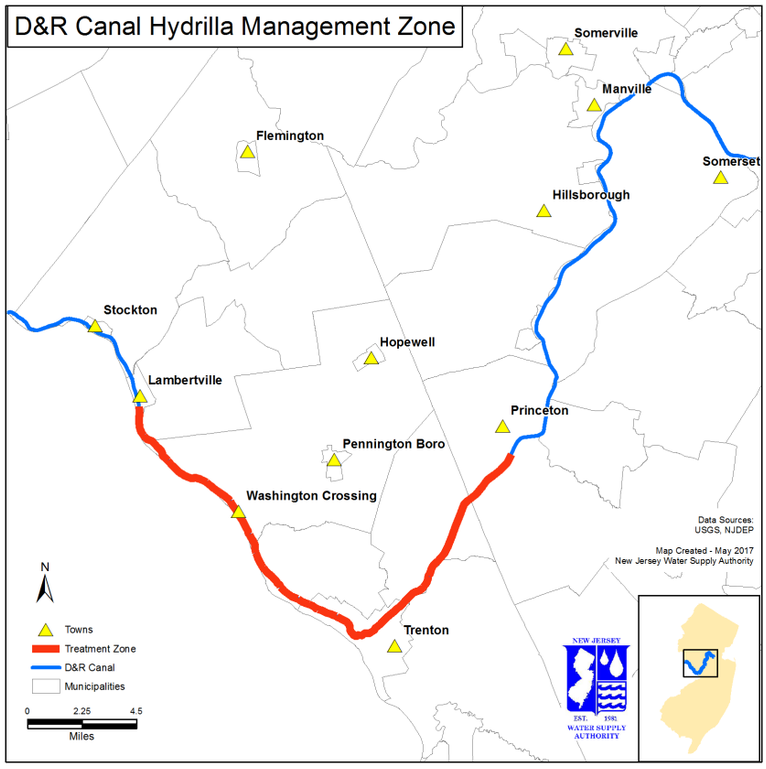
PLEASE BE AWARE THE AQUATIC WEED

HYDRILLA

IS IN

THE D&R CANAL

- **Hydrilla is a fast spreading invasive aquatic weed that can be controlled IF we act promptly**
- **Hydrilla out-competes native vegetation, and has the potential to significantly restrict flow through the Canal and damage the natural ecology**
- **Hydrilla is an emerging threat in New Jersey and is not yet well-established**
- **It is critical that we STOP THE SPREAD**



STOP AQUATIC HITCHHIKERS!™

Prevent the transport of nuisance species.
Clean all recreational equipment.
www.ProtectYourWaters.net

Aquatic Vegetative Management is underway targeting Hydrilla
That includes a safe and effective low dose herbicide treatment

For More Information

VISIT: WWW.NJWSA.ORG/hydrilla.html

The presence of hydrilla in the D&R Canal will accelerate its spread throughout New Jersey if not controlled

FAQ's

AQUATIC INVASIVE SPECIES IN THE DELAWARE & RARITAN CANAL

HYDRILLA (*Hydrilla verticillata)*

BACKGROUND: The New Jersey Water Supply Authority (NJWSA) maintains and operates the D&R Canal (Canal) as part of the Raritan Basin Water Supply system. The Canal provides bulk water customers in central New Jersey with a raw source of water. The Canal diverts and transports approximately 100 million gallons of water per day from the Delaware River. Jurisdiction over the D&R Canal is divided among the NJWSA (water supply within the transmission complex), the New Jersey Department of Environmental Protection's Division of Parks and Forestry (the D&R Canal State Park lands along the Canal banks) and the Delaware & Raritan Canal Commission (development of D&R Canal State Park and regulation of land use in the Park's 400-square mile watershed). The NJWSA is working cooperatively with NJDEP and DRCC and the many Canal interest groups to implement a comprehensive plan designed to contain the spread of the invasive aquatic plant "Hydrilla".

1. What is Hydrilla?

Hydrilla, an invasive aquatic weed, is an emerging threat in New Jersey. It is not yet well-established in the State.

Hydrilla (*Hydrilla verticillata)* is native to Asia and was first introduced to the United States in the 1950's as an aquarium plant. Hydrilla is referred to as "The Perfect Weed" because it tolerates a wide range of water conditions, easily reproduces, spreads by multiple methods, and is difficult to control. Hydrilla can grow in water depths of a few inches up to 35ft.

2. Why are we concerned?

The presence of hydrilla in the D&R Canal will accelerate its spread throughout New Jersey if not controlled.

