

April 20, 2022 Minutes of the Meeting Delaware and Raritan Canal Commission

TIME:10:00 a.m.DATE:April 20, 2022PLACE:Prallsville Mills, Stockton, New Jersey

ATTENDING COMMISSIONERS:

Vice-Chairman Bruce Stout; Mark Texel, designee for Commissioner of Environmental Protection Shawn LaTourette; Commissioner Phil Lubitz; Commissioner Douglas Palmer; Commissioner Chris Shoffner; and Commissioner John Reiser participated via online platform and teleconference.

- STAFF: Executive Director John Hutchison was present in the Commission conference room; Commission Engineer Joseph Ruggeri, Communications Director Darlene Yuhas, Executive Assistant Erica Vavrence, and Deputy Attorney General Jason Kane participated via online platform.
- GUESTS: Bob Barth, D&R Canal Watch; Linda Barth, D&R Canal Watch; Robert von Zumbusch, Delaware and Raritan Canal Commission Master Plan Advisory Committee; Patricia Kallesser, Superintendent, Delaware and Raritan Canal State Park; Michael Sellar, New Jersey Water Supply Authority (NJWSA); Heather Desko, NJWSA; Vicki Chirco, Historian, Delaware and Raritan Canal State Park; Wayne Petko; Steven Gruenberg; William Passodelis; Sapan Desai; Neil Yoskin; Matthew Witters; Neal Udsen; Sheima Soliman; Pete Hatherwell; Kevin Shelly; Michael Castore; Eric Huefner; Eric Rupnarain, Goldenbaum Baill; Shealynn M. O'Toole; Jacob Schulman; Sumeet Desai; Bryan Ehnes; Michael Ford, Van Cleef Engineering Associates; Thomas Fik; Carolyn Chaiko.

Since Commission members were participating via telephonic device pursuant to Article III, Section 4 of the Commission Bylaws, Vice-Chairman Stout directed the Executive Director to call the roll:

Vice-Chairman Stout	Present
Commissioner Designee Texel	Present
Commissioner Reiser	Present
Commissioner Lubitz	Present
Commissioner Shoffner	Present
Commissioner Palmer	Present

Director Hutchison stated that a quorum was present.

Vice-Chairman Stout announced that this was a monthly meeting of the Delaware and Raritan Canal Commission and that the provisions of the "Senator Byron Baer Open Public Meetings Act" (OPMA) had been complied with in the scheduling of the meeting.

Vice-Chairman Stout announced that the meeting was being taped pursuant to the exception set forth at Section C.(1) of DEP Policy & Procedure 2.85 "Prohibition of Recording in the Workplace" Policy adopted on September 18, 2019.

Administrative Items

Confirmation of May 18, 2022, Meeting Date

Vice-Chairman Stout stated that the next Commission meeting would be held on May 18, 2022.

Minutes

Vice-Chairman Stout inquired if the Commissioners wished to offer comments or corrections on the March 16, 2022, meeting minutes. Hearing none, the Vice-Chairman called for a motion to approve the minutes. Commissioner Reiser made a motion to approve the minutes, which was seconded by Commissioner Palmer. Vice-Chairman Stout directed Director Hutchison to call the roll:

Vice-Chairman Stout	Yes
Commissioner Designee Texel	Yes
Commissioner Reiser	Yes
Commissioner Lubitz	Yes
Commissioner Shoffner	Absent
Commissioner Palmer	Yes

The minutes were approved.

Review Zone Actions

Zone A Projects

22-3592B	3000 Brunswick Pike Motel Demolition (Lawrence Township)
22-3683E	New Jersey Executive State House Renovations Modifications (Trenton City)
22-4096F	Princeton Abbey and Cemetery Upright Funerary Monuments (Plainsboro Township)
22-4308A	15 Mill Street Fence (Stockton Borough)
21-5672A	23 York Street In-ground Swimming Pool (Lambertville City)
22-5812	47 South Union Street Proposed Residence Additions (Lambertville City)

