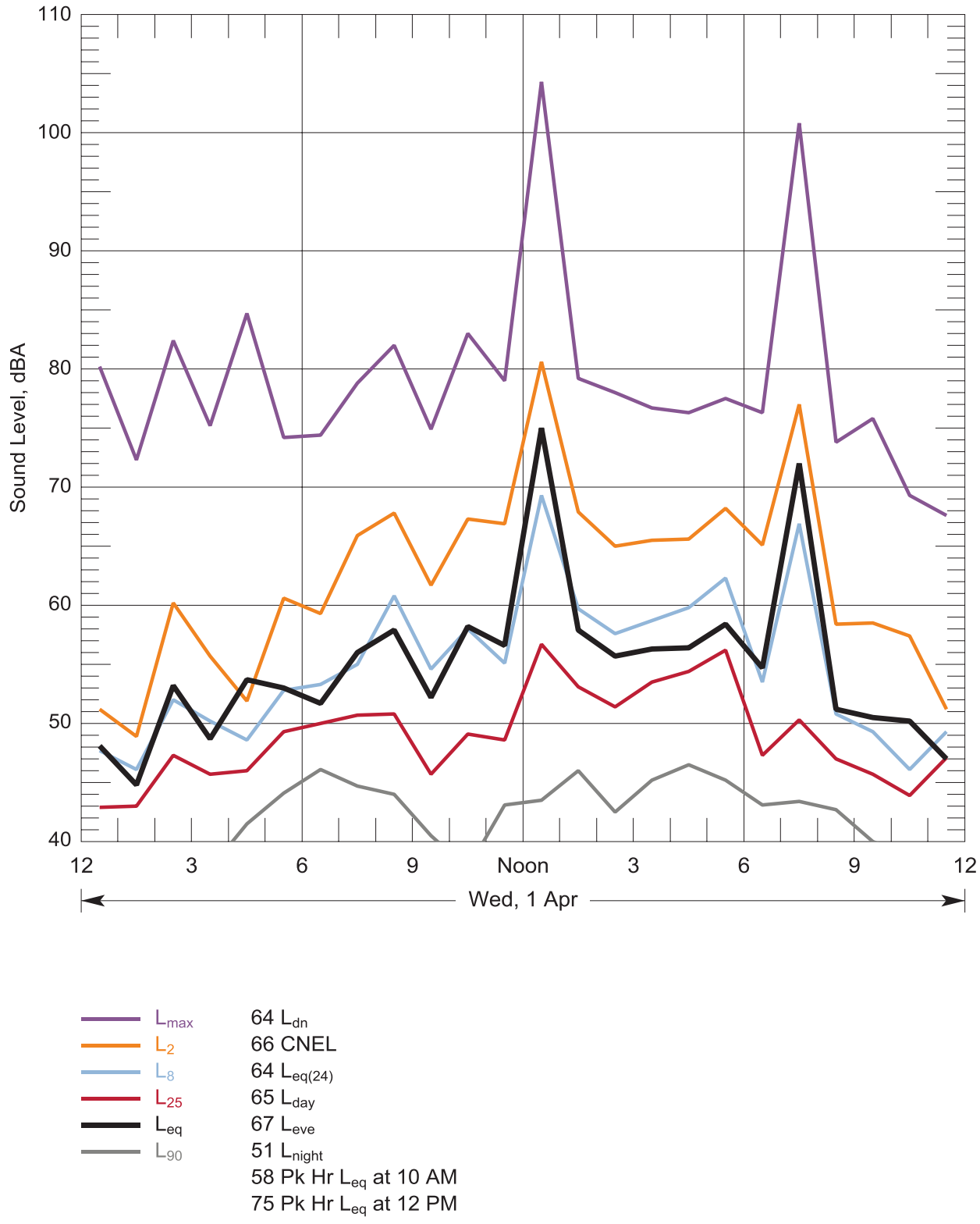


Figure 86: Hourly statistical summary of noise levels measured at Location 13 - 57 Hurd Rd, Elma on 01 Apr, 2015 and daily-average descriptors

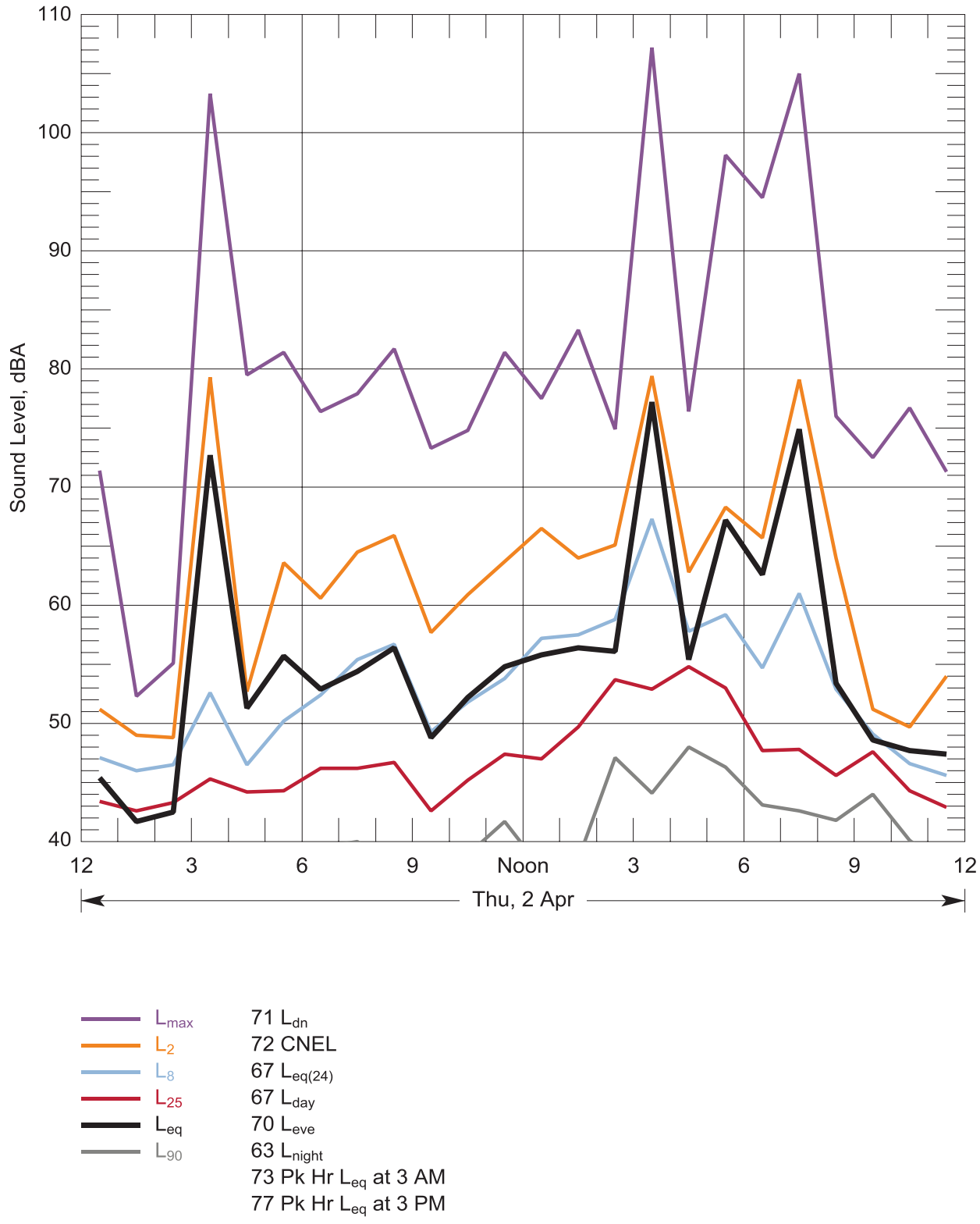


Figure 87: Hourly statistical summary of noise levels measured at Location 13 - 57 Hurd Rd, Elma on 02 Apr, 2015 and daily-average descriptors

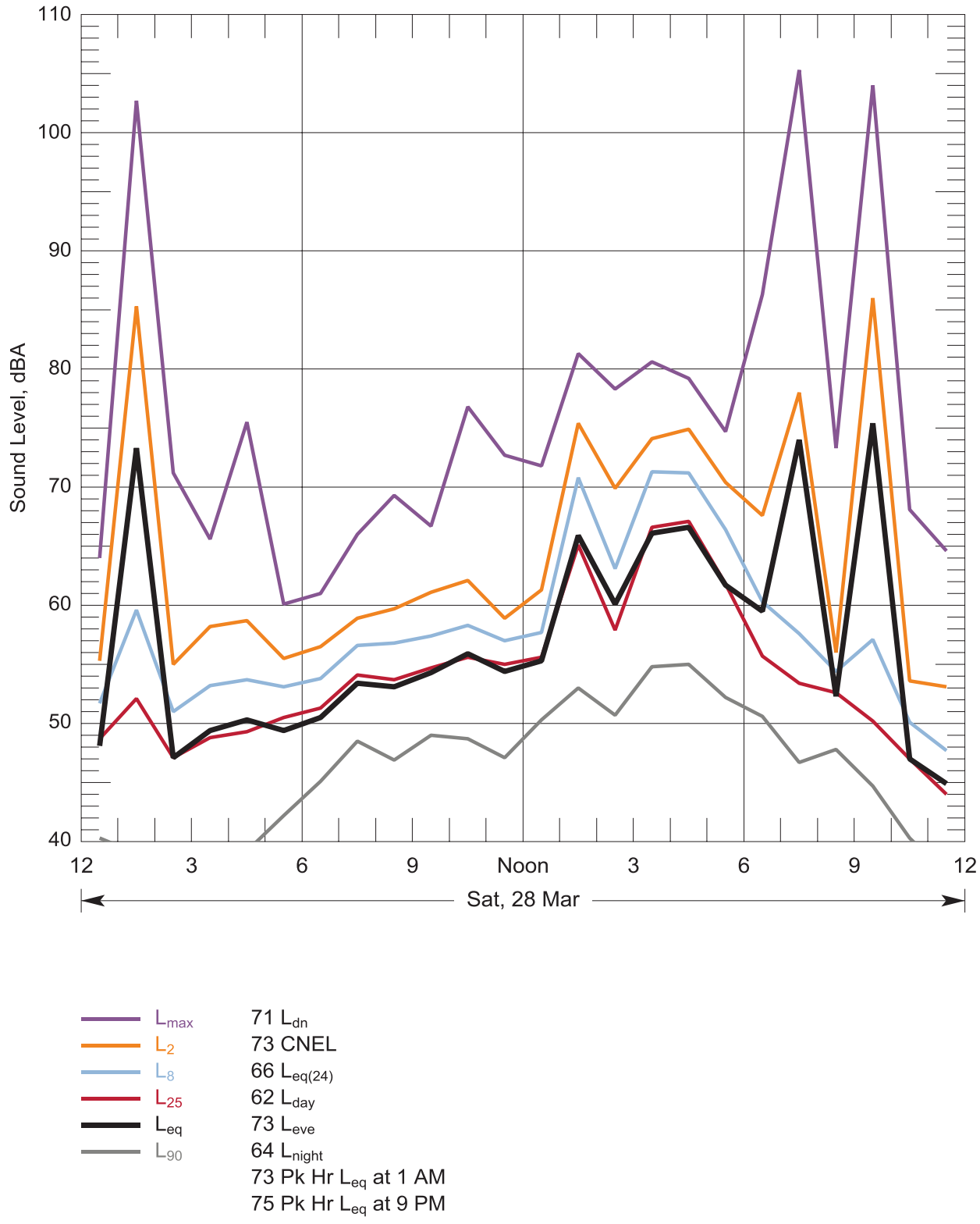


Figure 88: Hourly statistical summary of noise levels measured at Location 14 - 510 Foss Ave, Satsop on 28 Mar, 2015 and daily-average descriptors

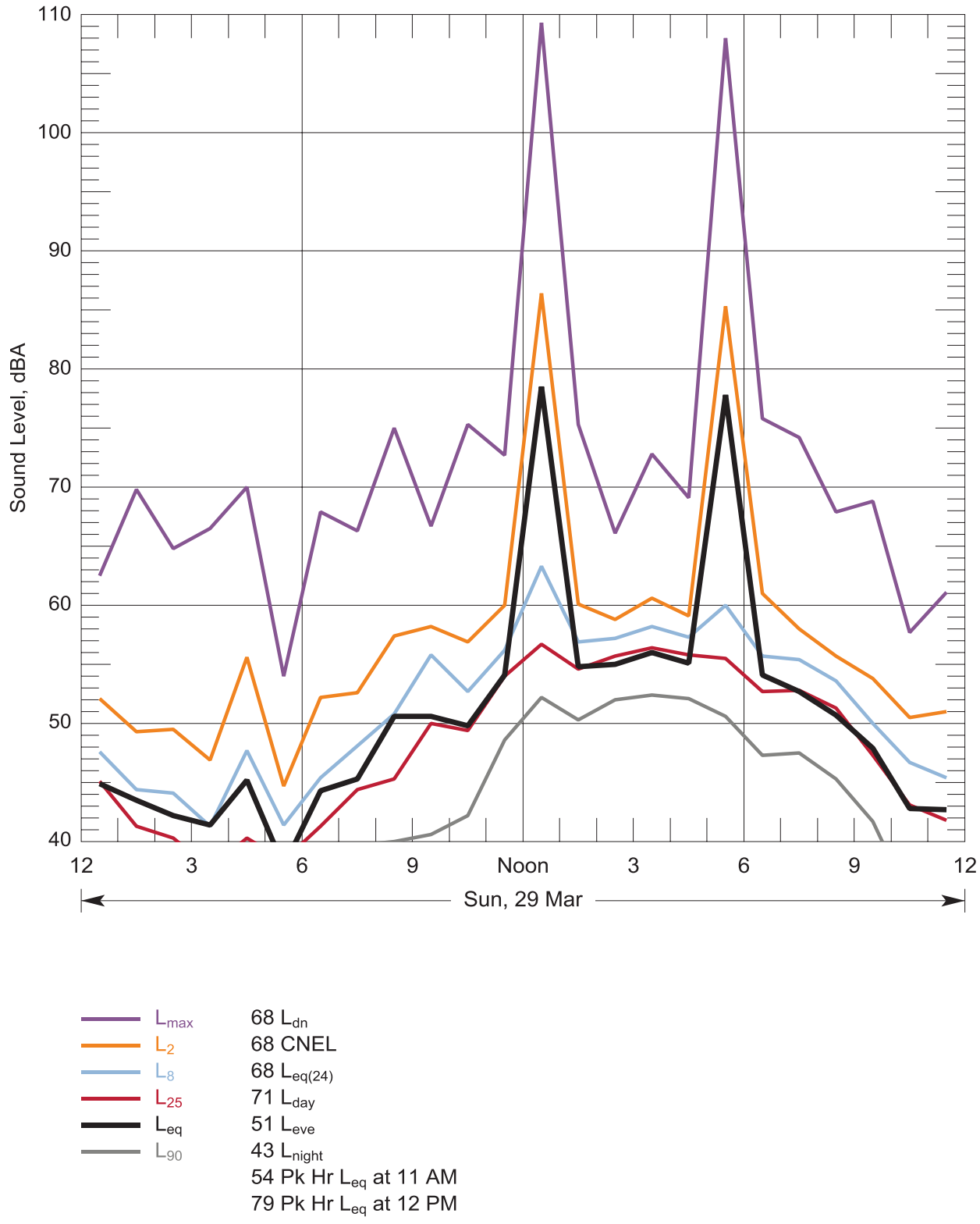


Figure 89: Hourly statistical summary of noise levels measured at Location 14 - 510 Foss Ave, Satsop on 29 Mar, 2015 and daily-average descriptors

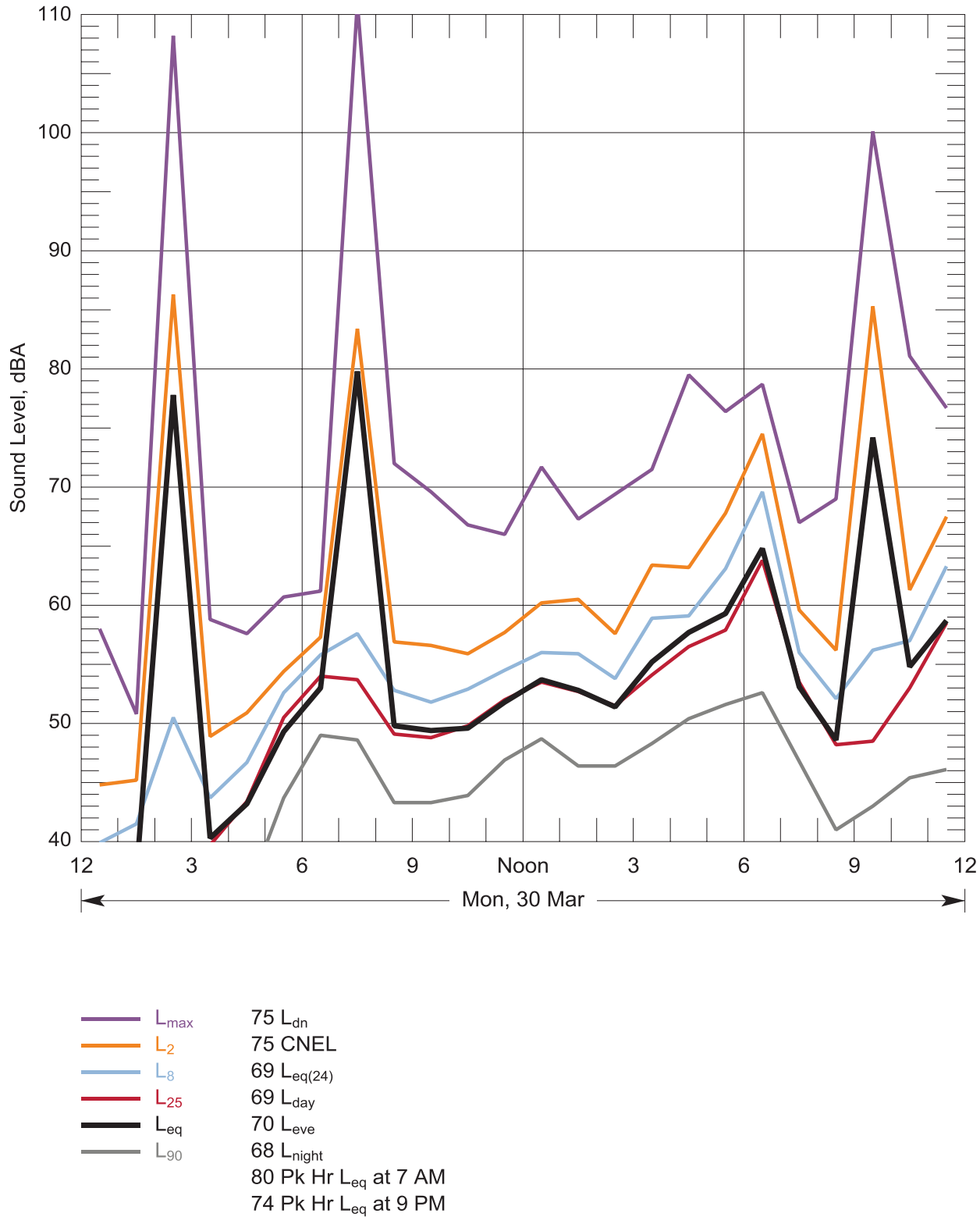


Figure 90: Hourly statistical summary of noise levels measured at Location 14 - 510 Foss Ave, Satsop on 30 Mar, 2015 and daily-average descriptors

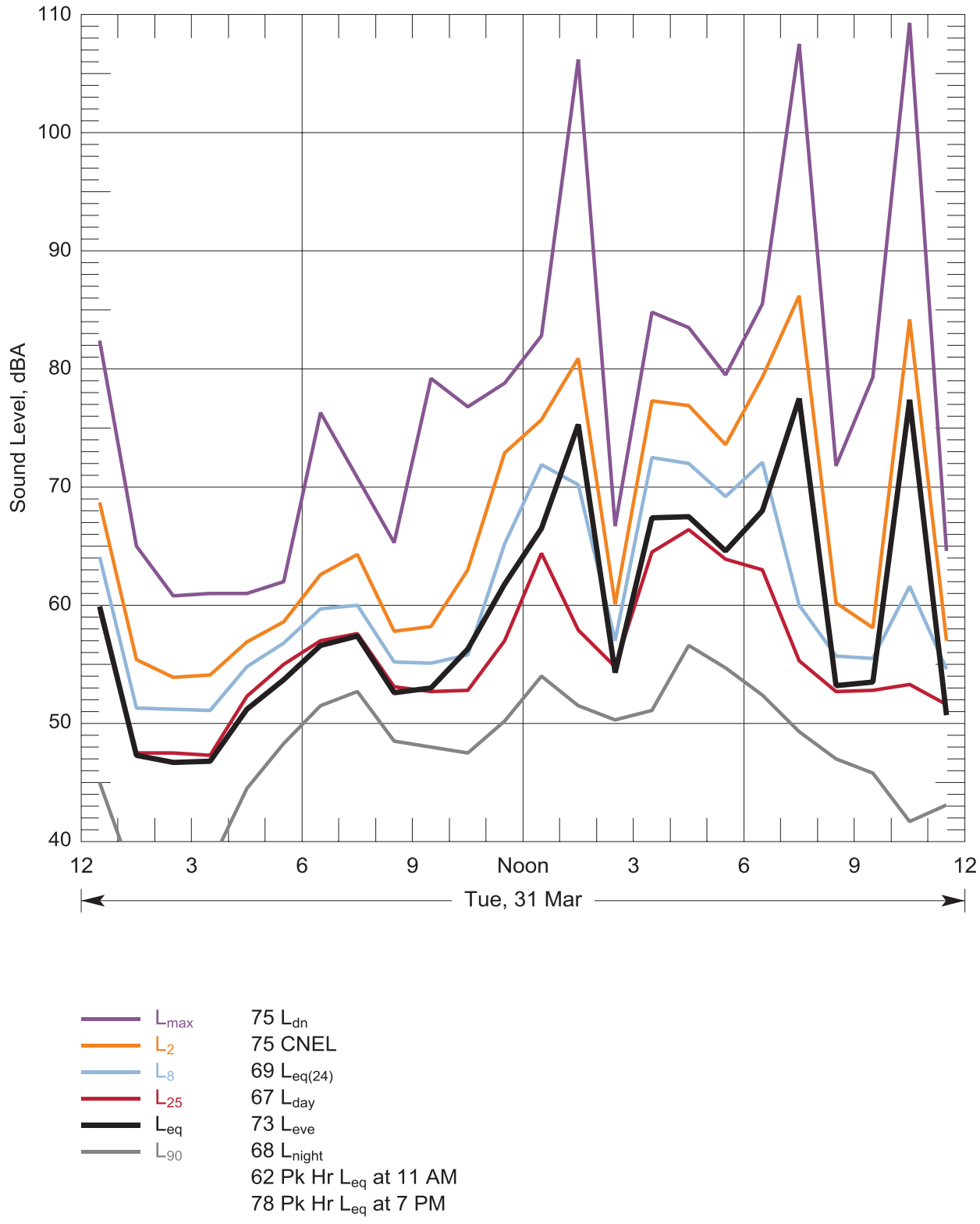


Figure 91: Hourly statistical summary of noise levels measured at Location 14 - 510 Foss Ave, Satsop on 31 Mar, 2015 and daily-average descriptors

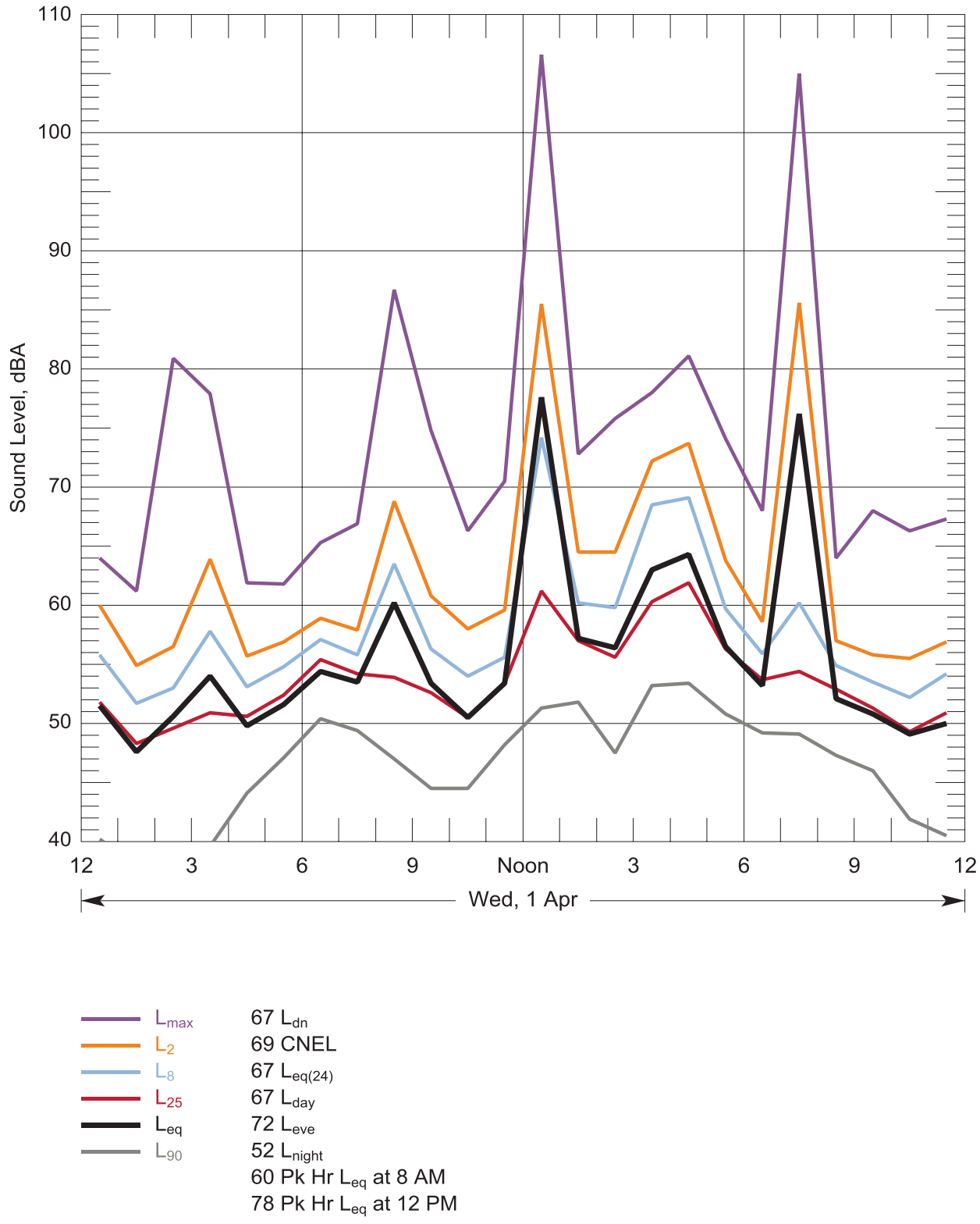


Figure 92: Hourly statistical summary of noise levels measured at Location 14 - 510 Foss Ave, Satsop on 01 Apr, 2015 and daily-average descriptors

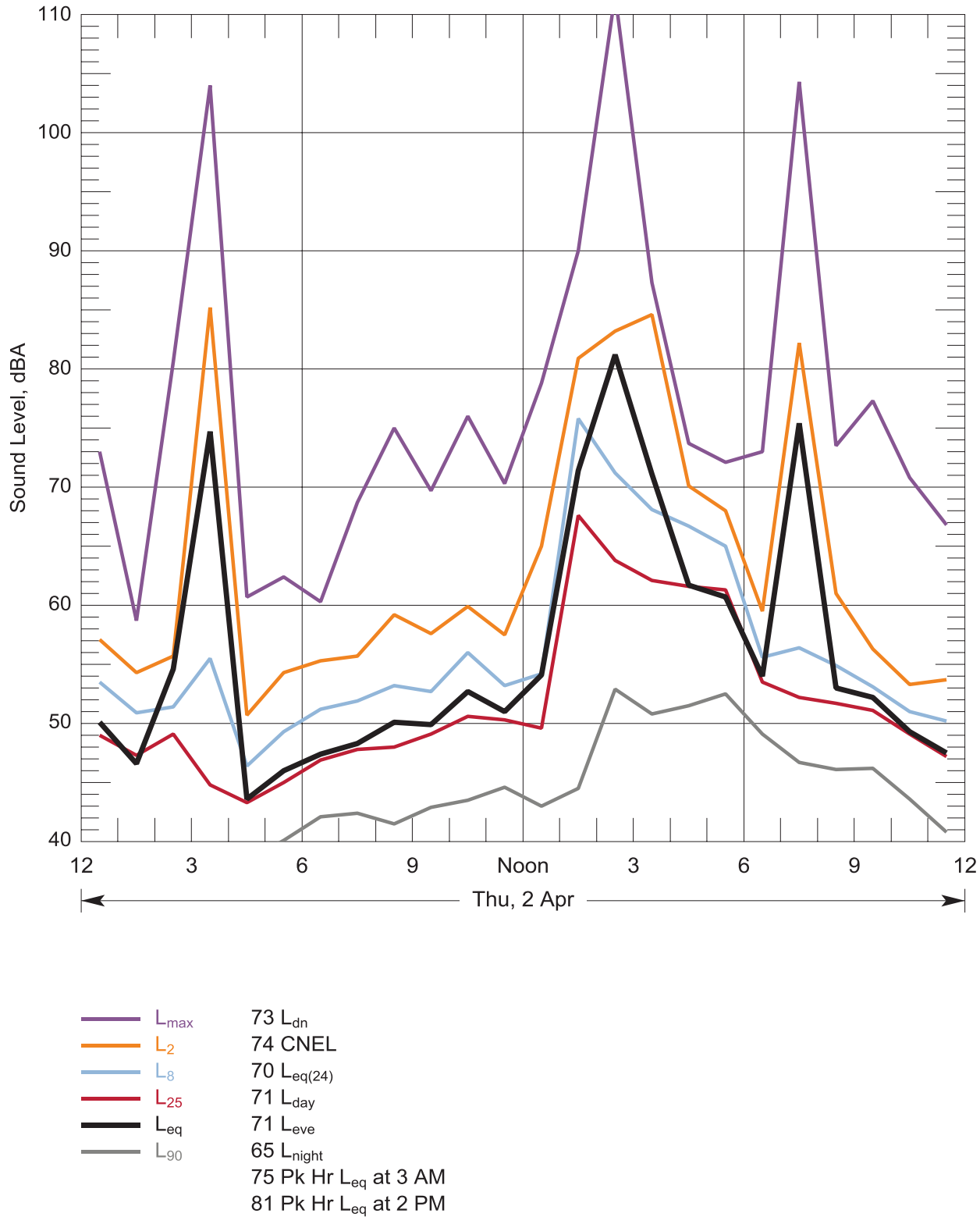


Figure 93: Hourly statistical summary of noise levels measured at Location 14 - 510 Foss Ave, Satsop on 02 Apr, 2015 and daily-average descriptors

