



Agenda Item Summary Sheet

Date: 5/7/24

Item #: 10

Item Title: Consideration of Memorandum of Understanding (MOU) with the North Carolina Department of Environmental Quality (DEQ) for Milfoil Treatment

Item Summary: There has been a long history of treatment of Eurasian Milfoil in the Southern Shores canals dating back to at least 1971. Milfoil is an invasive plant that is recognized by the North Carolina Department of Environmental Quality as a noxious aquatic weed which qualifies for assistance from their treatment program. DEQ's Aquatic Weed Program has information pertaining to milfoil on their website which is linked to the Town's website. Information posted on the NCDEQ website states that Eurasian watermilfoil is now considered one of the worst aquatic weeds, occurring in nearly every state.

Eurasian watermilfoil is a submerged invasive aquatic plant native to Asia, Europe and Africa in the Haloragaceae family. It typically grows in water 3.2 to 13 feet deep, tolerates cold waters and low light conditions, and has spread to nearly every state in the USA and much of Canada. It was likely first brought to North America in ship ballasts or as an ornamental plant for aquariums or water gardens. Once introduced to an aquatic system, it spreads prolifically by stem fragments caused by either natural or mechanical causes. Each plant produces around 100 seeds but the main propagation method for this plant is stem fragments.

This plant interferes with the recreational uses of waterways, obstructs commercial navigation, exacerbates flooding, clogs hydropower turbines and alters ecosystems by crowding out native plants and affecting animal diversity. It will also hybridize with native watermilfoil species making control more difficult.

The stems of this plant can grow up to 20 feet long with feathery whorled leaves around the stem. The plant has separate male and female flowers in summer. A 2-6 inch spike is produced with inconspicuous small reddish or pinkish 4-petaled flowers and is held above the water. until flowering is complete, then becomes parallel with the water.

The DEQ Secretary, after consultation with the Director of the North Carolina Agricultural Extension Service, the Wildlife Resources Commission, and the Marine Fisheries Commission, and with the concurrence of the Commissioner of Agriculture, may designate as a noxious aquatic weed any plant organism which:

- (1) Grows in or is closely associated with the aquatic environment, whether floating, emersed, submersed, or ditch-bank species, and including terrestrial phases of any such plant organism;
- (2) Exhibits characteristics of obstructive nature and either massive productivity or choking density; and
- (3) Is or may become a threat to public health or safety or to existing or new beneficial uses of the waters of the State.

The purpose of the Aquatic Weed Control Program is to provide units of local government and residents of North Carolina with resources that will promote the prevention and management of noxious aquatic weed infestations. The philosophy is that by offering assistance and developing partnerships, aquatic weeds will be more efficiently managed across the state.

The program's two primary objectives are:

- 1- Respond to localized infestations to mitigate the long-term economic and environmental impacts that noxious aquatic weeds impose.
- 2- Reduce the frequency of aquatic weed introductions through education and public awareness.

Damage - This aquatic weed is tolerant to cold temperatures and begins to grow early in spring, sooner than native submersed plants. It forms a dense canopy along the surface and shades out the vegetation below. It is considered to have less value as a food source for waterfowl compared to native plants. Water quality is degraded by the senescence of watermilfoil. Recreational activities are hindered. Water intake gets obstructed, and decaying mats can foul lakeside beaches.

Spread - Eurasian watermilfoil reproduces by fragmentation and also by seed. Human activities can spread this invasive weed if caution is not taken to remove fragments from boats, trailers, and equipment extracted from infested waters. NC Department of Agriculture & Consumer Services has listed this species as a Class B noxious weed. It is illegal to sell or transport *Myriophyllum spicatum* in North Carolina.

Control - Both biological and chemical control are used to prevent the further spread of watermilfoil infestations. Bio-control work began as early as the 1960s. Research continues the effort to find better control agents. Herbicides are moderately effective.

The Town has been meeting with State Aquatic Weed Specialists to seek State support to treat the milfoil. Representatives from the Southern Shores Civic Association and Martin's Point Homeowners Association participated in these meetings.

DEQ performed a survey of the canals and creek last fall. The information received during the survey helped to develop a potential treatment program in the spring of 2024. Attached is the treatment map that was used to put together the budget consists of roughly 32 acres. Treatment would occur in late June.

Staff Recommendation: Staff recommends that the Town Council enter into the attached MOU and use the results of the survey after treatment to evaluate and consider future treatment. Subsequent treatment is anticipated to come at a much lower cost.

Requested Action: A motion to authorize the Town Manager to sign the MOU with the NCDEQ for the treatment of Eurasian Milfoil and approve the associated budget amendment to fund it's share of the cost.

Attachments: Draft Memorandum of Understanding
Treatment Map