Vice-Chairman Stout asked the Commissioners if they required any of the Zone A projects to be voted upon individually. Hearing none, Vice-Chairman Stout requested a motion on the Zone A projects. Commissioner Lubitz moved to approve the Zone A projects, which motion was seconded by Commissioner Designee Texel. Vice-Chairman Stout asked for comments on the Zone A projects from the Commissioners and the public. Hearing none, he asked if Commissioner Lubitz would amend his motion to clarify that the conditions of approval recommended in the staff reports for DRCC# 22-3592B and 22-3683E, respectively, could be incorporated in his motion. Commissioner Lubitz agreed to amend his original motion, and Commissioner Designee Texel agreed to second the amended motion. Vice-Chairman Stout asked for further comment. Hearing no further comments, the Vice-Chairman directed Director Hutchison to call the roll:

Vice-Chairman Stout	Yes
Commissioner Designee Texel	Yes
Commissioner Reiser	Yes
Commissioner Lubitz	Yes
Commissioner Shoffner	Yes
Commissioner Palmer	Yes

The motion was approved.

Zone B Projects

Home B 110jee	
21-0508B	1980 U.S. Route 1 Proposed Warehouse (North Brunswick Township)
21-2974C	52 Spangenberg Lane Senior Apartment Buildings (Franklin Township)
21-3267A	Heritage at South Brunswick Proposed Residential Development (South Brunswick
	Township)
22-3422C	Princeton Forrestal Center ReCAP Module 10 (Plainsboro Township)
21-4153B	Tenacre Foundation Cottages and Community Center (Municipality of Princeton)
21-4673A	Route 179 Proposed Retail Facility (West Amwell Township)
21-4996A	900 Herrontown Road Affordable Housing Development (Municipality of Princeton)
21-5049A	Heritage Court Phase 3 (Ewing Township)
20-5653	14 Deerpark Drive Proposed Self-Storage Facility (South Brunswick Township)
21-5716	Zenk Court Proposed Residential Subdivision (Hillsborough Township)
21-5795	2 Acorn Drive Single-Family Residence (Montgomery Township)

Vice-Chairman Stout asked the Commissioners if they required any of the Zone B projects to be voted upon individually. Hearing none, Vice-Chairman Stout requested a motion on the Zone B projects. Commissioner Shoffner made a motion to approve the projects, which was seconded by Commissioner Lubitz. Vice-Chairman Stout asked for comments on the Zone B projects from the Commissioners and the public. Hearing none, he then directed Director Hutchison to call the roll:

Vice-Chairman Stout	Yes
Commissioner Designee Texel	Yes
Commissioner Reiser	Yes
Commissioner Lubitz	Yes
Commissioner Shoffner	Yes
Commissioner Palmer	Yes

The motion was approved.

Executive Director's Report

The Director reported on the monthly workload by stating that in addition to the projects listed on the meeting agenda, the staff issued 21 deficient staff reports, 8 jurisdictional determinations, 9 certificates of approval, 10 general permits, and prepared 1 staff report for a project that would be calendared for consideration at the May meeting.

In addition to preparing the above documents, Mr. Hutchison noted, the staff organized and conducted 16 pre-application meetings on proposed and pending projects. Director Hutchison also conducted three site inspections to examine visual or stream corridor impacts of proposed project applications. The Director also noted that as of April 19 there were 30 active projects undergoing staff review.

Director Hutchison reported that fee deposits for the preceding month totaled \$45,662.50. Deposits for Fiscal Year 2022, which began on July 1, 2021, totaled \$449,898. Therefore, with three months remaining in the fiscal year that ends on June 30, 2022, the Commission needed to collect \$112 to meet its anticipated appropriation of \$450,000.

Mr. Hutchison reported that just in time for the start of trout season, the contractor retained by PSE&G completed the rehabilitation of the Moore's Station public access area of the Delaware and Raritan Canal State Park. The rehabilitation project was undertaken as mitigation for the impact of the PSE&G Roseland-Pleasant Valley Transmission Project approved by the Commission in March 2021 (DRCC #20-5560). He stated that a few minor items needed to be addressed, such as painting the lines for the ADA-compliant parking space and coating the new and refurbished guiderails in "State Park brown." The Director stated the work was largely completed, and he was pleased that the project, first identified as a need by former Director James Amon in the 2003 Delaware and Raritan Canal State Park Development Plan, had finally been addressed.