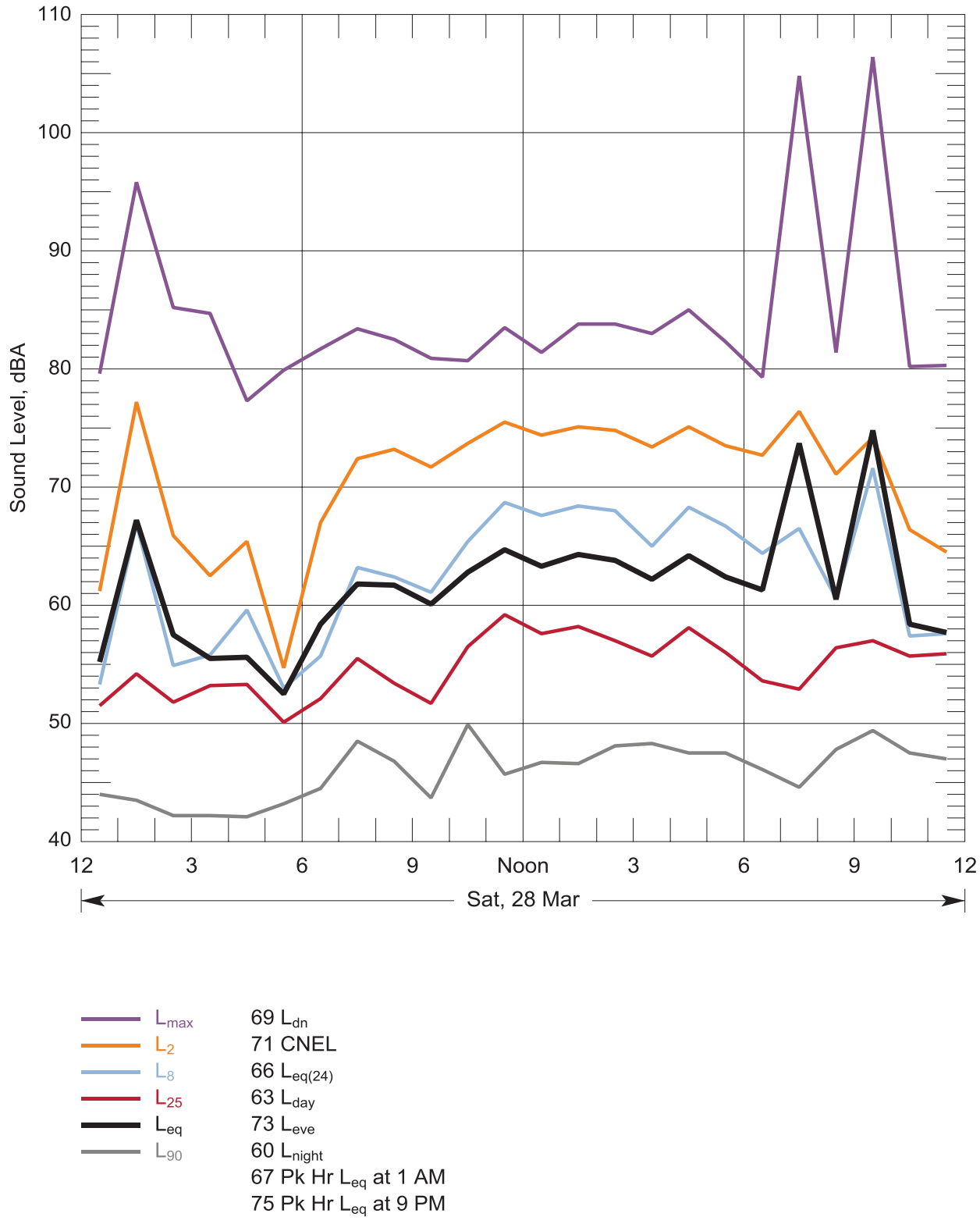


Figure 94: Hourly statistical summary of noise levels measured at Location 15 - 78 Devonshire, Montesano on 28 Mar, 2015 and daily-average descriptors

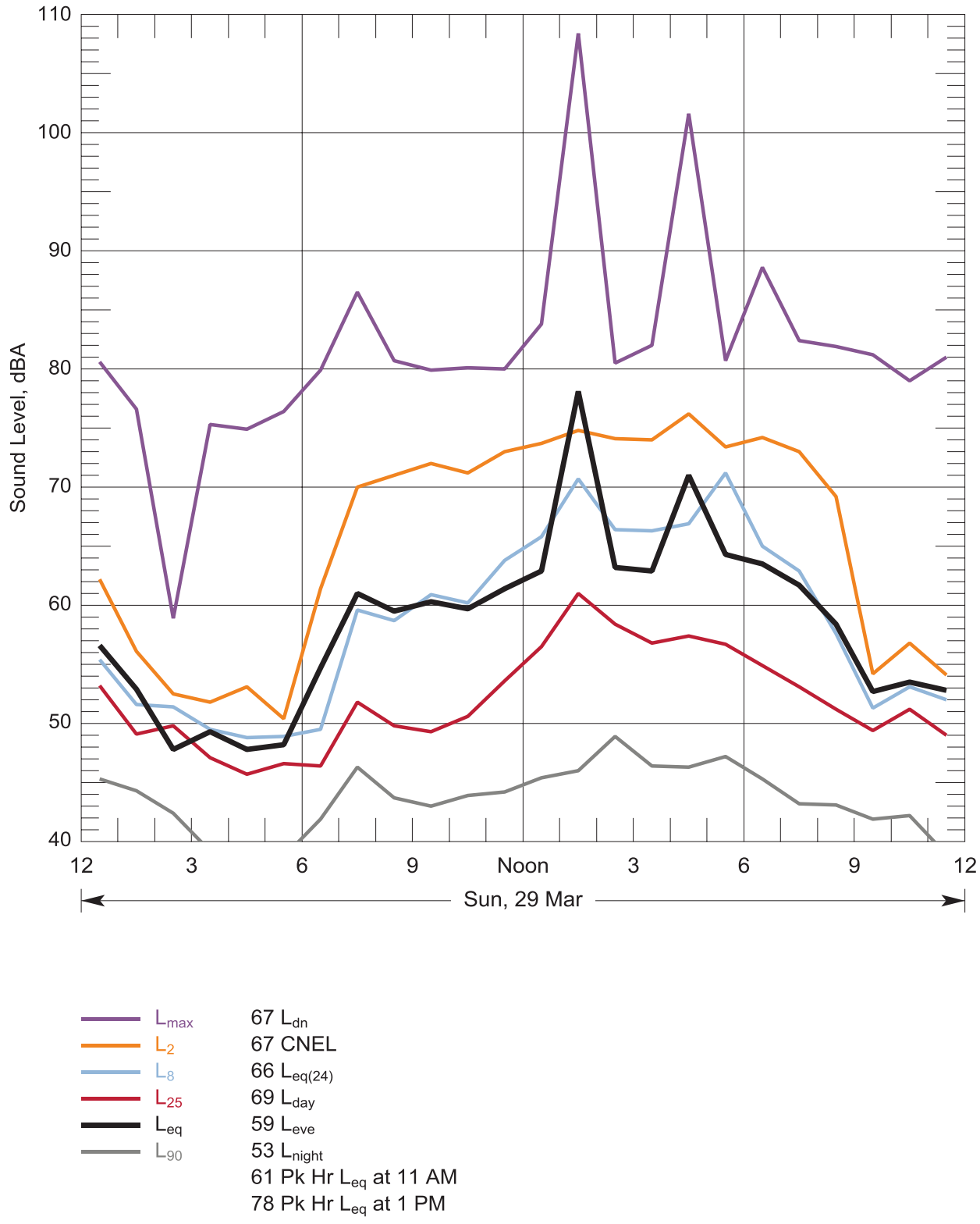


Figure 95: Hourly statistical summary of noise levels measured at Location 15 - 78 Devonshire, Montesano on 29 Mar, 2015 and daily-average descriptors

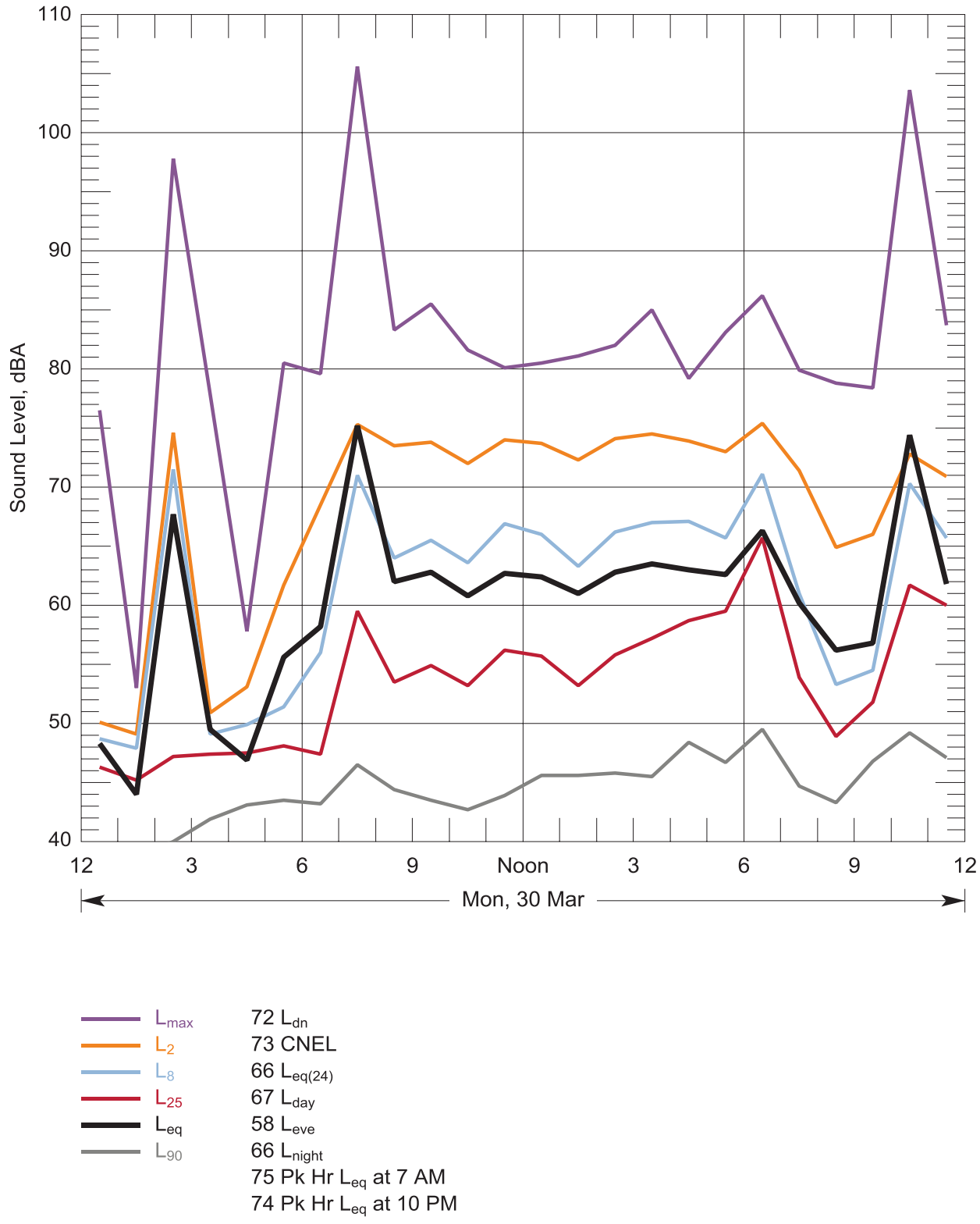


Figure 96: Hourly statistical summary of noise levels measured at Location 15 - 78 Devonshire, Montesano on 30 Mar, 2015 and daily-average descriptors

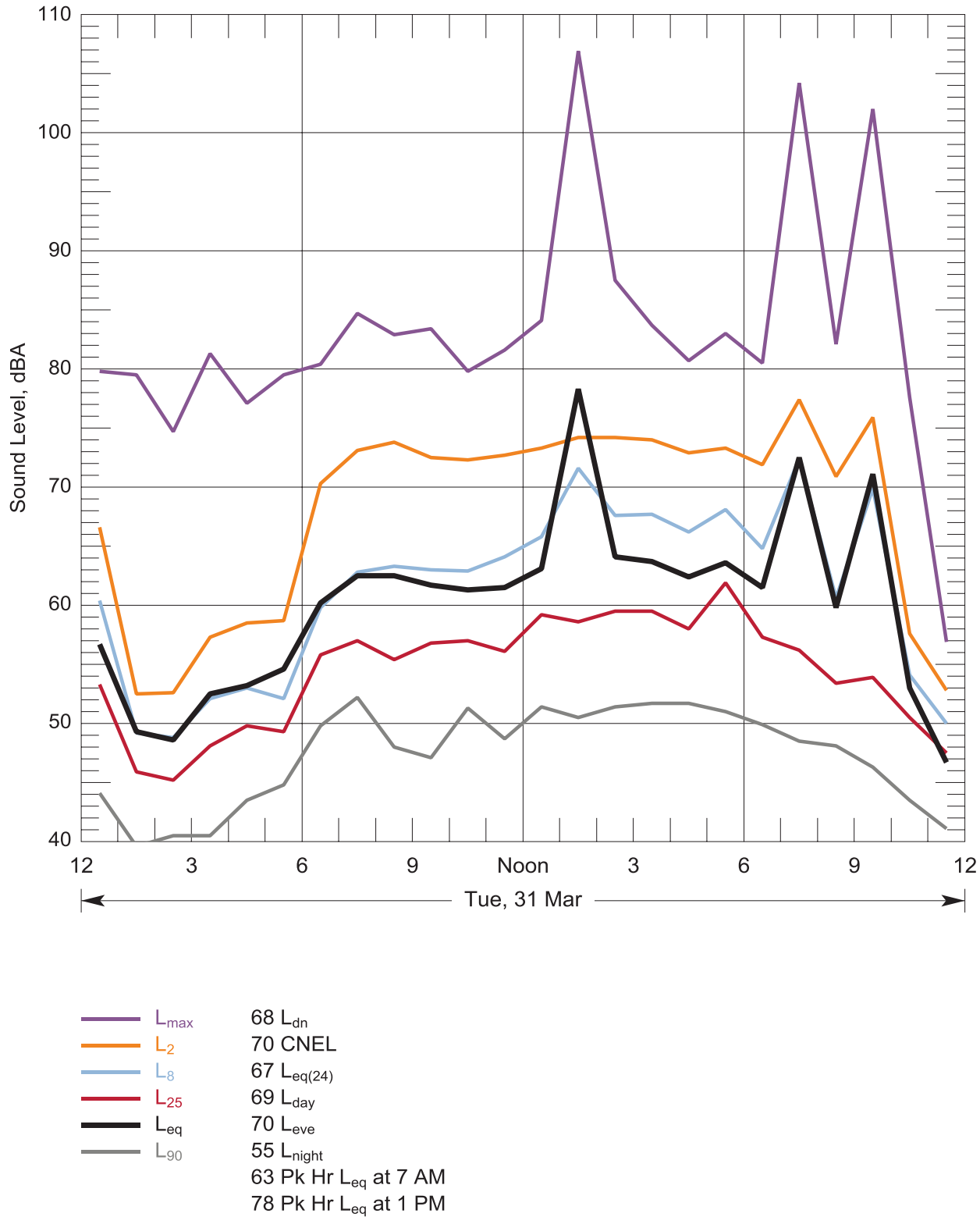


Figure 97: Hourly statistical summary of noise levels measured at Location 15 - 78 Devonshire, Montesano on 31 Mar, 2015 and daily-average descriptors

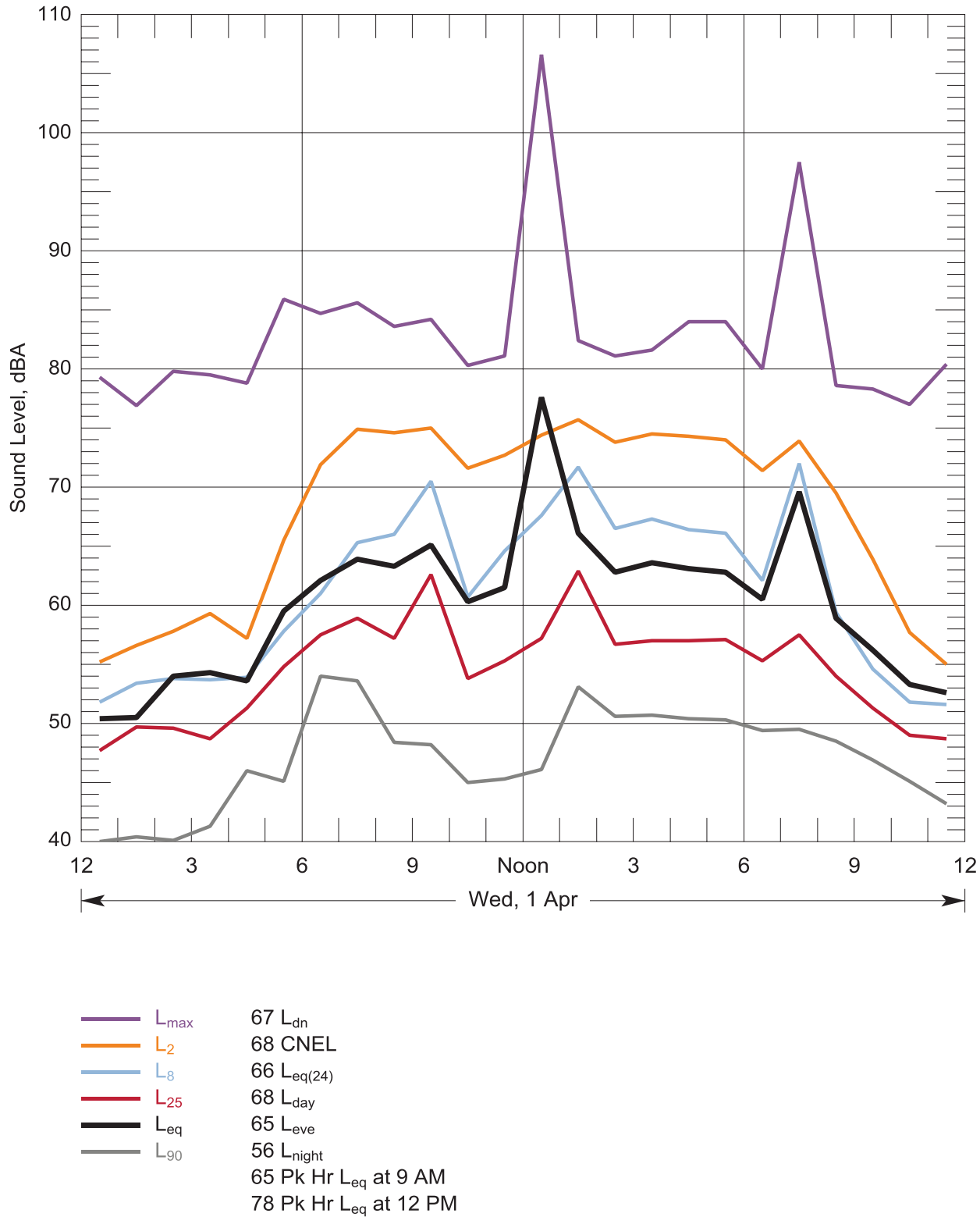


Figure 98: Hourly statistical summary of noise levels measured at Location 15 - 78 Devonshire, Montesano on 01 Apr, 2015 and daily-average descriptors

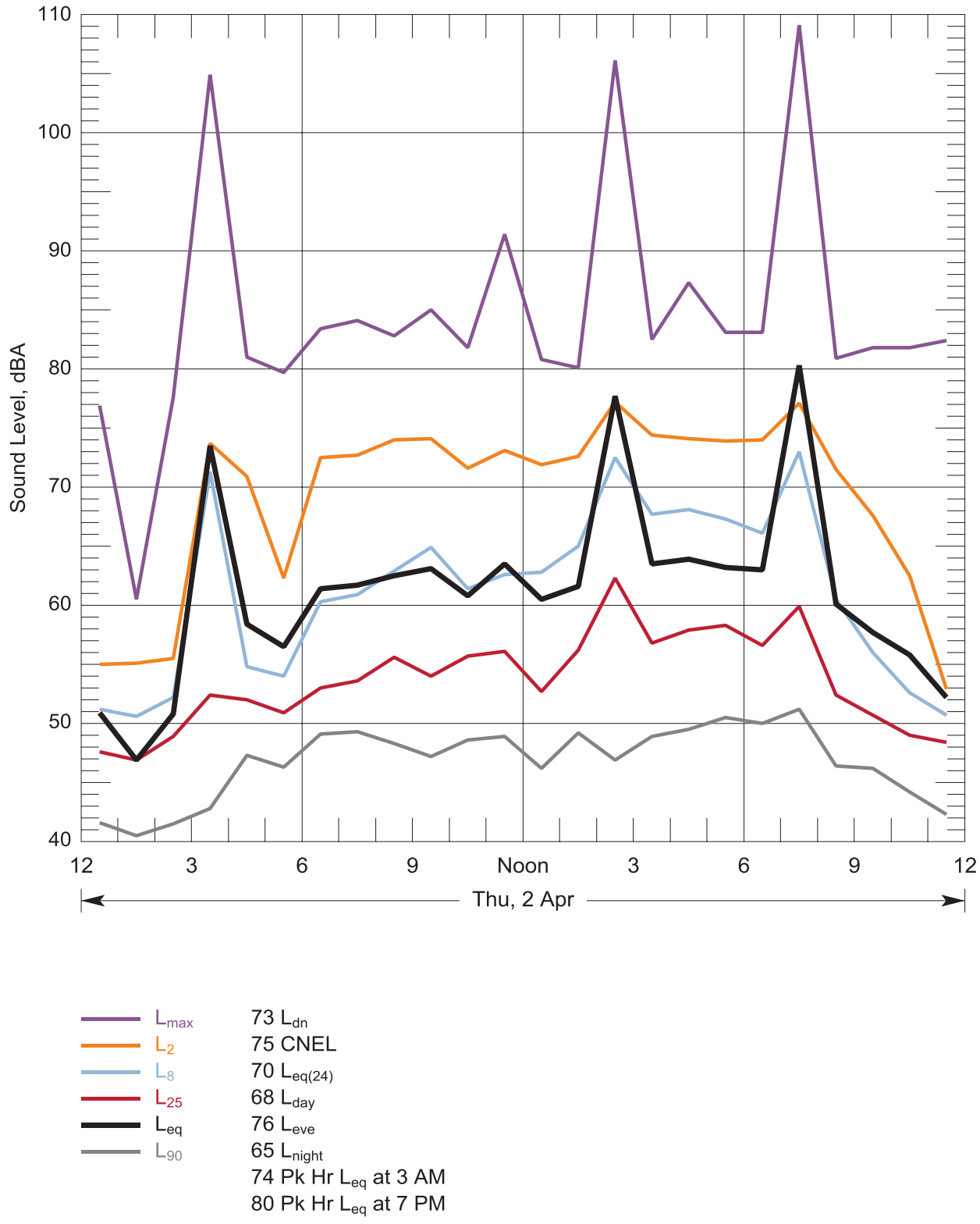


Figure 99: Hourly statistical summary of noise levels measured at Location 15 - 78 Devonshire, Montesano on 02 Apr, 2015 and daily-average descriptors

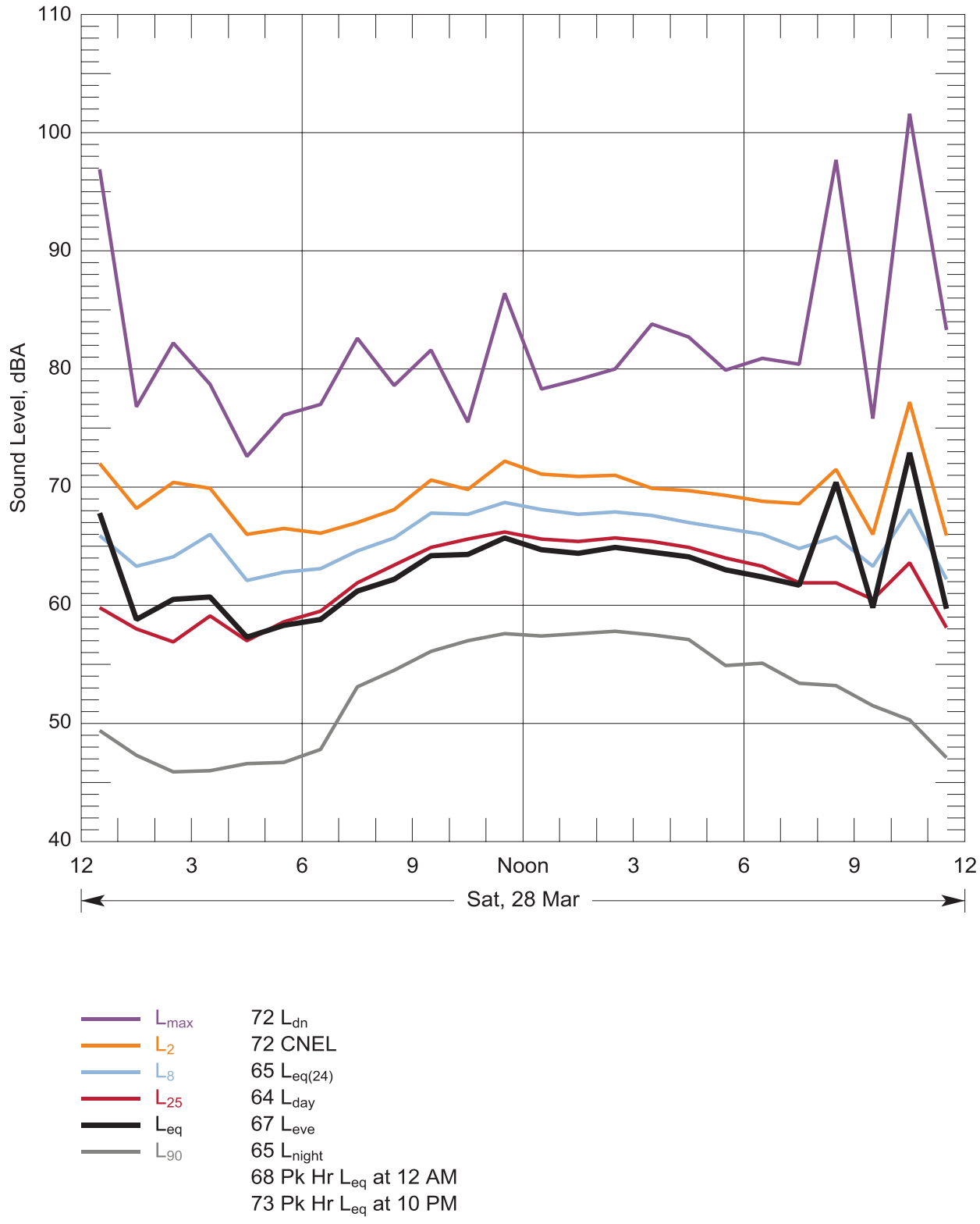


Figure 100: Hourly statistical summary of noise levels measured at Location 16 - 140 S Chehalis St, Aberdeen on 28 Mar, 2015 and daily-average descriptors

