



PROGRAM
OF THE
SAN JUAN ISLAND SOIL CONSERVATION DISTRICT

1948

1. Information

A. The San Juan Island Soil 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 San Juan Island, one of the San Juan Group, in the waters of Northern Puget Sound. It has an area of 55.39 square miles. The long dimension of the Island trends in a Northwest-erly direction and the Southeast end projects out as a long narrowed area. A rocky projection also extends Eastward somewhat South of the middle of the Eastern coast, and on the North side of this projection is formed a roughly rectangular harbor known as Friday Harbor. Skirt-
ing the shore is the small town of Friday Harbor, which is the county seat of San Juan County.

The topography of the Island is irregular. A number of low peaks reach heights ranging up to 1036 feet, and numerous rocky ridges tra-verse the Island, being generally covered with no more than a very thin mantle of soil. Located between these peaks and ridges are a number of low valleys of widely variable cropping potential. One of the larg-est and most fertile of these is the San Juan Valley located about mid-way up the Western side. Many of the more elevated areas are under-

lain at shallow depths with scab-rock or other compact material, and in some cases this land is not useful for other than low-grade early pasture.

The character of the rock formations causes water to be scanty on the Island, and only few locations seem to exist where irrigation from underground supplies is feasible. No continuously flowing streams exist on the Island, and since the average rainfall amounts to only 28 inches, and this falls mostly in the cooler months, farmlands here are very dry in summer.

C. Type of Farming and Agricultural Practices

Over a considerable period of time the chief types of farming have been dairying, sheep raising and beef raising. Sheep have held a large place in the economy due to the dry character of so much of the pasture land. Beef production is probably more prominent now than normally, due to the unusual price of meat. In addition to these animal enterprises cereal grains have been a major crop for many years. There are sizeable areas of the better lands where vegetable seeds, vegetables for canning, and strawberries are grown.

Due to a variety of causes the type of vegetation favored by this climate differs considerably from that on the mainland of Western Washington. This influence is also reflected in crop plants. For example, wheat is a common grain crop here, with good yields being common on the better lands. Alfalfa also seems to be better adapted here than on the mainland. However, crop yields in general seem to have been decreasing gradually for a number of years, and it is possible that the organic content of the soils has been lowered dangerously over long periods

and that decreased yields reflect this danger.

Since the grasses and legumes grown on the Island in the past have been mostly the same ones which are successful on the mainland, it seems possible, in view of the foregoing discussion, that other varieties, more closely fitted to our conditions may be found, and that these may serve our needs better than the ones to which we have become accustomed.

The Island enjoys a long growing season, averaging 229 days, but the dry weather during the summer months makes it imperative to secure most of the needed vegetative growth at an early period except for drouth tolerant plants.

Winter temperatures are mild, as is generally true on the Washington coast, while summer temperatures are subject to less daily fluctuation than on the nearby mainland, due to the modulation influence of air coming off the surrounding body of water. Following are 40 year average temperatures taken at the nearest official weather station at Olga, on Orcas Island. It is believed our conditions are closely similar.

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 the same 40 year period the growing season on the average opened on March 29 and closed on 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, white fir, lodgepole pine, Sitka spruce, western yew, Douglas fir and western hemlock. Among the broadleaf species western birch, red alder, cottonwood, large leaf maple, Rocky Mountain

maple, white oak, madrona, hawthorn, native crab apple and swamp laurel are found. A profusion of shrubs exists including several willows, salal, Oregon grape, hardhack, Scotch broom, cranberry, shrubby lupine, soap-lallie, several blackberries, several species of wild rose, and minor species too numerous to list.

The animal life in this district is marked by many divergences from that found on the mainland. This is natural on an island. Even on this group of many islands each one is somewhat individual. Hence, we find a situation in which this island has deer, because deer can swim here from the mainland or from another island. It lacks many small animals which cannot swim so far and have not yet been transported here. It does not lack so many birds as it does animals because the water barrier does not matter much to birds. In fact, the Island harbors some birds not very common in Western Washington. We refer especially to the Bald Eagles which nest here in considerable numbers, and prey on our sheep and on the ^{RABBITS} ~~Belgian hares~~. The ~~hares~~ have been imported by man. They have multiplied enormously, and are now a great pest to those who wish to grow pasture, grain crops, or almost any type of vegetation. However, to those who net them for the Seattle market they are a source of considerable income, and are saved from eradication due to the efforts of these people and due to the natural difficulty of reducing a rabbit population.