Mr. Hutchison reported that the State vendor working on the project to scan the Commission's project files recently completed their first set of documents. A total of 1,819 small-format pages and a total of 195 large-format civil engineering and architectural plan sheets were successfully scanned and transferred to the Commission's folder on the DEP shared drive and then saved to the cloud. Director Hutchison noted that the quality of the scanned documents was excellent, and that ACCSES-NJ had done an admirable job categorizing and labeling the documents. Mr. Hutchison reported he was satisfied with the work and hopeful that the pace of the scanning could increase now that the staff had successfully navigated the rollout of this project.

Mr. Hutchison reported that he met with Jim Marinucci of the DEP Office of Information Technology (DEP/OIT) to discuss options for implementing a hybrid meeting format once social distancing requirements imposed due to the COVID-19 pandemic were relaxed or eliminated. Rather than reconfigure the existing camera and monitor, DEP/OIT proposed installing an additional camera that could perform the required task at a lower cost and with less disruption to the existing office equipment. The device, a Logitech "Connect," is a portable "Conference Cam," which would only need to be connected to a laptop, and no wires would have to be run across the room. Staff planned to schedule a

meeting with DEP/OIT at the Commission office to determine whether the device met the Commission's needs.

Mr. Hutchison reported that on April 5 he participated in a meeting convened by the DEP Office of Permitting and Project Navigation with "Trenton Threatened Skies," the organization of persons concerned with the proposed expansion of the Trenton-Mercer Airport in Ewing Township. The Director reported that he was able to answer the group's questions regarding the existing Commission-regulated stream corridor located on the airport site. He reinforced once again that the Commission's stormwater runoff and water quality impact review standards are not applicable to the remediation of PFOS and PFOA, the so-called "forever chemicals" used by the airport and the U.S. Navy during the operation of the former Trenton Naval Air Warfare Center from 1953 until 1997.

Mr. Hutchison reported that the 10 General Permits issued during the past month included some projects of interest to the Commissioners, the NJWSA, the Park Service and the park stakeholders. Specifically, general permits were issued for the in-kind repair of the chimney at the Kingston Locktender's House, for the in-kind repair of the former Belvidere-Delaware rail trestle bridge, which forms part of the park multiuse trail at Prallsville Mills, as well as a permit to the NJWSA for the in-kind repair of the three-barrel, arched stone culvert that conveys Six Mile Run under the canal in Franklin Township, Somerset County.

Mr. Hutchison reported that the 2021 Commission Annual Report had been transmitted to the Governor, President of the Senate, Speaker of the General Assembly and the State Librarian in compliance with the relevant State statutes. In addition, the Director noted that the report had been posted to the Commission website: www.nj.gov/dep/drcc/pdf/annual-reports/2021%20Annual%20Report.pdf.

Mr. Hutchison stated that the goal in producing the report was not only to fulfill the statutory requirement to provide a complete statement of the Commission's finances and operations for 2021, but also to encourage others to learn more about the Commission's work. To advance the Commission's "inform and educate" efforts, staff emailed a link to the report to each of the mayors of the 34 municipalities and the Administrators/Executives of the five counties within the Commission Review Zones. At least one mayor -- Mayor Nowick of the City of Lambertville -- found the report so informative he posted it on the city government website, and several city residents have offered favorable comments.

Director Hutchison stated that there is a limited supply of paper copies of the report at the Commission Office, and they are available upon request.

Director Hutchison reported that he added new photographs of the canal taken by Erica Vavrence to the "carousel" of images on the Commission website, as well as some additional historical images. He also updated and edited the history section and added a copy of the original 1973 legislation, which created the special legislative study commission whose deliberations ultimately resulted in the enactment of the "Delaware and Raritan Canal State Park Law of 1974."

Lastly, Director Hutchison reported that the Commission staff purchased two new 42-inch HON® lateral file cabinets under the State contract at a cost of \$3,004.92, replacing six standard file cabinets

that were in use since 1984 when the Commission moved to Prallsville Mills from its former office on Calhoun Street in Trenton.

