

HODUNK-MESSENGER LAKE CHAIN

IMPROVEMENT PROGRAM PROPOSED ANNUAL BUDGET AND PLAN 2018 – 2021

March 20, 2017

IMPROVEMENT	ANNUAL COST
Aquatic Plant Control (Aquatic Herbicide Treatments/Mechanical Harvesting)	\$110,000
Aquatic Plant Control Coordination/Field Evaluations	\$10,000
Water Quality Monitoring/Hydro-Acoustic Mapping	\$6,000
Administration and Contingency	\$12,600
TOTAL	\$138,600

The Hodunk-Messenger Lake Chain aquatic plant control program will focus on the control of exotic, invasive species in the lake chain with the select use of herbicides. Plant species of primary concern include Eurasian milfoil, curly-leaf pondweed and starry stonewort. The amount of herbicide use in any given year will depend on the type and distribution of aquatic plants and Department of Environmental Quality permit conditions.



Eurasian milfoil



Curly-leaf pondweed



Starry stonewort

Plant control activities are proposed to be coordinated under the direction of the Hodunk-Messenger Lake Board's consultant. The consultant would be responsible for preparing contract documents for the plant control program, conducting GPS-guided surveys of the lake chain to determine the scope of work to be performed by the plant control contractors, and conducting follow-up surveys to evaluate contractor performance. The consultant would report to the lake board and maintain a written record of plant control activities.

Water quality monitoring would be conducted in the spring and summer of each year of the program to evaluate baseline water quality conditions in the lake chain. Samples will be collected surface, mid-depth and bottom over the five deep basins in the chain to measure temperature, dissolved oxygen, total phosphorus, pH and alkalinity. In addition, water transparency and surface water chlorophyll-a levels would be measured during each of the aforementioned sampling periods. Monitoring results will be compiled into a written annual report.

Hydro-acoustic mapping of the lake bottom for each of the lakes within the chain would be conducted and hydro-acoustic data would be imported into a GIS database. Maps of bathymetry (i.e., depth contours), sediment hardness, and plant bio-volume (i.e., height of the plants in the water column) would be created for each of the lakes within the chain. Hardcopy and digital copies of all maps would be made available to the lake board and the North Chain Lake Association.

Project administration would include costs related to legal notices and hearing proceedings, postage, copies, mailings, and meetings.

The Special Assessment District for the Hodunk-Messenger Lake Chain includes all properties that border the lake chain and back lots that have deeded or dedicated access to the lake chain. Contiguous lots in common ownership are proposed to be assessed as a single parcel provided only one house exists on the parcel. Branch County and the City of Coldwater will each be assessed 5% of the total project cost.

Special assessments are proposed to be levied in accordance with the criteria outlined below. **Note that one unit of benefit equates to approximately \$168 per year for four years.**

Parcel Type	Units of Benefit
Waterfront Residential	1.00 unit
Back Lot Residential (with dedicated access)	0.25 unit
Commercial Waterfront	2.00 units
Commercial Back Lot	1.00 unit
Waterfront Campgrounds/Cabins/Mobile homes/Rental Apartments	0.50 unit
Back Lot Campgrounds/Cabins/Mobile Homes/Rental Apartments	0.25 unit
Branch County (2 public parks on chain)	5% of total project cost
City of Coldwater (Rotary Park)	5% of total project cost