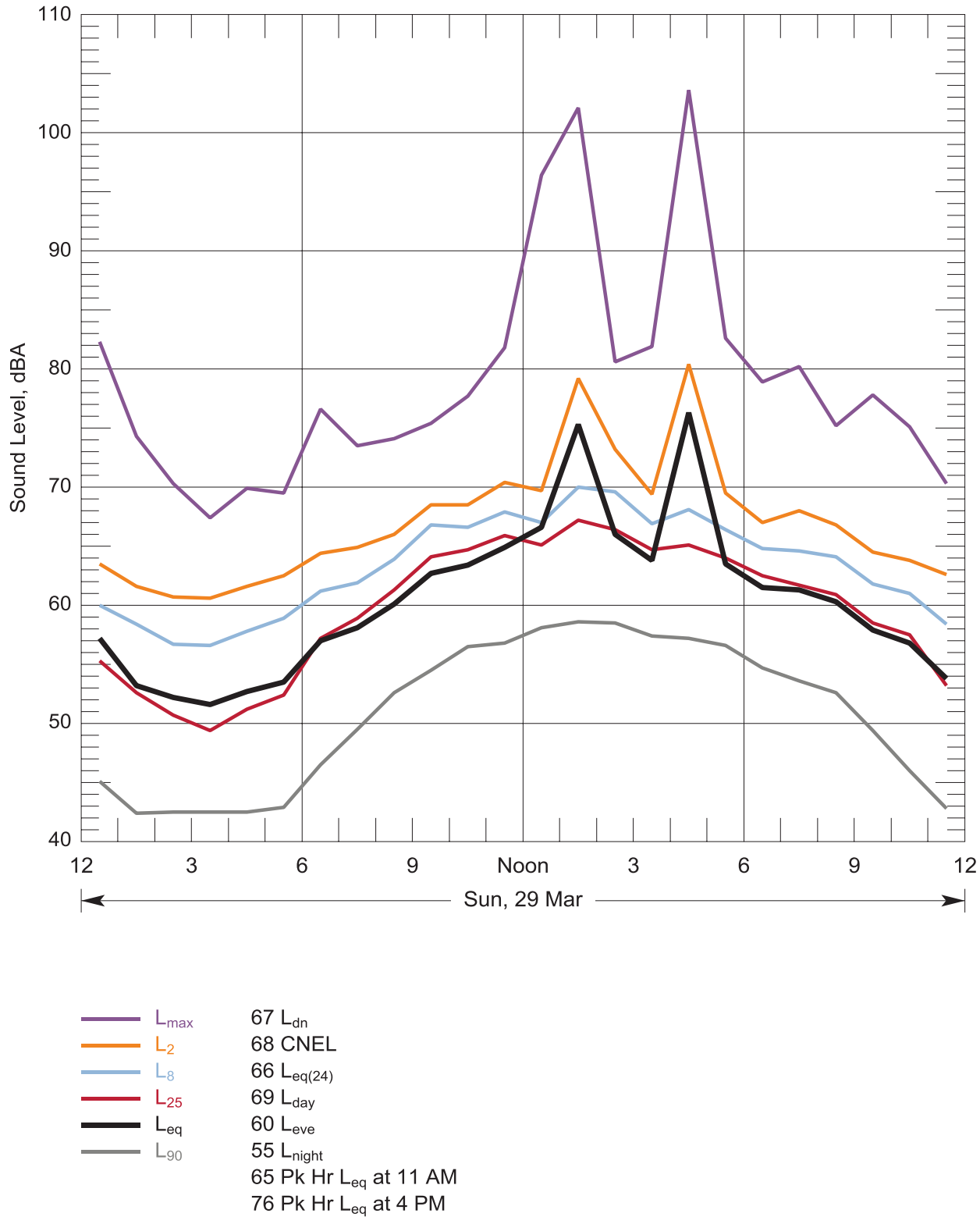


Figure 101: Hourly statistical summary of noise levels measured at Location 16 - 140 S Chehalis St, Aberdeen on 29 Mar, 2015 and daily-average descriptors

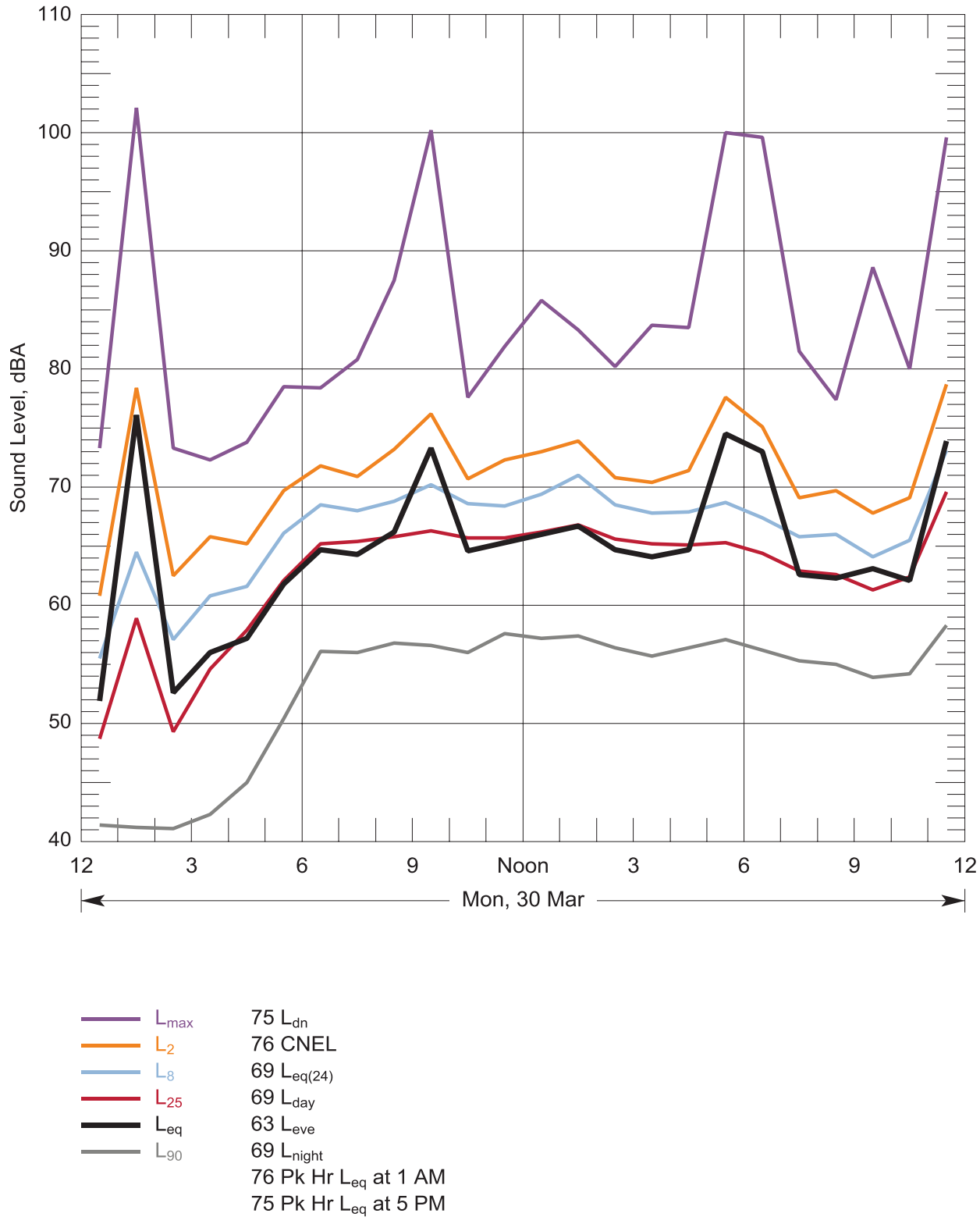


Figure 102: Hourly statistical summary of noise levels measured at Location 16 - 140 S Chehalis St, Aberdeen on 30 Mar, 2015 and daily-average descriptors

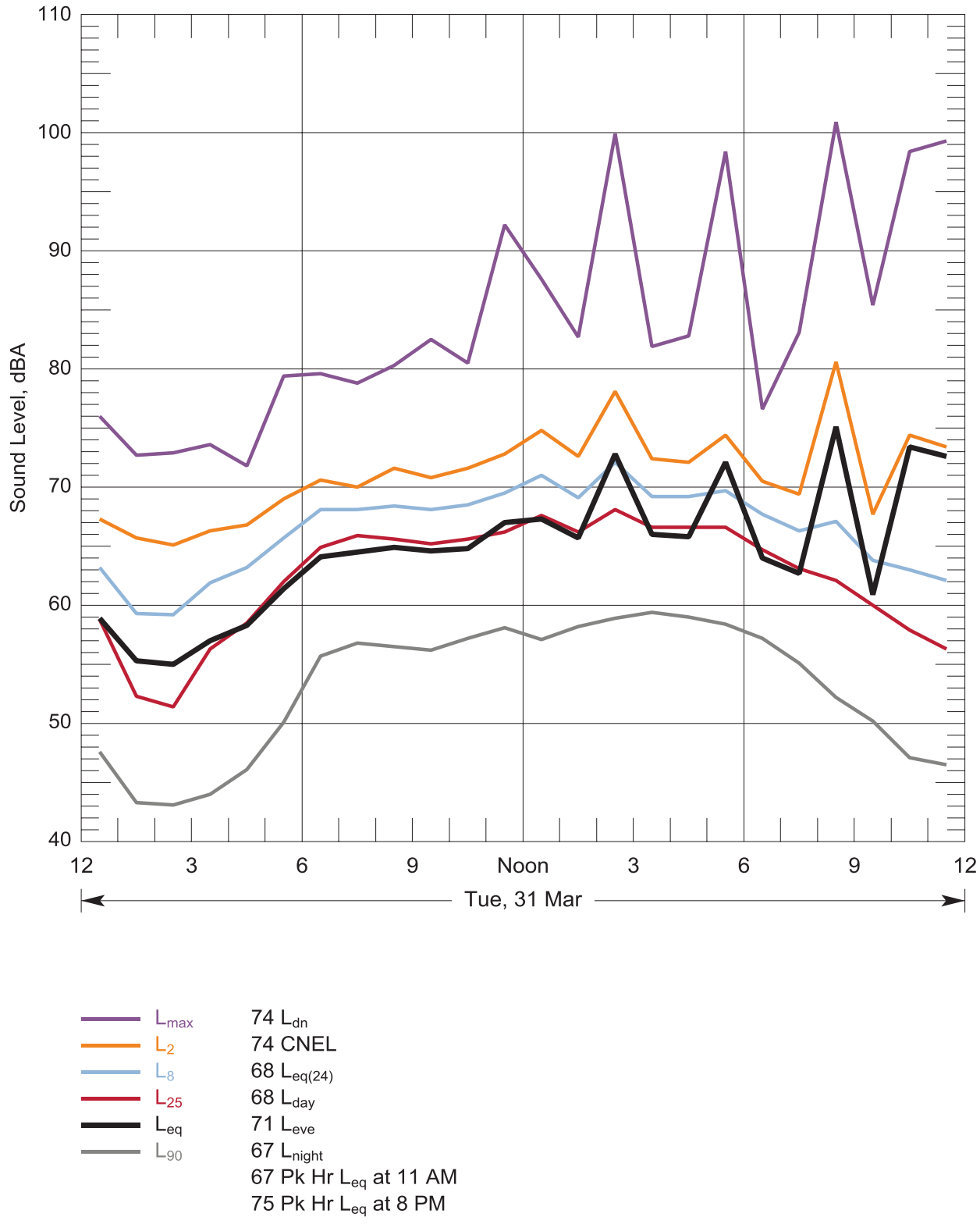


Figure 103: Hourly statistical summary of noise levels measured at Location 16 - 140 S Chehalis St, Aberdeen on 31 Mar, 2015 and daily-average descriptors

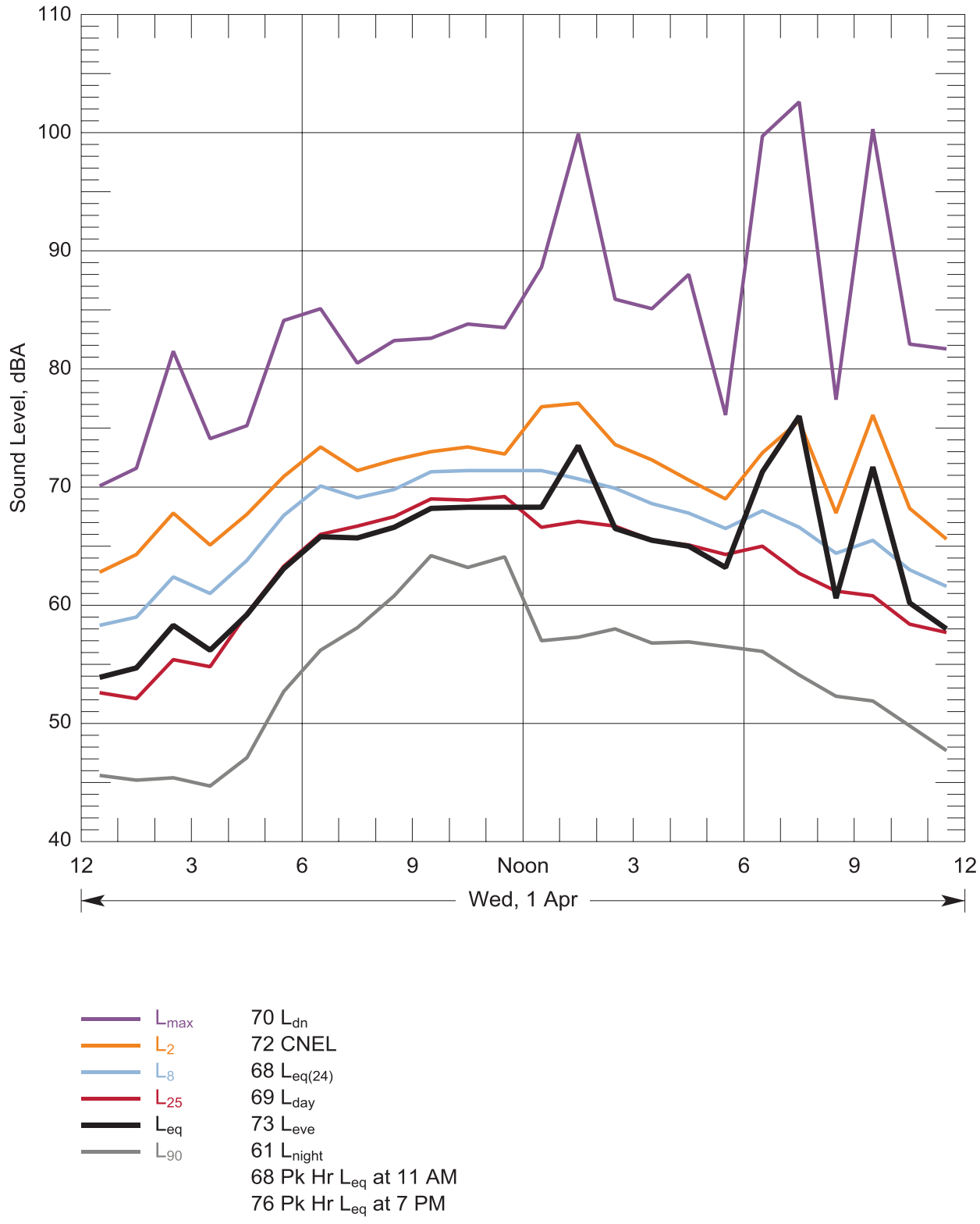


Figure 104: Hourly statistical summary of noise levels measured at Location 16 - 140 S Chehalis St, Aberdeen on 01 Apr, 2015 and daily-average descriptors

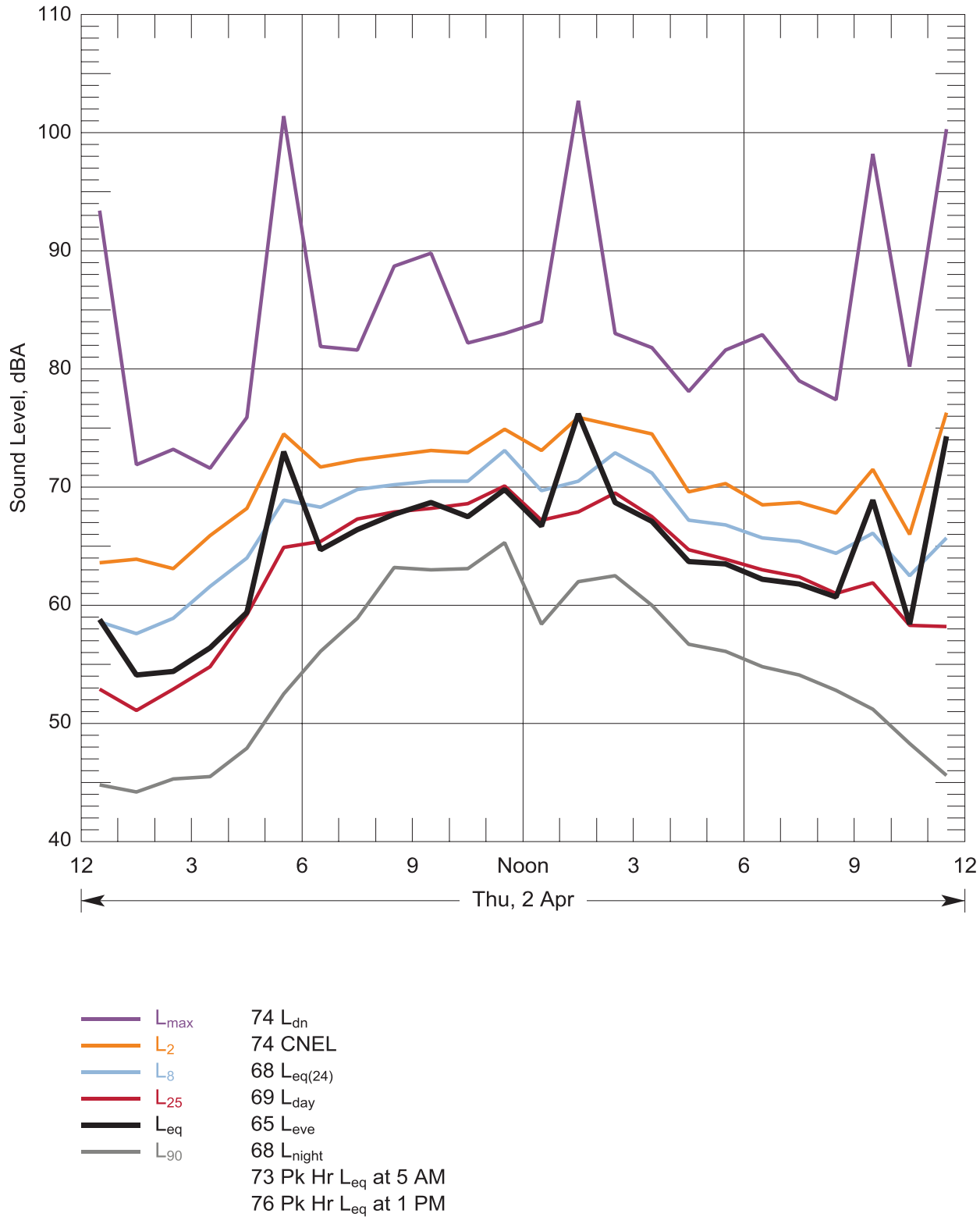


Figure 105: Hourly statistical summary of noise levels measured at Location 16 - 140 S Chehalis St, Aberdeen on 02 Apr, 2015 and daily-average descriptors

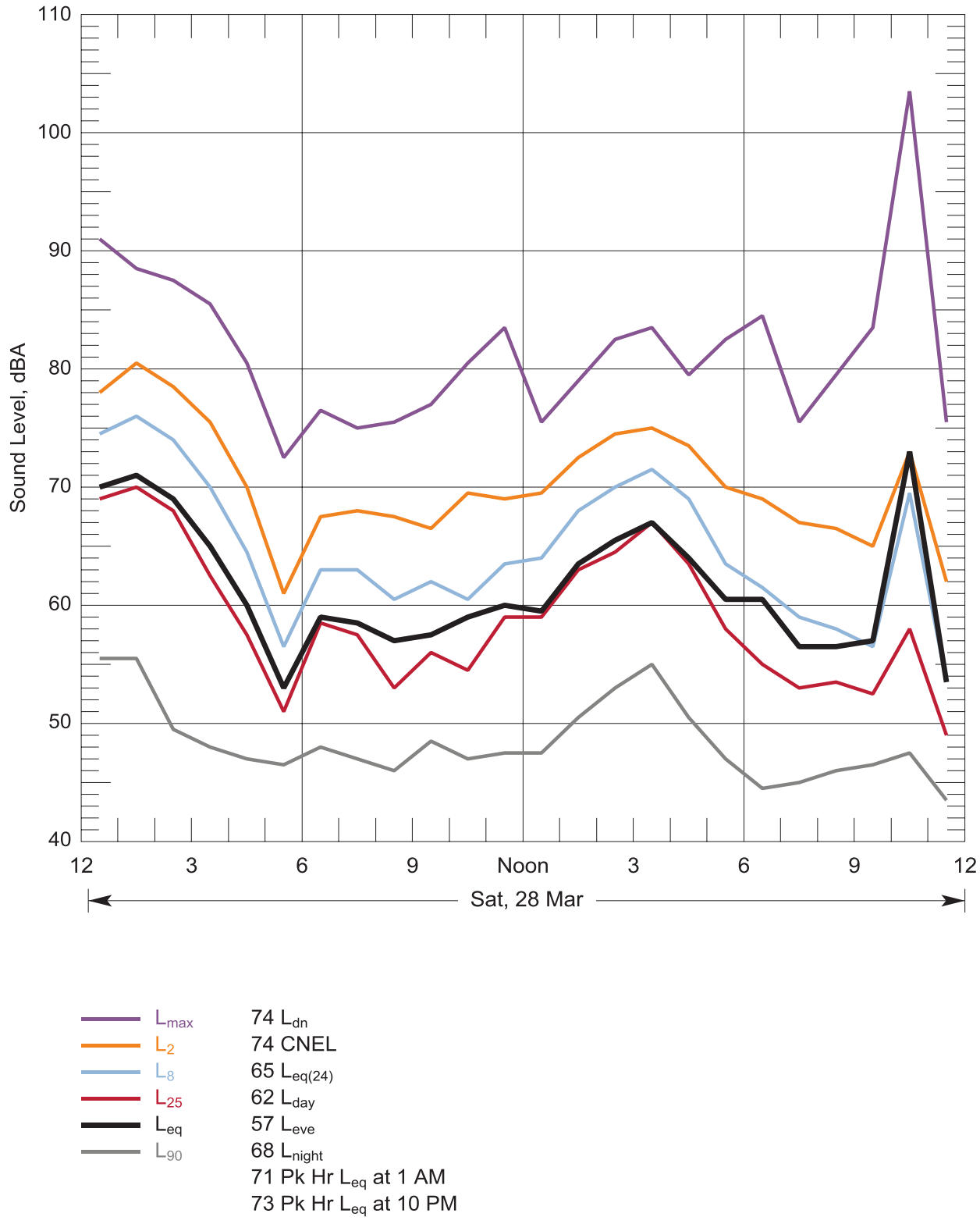


Figure 106: Hourly statistical summary of noise levels measured at Location 18 - 2100 1st Street, Aberdeen on 28 Mar, 2015 and daily-average descriptors

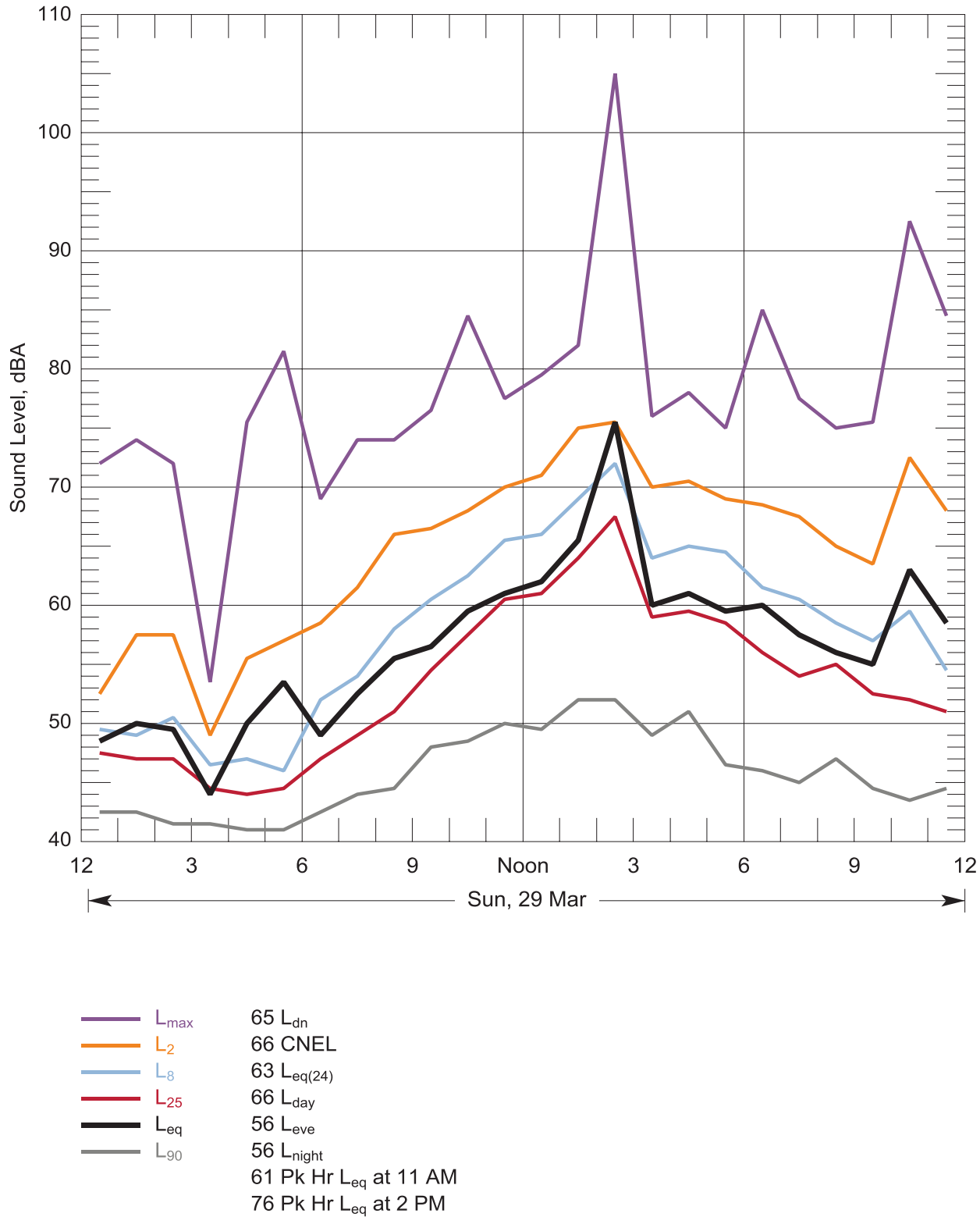


Figure 107: Hourly statistical summary of noise levels measured at Location 18 - 2100 1st Street, Aberdeen on 29 Mar, 2015 and daily-average descriptors

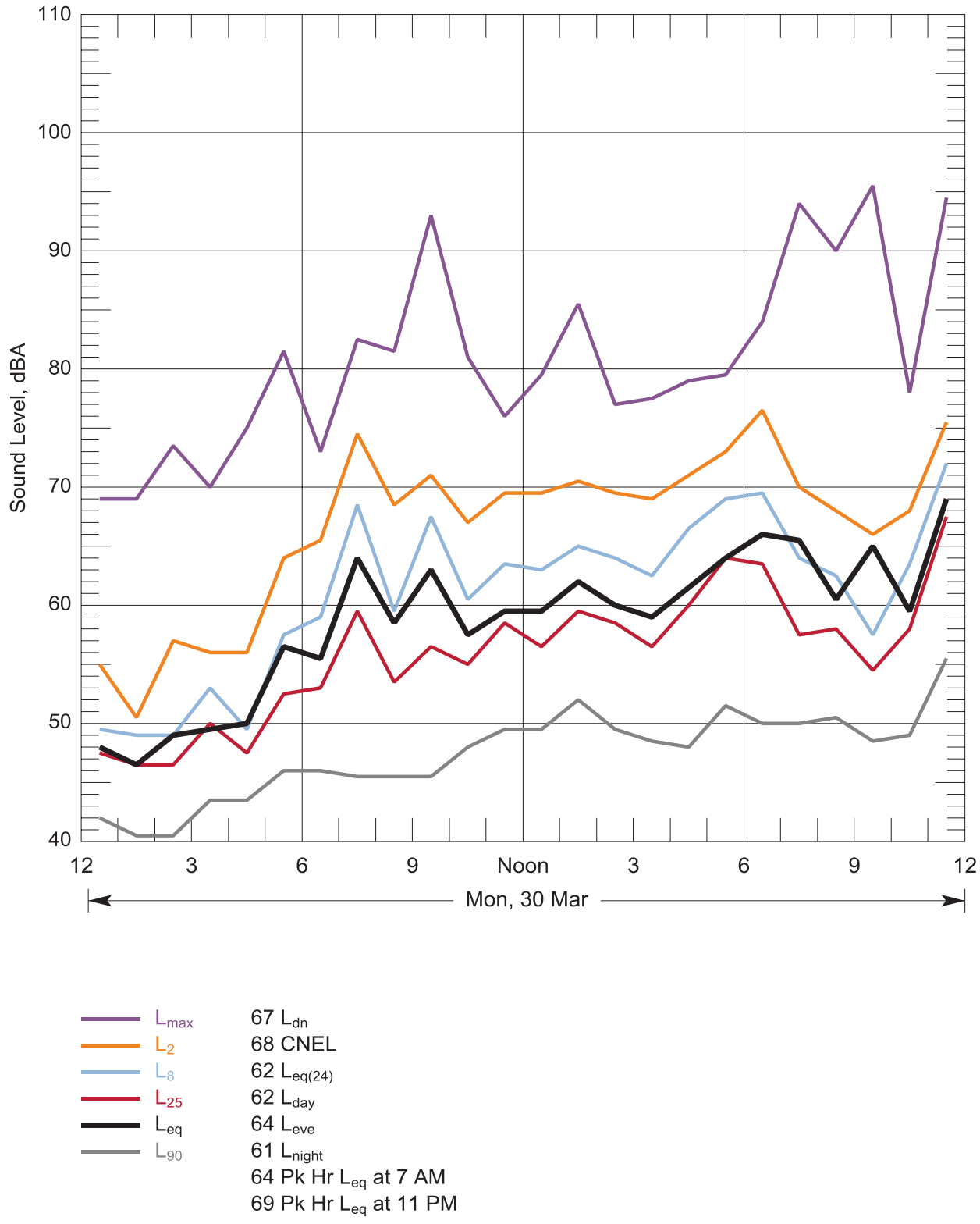


Figure 108: Hourly statistical summary of noise levels measured at Location 18 - 2100 1st Street, Aberdeen on 30 Mar, 2015 and daily-average descriptors