Park Superintendent's Report

Park Superintendent Kallesser reported that on April 8 the Trenton Police and Fire departments were dispatched to the Delaware and Raritan Canal State Park multiuse trail near 363 West State Street, between Calhoun Street and Rutgers Place, at which time a body was found in the canal and removed by police and firefighters.

Superintendent Kallesser reported that an opportunity to volunteer with the New Jersey Watershed Ambassadors Program is available on April 30 and May 1 for the planting of herbaceous vegetation and small trees at the northern section of the Bull's Island Recreation Area. Information regarding the event would be posted on the park Facebook page and at the Bull's Island Visitor's Center.

Park Superintendent Kallesser stated that trees from the New Jersey Department of Transportation (NJDOT) "Good Neighbor" grant program had been delivered and that the contractor would be mobilizing for planting them at Bull's Island during the upcoming weeks. She anticipated that the planting project would be completed by the end of May.

The Superintendent reported that a new maintenance employee would start work on April 25 at the Delaware and Raritan Canal State Park Somerset maintenance shop. The new hire increased the maintenance staff assigned to the main section of the canal to four full-time employees.

Superintendent Kallesser provided details on an act of criminal vandalism at the Griggstown Muletender's Barracks, Bridgetender's Shelter, and Locktender's House in Franklin Township, Somerset County. Vandals broke 14 windows and discharged the building's fire extinguishers. She noted that the New Jersey State Park Police and the Franklin Township Police Department were investigating the incident.

Superintendent Kallesser noted that elevated water levels in the Delaware River necessitated the closure of park boat launches over the weekend. However, this did not impact turnout for the opening day of the fishing season.

Superintendent Kallesser reported that park staff identified an area of the multiuse trail in the City of Lambertville, generally from the trail's crossing on Bridge Street north approximately 200 feet, where a significant amount of water pools. To resolve this problem, the Park Service will correct the pitch of the multiuse trail and resurface areas of the trail. In addition, nearby homeowners will help to ameliorate the situation by installing gutters on their homes.

Lastly, Park Superintendent Kallesser reported that NJDOT was in the process of repairing the canal embankment and resurfacing the park multiuse trail in an area from Zarephath in Franklin Township northward to Landing Lane in New Brunswick City, but the project was temporarily paused because of inclement weather.

Vice-Chairman Stout requested that the Superintendent inspect an area of the park multiuse trail that pools significantly located approximately one-quarter mile north of the U.S. Highway Route No. 202 bridge over the Delaware River between Solebury Township, Pennsylvania, and Delaware Township, New Jersey. Superintendent Kallesser agreed to inspect the area as soon as possible.

Vice-Chairman Stout stated his appreciation at the speed at which Park staff removed fallen trees from the multiuse trail.

New Jersey Water Supply Authority (NJWSA) Report

Mr. Sellar reported that the contractor for the NJWSA Landing Lane Spillway rehabilitation project was delayed by supply chain difficulties related to construction material acquisition, and that work on the project would likely now begin in early May.

Mr. Sellar reported that permit applications were submitted for the Six Mile Run Culvert rehabilitation project to the U.S. Army Corps of Engineers, the Commission and the DEP Division of Land Resource Protection. The culvert carries Six Mile Run under Canal Road, the canal and the multiuse trail, respectively, and is located approximately 1,000 feet south of Blackwells Mills Road in Franklin Township, Somerset County.

Mr. Sellar indicated that the NJWSA was developing final designs for the Stockton embankment repairs with the engineering consultant, after which an application for permits would be submitted to the Commission and other regulatory agencies.

Mr. Sellar stated that the NJWSA is reviewing a revised feasibility study for the Cedar Grove Brook watershed project.

Mr. Sellar reported that underwater inspections were completed at the South Bound Brook Lock in South Bound Brook Borough and at the aqueduct that conveys the canal over Sullivan Way in Ewing Township, and an inspection of the Kingston lock was tentatively scheduled for May.

Mr. Sellar noted that repair of damage from Tropical Storm Ida at the finger dike located in the vicinity of Port Mercer Bridgetender's House in Lawrence Township was completed, and that restoration of the site would be completed over the next week. Embankment repairs would then follow in the area.

