

AGREEMENT

between

WASHINGTON STATE UNIVERSITY

and

LINCOLN COUNTY CONSERVATION DISTRICT

THIS AGREEMENT is made and entered into by and between Washington State University, an institution of higher education and an agency of the State of Washington (WSU), hereinafter referred to as "University" and Lincoln County Conservation District, hereinafter referred to as "District".

1. PURPOSE OF THIS AGREEMENT

- a. The University desires to provide funds for the execution of the *"Fourth Grade Soil Erosion Educational Tour"* as set forth in Exhibit "A" attached hereto and incorporated herein by reference (the "Project").
- b. The District agrees to execute the Project in accordance with Exhibit "A" and the terms and conditions stated herein.

THEREFORE, it is mutually agreed that:

2. RESPONSIBILITIES OF THE PARTIES:

- a. University will provide \$290.00 (Two Hundred Ninety Dollars) from the Verle Kaiser Conservation Endowment Fund to support this project.
- b. The District will submit an itemized invoice billing WSU for reimbursement at least quarterly, but not more often than monthly, to the following address:

Washington State University
Controller's Office
P O Box 641025
Pullman, WA 99164-1025

3. PERIOD OF PERFORMANCE:

Subject to its other provisions, the period of performance of this Agreement shall commence on July 1, 2015 and be completed on June 30, 2016 unless terminated sooner as provided herein.

4. PAYMENT:

- a. The amount of compensation under this Agreement shall be \$290.00 (Two Hundred Ninety Dollars).
- b. The source of the funding under this Agreement shall be the Verle Kaiser Conservation Endowment Funds.

- c. Payment will be made by WSU within thirty (30) days of receiving a properly completed invoice.
- d. Payments shall be made to:

Lincoln County Conservation District
P O Box 46
Davenport, WA 99122

5. INDEPENDENT CAPACITY

The employees or agents of each party who are engaged in the performance of this Agreement shall continue to be employees and agents of that party and shall not be considered for any purpose to be employees or agents of the other party.

6. TERMINATION

Either party may terminate this Agreement upon ninety (90) days prior written notification to the other party. Any compensation due the parties as provided in the Agreement shall be prorated to the date of termination of the Agreement.

7. ALTERATION AND AMENDMENTS

This Agreement may be amended by mutual agreement of the parties. Such amendments shall not be binding unless they are in writing, signed by personnel authorized to bind each of the parties, and attached to the Agreement.

8. DISPUTES

In the event that a dispute arises under the Agreement that the parties cannot resolve, the dispute shall be determined by a Dispute Panel in the following manner: Each party to this agreement shall appoint one member to the Dispute Panel. The members so appointed shall jointly appoint additional member(s) to the Dispute Panel to make an uneven number of Panel members. The Dispute Panel so constituted shall review the facts, contract terms, and applicable statutes and rules, and make a determination of the dispute. The determination of the Dispute Panel shall be final and binding to the parties. There shall be no charge for these services.

9. GOVERNANCE

This contract is entered into pursuant to and under the authority granted by the laws of the State of Washington and any applicable Federal laws. The provisions of this Agreement shall be construed to conform to those laws.

10. ASSIGNMENT

The work to be provided under this Agreement, and any claim arising there under, is not assignable or delegable by either party in whole or in part, without the express prior written consent of the other party, which consent shall not be unreasonably withheld. Any assignment shall be effective only if written, signed by the authorized representatives of each Party and attached to this Agreement.

11. NOTICE

The contact person for all communications regarding the performance of this Agreement shall be:

For Washington State University:

Cindy Murray-Armstrong
Washington State University Extension
Center for Sustaining Agriculture and Natural Resources
7612 Pioneer Way E
Puyallup, WA 98371-4998

For District:

Lincoln County Conservation District
Lea Shields
P O Box 46
Davenport, WA 99122
509.725.4181, Ext 100
lshields@conservewa.net

12. SIGNATURES

The parties affirm the individuals signing the Agreement have been granted the authority to do so.
The parties

WASHINGTON STATE UNIVERSITY

LINCOLN COUNTY CONSERVATION DISTRICT

Approved by:

Approved by:

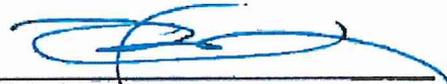


Christine R. Hoyt
Contracts Manager
Washington State University

Date: 6-10-15

Date: 6-18-15

Recommended by:



Chris Johnson
CAHNRS Director of Administrative Services

Date: 5-19-15

Exhibit A

Verle Kaiser Conservation Endowment 2015

Fourth Grade Soil Erosion Educational Tour

Lea Shields
Lincoln County Conservation District
P.O. Box 46
Davenport, WA 99122
509-725-4181 ext. 116
lshields@conserveva.net

Justification

Soil health and erosion are major issues that farmers in Lincoln County face on a regular basis. Because of this, educating children at a young age should be a priority due to the close proximity in which they live to areas that are directly affected. Although they may live quite close to working farms, many school-age children who live in town may not have had the opportunity to get hands-on experience seeing exactly how a farm carries out its day to day operations. Getting out into the field and experiencing this first-hand will help foster an interest and passion for conservation in the areas close to where they call home. Soil health is not solely an issue that affects farmers so the goal is to tie in a relevance to their lives in rural eastern Washington.

The Lincoln County Conservation District makes it a priority to educate and reach out to the community as outlined in our 5-year plan. This endowment would assist with that goal and help further our mission by creating a means to get students thinking about soil health and erosion.

Objectives

- Provide an opportunity to teach children about the importance of soil health and conservation and its relevance to their life in rural Lincoln County
- Organize a field trip to take the Davenport Elementary School fourth grade class to a local farm to attend a presentation by four local farmers on soil health and erosion
- Foster an excitement and interest in agriculture and sustainable practices in children that may not have had a chance to see farm practices in action previously
- Provide materials and promotional items to facilitate engaging projects and learning for the students
- Teach students about soil residue and erosion through a hands-on activity in the classroom to see the effects of soil composition on erosion
- Promote communication and collaboration among educators, farmers, and the Conservation District

Approach

The Lincoln County Conservation District will partner with the Davenport Elementary School, and four local farmers to educate 40 fourth graders about agricultural conservation practices and soil erosion. Students will learn about erosion in the classroom, then take a field trip to a local farmer's field to experience how farmers are preventing erosion on their lands. Hal Johnson, a farmer in Lincoln County, has agreed to host the event at his farm, and we have contacted three other local farmers (Ryan Walter, Todd Carstens, and Jim Baye) who would like to participate in the presentation. The trip will take place in the spring.

In the classroom, the students will participate in a hands-on project taught by members of the Lincoln County Conservation District to see the effects of erosion on different types of soil. Before the exercise students will be asked to predict how they think soil composition affects erosion. We will set up an experiment in which three trays consisting of different soil makeups will be used to demonstrate how the individual makeup of each affects erosion. One tray will have wheat stubble. The second will have tilled earth including residue. The third will consist of bare soil. The trays will be elevated slightly on one end with a drain at the other end and a clear container to collect the water that drains out. Children who volunteer will have the opportunity to pour water onto each tray and the resulting amount of sediment in the runoff will show how each type of earth affects the loss of topsoil. This exercise will help conceptualize erosion for students and make it more clear what they will be learning about when they get out onto the farm.

At the farmer's field, they will have the opportunity to meet the farmers and see a tractor and drill. The farmers will give an informational presentation about how their agriculture conservation practices, such as the direct seed method, are working to prevent soil erosion and about their farm operation. The students can see the tractor and drill up-close and see the drill when seeding and ask questions.

Additionally, the Conservation District will provide light refreshments for students while on the field trip. Learning and promotional materials will be distributed to be used in the classroom following the field trip. This will help get students excited about soil and thinking about what they learned long term.

Budget

Item	Description	Quantity	Cost
Promotional items to be distributed to participants	Pencils, rulers, "I love soil" stickers, give-away bags	Pencils (100) Stickers (1 roll) Rulers (50) Bags (300)	\$200
Refreshments for children on site	Veggie plate, cookies, juice	Enough for 40 students plus volunteers	\$50
Materials for project	Trays, soil from different locations, various construction materials, watering can	Materials for one group project	\$40
		Total	\$290

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1. PURPOSE OF THIS AGREEMENT

- a. The University desires to provide funds for the execution of the "*Soil Quality Testing Encouraging Soil Erosion Mitigation Efforts in Lincoln County*" as set forth in Exhibit "A" attached hereto and incorporated herein by reference (the "Project").
- b. The District agrees to execute the Project in accordance with Exhibit "A" and the terms and conditions stated herein.