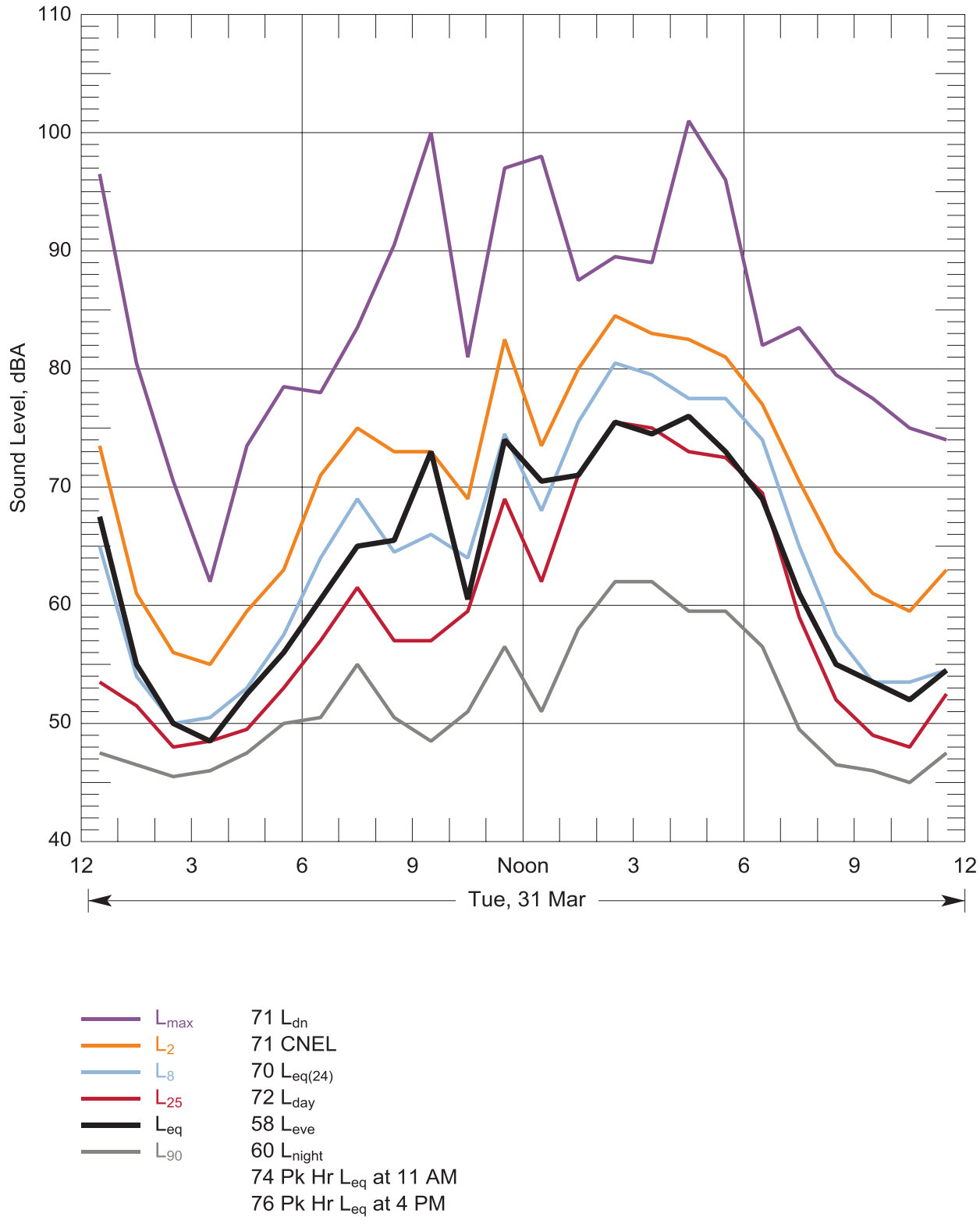


Figure 109: Hourly statistical summary of noise levels measured at Location 18 - 2100 1st Street, Aberdeen on 31 Mar, 2015 and daily-average descriptors

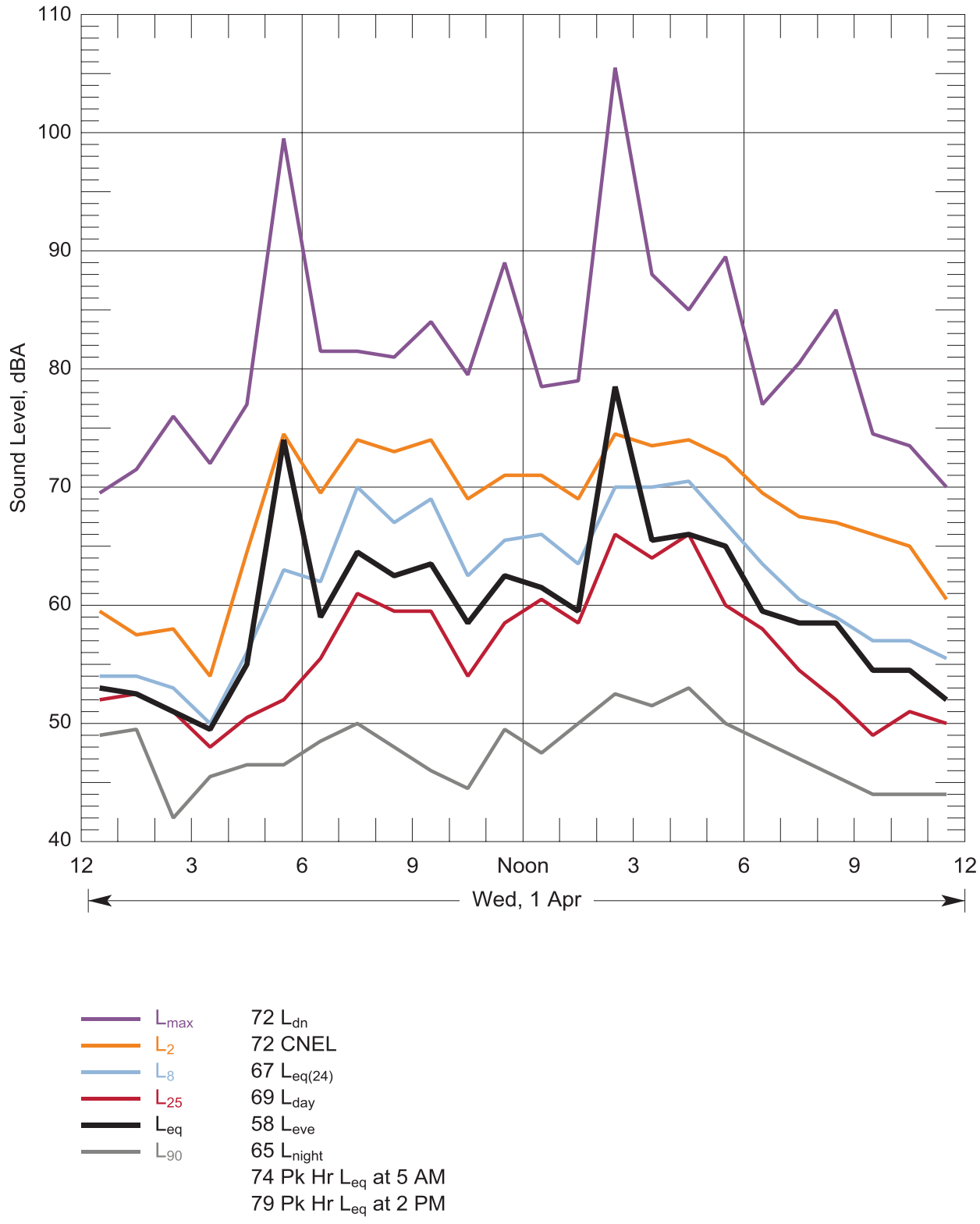


Figure 110: Hourly statistical summary of noise levels measured at Location 18 - 2100 1st Street, Aberdeen on 01 Apr, 2015 and daily-average descriptors

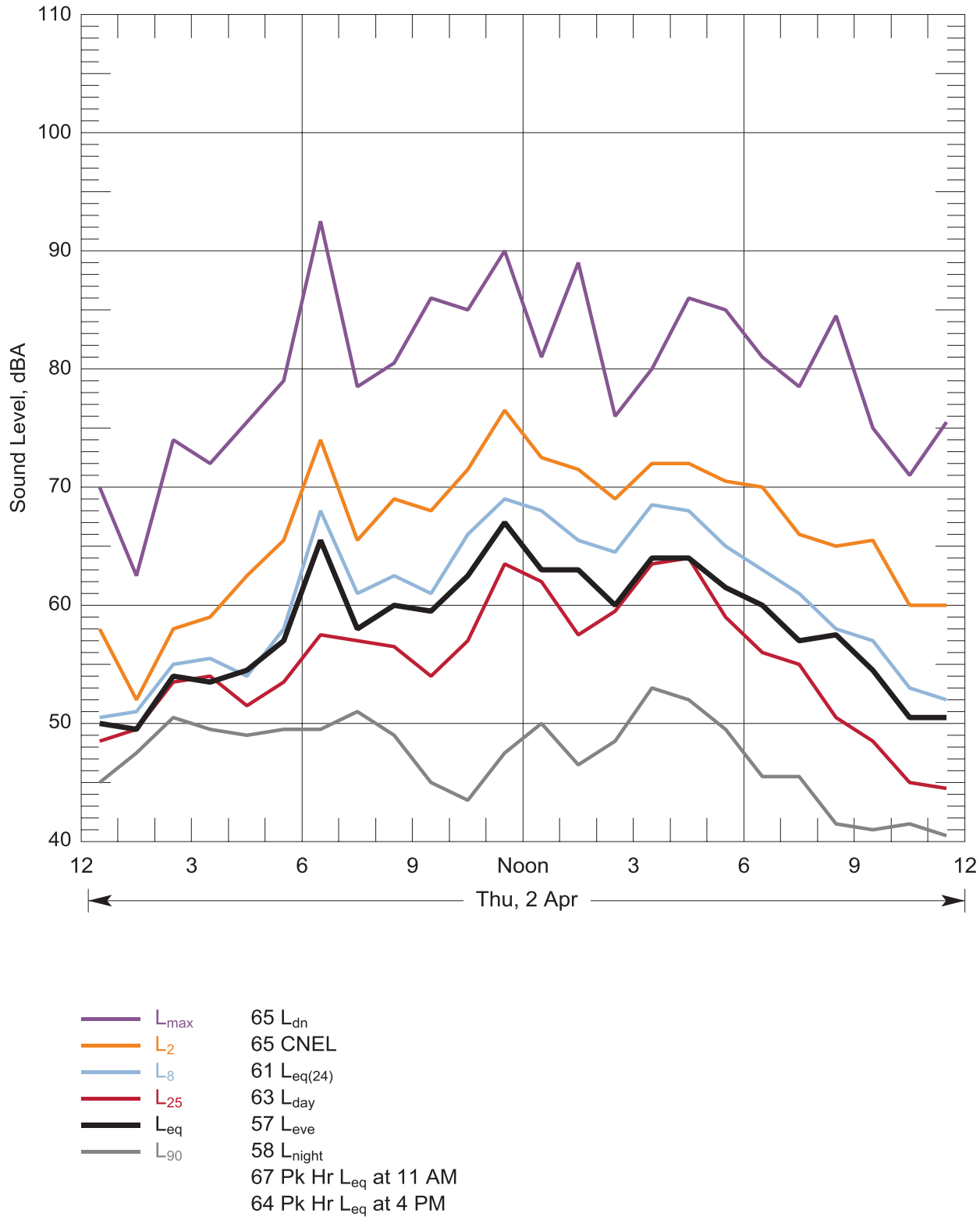


Figure 111: Hourly statistical summary of noise levels measured at Location 18 - 2100 1st Street, Aberdeen on 02 Apr, 2015 and daily-average descriptors

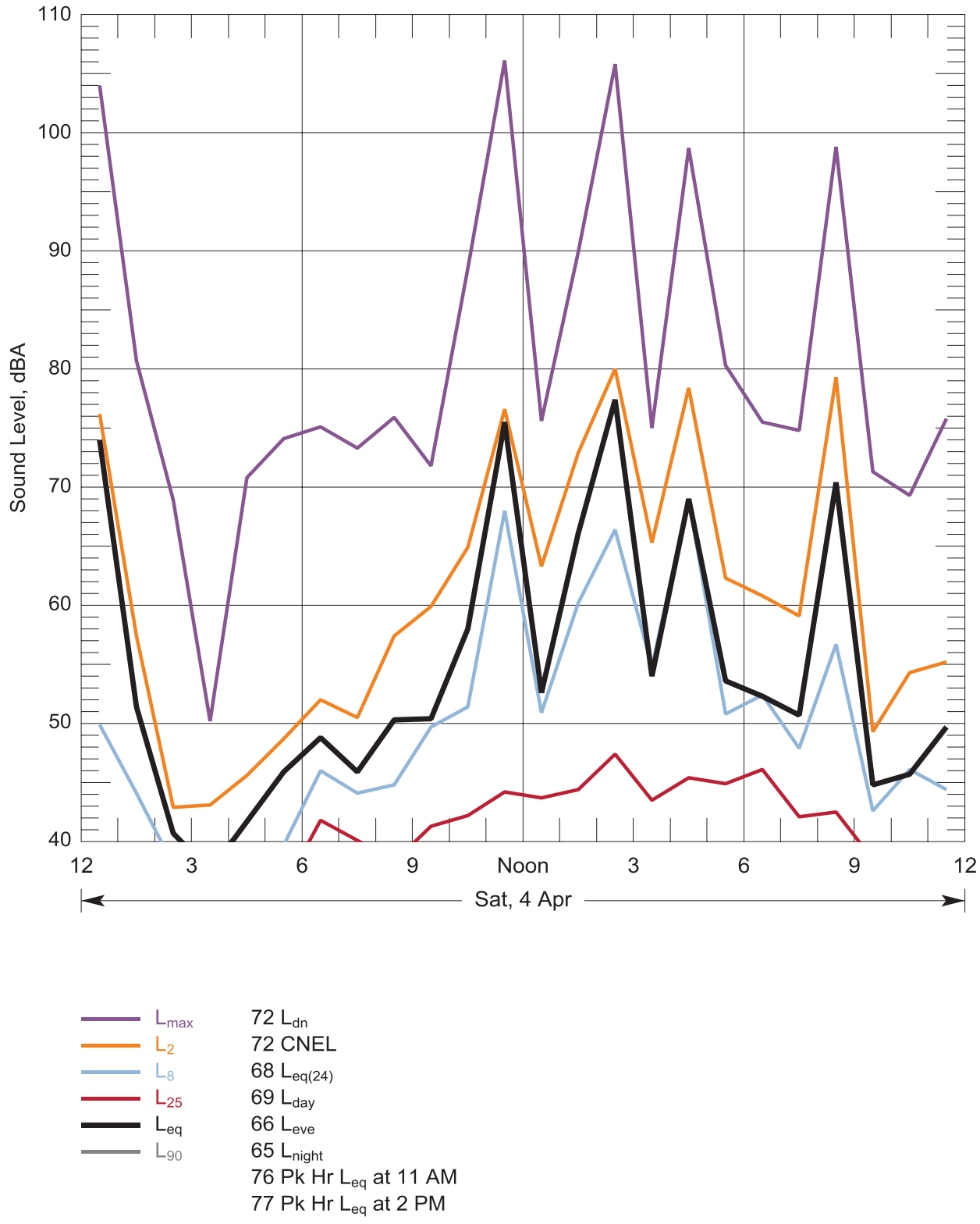


Figure 112: Hourly statistical summary of noise levels measured at Location 19 - 11846 170th Ave SW, Rochester on 04 Apr, 2015 and daily-average descriptors

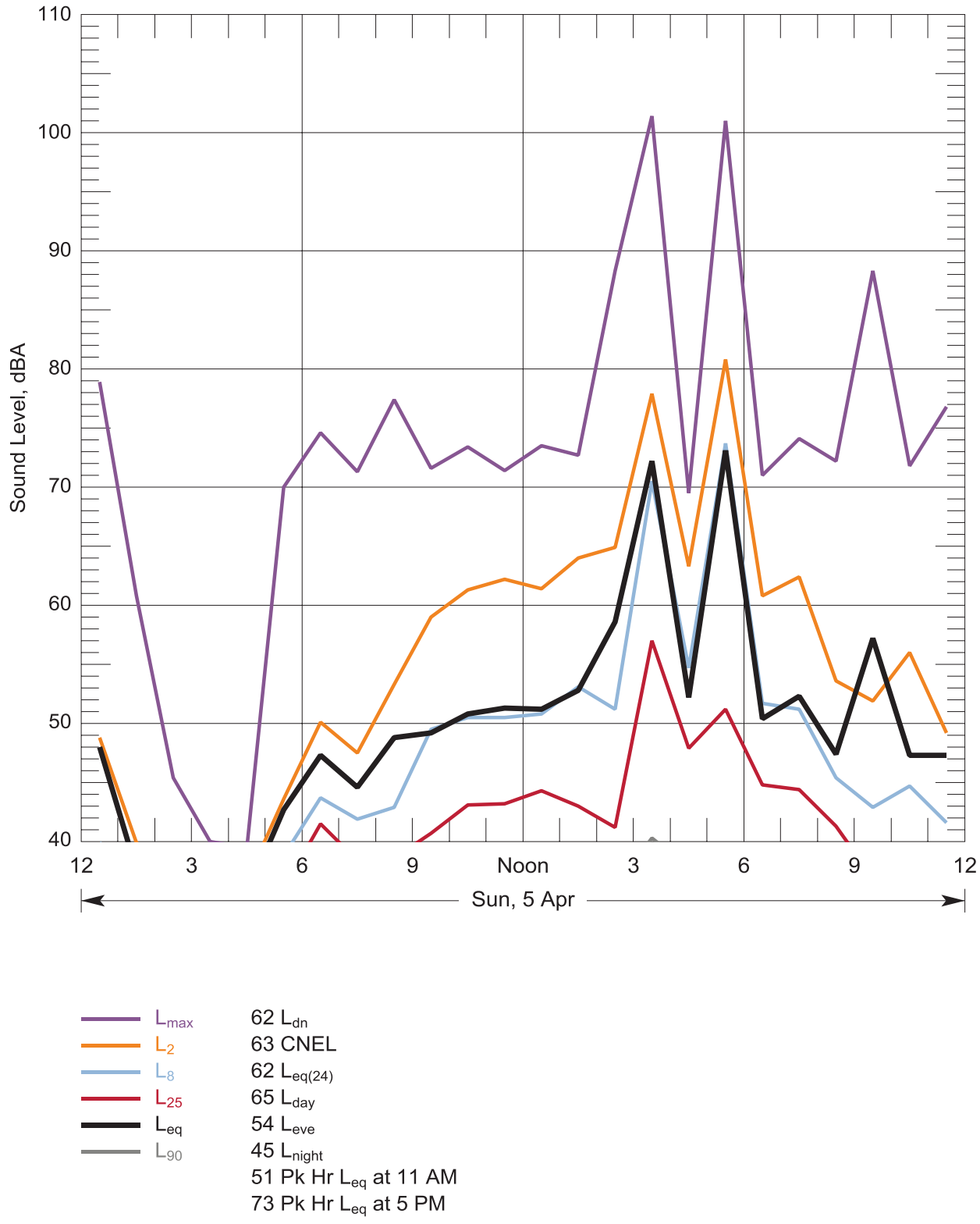


Figure 113: Hourly statistical summary of noise levels measured at Location 19 - 11846 170th Ave SW, Rochester on 05 Apr, 2015 and daily-average descriptors

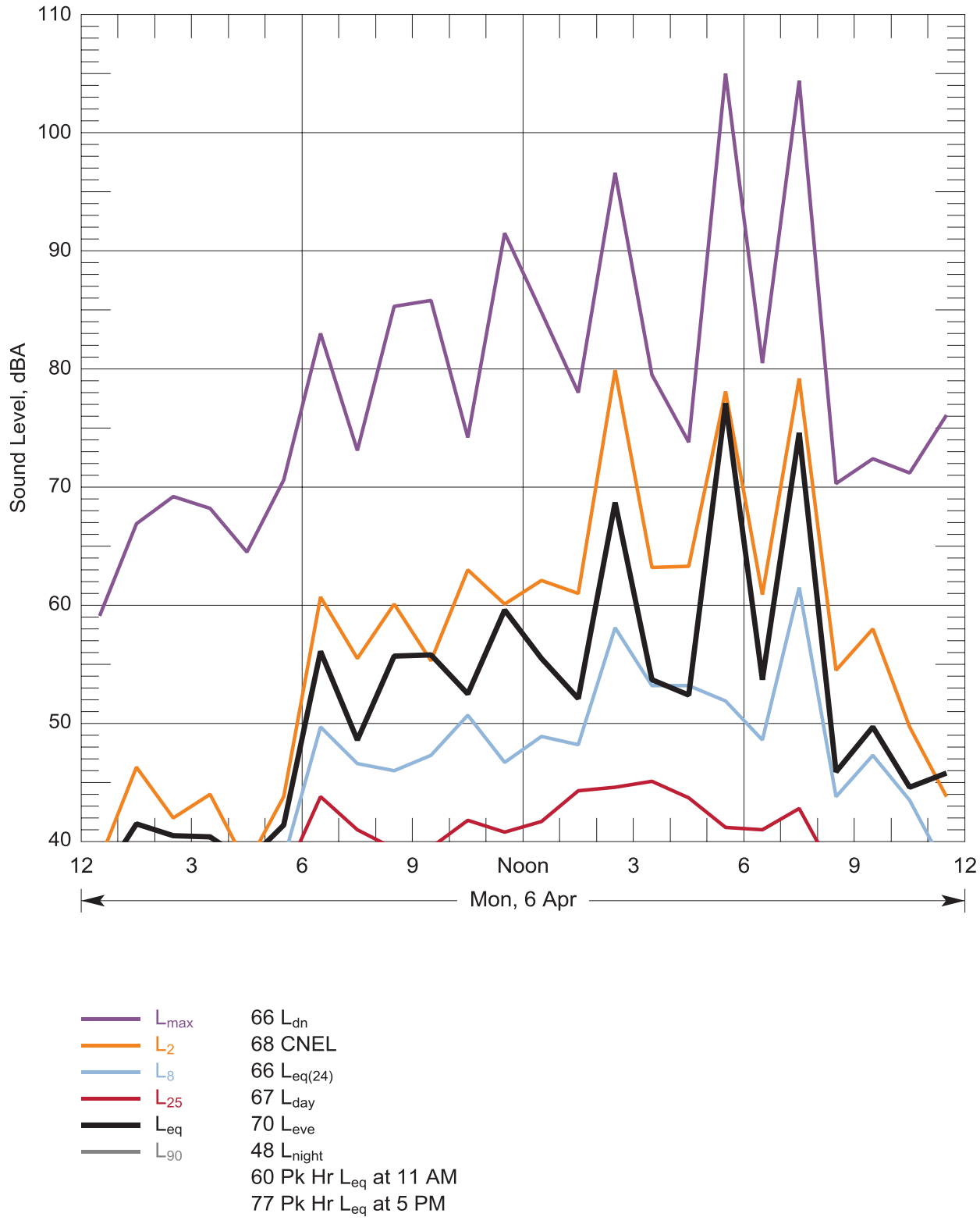


Figure 114: Hourly statistical summary of noise levels measured at Location 19 - 11846 170th Ave SW, Rochester on 06 Apr, 2015 and daily-average descriptors

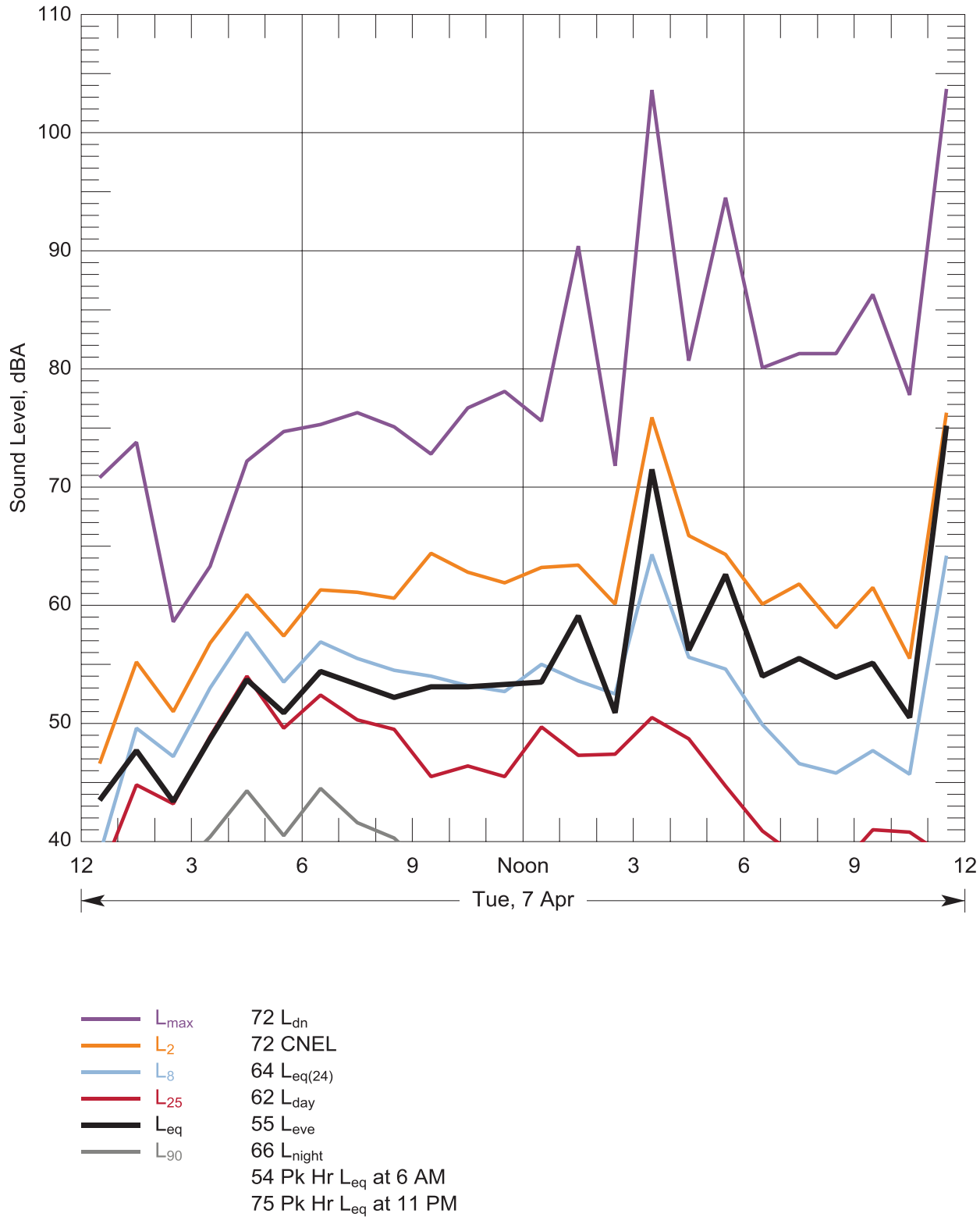


Figure 115: Hourly statistical summary of noise levels measured at Location 19 - 11846 170th Ave SW, Rochester on 07 Apr, 2015 and daily-average descriptors

