

Chairmen Thomas Williams & James Tripp - as the partnership enters its 3rd decade at 21 years - it is important to continue these meetings. Recognize retiring John Pavacic and retired Anthony Graves for their important work and contribution over the years.

Stormwater Projects and Management in the Carmans River Watershed Update

Presented by Veronica King, Town of Brookhaven Stormwater Manager

The Town of Brookhaven (TOB) received a new grant from Bridge NY to replace the severely deteriorated culvert over the Carmans River at Mill Rd. The 1.5 million-dollar project will be managed through DOT and will conform to state requirements. The project will consist of complete removal of the culvert, removal and modification to drainage, construction of one single concrete box culvert, and a smoothed and widened roadway with turning lane as well as roadway repair, new curbs, pedestrian access path, wildlife passage and no direct drainage into the Carmans River. Two (2) new outfalls with Vortech water quality units will ensure the protection of the river. The project is in the design phase, once approved by DOT, there is environmental permitting and then construction estimated to begin late 2021 through early 2022.

TOB Supervisor Ed Romaine made a note of the rarity of this type of roadway being a Town road. How there were talks with the county of a possible road exchange. He is happy the Town was able to secure the funding for this much needed project.

Water Quality Monitoring of the Carmans River, Watershed, and Central Pine Barrens

Presented by USGS Hydrologist Irene Fischer & Monitoring Team

USGS - In the middle of a 5-year agreement with the TOB and Central Pine Barrens (CPB) to monitor water quality beyond streamflow and water levels.

Project Objective - Expand and operate a monitoring program for the CPB region including: Publicly accessible database, determine baseline conditions to recognize trends. provide data resources to monitor eco-hydrologic stress. A 5 year snapshot of the monitoring network of surface and groundwater in the core and growth area shows entering a drier period - <https://waterwatch.usgs.gov/> & Groundwater measurements- <http://groundwaterwatch.usgs.gov/>

Water quality - objectives: develop a baseline chemistry for the streams & determine the degree of influence from anthropogenic sources. Findings from 5 monitoring stations sampled 4 times a year along with historical data concerning: nutrients, inorganics like calcium magnesium, potassium, and physical parameters like dissolved oxygen & temperature. Analysis for pharmaceutical and pesticides sampled at the gage station once a year in fall and spring seasons.

Median Total unfiltered Nitrogen levels between 2017 and 2020 were compared to the National average of 2mg/L : Bartlett 1.09, Upper 2.19, Lower 2.4, Gage 2.11, Tidal 1.88

Baseline chemistry was established so comparisons to neighboring rivers and future trends can be seen as it pertains to land use. Five (5) pesticides detected: highest concentration 64 pp

[Usgs.gov/llpinebarrens](https://www.usgs.gov/llpinebarrens) - data is available - 2020 now in review

Other projects include: WWTP removal efficiency- project is just beginning and will test for pharmaceuticals, hormones, nutrients, 1-4 dioxane and PFAS.

Pesticide analysis of LI groundwater Publication - [Sentinel Monitoring for New and Legacy Pesticides in the Shallow Groundwater of Long Island \(usgs.gov\)](https://www.usgs.gov/publications/sentinel-monitoring-for-new-and-legacy-pesticides-in-the-shallow-groundwater-of-long-island)

Trout Population and River Conditions

Presented by Michael Barger, President of Trout Unlimited-425 Art Flick Chapter

Michael Barger fished the Carmans 40 times in 2020! He has logged observations and commented on the health of the river as in generally great condition. The brook trout seemed to be good and other TU members reported the same. C-dam became a special refuge for stocked and native trout. Many people have been fishing that area and brook trout returned, members and public are pleased with the shape of the river.

Art flick chapter has 12 new temperature gages - put in two seasons ago, collecting and uploading data to a public program. Looking for a partnering organization or data savvy volunteers to help organize and analyze the large amount of data being collected. Sharing with County and looking forward to future data to establish trends.

Barger is also collecting from monofilament receptacles that were installed as a recent project. This year there has been incredible usage of the river - people wanted to get out and fish, ultimately a good thing- will bring more appreciation and conservation of the river.

2020 Regulations and Changes to Stocking Policy

Presented by Heidi O'Riordan, Regional Fisheries Manager NYSDEC Region 1

Fisheries plans to do survey in spring. Even with Covid challenges they managed to stock all the fish. 20,000 rainbow and brown trout in ponds and streams of Nassau and Suffolk.

NYS Trout Stream Management Plan - Completed 2020 final release 11/25/2020

<https://www.dec.ny.gov/regulations/34113.html>

Trout Stream Regulations changes public comments until Jan 25, 2021. Stocking policy changes go into effect 2021. <https://www.dec.ny.gov/regulations/34113.html>

Carmans River Changes - based upon reaches and conditions - Stocked reach - stock extended to 4 times per year, regulations at 3 trout/day with 1 over 12 inches. The idea is to spread out larger fish that will be stocked, and reduce the many different regulations across the state, eliminating the 9inch rule. Every place of stocking will have a percentage of larger trout. Hards and Tidal locations have no change. Season April1- Oct 15th

There will soon be an Interactive Map that will show details about a selected reach - what was stocked and when - what regs are in place and other species present.