THEREFORE, it is mutually agreed that:

2. RESPONSIBILITIES OF THE PARTIES:

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For District:

Lincoln County Conservation District
Stacey Dewald
P O Box 46
Davenport, WA 99122
509.725.4181, Ext 100
sdewald@conservewa.net

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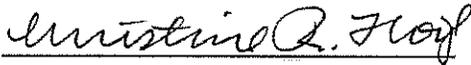
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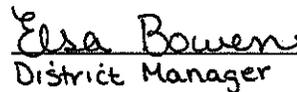
WASHINGTON STATE UNIVERSITY

LINCOLN COUNTY CONSERVATION DISTRICT

Approved by:

Approved by:




District Manager

Christine R. Hoyt
Contracts Manager
Washington State University

Date: 7-1-14

Date: 7-2-14

Recommended by:



Don Holbrook
CAHNRS Director of Administrative Services

Date: 6/5/14

Verle Kaiser Conservation Endowment 2014

Soil Quality Testing encouraging Soil Erosion Mitigation Efforts in Lincoln County

Stacey Dewald
Lincoln County Conservation District
PO Box 46
Davenport, WA 99122
(509)725-4181 Ext 100
sdewald@conservewa.net

Justification

The Lincoln County Conservation District and the West Palouse Local Work Group knows they need to target Soil Quality and Erosion and consider providing education to producers about the critical link between soil quality and soil erosion, a cornerstone in the foundation of building conservation practice acceptance and adoption.

The Lincoln County Conservation District has identified cropland soil erosion and soil health as a top natural resource concern. Soil erosion was documented as one of two high priority concerns of the District's 5-Year Plan (LCCD, 5-Year Plan). There is a strong need of funding to reach the 5-Year Plan goals of getting "acres and people involved, number of plans, and organic matter measurements" for erosion control, accomplished by 2018 (LCCD, 5-Year Plan).

Local producers have also voiced their concern for these conservation issues. A collaboration of local producers, state conservation agencies and the Natural Resource Conservation Service (NRCS), called the West Palouse Local Work Group (WPLWG), recently met and determined their conservation focus topics for the fiscal year 2015 funding cycle. Soil quality and erosion were listed as priority concerns in the Lincoln and Adams Counties (WPLWG, March). The WPLWG knows they need to target soil quality and erosion, so providing education to producers about how to manage their soil quality and erosion conservation efforts, would allow them to accomplish their goals and mitigate the concerns.

Erosion Facts

According to a study that was done by the USDA in the 1970's, it was estimated that $\frac{3}{4}$ of a ton of top soil was lost for every bushel of wheat yielded. This averaged out to a loss of 14 tons to the acre of cropland (Palouse Cooperative Study, 1978). This data shows how large of a contribution agriculture production land has on the erosion in our area. In a subsequent USGS fact sheet produced in 1998, it was estimated that there has only been a 10 percent reduction in erosion (USGS, 1998). This data shows that there has been a reduction in erosion, but there is opportunity to increase the reduction rate.

Soil erosion directly affects productivity on agriculture cropland. The book, *Soil Erosion and Conservation* by R.P.C. Morgan, explains how erosion specifically contributes to the decrease in soil quality on cropland:

Erosion is a particular concern on agricultural land, where redistribution of soil, loss of soil, breakdown of soil structure and the decline in organic matter and nutrients, results in a reduction of cultivatable soil depth and a decline in soil fertility. Erosion also reduces available soil moisture, resulting in more drought-prone conditions. The net effect is a loss of productivity, which restricts what can be grown and results in increased expenditure on fertilizers to maintain yields. (Morgan, 2005)

If producers are not educated about soil erosion and implement a good erosion reduction management plan, more soil erosion and soil loss is likely to result. Providing producers with the best type of management plan for their soils and operation will help reduce erosion effects.

Soil Quality Facts

Soil quality is the foundation for any function of land. It is defined as “the capacity of a soil to function within ecosystem boundaries to sustain biological productivity, maintain environmental quality, and promote plant and animal health” (SSSA, 1997).

Soil quality testing will provide producers with a soil quality index. This index gives producers the basic performance functions of their soil (i.e., maintaining productivity, regulating and partitioning of water and solute flow, filtering and buffering against pollutants, and storing and cycling nutrients)(USDA, iii). This test can inform producers of their quality of production. By educating producers about soil quality and how it can affect their production performance, producers can make efforts to control soil erosion. Management of control efforts can be provided by WSU extension and Natural Resource Conservation Service.

Directly stating the facts about producers’ soil quality can have an effective impact on their erosion concern, and encourage them to take the necessary steps to control erosion and increase soil quality. Producers can work with Washington State University Extension and Natural Resource Conservation Service, to create a proper conservation management program to decrease their impact of soil erosion on their land.

