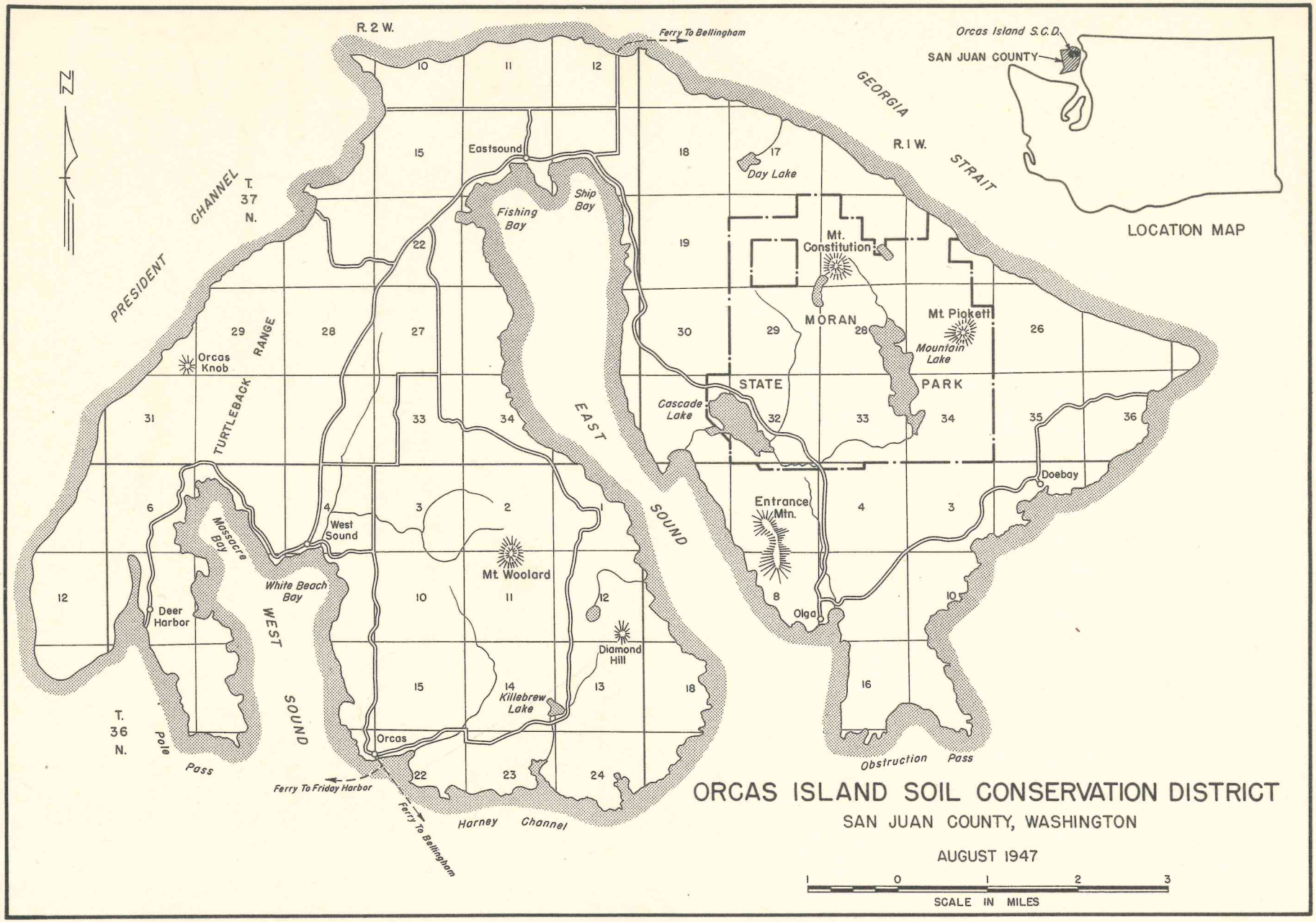

U. S. DEPARTMENT OF AGRICULTURE REGION 7 SOIL CONSERVATION SERVICE

ORCAS ISLAND S.C.D, WASH. 7-L-10951

PROGRAM

OF THE

ORCAS ISLAND SOIL CONSERVATION DISTRICT

1. Information

A. The Orcas Island Conservation District was organized under the enabling act known as Senate Bill 343 of the 26th Regular Session of the Washington Legislature, and signed by the Governor on March 17, 1939.