Lastly, Mr. Sellar reported that NJWSA was alerted by the DEP that an oil spill had occurred near the pedestrian (former railroad trestle) bridge over the canal in South Bound Brook Borough. Mr. Sellar, NJWSA staff, New Jersey State Park Police and the Somerset County Health Department all responded and discovered that the storm drain outlet at bridge was emitting the oil. The Somerset County Health Department placed a boom across the outlet and another boom downstream of the bridge. The group traced the source of the spill through the storm sewers and determined that someone had changed their vehicle oil and dumped the used oil into a catch basin. The catch basin was taken as evidence.

Old Business

None.

New Business

2022 New Jersey Water Supply Authority Hydrilla Briefing

Heather Desko, NJWSA Senior Watershed Protection Specialist, provided the Commission with a presentation regarding the 2022 report on the NJWSA comprehensive plan to contain the spread of the invasive aquatic plant hydrilla (*Hydrilla verticillata*) in the Delaware and Raritan Canal. (A copy of the PowerPoint presentation is appended).

Vice Chairman Stout asked if the Commission had any additional new business that required discussion. No additional new business items were discussed.

Public Comment

None.

Written Public Comments None.

Adjournment

There being no other business, Vice-Chairman Stout entertained a motion to adjourn. Commissioner Reiser moved to adjourn the meeting, which motion was seconded by Commissioner Lubitz. Vice-Chairman Stout called for a vote on the motion to adjourn, which was unanimously approved by voice vote.

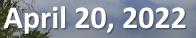
The meeting adjourned at 11:00 a.m.

Respectfully submitted,

Joh State

John Hutchison, Secretary

D&R Canal Aquatic Plant Management 2022 Project Update



Heather Desko Senior Watershed Protection Specialist New Jersey Water Supply Authority



Agenda

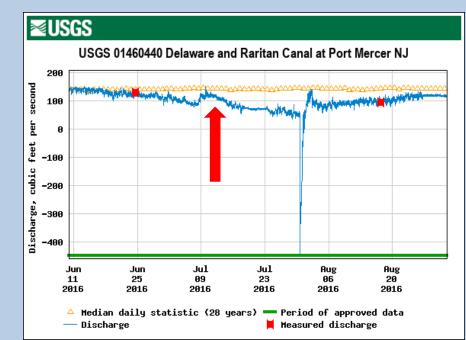
- Background of Aquatic Plant Management in Canal (2016) & Introduction to Hydrilla
- 2017-2021 Aquatic Plant Management & Monitoring
- Plan for 2022 & Beyond
- Questions



SAV Management & 2016 Response

- Water flow restriction due to excessive plant growth
- Canal water level below intake
- Hydro-raking: July-August









Hydrilla verticillata

- Native to Korea & Japan
- Means of introduction: aquarium plant
- Recent invader to Mid-Atlantic (1980s)
- Can reach lengths of up to 25 feet
- Can grow up to 1 foot per day!
- Reproduces by fragmentation, tubers, & turions
 - Tubers can remain viable 6+ years





Hydrilla – "the perfect weed"

- Adapts to variety of conditions
 - Water depths inches to 20+ ft
 - Lakes/ponds & rivers
 - Salinty 0-9ppt (possibly up to 13ppt)
 - Turbidity/water clarity
 - Low light tolerance
 - Even up to 10 weeks in total darkness!
- Impacts:
 - Native SAV & other biota
 - Water chemistry
 - Water flow
 - Recreation



D&R Canal at Scudders Falls September 2016



Hydrilla Management

Methods of control:

- Mechanical: cutting, harvesting, dredging
- **Physical**: benthic mats, hand-pulling, drawdowns
- Biological: Grass carp, insects, pathogens
- Chemical: selective vs. broad spectrum, systemic vs. contact



Photo: CT Agricultural Experiment Station



2017: Management Prep & Herbicide Application













Management & Monitoring Efforts

- Continuous injection of Sonar Genesis (active ingredient: fluridone)
 - 2-4 ppb
 - Up to 120 days (late Maylate Sept)
- Weekly fluridone concentration monitoring
- Treatment Area SAV Survey (18 miles)
- Tuber survey (5 sites)
- Other SAV monitoring