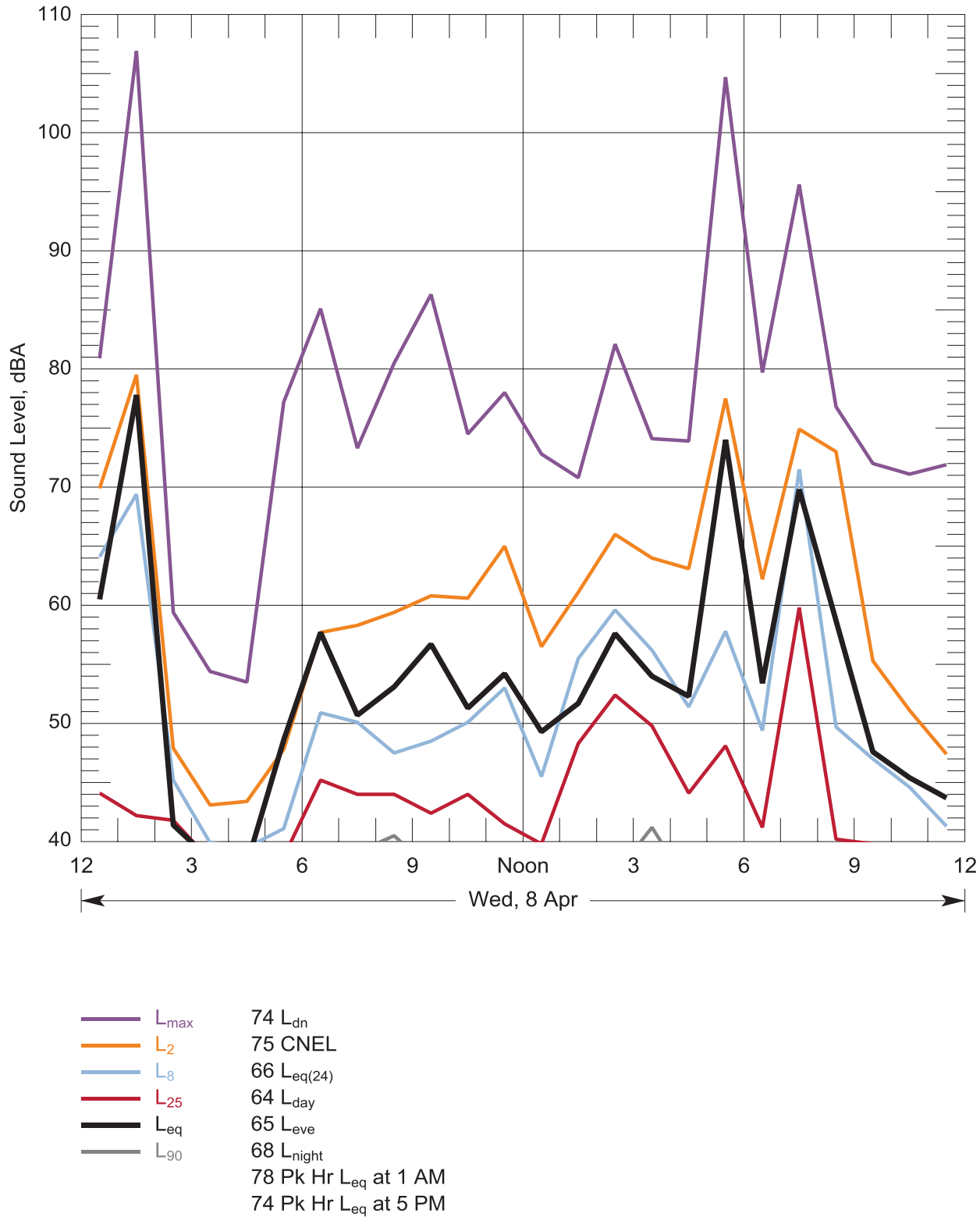


Figure 116: Hourly statistical summary of noise levels measured at Location 19 - 11846 170th Ave SW, Rochester on 08 Apr, 2015 and daily-average descriptors

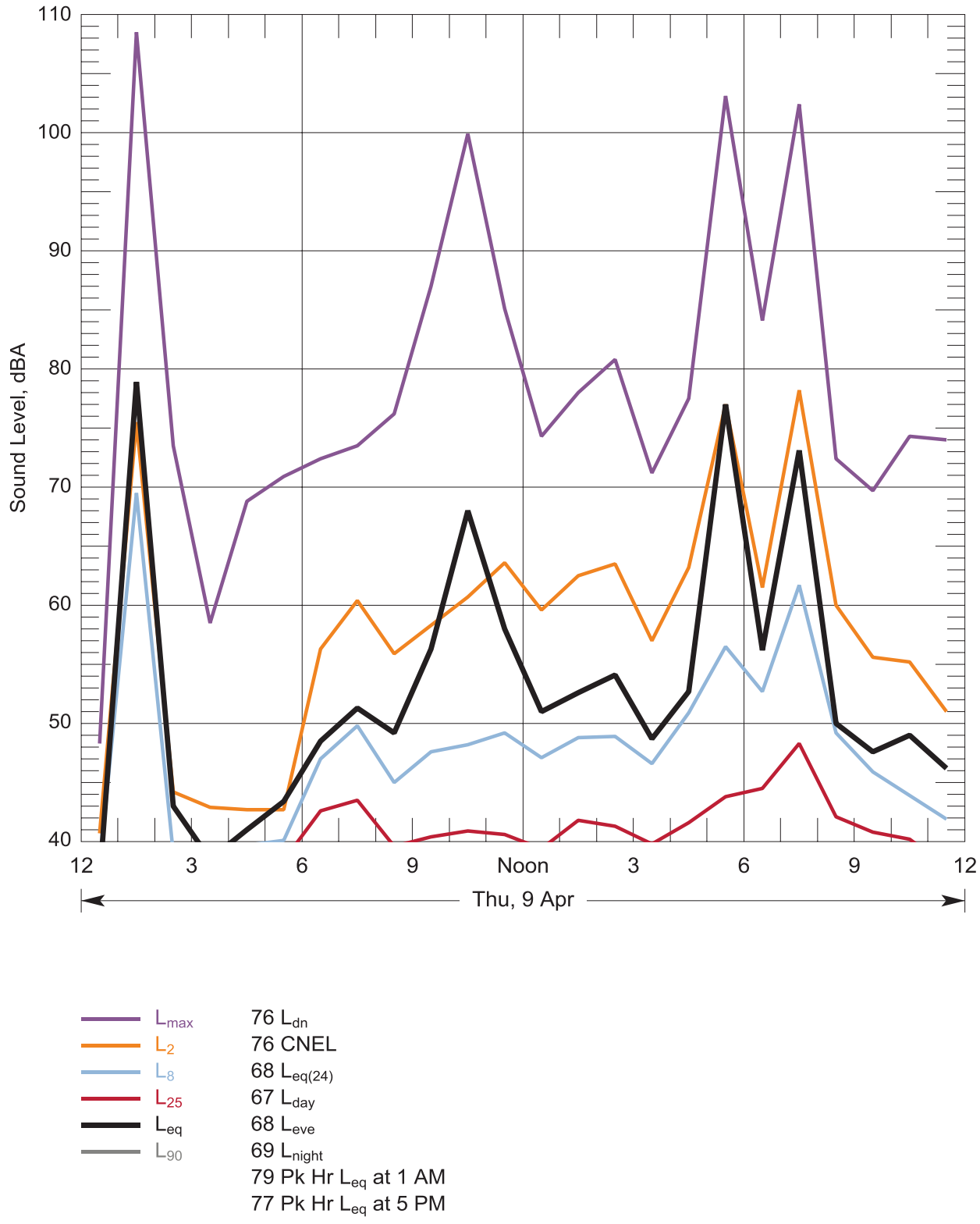


Figure 117: Hourly statistical summary of noise levels measured at Location 19 - 11846 170th Ave SW, Rochester on 09 Apr, 2015 and daily-average descriptors

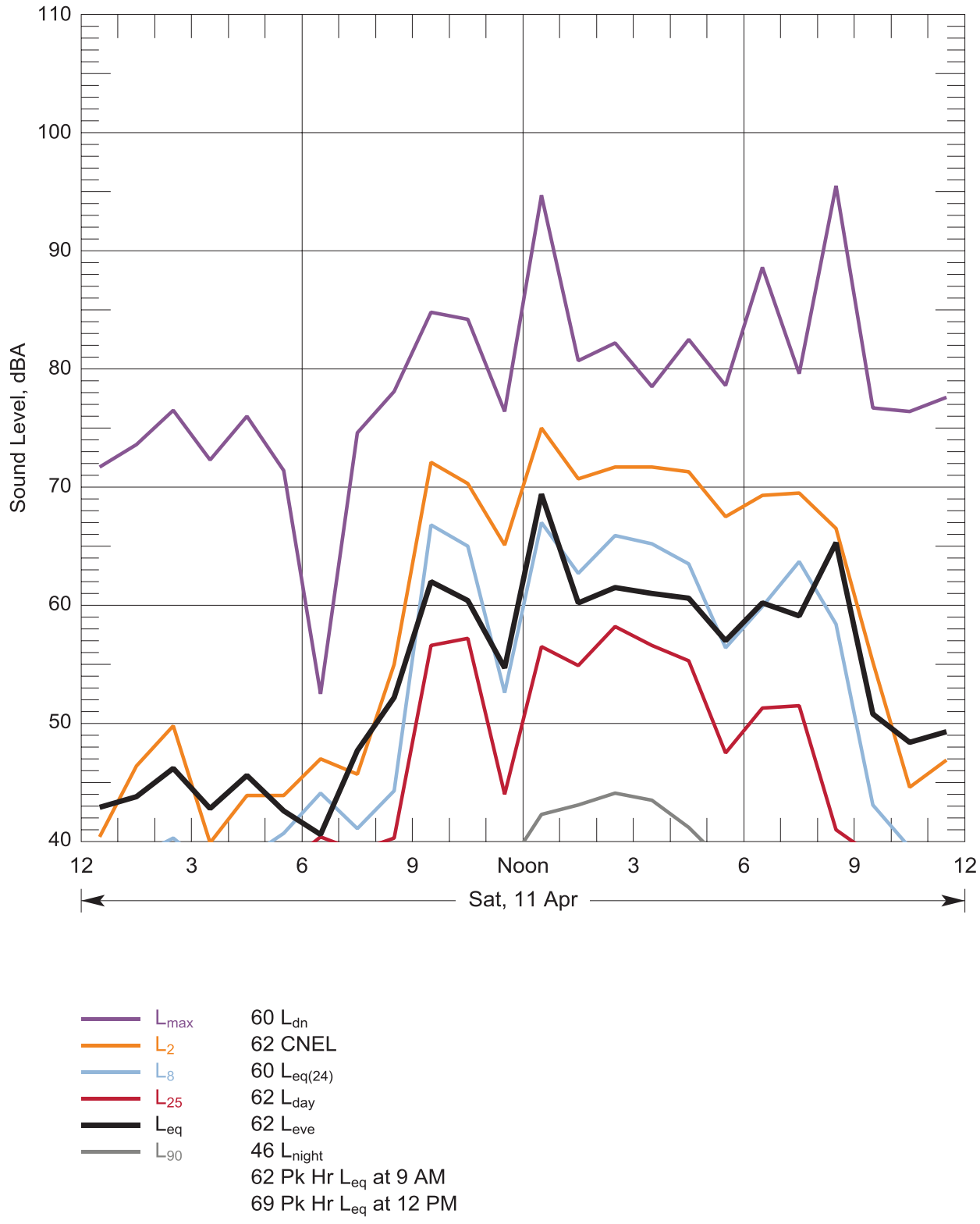


Figure 118: Hourly statistical summary of noise levels measured at Location 20 - 7220 Central Park Drive, Aberdeen on 11 Apr, 2015 and daily-average descriptors

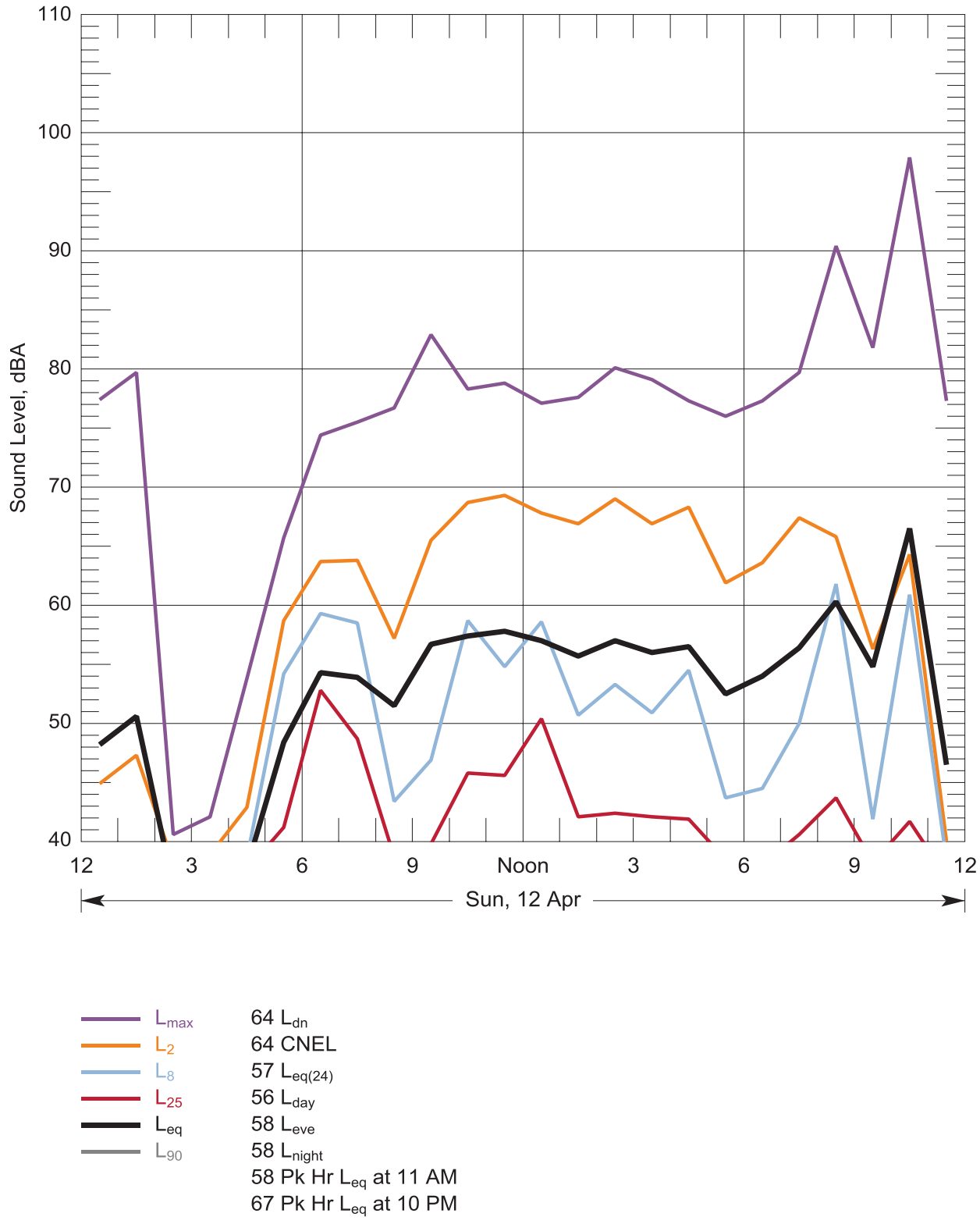


Figure 119: Hourly statistical summary of noise levels measured at Location 20 - 7220 Central Park Drive, Aberdeen on 12 Apr, 2015 and daily-average descriptors

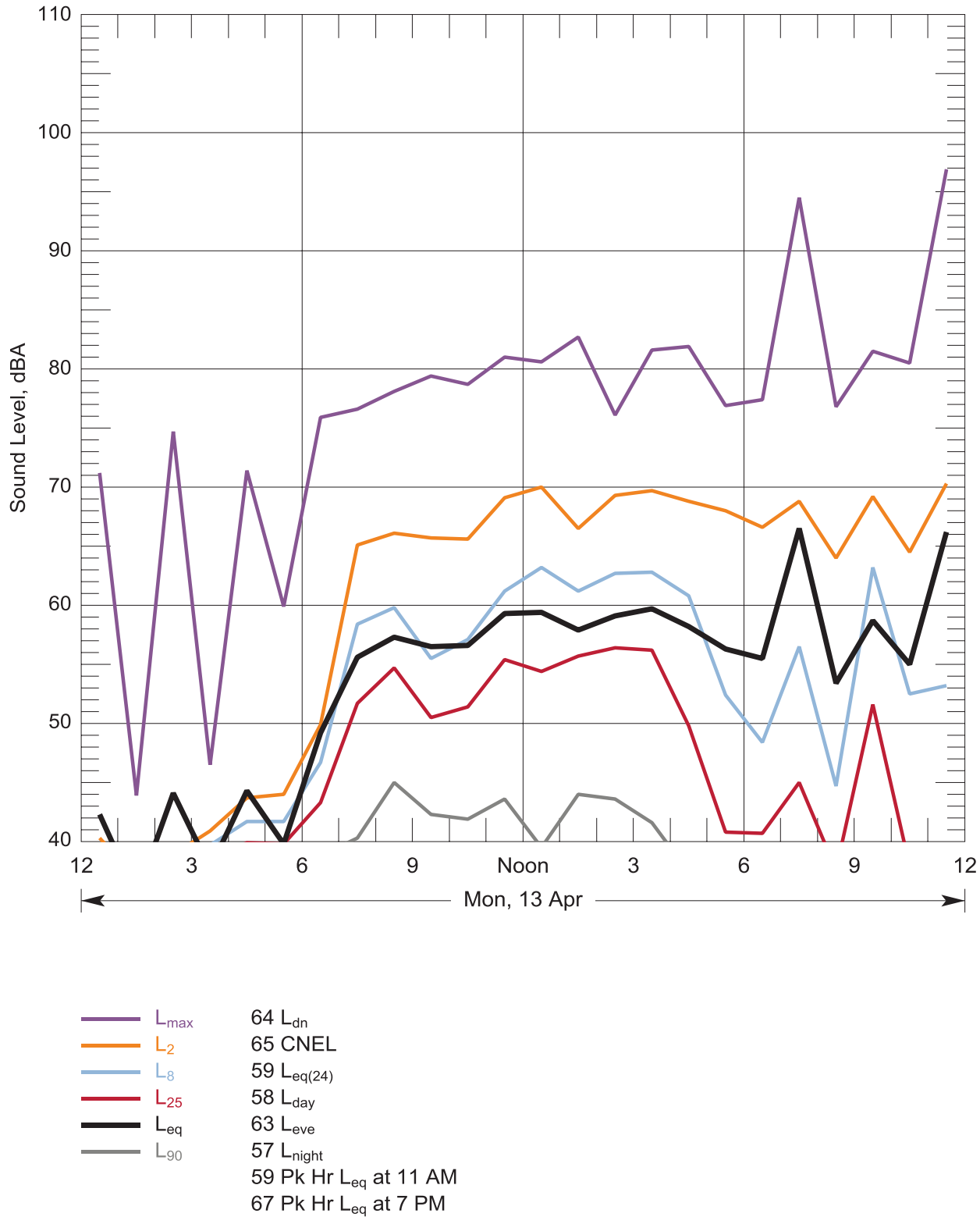


Figure 120: Hourly statistical summary of noise levels measured at Location 20 - 7220 Central Park Drive, Aberdeen on 13 Apr, 2015 and daily-average descriptors

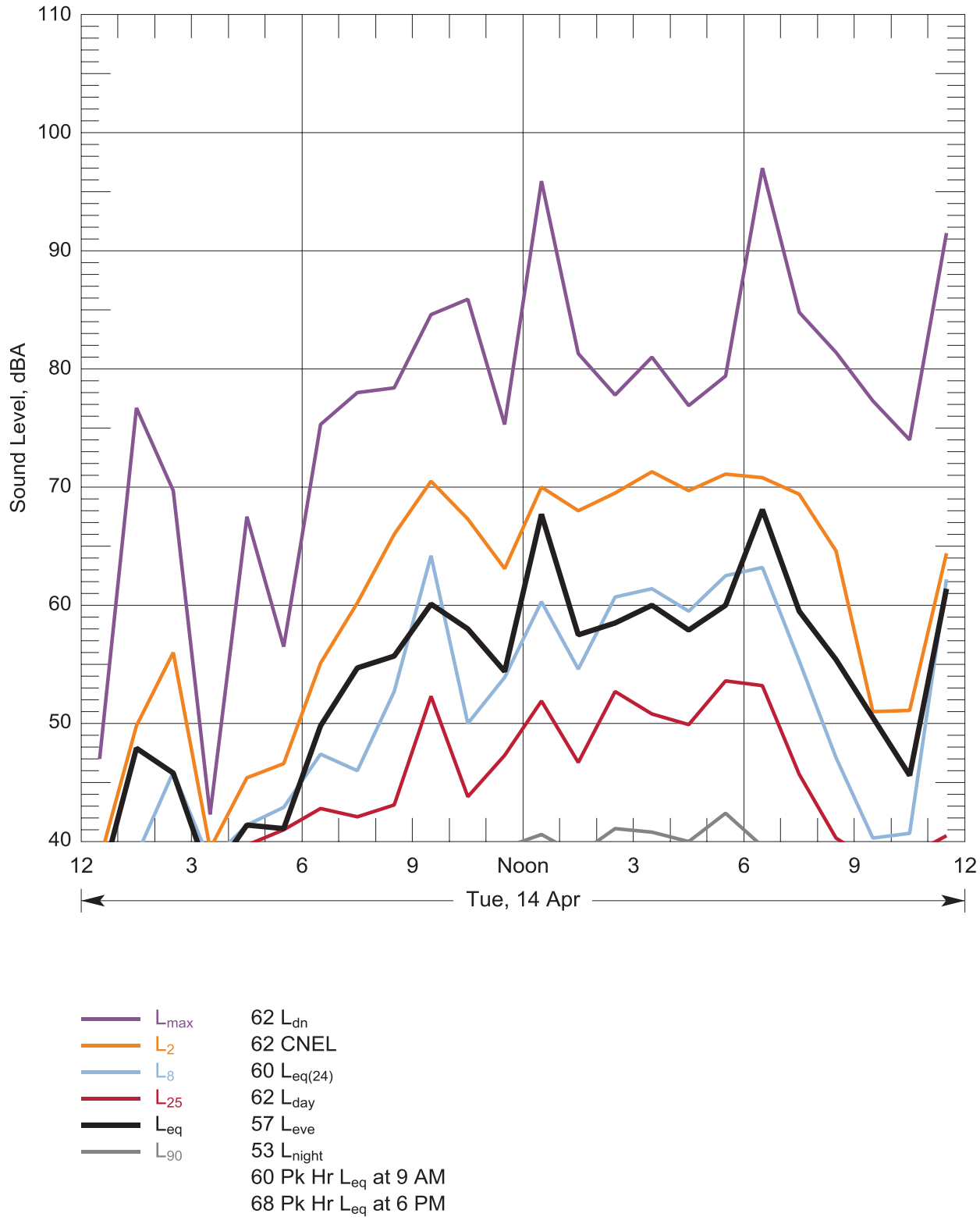


Figure 121: Hourly statistical summary of noise levels measured at Location 20 - 7220 Central Park Drive, Aberdeen on 14 Apr, 2015 and daily-average descriptors

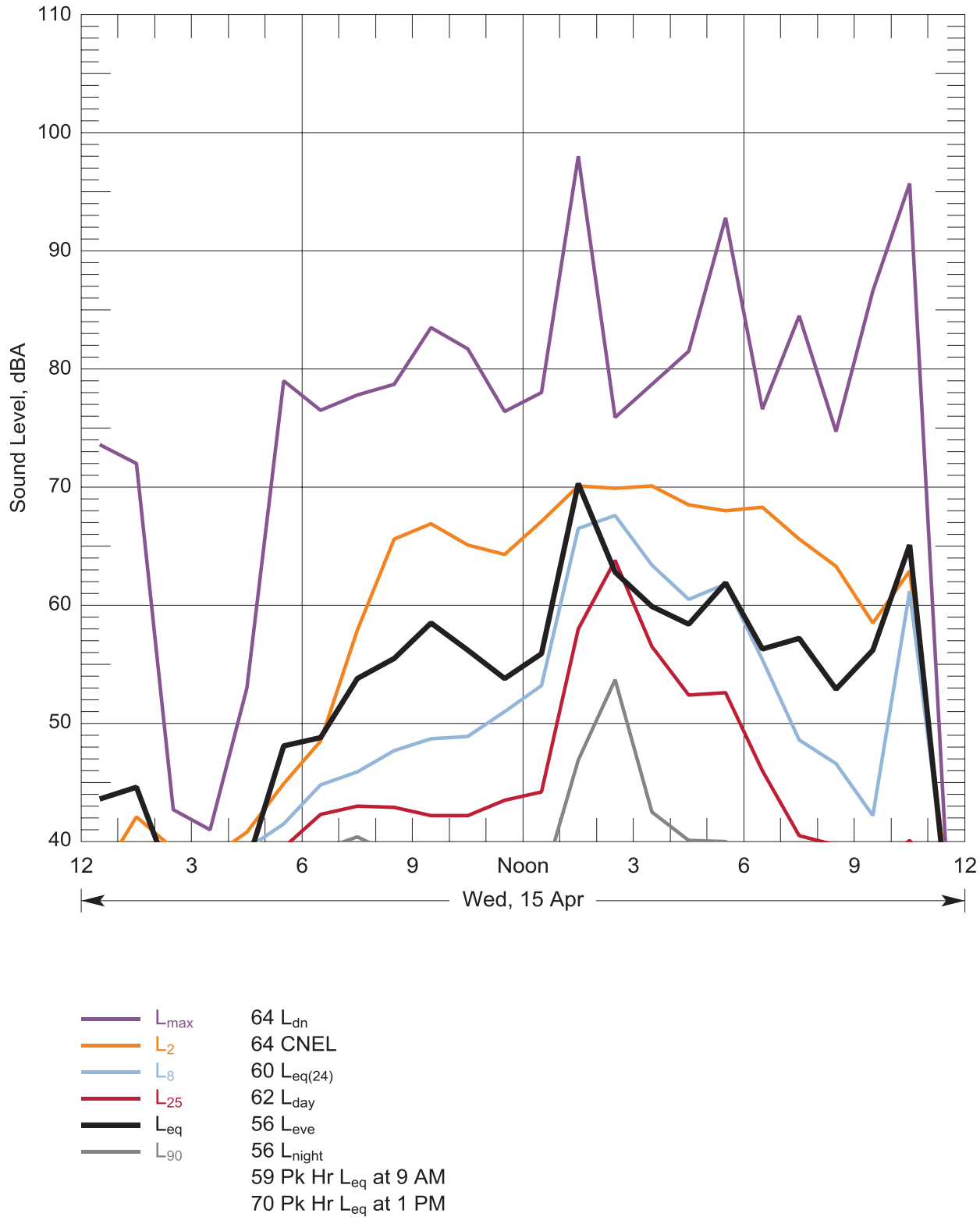


Figure 122: Hourly statistical summary of noise levels measured at Location 20 - 7220 Central Park Drive, Aberdeen on 15 Apr, 2015 and daily-average descriptors

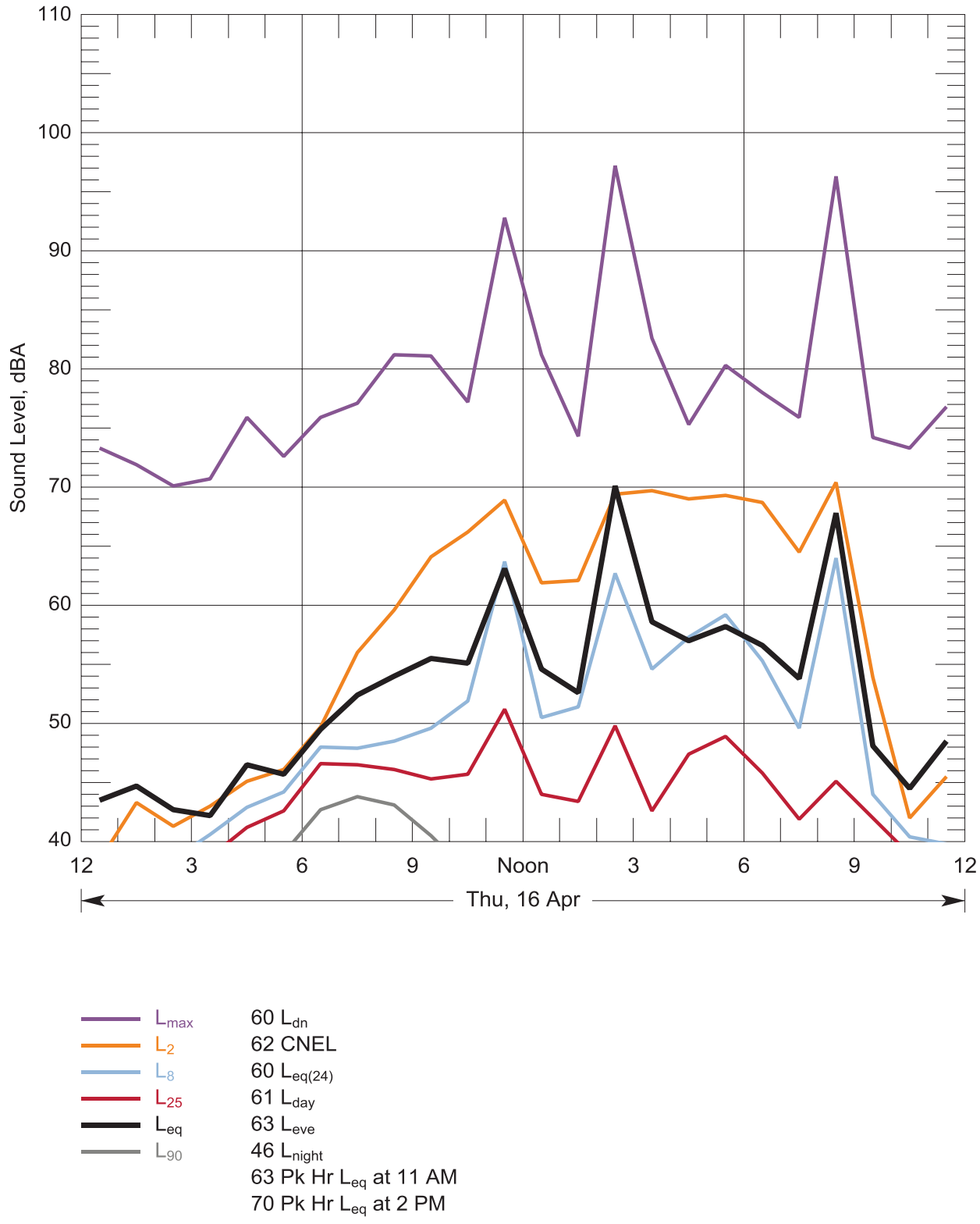


Figure 123: Hourly statistical summary of noise levels measured at Location 20 - 7220 Central Park Drive, Aberdeen on 16 Apr, 2015 and daily-average descriptors