B. Description and Location

The District occupies all of Orcas Island, one of the San Juan Island Group, in the Northern Puget Sound waters of Northwest Washington. Orcas is the largest island in the San Juan Group. It has an area of 56.92 square miles. In shape it consists of two almost equally large land masses of irregular outline, but extending roughly North 30 degrees West. These two bodies are almost separated by a narrow and deep body of water called East Sound which deeply indents the Southern coastline. A strip of land one and one-fourth miles wide joins the two at the Northern end of the Island. Some portions of this strip are below sea level and are protected from inundation only by wave-built sandbars.

From this point the two main divisions of the Island extend Southward. The Western division consists of the slopes and valleys surrounding and flanking two peninsular ridges. Turtleback Range and Mt. Woolard area, which are themselves separated by the less deeply

indenting arm of water known as West Sound.

The Eastern Division consists chiefly of the Mt. Constitution Range and the foothills and small valleys which skirt it's slopes. This area is more rugged in contour than the Western portion, is more impressive in the proportions of it's scenic features and is more uniformly supplied with continuously flowing streams. However, it includes a lesser expanse of land suitable for farming purposes.

These indentations on the coastline divide the Island somewhat into communities corresponding to the land divisions, as the Orcas-West Sound area, the West Sound-Deer Harbor area, and the East Sound-Olga-Doebay area. However, community life overflows these boundaries readily.

The topography of the Island is marked by abrupt changes in elevation. The highest point, Mt. Constitution in Moran State Park on the Eastern division, has an elevation of 2409 feet. On the West Orcas knob rises to 1050 feet, and in the South central portion, Diamond Hill reaches 1020 feet. Many of the slopes of the numerous ridges are heavily timbered, however, much of the old growth timber is of low grade from wind warp and until recently, market outlets have been poor. The farmlands on the Island occupy the footslopes along these ridges and the narrow valleys between. In addition, considerable acreage of farm timberland extends up to the steeper slopes.

C. Type of Farming and Agricultural Practices

Due to the heavy freight cost to and from the Island, export prod-

ucts yield a profit only as their value is high in proportion to weight. This fact encourages production of bulbs, vegetable seed crops, and similar high price, low bulk crops on all suitable soils. Soils adaptable for such types of agricultural production are limited, however, in extent. There is a local market for meat animals and for dairy and poultry products and for some truck and specialty products due to the fact that a very large resort business exists here. Consequently, a mixed type of agriculture is found which reflects these conditions.

Rainfall is somewhat lighter than on the mainland to the East, about 25 inches of precipitation falling per year. This is true because the Island is to some degree under the so-called "rain shadow" of the Olympic Range. The rainfall on the Mt. Constitution Range is much heavier than on the areas of low elevation. The rainfall is mostly confined to the winter months, and the weather is dry during most of the summer. This condition causes some drouthiness in many of the soils, many of which are not of a character as to retain moisture for extended periods. Temperatures are similar to those generally found in the Puget Sound area except for the stabilizing influence of a large body of water on a small island which retards speed of fluctuation.

Following are 40 year average temperatures recorded by the U. S. Weather Service for each month of the year:

January	39.0 degrees F.	July	59.6 degrees F.
February	41.2 " "	August	59.6 " "
March	44.0 " "	September	56.1 " "
April	48.4 " "	October	50.2 " "
May	53.0 " "	November	44.6 " "
June	57.0 " "	December	41.0 " "

Over this same 40 year period the growing season averaged a 229 day period extending from March 29 until November 13.