Objectives

- Educate producers in Lincoln County about the importance of soil quality testing, and how it can affect soil erosion, by doing demonstrations and having informational brochures for producers
- Encourage producers to partner with the NRCS and WSU Extension to come up with a conservation management plan that can help control erosion on their property
- Meet the erosion mitigation goals of the producers in the West Palouse Local Work Group and the Lincoln County Conservation District

- Continue to use the Soil Quality Test Kit that was purchased through the Verle Kaiser Conservation Funding, each year to continue Soil Quality research and education
- Collaborate with key soil conservationists, at WSU Extension and NRCS on this valuable conservation project

Approach

Initial Approach

The Lincoln County Conservation District plans to partner with Aaron Esser, Washington State University Extension Adams/Lincoln County Crop & Soil Scientist, to perform the Soil Quality Testing. When performing the Soil Quality Tests, Esser will follow the NRCS Soil Quality Index Testing Guide. During the Spring, Esser will take multiple test samples from areas within the Wilke research ground. After results are formed, Esser will continually keep a record of each time he tests.

A Soil Quality Testing demonstration will be presented at the WSU Extension Wilke Field Day that Esser hosts each year. There is an estimated 100 producers who attend, thus this is an effective resource of getting the education to producers. The final tests results will be presented at a Lincoln County Growers meeting in January, at the Davenport Memorial Hall.

Lincoln County Conservation District will help foster the testing and provide outreach and education to the public. Educating local landowners about the importance of soil health quality, and how it can affect erosion.

Overall Approach

- The Lincoln County Conservation District will purchase a Soil Quality Test Kit
- Esser will perform Soil Quality Tests in the Spring and Fall
- Inform producers about the testing being done by Esser
 - via email (WSU Extension, and LCCD email groups), public newspaper, and Facebook Page (WSU Extension and LCCD)
- Invite producers to the WSU Extension Wilke Field Day
 - via email (WSU Extension, and LCCD email groups), public newspaper and Facebook Page (WSU Extension and LCCD)
- Demonstrate the Soil Quality Tests at WSU Extension Wilke Field Day
- Present Soil Quality Test results at the Growers Meeting
- Producers and the public will be informed about the results and information
 - via email (WSU Extension, and LCCD email groups) and Facebook Page (WSU Extension and LCCD)
 - The Lincoln County Conservation District Website will host the continuous Soil Testing reports

Budget

Item	Description	Quantity	Total
Soil Quality Test Kit	Purchase Test Kit from Gemplers http://www.gemplers.com/product/RGM250/GEMPLERS-Soil-Test-Kit#TAB-REVIEWS (Includes tax and shipping estimates)	1	\$950.00
Outreach-Advertising	Help Esser with cost of promoting Wilke Field Day and Growers Meeting (newspaper, flyers, etc.)	1	\$150.00
Outreach-Brochure	Print Brochures containing Soil Quality and Erosion information (Present at Wilke Field Day and Growers Meeting)	1(200)	\$150.00
Outreach- Email, Website,	Promote Soil Quality and Erosion information, Wilke Field Day, Growers Meeting, as well as Soil Quality Test results, etc. (via email and district website)	1	\$0
Outreach- Display Board	Promote Soil Quality and Erosion information, as well as Soil Quality Test results, etc. (create a display board to host at Growers Meeting, Agriculture Meetings, etc.)	1	\$100.00
Meeting Room Rental	Support cost of Lincoln Memorial Hall room rental for the Growers Meeting (hosted by Esser)	1	\$50
Meeting Refreshments	Provide small refreshments at the Wilke Field Day, and Growers Meeting	1	\$100.00
Total			\$1,500.00

Works Cited

- Ebbert, James C., USGS., Roe, R. Dennis, USDA. USGS Fact Sheet FS-069-98. *Soil Erosion in the Palouse River Basin: Indications of Improvements*. July 1998. Available at <http://wa.water.usgs.gov/pubs/fs/fs069-98/> Accessed: 4/7/14
- LCCD. *5-Year Plan 2013-2018*. Lincoln County Conservation District
- R.P.C. Morgan. *Soil Erosion & Conservation*. 2005. 3Ed. Blackwell Publishing Company. Malden MA. 1p.
- Soil Science Society of America (SSSA). 1997. *Glossary of Soil Science Terms 1996*. Soil Science Society of America Inc., Madison WI. 139 p.
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- West Palouse Local Work Group. *Meeting Notes*. 17 March 2014.