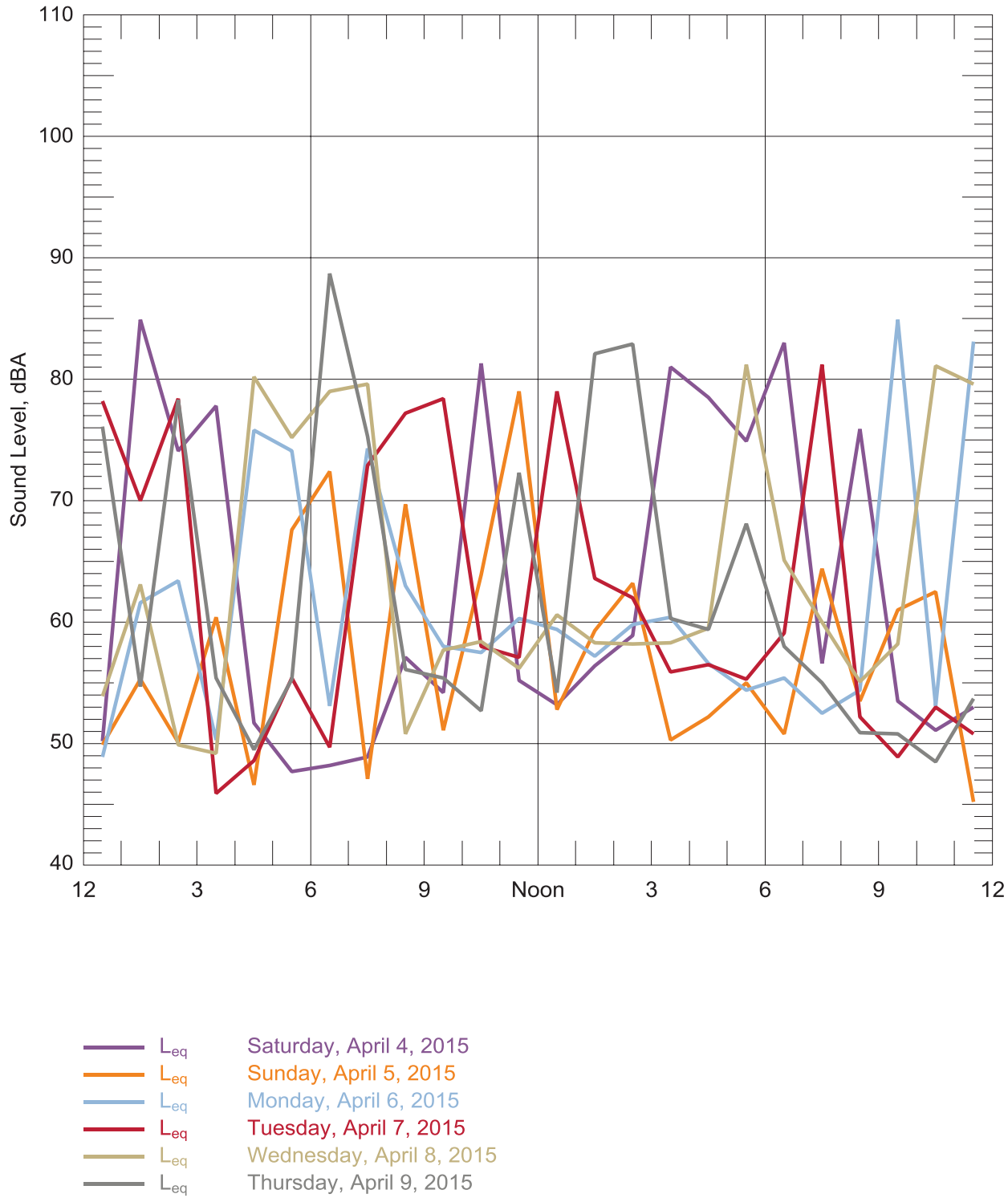


Figure 124: Hourly statistical summary of noise levels at Location 1 - 1023 B St, Centralia

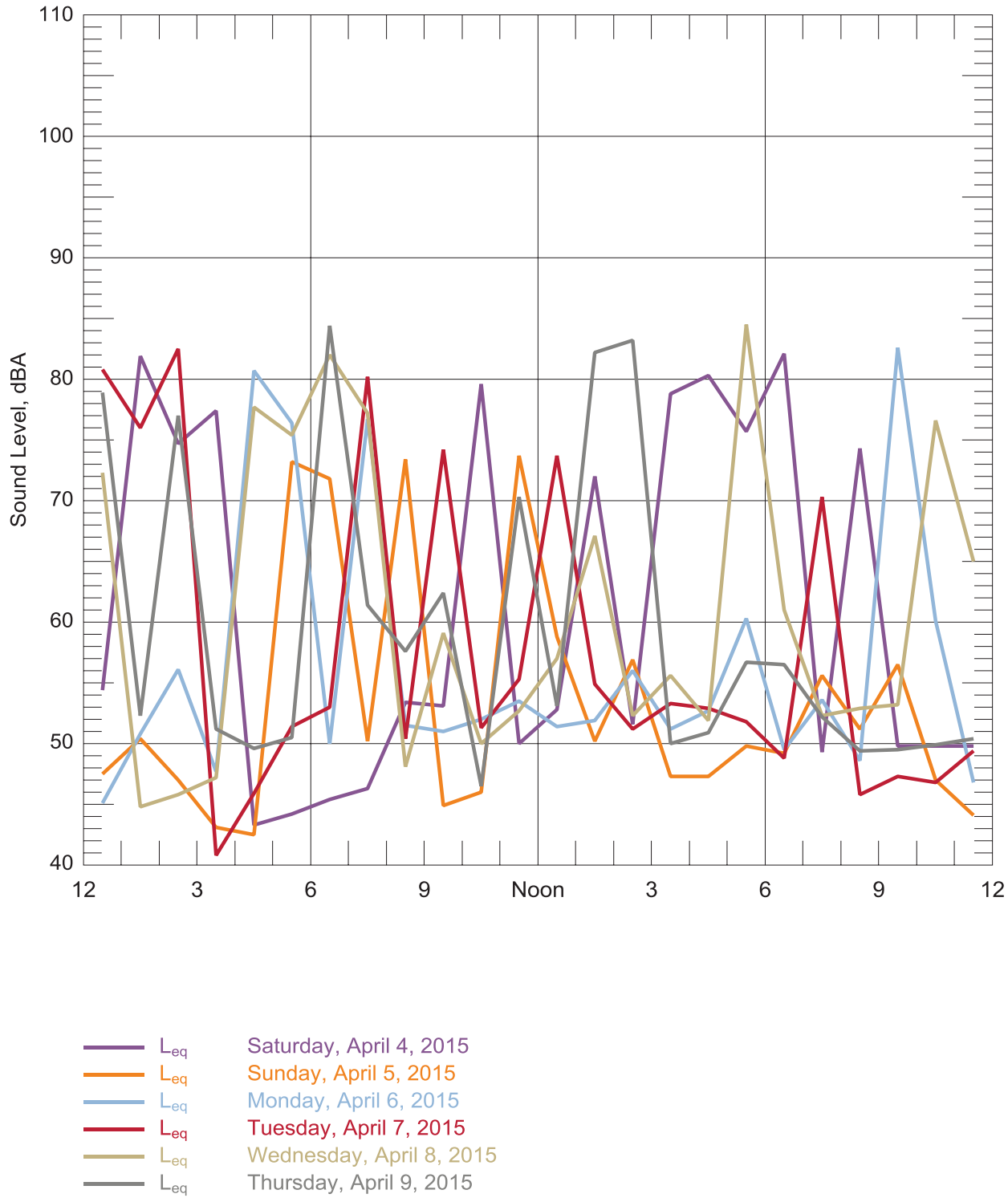


Figure 125: Hourly statistical summary of noise levels at Location 2 - 1102 G St, Centralia

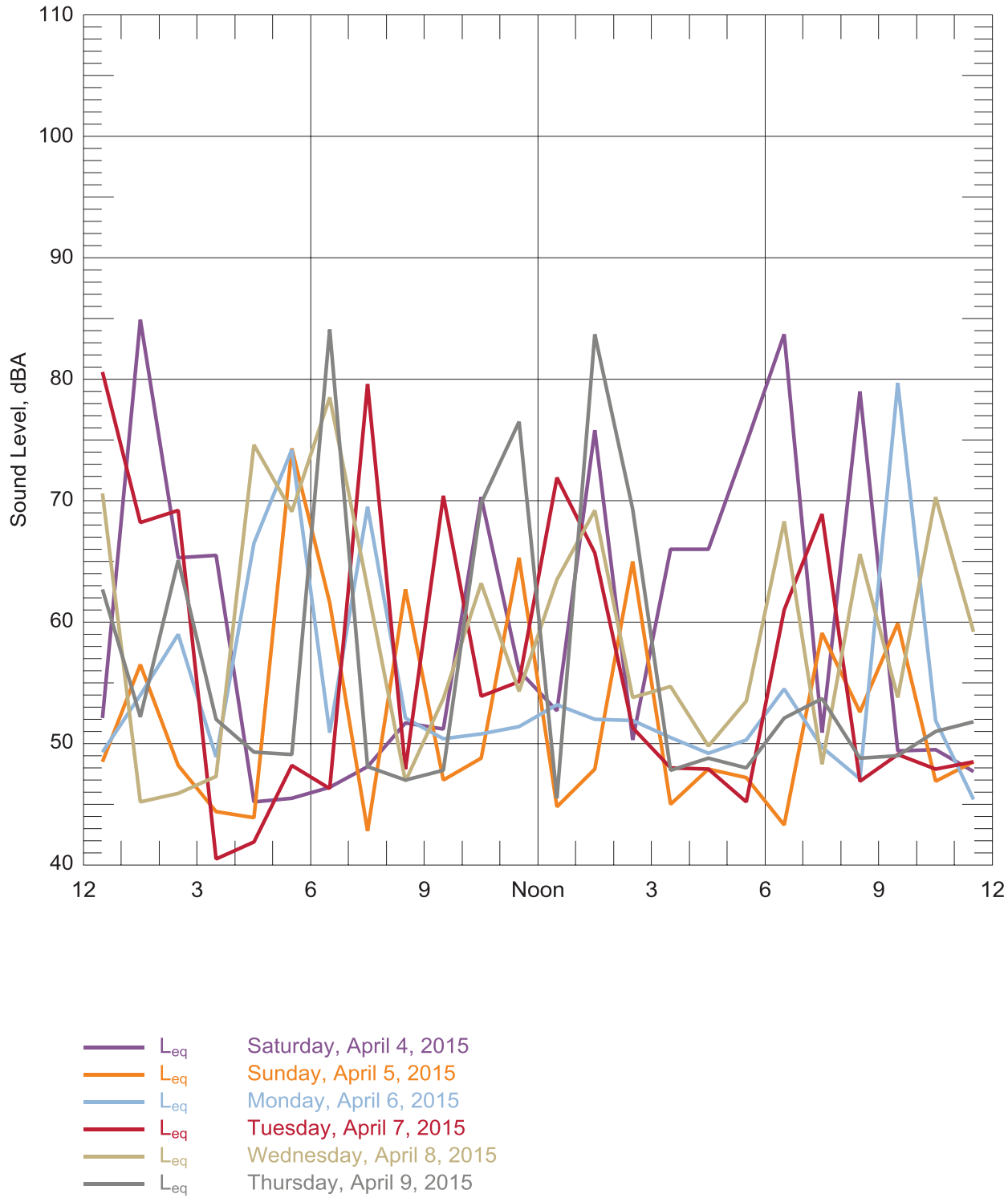


Figure 126: Hourly statistical summary of noise levels at Location 3 - 1103 J St, Centralia

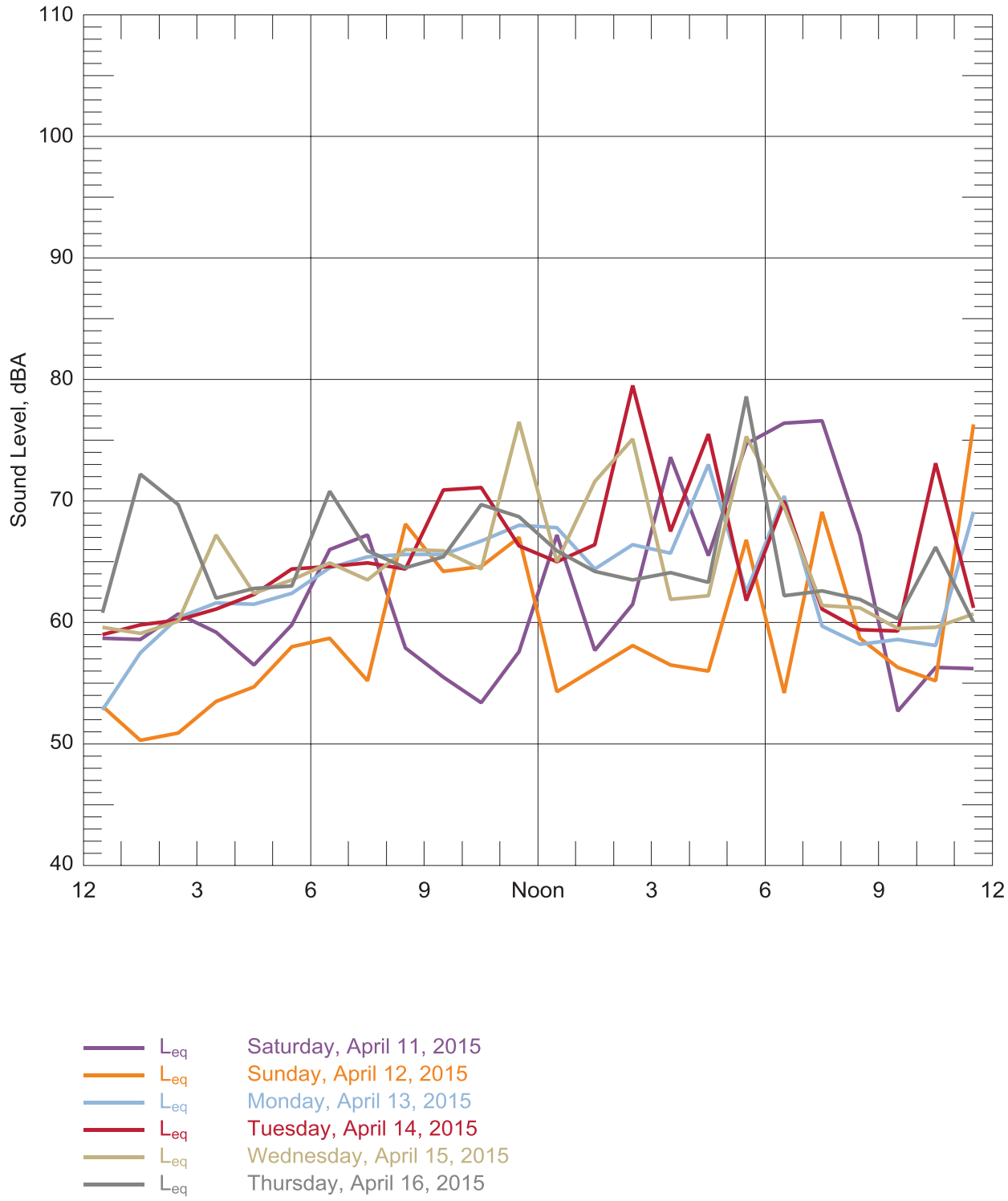


Figure 127: Hourly statistical summary of noise levels at Location 4B - 3900 Kuper Rd, Centralia

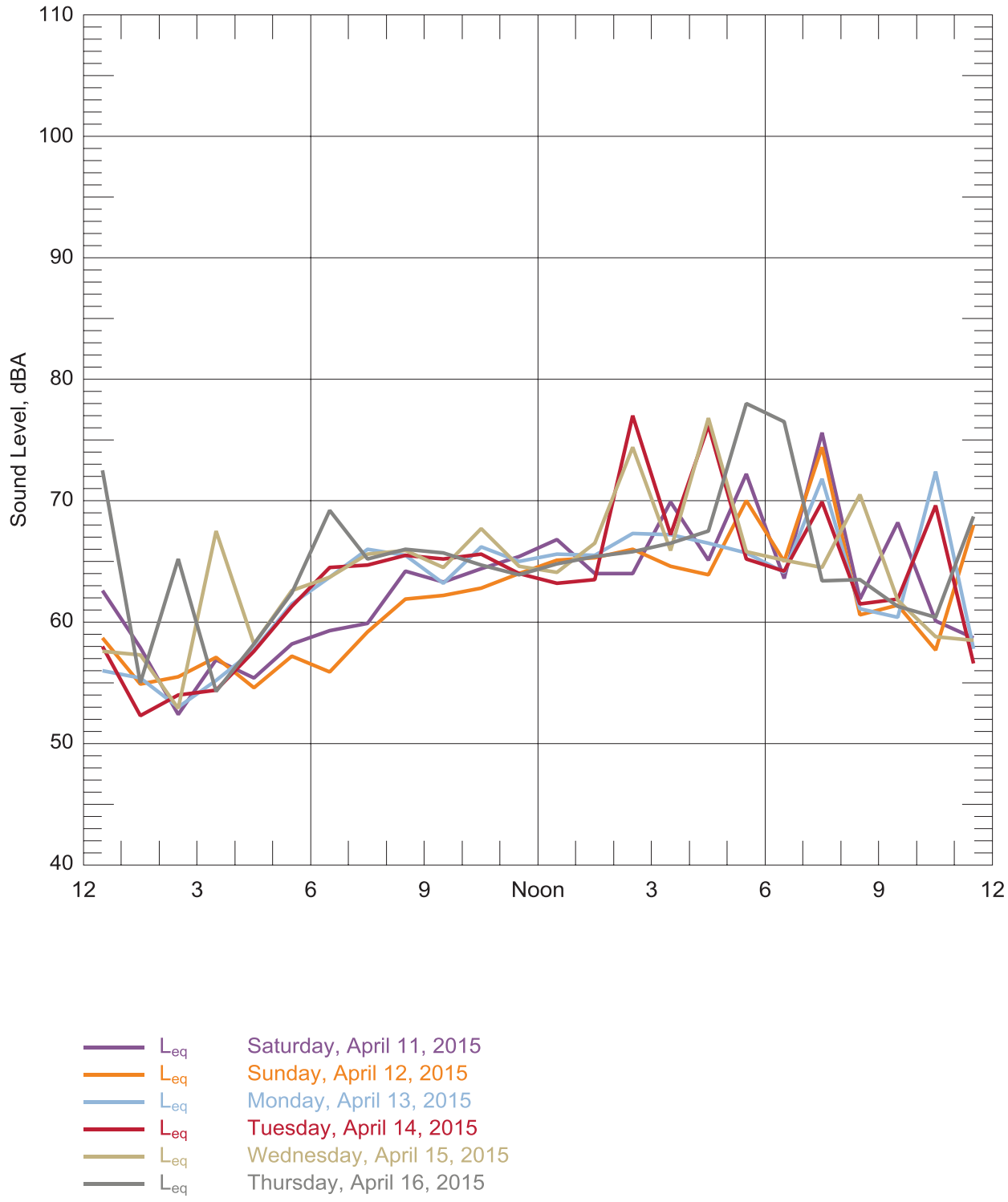


Figure 128: Hourly statistical summary of noise levels at Location 5 Alt – Old Hwy 9 & Tea St. SW, Rochester

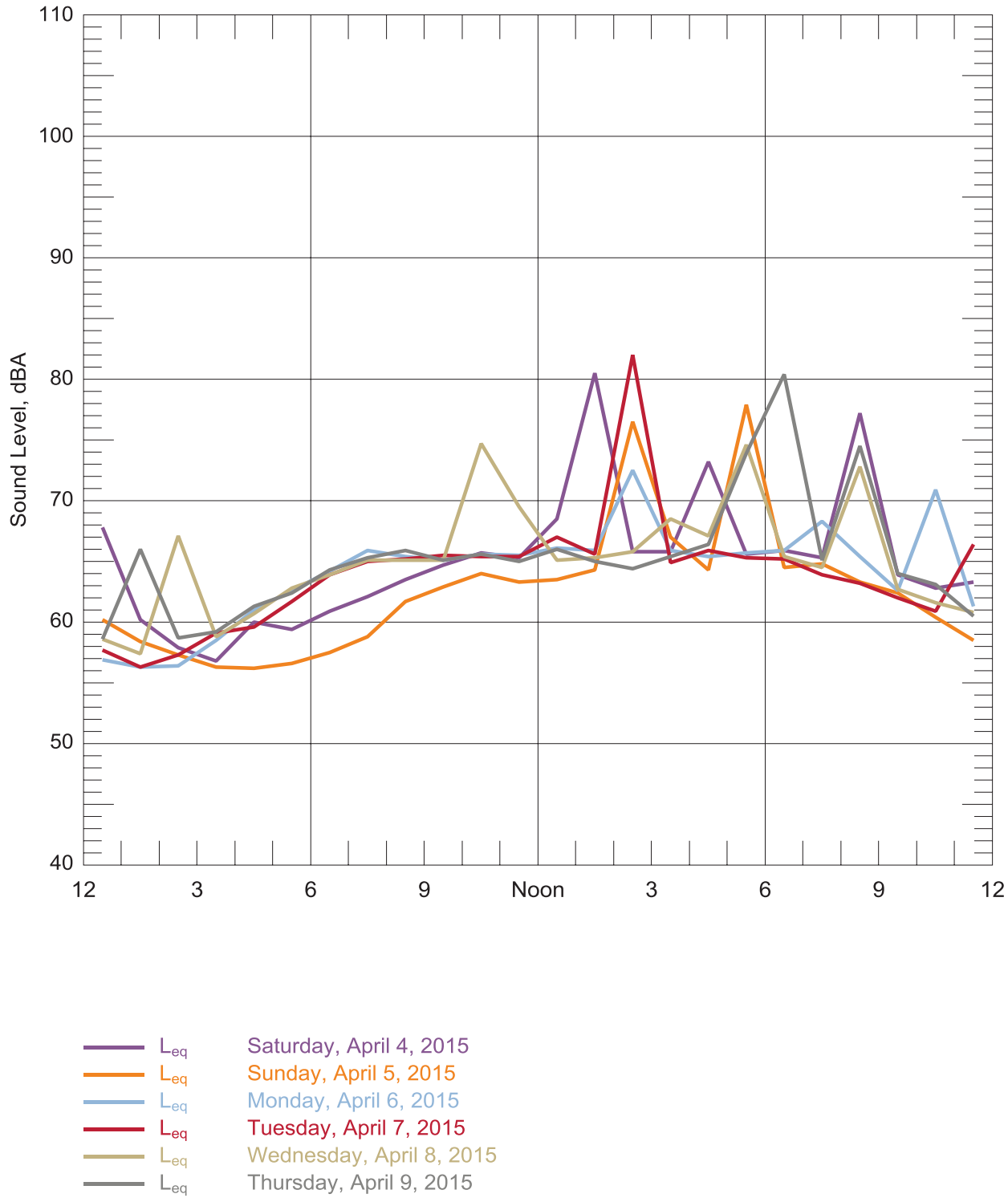


Figure 129: Hourly statistical summary of noise levels at Location 6 - 19318 Grand Mound Way, Rochester

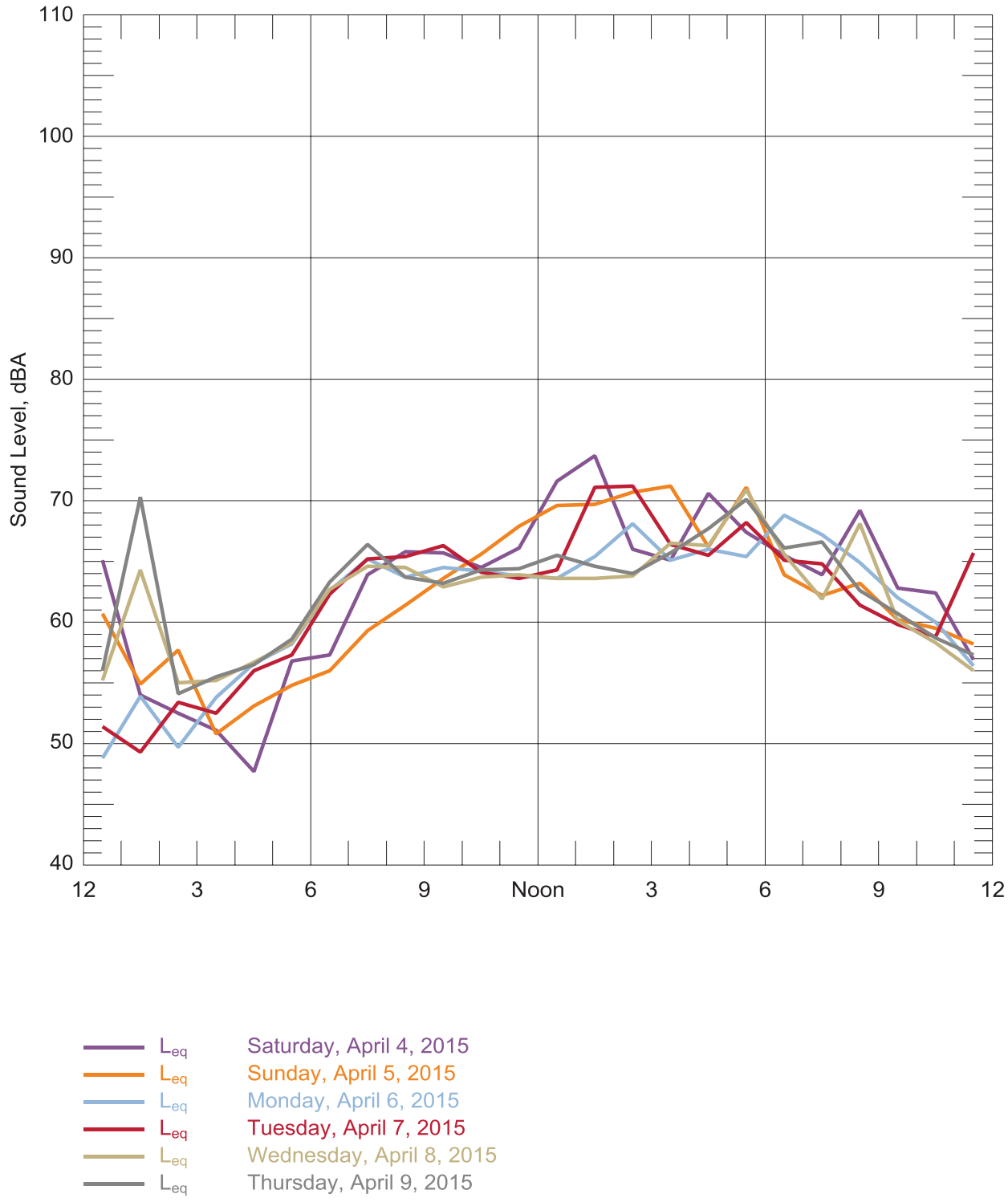


Figure 130: Hourly statistical summary of noise levels Location 8 - 180th & Little Rock, Rochester

