

EXPERIMENTAL AQUATIC WEED HARVESTING PROJECT

VERNON ARM OF OKANAGAN LAKE

OKANAGAN LAKE - Hyacinth Weed Harvesting Project

General Description:

The Okanagan Basin Water Board has arranged for and entered into a contract for the harvesting of approximately 35 acres of aquatic weeds in the Vernon Arm of Okanagan Lake. In the event that harvesting is completed on the Vernon Arm of Okanagan Lake prior to expiration of the contract, harvesting will continue on the south end of Woods Lake.

The Aquatic Weed Control Company of Olympia Washington has been retained to undertake harvesting using an aquarmarine series H-650 harvester. The project is scheduled to start on July 15, 1972, and to terminate approximately on July 31, 1972. Equipment rental costs will be shared by the Province of British Columbia, the City of Vernon, the Okanagan Basin Water Board and the Regional District of North Okanagan. The Okanagan Basin Water Board is responsible for administering the project. A research program will be undertaken concurrently with harvesting.

Purpose:

To evaluate the effectiveness of aquatic weed harvesting on the control of aquatic weed growth; and to make observations on the extent, rate of growth, and growth characteristics of aquatic weeds with and without harvesting.

Other

Research Description:

Aerial Photography

A series of low level aerial photographs will be taken over the subject area prior to harvesting and following harvesting. Computations of area inhabited by aquatic weeds will be made from photos.

Private aircraft for this purpose are available at a reduced rate on the Vernon Arm of Okanagan Lake.

Control Strips

Undisturbed control strips numbered 1 to 4 as indicated on the attached map will be left for observation. Strips No. 1 and No. 3 will be left to protect several one metre square observation plots established by the Biology Division of the Water Investigations Branch. Control strips No. 2 and 4 are larger and will be located in the areas indicated where public disturbance will be minimal. The plots will be used for general observation and for comparison of growth rates and growth characteristics.

Sampling

- Several randomly located one metre square plots will be established in cutover areas to measure rate of growth, and to establish stem branching characteristics after cutting.
- Underwater photography will be used to document growth characteristics and related biological reaction.
- Samples of cut weeds will be collected to determine oven dry weights. Oven dry weights will be used to compute the total dry weight of aquatic vegetation removed from the entire area.
- Dry samples will be analyzed for nitrogen and phosphorous content. Total nitrogen and phosphorous removed from the area can be computed.
- Three plots measuring 20' x 20' were treated with the chemical ureabor on April 20, 1972. These will be observed concurrently with the harvesting project.

Time
Studies:

- Time studies to determine the production capability of harvesting equipment will be undertaken.

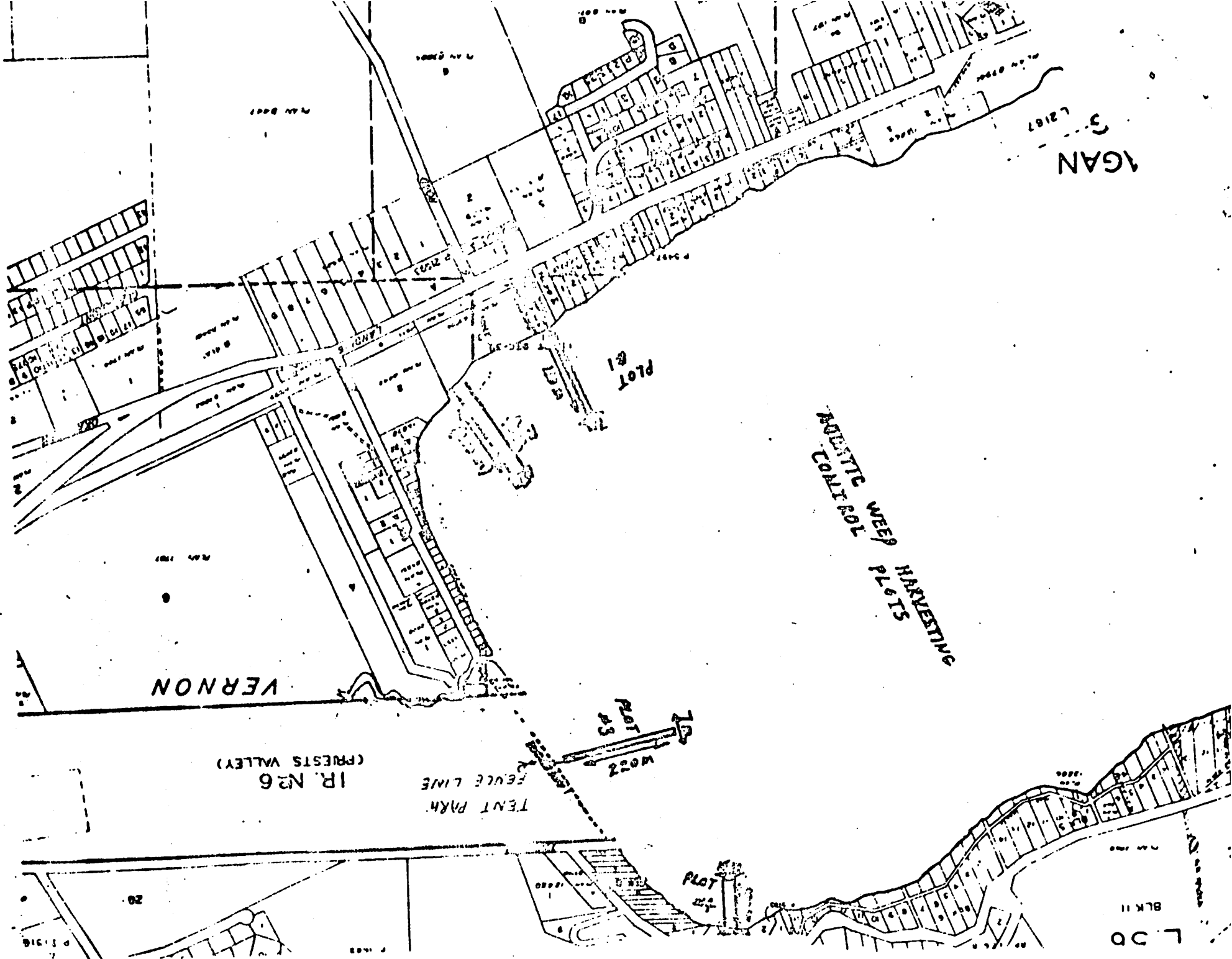
Observations as required by the above program will be made by the Ecology Division. The Okanagan Basin Water Board will assist in making the necessary arrangements. Observations should start on July 15, 1972 and continue weekly until September 15, 1972.

Since the control of aquatic weeds by harvesting is a relatively long term method of control, taking several years to observe effects, it is anticipated that the above program will have to be undertaken over a period of successive years.

Submitted by,

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June 21, 1972.



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AGAN

ADULTIC WEE/ TOP I. 201
HARVESTING PLOTS

VERNON

IR. N.26
(PRESTIS VALLEY)

TENT PARK

FENCE LINE

PLOT 83

PLOT 81

PLOT 20

BLK II
L 30