Additional Monitoring Efforts

- 2017: 60-mile Canal SAV Survey
- 2018: Fanwort Survey
- **2018**: Turnbasin sampling
- 2018-present: Above treatment area SAV survey
- 2019: Water quality w/ monthly surveys
 - Temp, pH, SC, DO, phyco, chlorophyll, turbidity
- 2020-2023: Alternating sections of non-treatment area SAV surveys









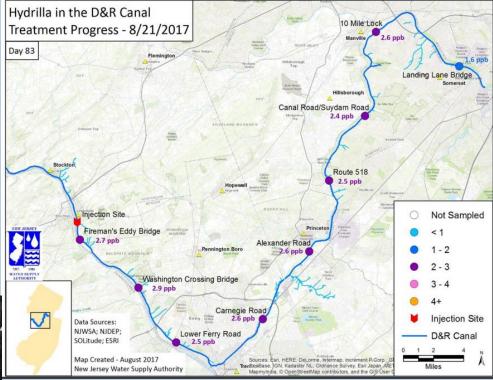
Fluridone Monitoring

9 surface water sites3 finish water sites (water treatment plant effluent)

Labs/methodologies

- Phoenix Environmental Labs (CT)
 - EPA method 525.3
 - Lowest Reporting Limit: 0.29 ppb







Fluridone Safety Profile

- EPA Registered in 1986
- Fluridone is not regulated in water supply (no federal or NJ state MCL or other required limits)
 - New York State has MCL of 50 ppb
- <u>EPA Human Health Benchmarks</u> in Drinking Water (January 2021)
 - Acute exposure benchmark: 8,330 ppb (2,082x higher than max rate for D&R Canal treatment)
 - Chronic lifetime exposure benchmark: 890 ppb (222x higher that max rate)
- Examples of current/past uses in water supply: Clear Lake CA

 Lake Gaston VA
 Tar River Reservoir NC
 Eno River NC
 Cayuga Lake NY
 Croton River NY

 New Croton Reservoir NY
 Lake Shenandoah NJ



Fluridone in Drinking Water

- Most drinking water treatment protocols can remove fluridone (activated carbon, chlorine, and de-chlorination practices / filtration 'at tap')
- 2016-2021 D&R Canal Monitoring:
 - 477 finished water samples
 - 75% were below detection limit
 - 9% were >1 ppb
 - 1% were >2 ppb



2021 Management In review

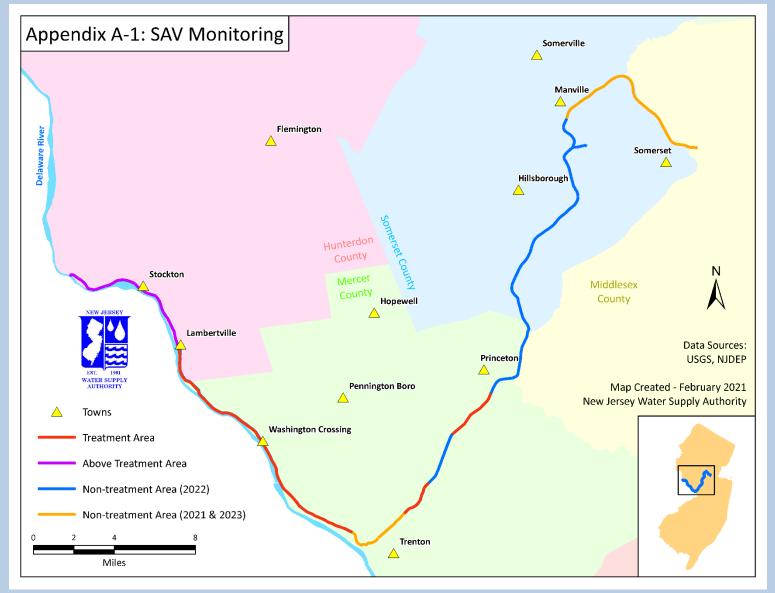
- Herbicide (Sonar Genesis) application:
 - July 6 Sept 24 (73 days)
 - Target dose rate: 2.5 ppb
 - <u>Goals:</u>
 - shorten application to 75 days
 - decrease dose rate
- Proposed plan: herbicide application will occur at a minimum 2 years beyond the last hydrilla plant/tuber finding
 - Hydrilla plant & tubers found in June 2020, so treatment will continue in 2021 & 2022