D. Farm Type and Ownership

There are 156 farms in the district covering 30,132 acres. Of these farms 90% are owner operated, and 10% are renter operated. According to the 1945 census there were 7166 sheep and lambs raised in the District,

and 658 cows milked. The number of sheep raised and cows milked has dropped considerably since 1905. Aside from farm business of some kind, and a small amount of logging most of the other industries are associated either with the fish canneries at Friday Harbor or with the lime plants at Roche Harbor. In addition, the people who live here and those starting resort businesses because of the scenic beauty and equable climate constitute an important economic factor.

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 acute sheet erosion. Rills appear in all types of land wherever they are depleted of vegetable growth, or when subjected to rainfall while prepared for cultivated crop. Probably less plant growth on the ground here than on the mainland, both on grasslands and in timber, tends to permit erosion, especially when the soil is disturbed. Where land is cultivated closely we urge rotation of tilled crops with grass and legume crops in order to renew the organic matter. Cross-slope cultivation and timely farming operations are recommended on all sloping land. Winter cover crops and grass manure crops should be used whenever feasible to prevent the land from lying exposed. This will tend to prevent internal breakdown and external erosion, and also to work more plant food material back into the soil.

One type of erosion not very common to Western Washington occurs at Cattle Point, on the Southeastern tip of the Island. Here several acres of sand have begun to blow from exposure to the wind, and show possibili-

ties of developing into a dune area. We propose to request technical assistance and planting materials for the control of this wind erosion.

A considerable portion of our hay and pasture lands seems to us to produce much poorer crops than those of which we think it should be capable. It seems likely that in most cases a program of adding green manures to these soils, accompanied by proper fertilization, reseeding, 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 the district. On considerable acreage improved drainage is needed because during the early growing season timely tillage is not possible because of wet conditions.

At the same time that drainage is needed on many lands, there is a lack of water throughout the district for irrigation purposes. Drilling to secure irrigation water is not feasible in most farms here, and there are no continuously flowing streams from which irrigation water can be secured. In this situation a number of farmers have resorted to the construction of storage dams. Some of these dams have been well built, with good foundations and spillways. Others have been less well constructed, and some of these have failed. In any case engineering assistance for planning and construction of such dams is needed. Also, if equipment could be made available on loan or grant from the Soil Conservation Service, which would be useful in dam construction, this would fill a real need among the farmers. Such equipment is not commonly found on our farms.

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 down 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 woodlots.
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 as appears feasible 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 a sustained-yield 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 desired results. Soil conservation districts are giving assistance to their farmer-cooperators in forming such groups, either as state-organized drainage districts, improvement 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 limit of our powers. 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 products. 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 management with an eye to 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.

II. 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 soil 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. To encourage selection of crops in accordance with the capabilities of the land. Especially we will encourage the growing of timber on land suited only for woodland use;
4. To assist in improvement of hay and pasture lands by recommending improved hay and pasture mixtures, and by providing as possible for tests and demonstrations of such seedings through co-operation 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. By helping prepare group agreements in cases where joint action is required;
 - c. By requesting assistance from appropriate agencies in the case of jobs in which the general public should have an interest;
 - d. By furnishing equipment secured on loan if requested and available.
6. To assist with improved water storage;
 - a. By securing engineering assistance as available;

- b. By helping 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 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. To cooperate in measures to further the utilization of logged-off lands in the District;
 - 9. To cooperate in efforts to establish an organized program of weed control in the District;
 - 10. To cooperate in maintenance of fire control measures;
 - 11. To cooperate in combatting disease and insect pests affecting farm crops.

SAN JUAN ISLAND SOIL CONSERVATION DISTRICT

By /S/ GILBERT LAWSON
Chairman, District Governing Body

Date March 16, 1948

The signing of the District's Program was authorized by a Resolution of the District Governing Body, adopted at a meeting held on March 16, 1948.

/S/ ADRIAN BOYCE
Secretary, District Governing Body