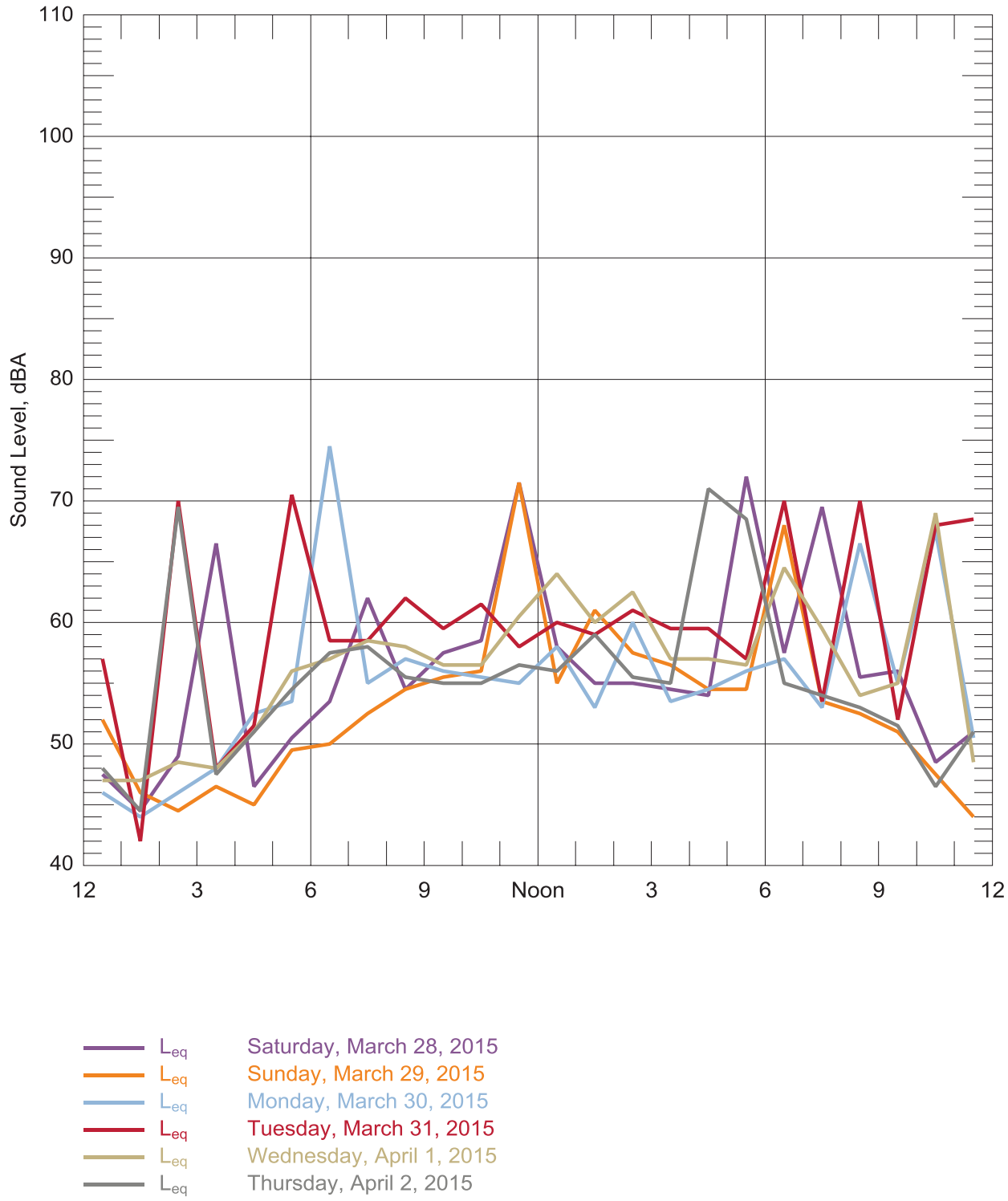


Figure 131: Hourly statistical summary of noise levels at Location 9 - 205 Murrey, Oakville

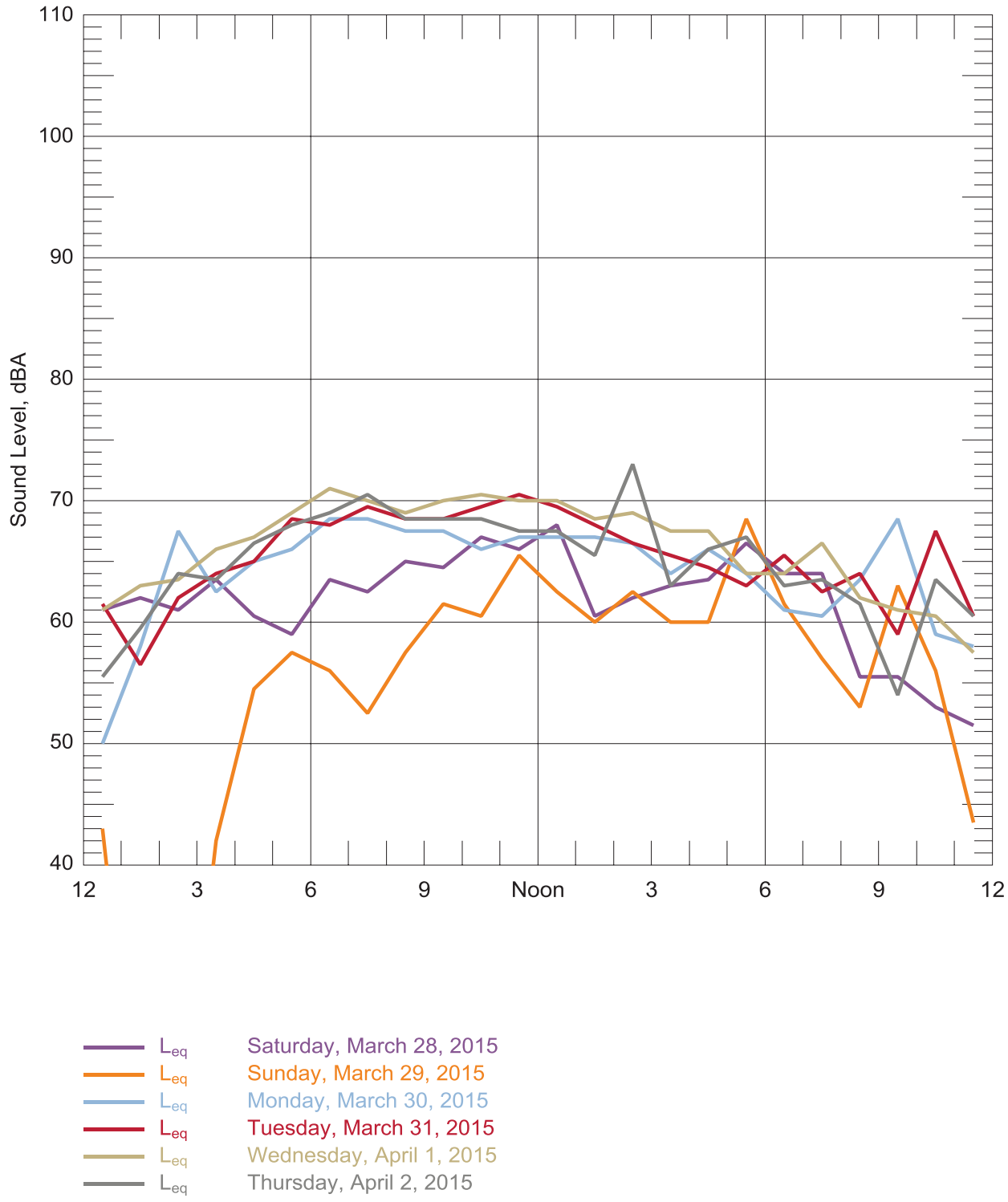


Figure 132: Hourly statistical summary of noise levels at Location 10 - 22 Evergreen Village Lane, Elma

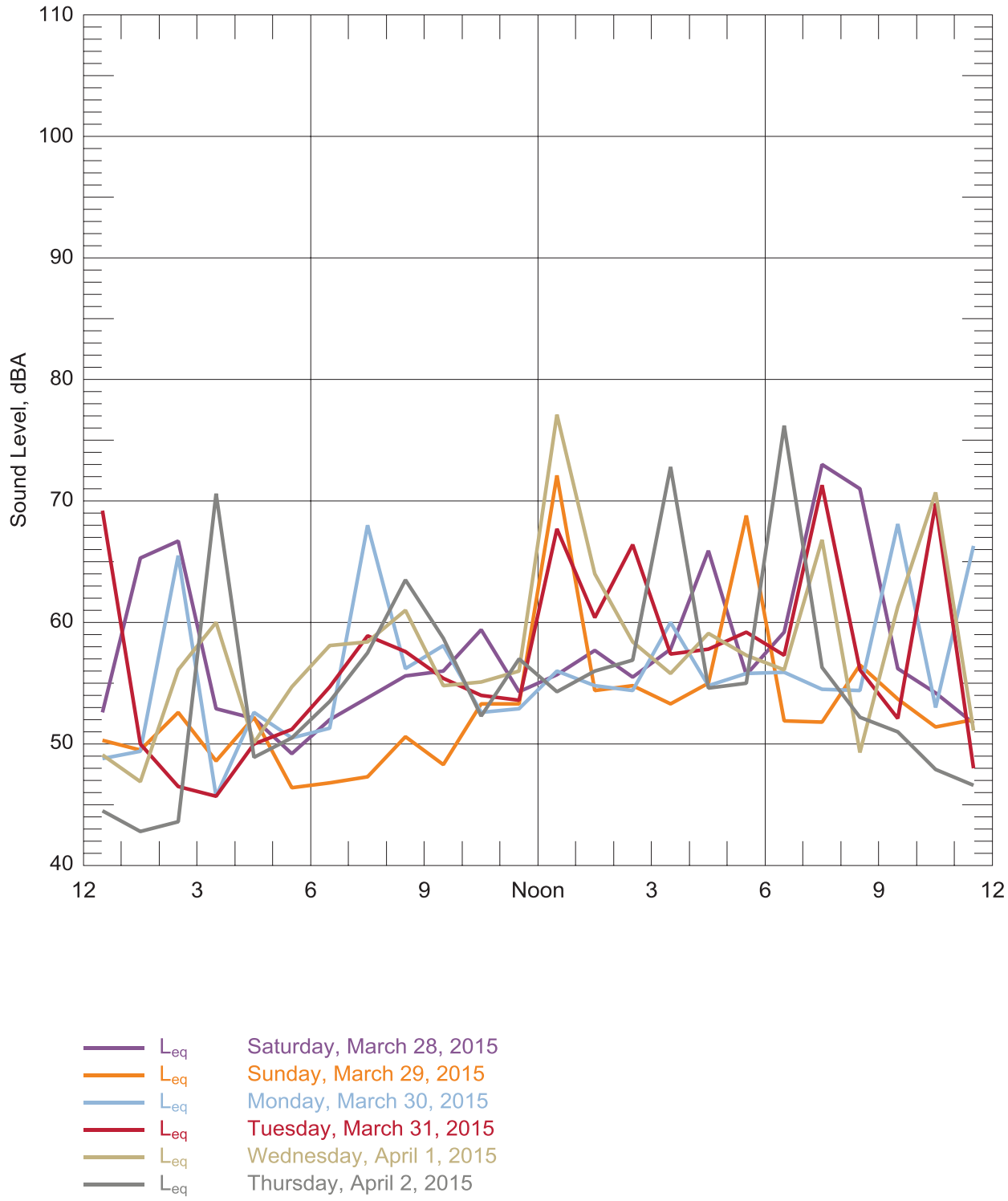


Figure 133: Hourly statistical summary of noise levels at Location 11 - 513 N 13th St, Elma

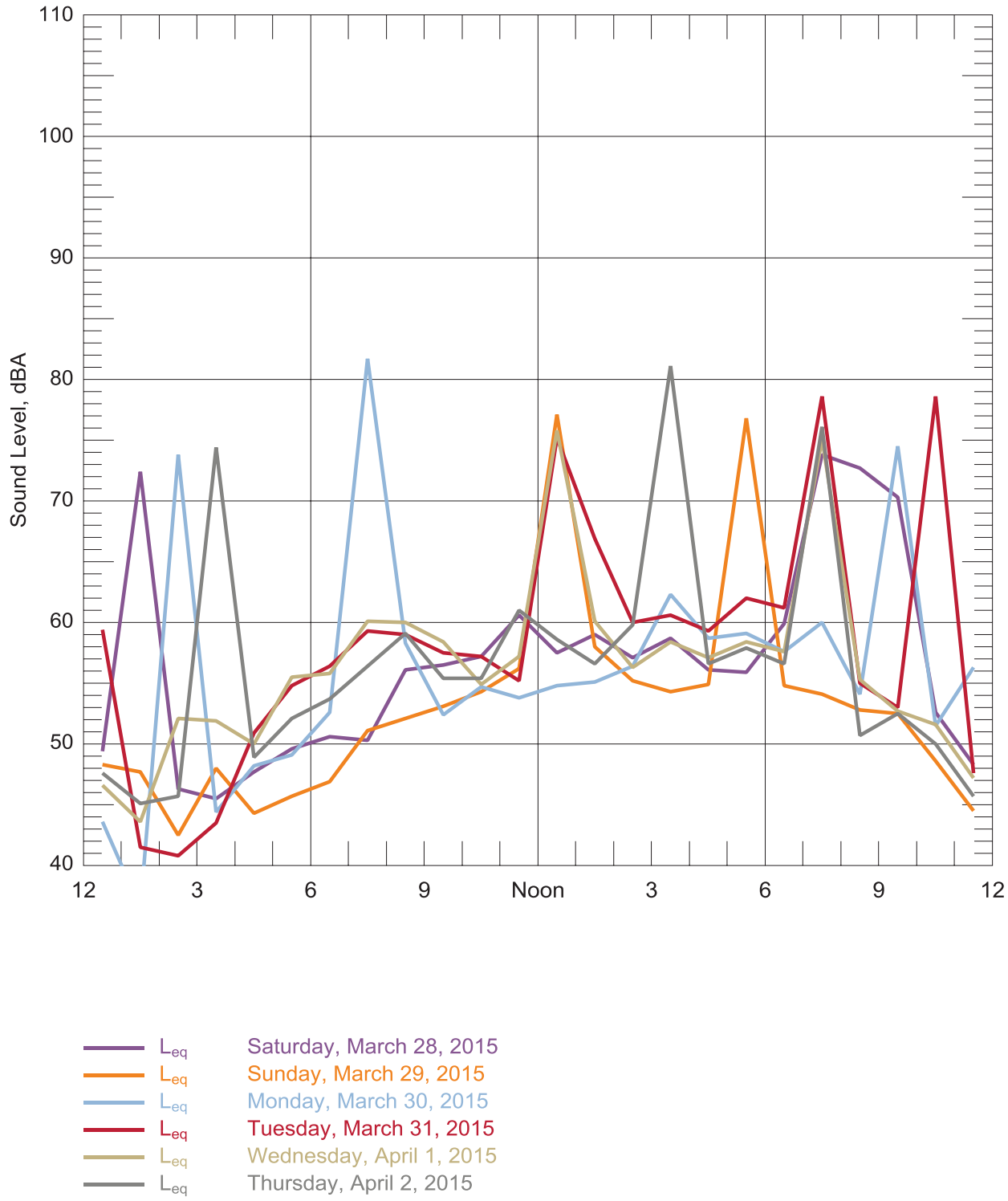


Figure 134: Hourly statistical summary of noise levels at Location 12 - 502 N 13th St, Elma

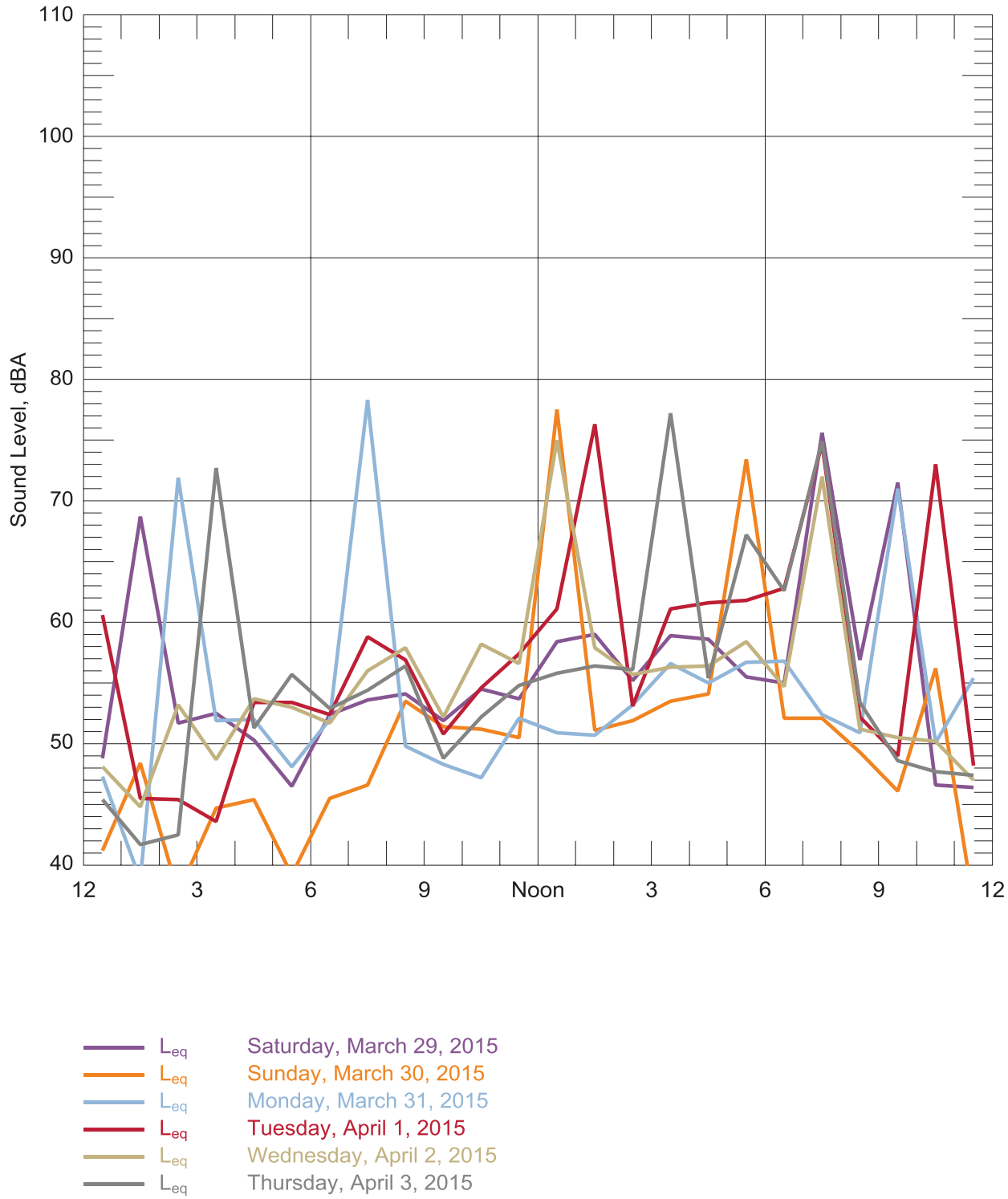


Figure 135: Hourly statistical summary of noise levels at Location 13 - 57 Hurd Rd, Elma

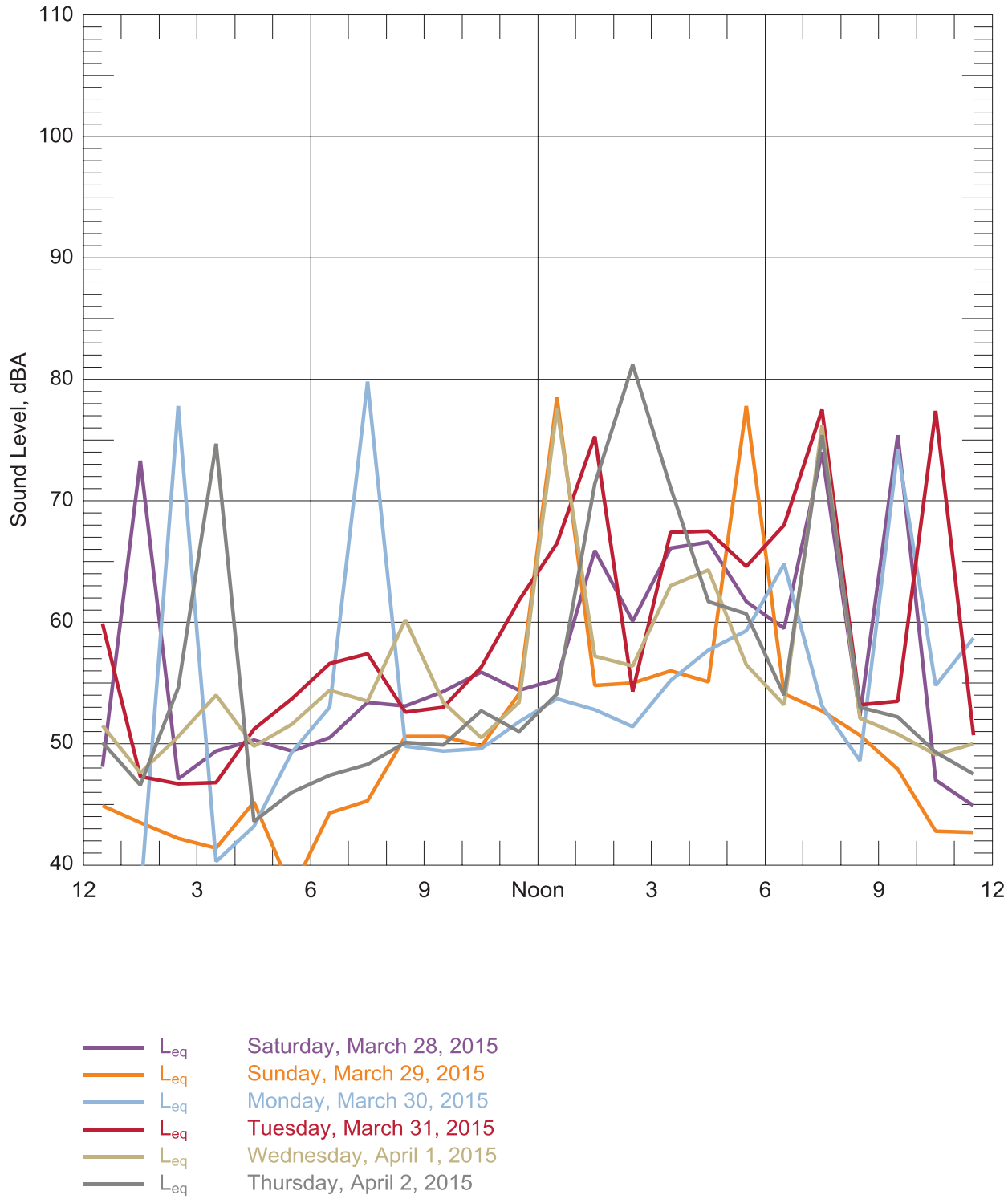


Figure 136: Hourly statistical summary of noise levels at Location 14 - 510 Foss Ave, Satsop

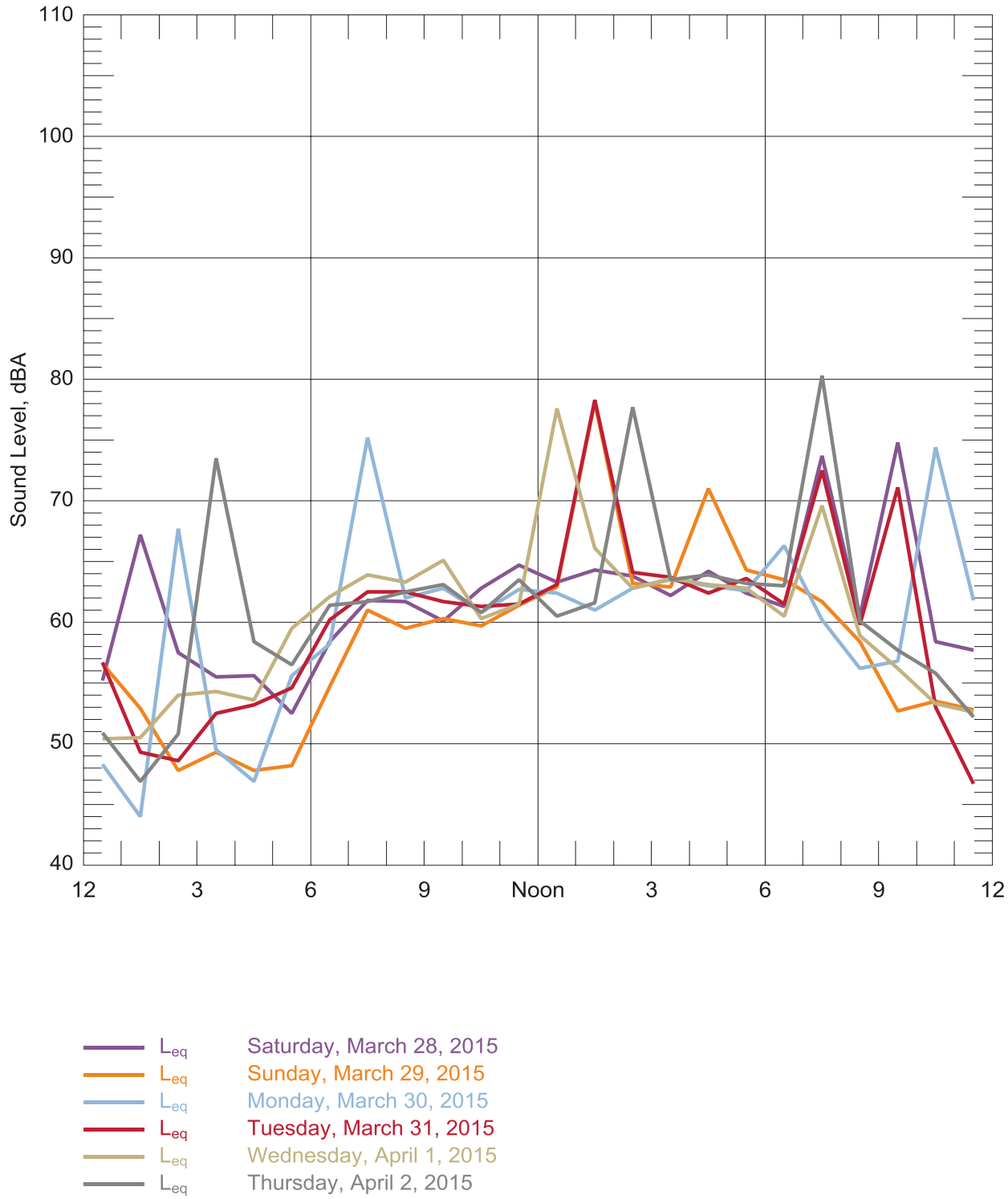


Figure 137: Hourly statistical summary of noise levels at Location 15 - 78 Devonshire, Montesano

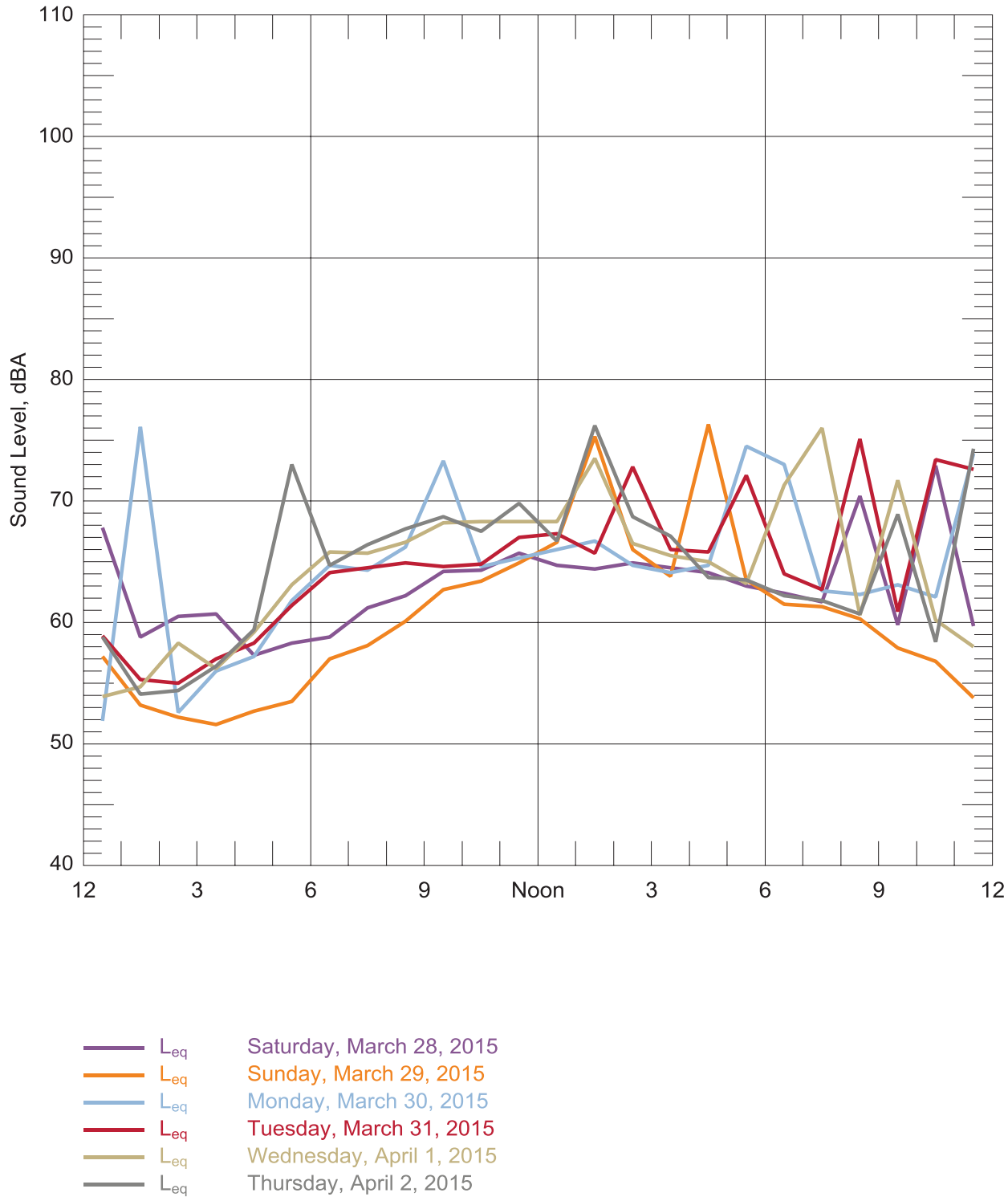


Figure 138: Hourly statistical summary of noise levels at Location 16 - 140 S Chehalis St, Aberdeen