The native vegetation of the island is similar to that of the Western Washington mainland, but more limited. Conifers include Rocky Mountain juniper, western red cedar, western white pine, twisted cone pine, Sitka spruce, western yew, Douglas fir, and western hemlock. Among the broadleaf species western birch, red alder, cottonwood, aspen, large leaf maple, Rocky Mountain maple, white oak, Oregon ash, madrona, hawthorn, wild crab, dogwood and swamp laurel are found. A profusion of shrubs exists including several willows, salal, Oregon grape, hardhack, Scotch broom, cranberry, huckleberry, thimbleberry, salmonberry, several blackberries, several species of wild rose, and other minor species too numerous to list.

The animal wild life on the island is more sharply limited than is the plant life. This can doubtless be attributed to the water barrier rather than to any climatic factor. Naturally birds have crossed this barrier with little hindrance, and scarcity of any species can be attributed to lack of preferred food.

D. Farm Type and Ownership

There are 121 farms in this District covering approximately 19,843 acres. The average size of each farm is 151 acres. Of these, 95 percent are owner-operated, 5 percent renter operated. Most of the remaining population consists of the resort population, this Island being noted as a resort center. The tourist business and the people who live here because of the scenic beauty and equable climate constitute an important economic factor. Few other important industries are found here. A fish cannery at Deer Harbor hires approximately 100 men during the fishing season.

E. Problems of the District

The lands in this district show moderate gully erosion and alluvial deposits at the foot of slopes which would indicate some sheet erosion. However, rills appear in all lands when they are depleted of vegetative growth or when prepared for cultivated crop. Probably less plant growth, both in grasses and timber, tends to permit erosion especially when the soil is disturbed or depleted of it's cover. Where land is cultivated closely, we urge rotation of tilled crops with grass and legume crops to renew the organic matter. Cross slope cultivation and timely farming operations are recommended on all sloping land. Winter cover crops and green manure crops should be used whenever feasible to prevent the land from lying exposed. This will help to prevent internal breakdown and external erosion and also work more plant food material back into the soil.

A considerable portion of our hay and pasture lands seem to us to produce much poorer crops than those of which we think they should be capable. It seems likely that in most cases a program of adding green manures to these soils, accompanied by proper fertilization, re-seeding, and other good management practices will increase production and build up the level of our agriculture. We propose to encourage this.

Improved drainage is one of the problems of this district. While much of the land is sloping and gets quite dry in summer, there is considerable acreage where improved drainage is needed particularly during the early growing season as timely tillage is not possible because of the condition of some of this land. We propose to request engineering and other needed assistance to meet this need.

At the same time that drainage is needed, there is insufficient water available in many parts of the district for domestic, stock and irrigation use. By the nature of the rock formations, it is difficult to secure adequate supplies of water by drilling to depths economically feasible. Streams in the Mt. Constitution Range furnish fairly adequate supplies of water in the Eastern portion of the district, but no such supply is available in the Western part. As a result of these conditions, water storage for irrigation, stock, or domestic use is needed in some locations. It will be the effort of the District Board to meet these needs as requested and when means can be found.

Much of the farm land in the district has undergone numerous

changes in ownership, type of agriculture, and kind of management. Many fields, as originally laid out and fenced do not now fit the needs of the operators. Many farms have been permitted to drop into a condition of lowered efficiency. Soils information has not in the past been available to guide our farmers in making the best use of all their land. In view of these things, we propose to work out with all requesting farmers, a conservation farm plan making use of the technical assistance of the Soil Conservation Service and the advice of the County Extension Agent, by which we hope to accomplish the following things:

1. Provide a detailed soil survey showing the capability of all land on the farm as a guide to making use of that land for the use to which it is best adapted, whether cultivated crops, pasture or woodland.
2. Provide a land use map showing the field layout which the planning technician and the farmer agree best suits the farmer for his future field arrangement.
3. Provide a planned rotation or cropping sequence for each field for as long a period ahead as appears possible at the time of planning.
4. Make recommendations for grass, legume, or other seedings most suited to the soil and conditions outlined in the plan, with special seeding recommendations for unusual situations, such as wet lands, dry stony lands, etc.
5. Furnish information regarding seedbed preparation, program of

fertilization, program of management, and other information regarding such plantings as shall assist the farmer to achieve the fullest success with the crops involved.