Hydrilla out-competes all other aquatic vegetation. Hydrilla can reproduce by fragmentation-pieces as small as an inch can grow a new plant, turions which are bud-like appendages growing off the main stem, and tubers that are embedded in the soil. Tubers can remain viable in the sediment for at least 6 years.

3. Why is this issue important to address?

Hydrilla can form dense mats that can choke water flow, clog culverts and pipes, and has been documented to alter water chemistry – pH, dissolved oxygen, and temperature. It can grow an inch or more every day.

If the hydrilla infestation is not contained, it has the potential to reduce water flow in the Canal by up to 85% and can clog or damage water intakes. The Canal has several spillways along its length where water, and potentially hydrilla, enters neighboring waterbodies including the Delaware River, the Assunpink Creek, the Millstone River, and the Raritan River. The introduction and/or further spread into these waterbodies will be ecologically catastrophic, and have significant impacts on water supply and recreation.

4. What factors contribute to this issue?

While dense aquatic vegetation beds, especially hydrilla, must be controlled, great sensitivity must be given to the fact that the Canal is a resource with several competing interests, including water supply, recreation (including fishing), ecological needs, and its historical significance.

Hydrilla management and the treatment of Canal water must be safe for any and all uses and interests listed above. From a water supply perspective, the canal flow cannot be interrupted and must provide a safe and reliable source of water to our potable water customers including, but not limited to: North Brunswick, Middlesex Water, New Jersey American Water (Elizabethtown), New Brunswick, and East Brunswick. More than 1,500,000 residents of central New Jersey rely on this source of drinking water.

Because the Canal is a popular recreational resource, hydrilla can be spread unintentionally by human activity when boats and equipment are moved from one location to another without employing proper cleaning procedures.

5. What actions are we taking?

Education: The NJWSA and the NJDEP have launched a public education campaign focused on Hydrilla and guided by the national "Stop Aquatic Hitchhikers!" information campaign. Informational signs have been posted at over 100 public access locations, boat launches, and parking areas along the entire 60 mile D&R Canal State Park. To prevent the further spread of Hydrilla within and between water bodies, flyers and signage have been developed and distributed that provides guidance to Canal visitors and boaters regarding best practices. A copy of the flyer is attached and may be shared.

Monitoring: In order to update the management plan to include the entire Canal length, a full survey of submersed aquatic vegetation will be completed in 2017 on the 40 miles of Canal that were not surveyed during the 2016 season. Additionally, follow-up sampling will be conducted annually in the late fall to compare management effectiveness against baseline results. Vegetative management alternatives will be evaluated and adjusted annually based on these sample results.

Management:

In September 2016, the Authority hired a consultant to survey, assess, and map the extent of hydrilla and other problem weeds in the first 1/3 of the Canal from Bulls Island in Hunterdon County to Port Mercer in Mercer County. The Authority received the delineation report for this high-priority segment in December 2016. The survey report indicates that, for the 18.31 miles surveyed, Submerged Aquatic Vegetation (SAV) was collected at 96 percent of the sites, confirming the spatial extent and diversity of vegetation in the Canal. Hydrilla was observed at 56 percent of the survey sites.

After a thorough review of all available management alternatives, it was determined, by a team of technical experts with input from a broad array of stakeholders, that the safest and most effective control measures available for the 2017 growing season include two options; Sonar Genesis (fluridone) herbicide injections and hydro-raking.

Effective control measures determined necessary to initiate by late May 2017 include low dose, 120 day Sonar Genesis (EPA # 67690-54, active ingredient: fluridone) herbicide injections combined with spot hydro-raking as required to maintain adequate Canal flow. Sonar Genesis presents negligible risk to human health and the environment when applied according to its legally allowed uses and label directions. Following treatment with Sonar Genesis there will be no water use restrictions for water consumption, fishing, fish consumption or swimming. Some irrigation restrictions will be imposed for nursery and greenhouse plants as well as specific crops and newly seeded areas. For more information on the herbicide, please see the Environmental Protection Agency's website at: https://www.epa.gov/dwstandardsregulations/drinking-water-contaminant-human-health-effects-information#benchmarks

Sonar Genesis herbicide is a slow-acting, systemic liquid herbicide that will be injected into the Canal at one location for up to 120 days, optimally beginning on or soon after May 18. The herbicide will not harm people, animals or fish in the low concentrations that are being introduced into the water (<5ppb).

For more information go to: http://www.njwsa.org/hydrilla.html