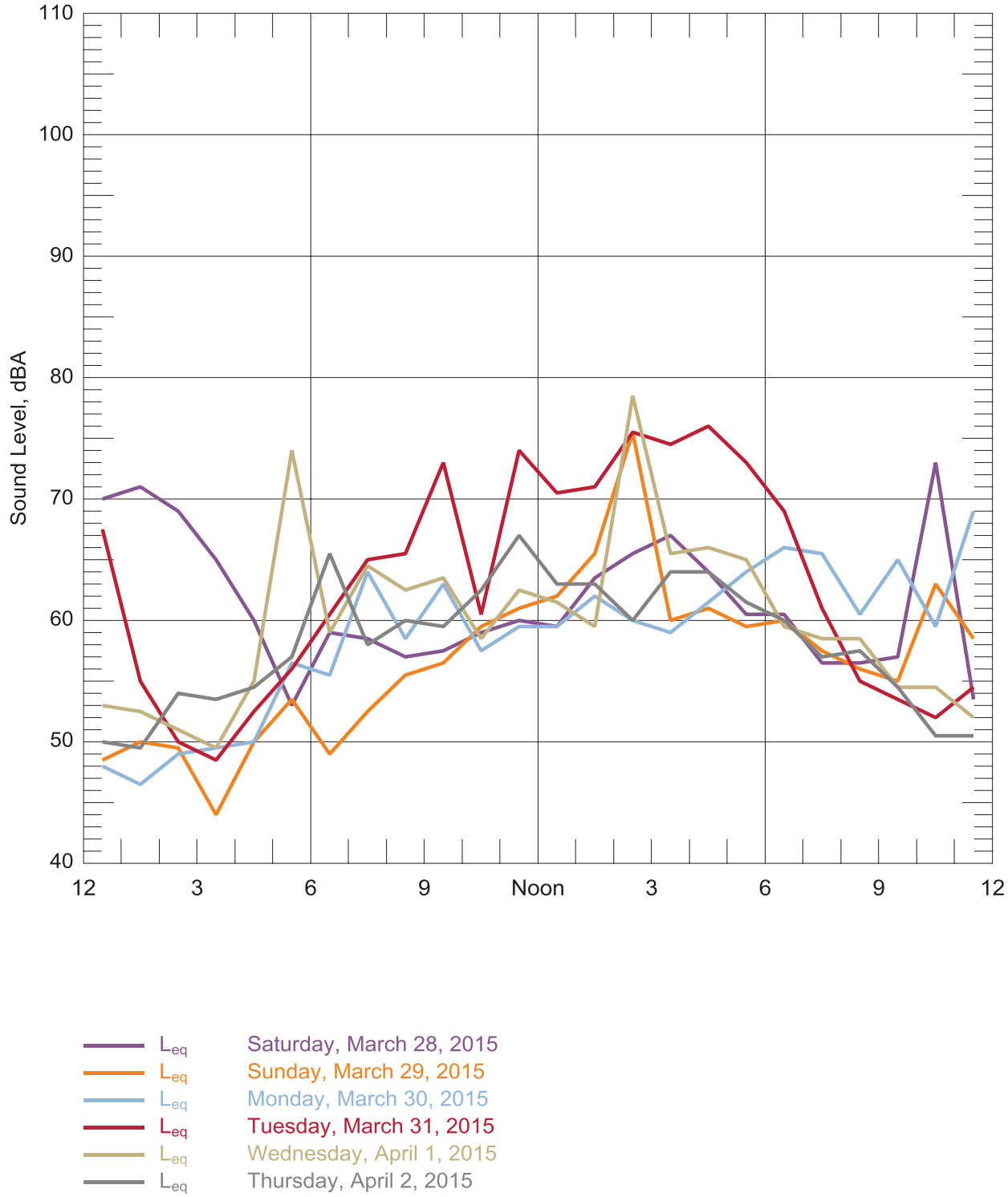


Figure 139: Hourly statistical summary of noise levels at Location 18 - 2100 1st Street, Aberdeen

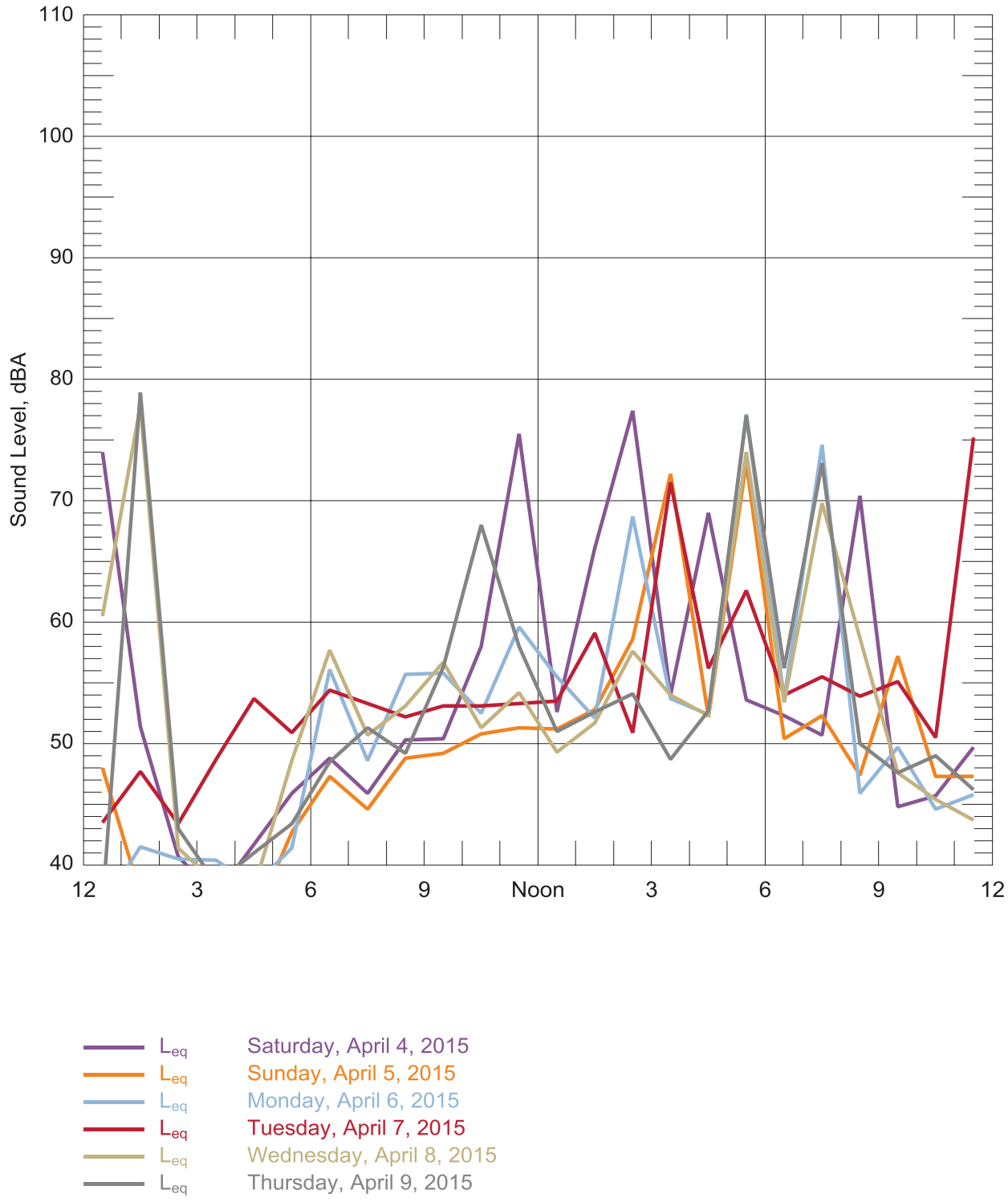


Figure 140: Hourly statistical summary of noise levels at Location 19 - 11846 170th Ave SW, Rochester

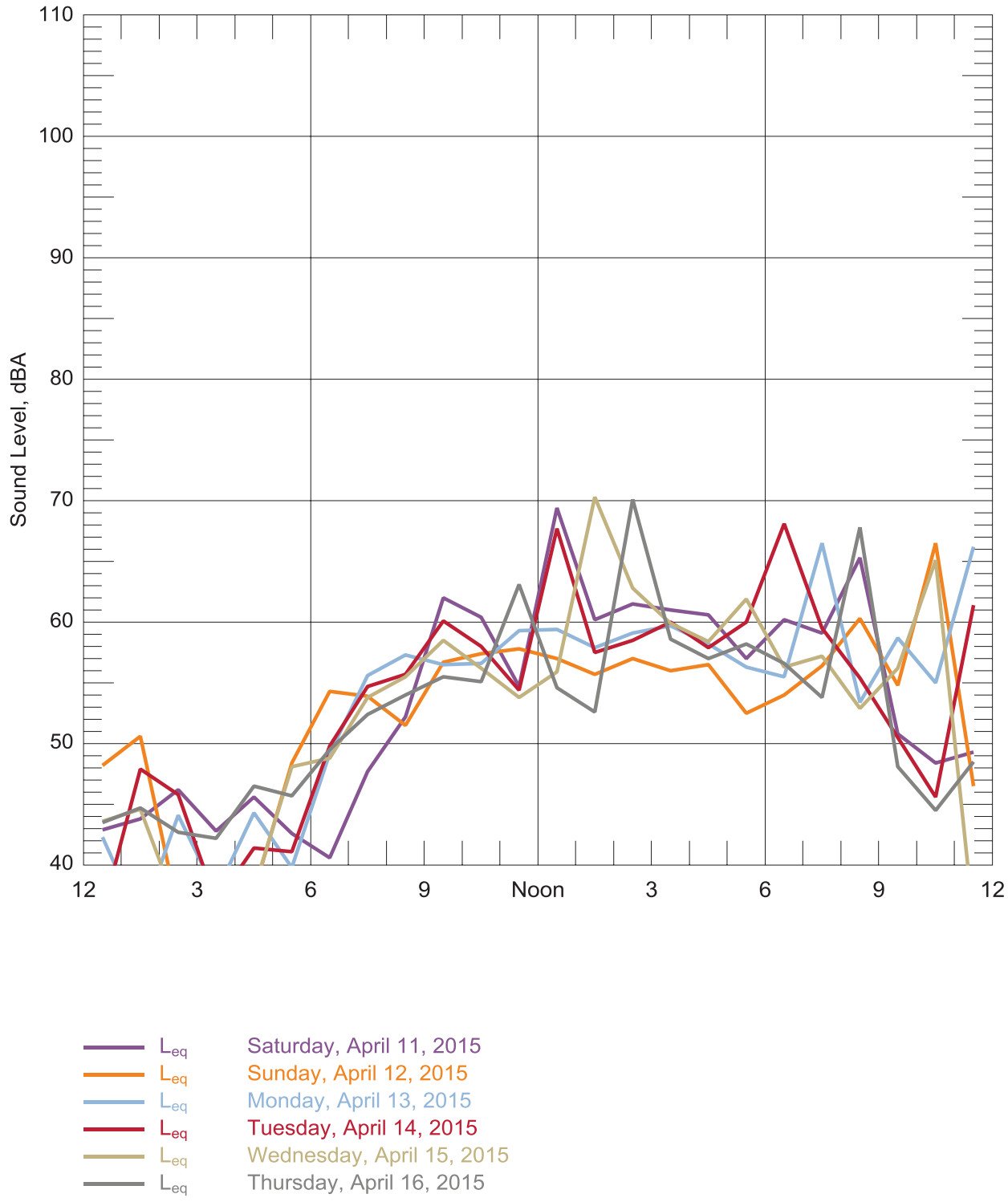


Figure 141: Hourly statistical summary of noise levels at Location 20 - 7220 Central Park Drive, Aberdeen

WILSON IHRIG
ACOUSTICS, NOISE & VIBRATION
CALIFORNIA
WASHINGTON
NEW YORK

MEMORANDUM

DATE: 6 May 2015

TO: Jason Volk, Kim Marcotte, ICF International

FROM: Thom Bergen

SUBJECT: Supplemental short-term noise data – PSAP rail corridor
Westway-Imperium Expansion Project – Hoquiam, WA

This memorandum presents noise data collected during three site visits to the PSAP corridor on April 10th, 17th, and 27th, 2015. The data includes short-term (10 minute) environmental noise samples collected using a sound level meter and digital data recorder.

This data was collected to supplement the long-term measurements all of which were made in the vicinity of grade crossings. The short-term samples were taken at greater distances from the PSAP alignment to support the impact analyses. In addition to noise data, passing cars and trucks on adjacent roadways were counted during the recording period where appropriate.

EQUIPMENT

The equipment used to collect the short-term noise samples included a B&K Type 2230 Sound Level Meter (S/N1258361) with B&K Type 4189 Microphone (S/N 2556012). The linear output signal from the sound level meter was recorded on a Sony PCM-D50 digital data recorder (S/N 1026786) with a sampling rate of 44.010 kHz. The Type I setup was calibrated using a NIST-traceable B&K Type 4230 Sound Level Calibrator (S/N 1510494).

MEASUREMENT LOCATIONS

A total of 28 short-term measurements were made at various locations along the PSAP corridor. Most of supplemental measurements were made in the more dense population centers, specifically Centralia, Elma and Aberdeen. Measurement locations are indicated in Figures 1 through 4. Half of the samples were collected at the same location as the long term measurements to determine relative noise levels for the locations at greater distances from the grade crossings.

DATA ANALYSIS

Noise samples recorded in .WAV format were analyzed using WIA proprietary software to compute a time series of 1-second contiguous samples resolved into 1/3 octave bands between 20 Hz and 20 kHz. From this time series, 10-minute Leq noise levels (dBA) were computed for each sample.

RESULTS

Data collected during the short-term noise survey are included in Table 1. The data includes the 10-minute L_{eq} at each location, observed noise sources and traffic counts.

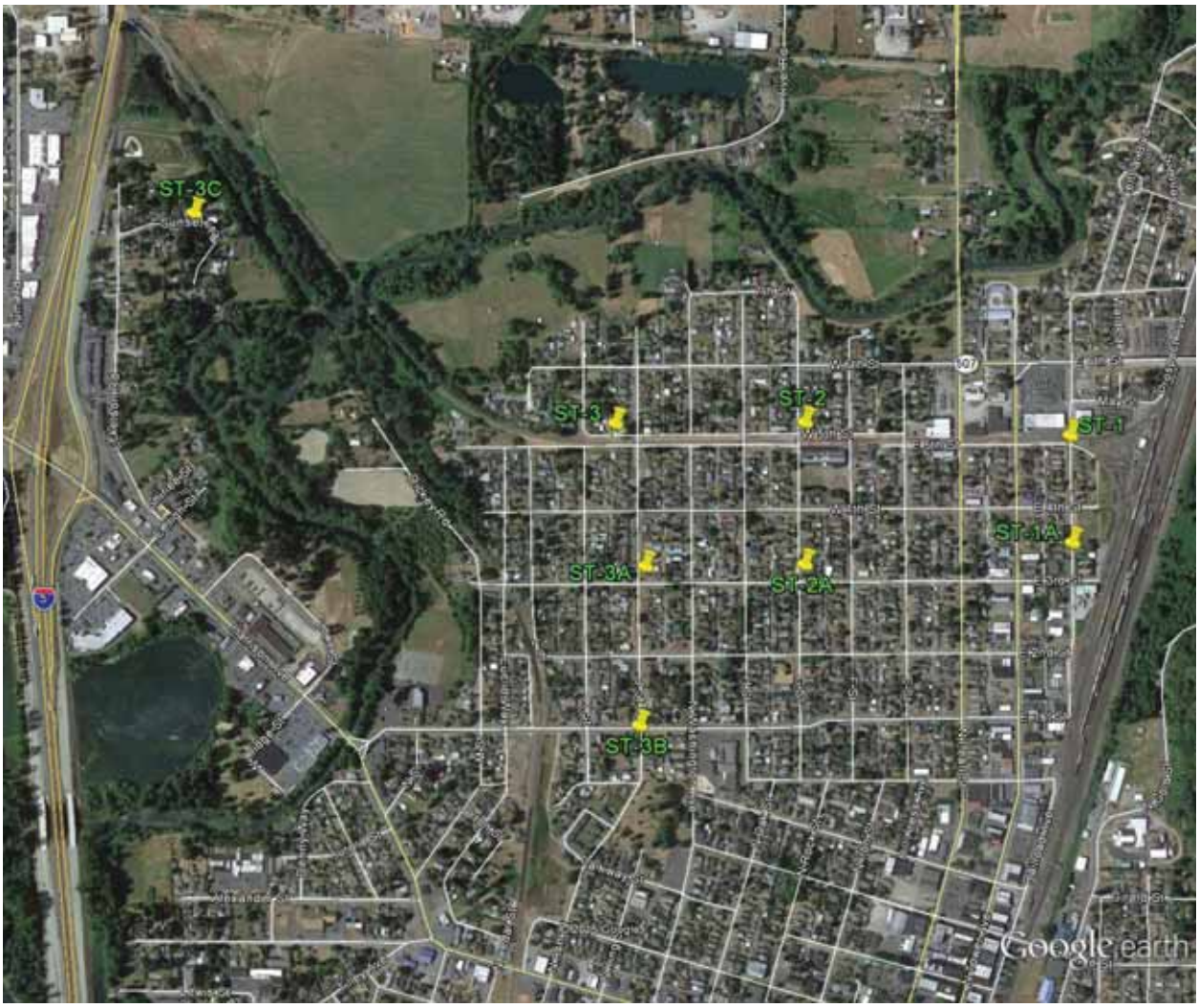


Figure 1: Short-term noise measurement locations, Centralia, WA



Figure 2: Short-term noise measurement locations, Rochester, WA

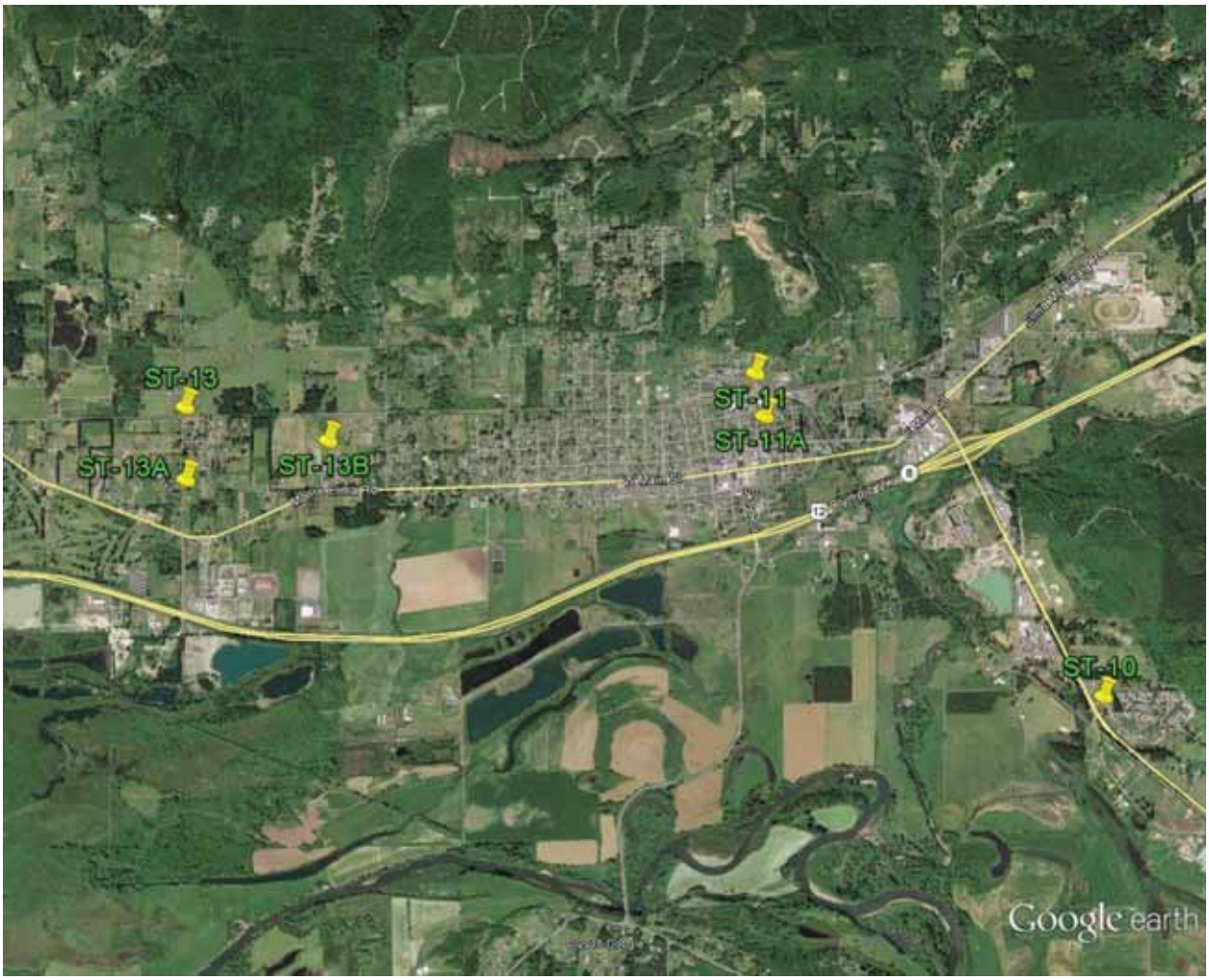


Figure 3: Short-term noise measurement locations, Elma, WA

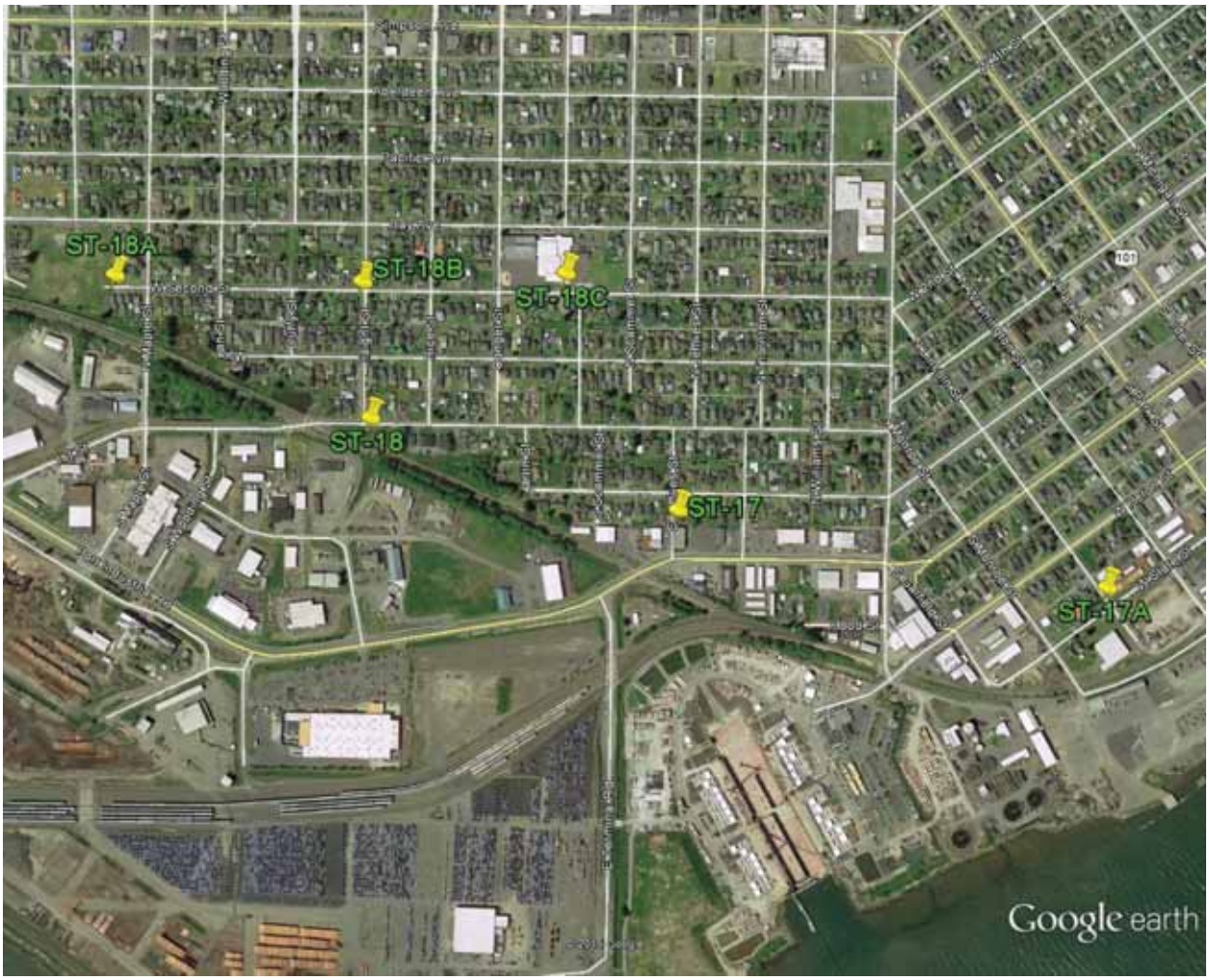


Figure 4: Short-term noise measurement locations, Aberdeen, WA

Table 1: Summary of short-term environmental noise measurements

LOCATION	ADDRESS	DATE & HOUR	10-min L_{eq} (dBA)	NOISE SOURCES
ST-1	1023 B St, Centralia	MON, 4/27, 11 AM	53	78 cars on C St. Trains on main line
ST-1A	909 B St, Centralia	MON, 4/27, 12 PM	48	Light industrial shop (Puget Sound Fiber)
ST-2	1102 G St, Centralia	MON, 4/27, 12 PM	47	2 cars
ST-2A	906 G St, Centralia	MON, 4/27, 12 PM	43	3 cars
ST-3	1103 J St, Centralia	MON, 4/27, 1 PM	40	Distant train horns
ST-3A	904 J St, Centralia	MON, 4/27, 12 PM	51	Children + 8 cars
ST-3B	802 W 1st St, Centralia	MON, 4/27, 1 PM	60	72 cars on W 1st (20 mph school zone)
ST-3C	1603 Sunset Way, Centralia	MON, 4/27, 1 PM	51	I-5, birds
ST-6	19318 Grand Mound, Rochester	FRI, 4/10, 1 PM	65	170 cars + 6 trucks On Hwy 12
ST-6A	19111 Joselyn Rd SW, Rochester	MON, 4/27, 2 PM	59	12 cars (35 mph)
ST-7	9237 183rd Ave SW, Rochester	FRI, 4/17, 1 PM	62	50 cars locally 11 trucks on Hwy 12
ST-8	180th Way & Littlerock Rd, Rochester	FRI, 4/10, 12 PM	62	20 cars
ST-10	22 Evergreen Village Lane, Elma	FRI, 4/17, 1 PM	70	60 cars +6 trucks On Hwy 12
ST-11	513 N 2nd St, Elma	FRI, 4/17, 2 PM	52	4 cars
ST-11A	115 W Anderson St, Elma	MON, 4/27, 7 PM	53	Lawnmower, dogs, 3 cars
ST-13	57 Hurd Road, Elma	FRI, 4/17, 2 PM	47	1 car
ST-13A	25 Hurd Road, Elma	MON, 4/27, 7 PM	57	3 cars
ST-13B	Elma Elementary School	MON, 4/27, 7 PM	44	Children, birds
ST-16	140 S Chehalis St, Aberdeen	MON, 4/27, 5 PM	59	317 cars + 1 truck On E Wishkah St
ST-16A	S Chehalis & Henry Alley, Aberdeen	MON, 4/27, 6 PM	45	E Wishkah St
ST-17	102 S Jefferies St, Aberdeen	MON, 4/27, 4 PM	55	195 cars + 10 trucks
ST-17A	311 S Lincoln St, Aberdeen	MON, 4/27, 5 PM	53	6 cars
ST-18	2100 1st St, Aberdeen	FRI, 4/17, 3 PM	58	20 cars, children
ST-18A	2408 W 2nd St, Aberdeen	MON, 4/27, 3 PM	47	children
ST-18B	2101 W 2nd St, Aberdeen	MON, 4/27, 4 PM	54	5 cars
ST-18C	AJ West Elementary School	MON, 4/27, 4 PM	52	Children, lawnmower
ST-19	11846 170th Ave SW, Rochester	FRI, 4/10, 10 AM	50	6 cars 2 medium trucks
ST-20	7220 Central Park Dr, Aberdeen	FRI, 4/10, 11 AM	51	6 cars