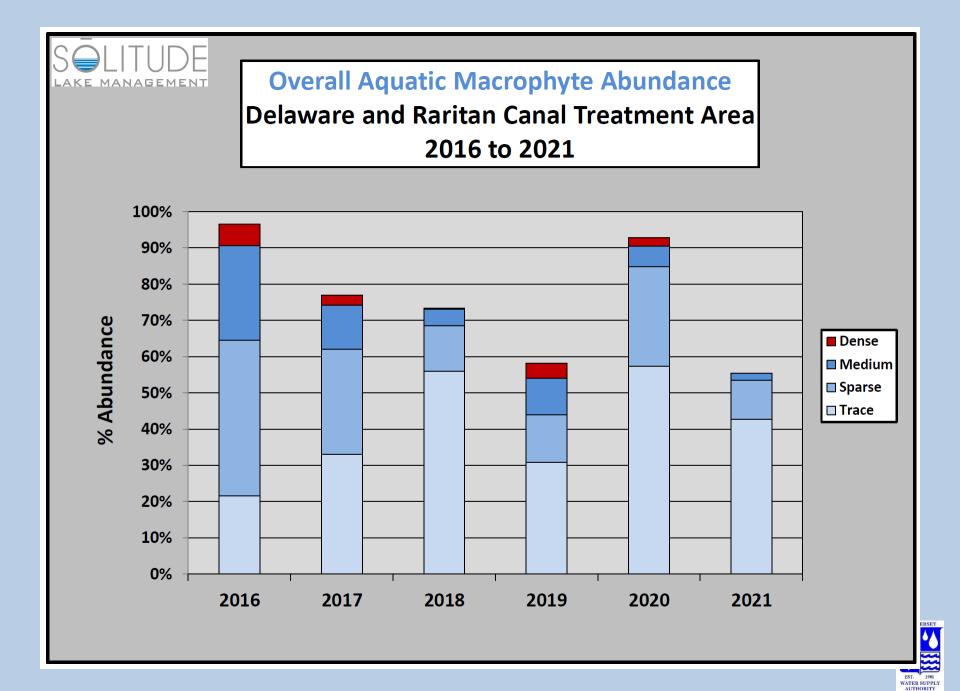
Hydrilla fragment found in June 2020



Vegetation monitoring







Vegetation monitoring: <u>Visual surveys – treatment area (2021)</u>

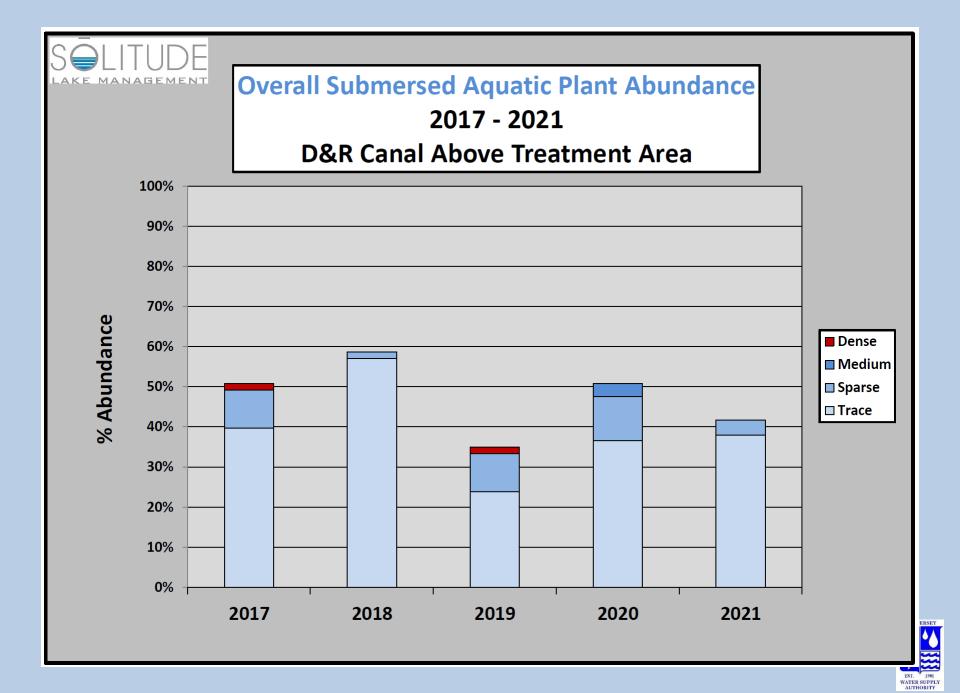
	6/17+6/18	6/23	7/9	7/19	8/16	9/20
Benthic Filamentous Algae	x	Х	x	x	х	x
Wild celery	х	х	x	x	х	
Common waterweed	х	х		x		
Small duckweed	x	Х	x	x	х	x
Spatterdock	х	х	x	x	х	
Pickerel weed	x	Х	x	x	х	
Muskgrass/Chara	x	Х	x		х	
Watermoss		х		x		
Water stargrass			x	x	х	
Arrowhead			x	x	х	x
Leafy pondweed			x			