6. Include detailed plans and instructions for the engineering or other similar improvements which the farmer wishes to make and which appear feasible.

7. Provide for sustained yield management program covering all woodland stands on the farm. In this connection, woodland is considered as one of the crops grown on the farm, differing from others in length of growing period and methods of management but equally possible to manage as part of the recurrent production of the farm.

Some of the improvements and programs described above are needed in situations where only joint and cooperative action of groups of farmers will produce the desired results. Soil Conservation Districts are giving assistance to their farmer-cooperators in forming such groups, either as state-organized drainage districts, improvements districts, etc., or as voluntary unincorporated associations organized for specific jobs. We propose to assist our farmers in this manner in whatever undertakings are in our judgment wise and feasible within the limits of our power. We take this to include the use of our district as an organizing point to secure help for our farmers, from any other state agency, or any county, federal, or other agency.

Of the large stands of Douglas fir and other timber in our district, only small amounts of woodland products have found a profitable market

outlet in the past. However, there now appear to be improved market prospects for much of our woodland production. We believe our farmers need technical assistance in management and cutting, and have already mentioned this. However, beyond this, we believe they need information and assistance in managing and selling so as to receive fair prices and yet maintain their woodland resources to the best advantage. The District therefore proposes to assist cooperating farmers by attempting to secure technical forestry assistance, promote cooperative action and give out information regarding the value of woodland stands and the best ways to maintain them and to market woodland products.

11. Aims of the District

The aims and objectives of the District are to solve the problems listed above. This will be attempted by the following means:

A. Educational

Because soil and water conservation and good land use can be secured only through the cooperation of the whole community, the supervisors propose to interest the whole community, using the following means:

1. Furnish copy to newspapers, radio stations, and other publications.
2. Circulate this program to all whom it may interest.
3. Prepare a story of the work of the district in photographs and colored slides for display in public places and showing before community gatherings.
4. Cooperate with all educational agencies or groups who can

assist us to make known our needs and efforts in coil conservation.

B. Action Program

We propose

1. To take the lead in group action toward control of erosion and conservation of soil and water resources.
2. To secure as rapidly as possible conservation soil surveys for all lands in the district and encourage the preparation and use of conservation farm plans on every farm.
3. Encourage the selection of crops in accordance with the capabilities of the land. Especially we will encourage the growing of timber on land only suited for woodland use.
4. To assist in improvement of hay and pasture lands by recommending improved hay and pasture mixtures and providing as possible for tests and demonstrations of such seedings through cooperation with farmers on the one hand and appropriate agencies on the other.
5. To assist in farm drainage:
   a. By securing engineering assistance as available.
   b. In group drainage by helping to prepare and present group agreements for joint action.
   c. By requesting assistance, either financial or technical or both, from appropriate agencies in the case of jobs in which the general public should have an interest.
   d. In group drainage by furnishing appropriate equip-

ment for loan when requested and available.

6. To assist with improved water storage:
   a. By securing engineering assistance as available.
   b. By helping to prepare group agreements in cases where joint action is required.
   c. By requesting assistance from appropriate agencies as stated under drainage assistance.
   d. By furnishing equipment for loan if requested and available.
7. To cooperate in measures which seem to us desirable for furthering the utilization of woodland products in the district to secure increased farm income to the owners.
8. Cooperate in measures to further the utilization of logged-off lands in the district.
9. Cooperate in efforts to establish an organized program of weed control in the district.
10. Cooperate in maintenance of fire control measures.
11. Cooperate in combatting disease and insect pests affecting farm crops.

ORCAS ISLAND SOIL CONSERVATION DISTRICT

By /S/ HAROLD McNALLIE
Chairman, District Governing Body

Date April 12, 1948

The signing of this District's Program was authorized by a resolution of the District Governing Body adopted at a meeting held on April 12, 1948

/S/ TOM S. HARRISON
Secretary, District Governing Body