No aquatic invasive plants were found during any vegetation monitoring in the treatment area

Hydrilla fragment found on 6/29/2020

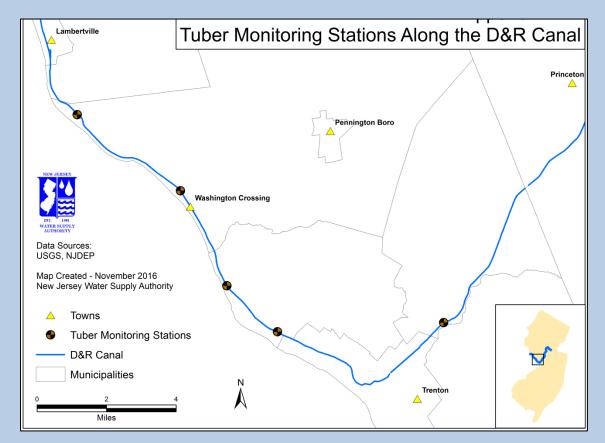




Hydrilla Tuber monitoring

Conducted in late October

- 5 stations that have been monitored annually since 2016
- Increased to 50 cores per site
- Purpose: to monitor tuber bank depletion for treatment efficacy





Hydrilla tuber monitoring – 2016-2021

Station	2016 (tubers/ m²)	2017 (tubers/ m²)	2018 (tubers/ m²)	2019 (tubers/ m²)	2020 (tubers/ m²)	2021 (tubers/ m²)	% Change (2016-2021)
DR-1	462.8	26.5	11.2	1.3	0	0	-100%
DR-2	85.6	15.2	2.2	0	0	0	-100%
DR-3	288.9	7.6	2.2	0	0	0	-100%
DR-4	320.4	0	0	0	2.14	0	-100%
DR-5	10.7	0	0	0	0	0	-100%



D+RCANAL DR-4 10/22/20



Communications

- Meetings with Canal Water Users & partners (including DRCC, D&R Canal State Park, NJDEP)
 - Season kick-off meeting
 - Mid-Season Webinar update
 - End of season debrief
- Weekly updates with fluridone monitoring results
- FTP site with monitoring results, all reports, archived messages
- Website: www.njwsa.org/hydrilla
- Hydrilla email box: <u>hydrilla@njwsa.org</u>



2022 & Beyond Preparations

- Herbicide application will occur in 2022
 - Reduce target dose rate (targeting 2.5 ppb or less)
 - Reduce days of application: 60-75 days in 2022
 - If no hydrilla plants or tubers found in 2022, no herbicide application in 2023
- Continue intensive plant monitoring
 2/3 of the Canal will have full survey each year.
- NJWSA will submit for DRCC permit prior to May meeting





Delaware River @ Washington Crossing



Questions/comments

Thank you!

Contact: hdesko@raritanbasin.org