Seeking Fishing Access Grant- for tidal section, Montauk Highway, improvement on gate, trail, benches, kiosk, lighting, resurfacing parking lot, bike racks- increasing positive use of the access point.

Fish passage? Entire river is passible all the way up to Lower Lake, fish ladder at Hards & C-dam is passible - seen through tag observations, all species are navigating.

County has a plan to install fish passage at Lower Lake, which is the last barrier to navigating above the spillway - It would be helpful to know what percentage of alewife get through current passes.

The county expects to go into construction of the lower lake fish passage soon, everything is in order, but the project has not gone out to bid yet. Dorian Dale - WQPP meeting today will clarify questions.

Land Management, Acquisitions and Code Enforcement in the Carmans River Watershed

Presented by John Turner, Land Management Specialist

& Luke Ormand, Senior Environmental Analyst

TOB looking to acquire:

Brush Development - 38-acre parcel in eastern section of Yaphank, north side of main, that was slated for the development of 32 homes and is \$3.1 million via four installments. Property is within the 0-2- and 2-5-year groundwater contributing areas. Will close this month. Was a sand mine, but also has forest vegetation, emergent wetland and does provide habitat- for a wide variety of species including eastern box turtle, wild turkey, red tailed hawks, red fox and white tail deer. It is possible a consultant will be sought to devise an ecological vision and restoration plan.

Verizon building – on radar, almost all paved/developed- being considered for commercial application- open space committee agrees it should be claimed for long-term preservation, in middle of hamlet but very close to river.

Kogel Lumber- discussing with county, in Carman's head waters north of Middle Country Rd. - near other preserved parcels so will expand that assemblage of open space 21 acres.

Several dozen parcel in Warbler Woods- Town would like to acquire with County.

There are still a few hundred acres that are sought to be acquired before the strategy is complete.

Luke Ormand on Land Management and Code Enforcement- Was able to visit a lot of properties this year-and can attest that we are making a difference and doing things the right way- overall the condition of the properties are very good, dumping was minimal- all quite healthy and happy.

Enforcement- ATV Task force, saw an uptick in ATV use because of Covid and people looking to go outdoors more. Open space parcels are being posted with signage to deter hunting and encourage appropriate use.

Brush development- all encroachments were removed, fencing eastern property line- work with county on ATV enforcement -Needs a road to access

Long term management: potential for fire management to maintain grassland habitat, possible expansion and enhancement of wetland pockets, and manage site for bird species. Will seek native planting areas.

Carmans Kayak rental facility- lease is expiring in 2021 TOB will issue new RFP seeking possible vendors. It will be recommended that the agreement language state more clearly the allowable uses and prohibit patrons going up the river.

Two inquiries have been brought to the Pine Barrens Commission and TOB for commercial solar facilities- Schuster Farm and Spring Lake Golf course. No applications have been made and the solar companies were advised of the environmental sensitivity of these sites along with the incompatibility with the underlying land use plan. Although not in the public eye, this is one of many situations where the TOB upholds the management plan.

Invasive Species & Southern Pine Beetle -

Presented by Polly Weigand, Science and Stewardship Manager Central Pine Barrens Commission

SPB monitoring and suppressions is still being coordinated by DEC - there is a declining trend, infestation locations consist of only one or two trees. Still finding outbreaks in Southaven park. Aerial survey will pick up again in March after suppression ends in December. Suppression work has been critical to the declining trend. Larger outbreak East - over in North Sea / Majors Path area, mostly private property so management is not able to advance using public funds.

New and emerging non-native monitoring in areas of high transportation Southaven/Brookhaven Parcel, waiting on results example- Non-native ambrosia and Ips beetle

Miscanthus- Chinese Silvergrass continues to spread - not directly surrounding Carmans but a 2019 survey found it in nearby areas where hand pulling has been attempted. an alarming number at DEC Whiskey Rd complex, mechanical treatment is not possible, will be very difficult to eradicate. Reporting and removing seed heads is important to stop spread, prefers transportation corridors, and disturbed areas.

Emerging species - watercress forms a thick and dense mat, and able to float and encroach the channel, observed in 2008 - spread from 495 and down river, spreading and reported to LISSMA.

Early Detection Rapid Response - Tier 1 species looking to be detected before they get established Example. forget me not Ludwigea (floating water willow) surveys to be conducted. Please report to LISSMA <http://nyis.info/liisma-prism/>

A Day in the Life of The Carmans River 2020- and it's virtual success

Presented by Melissa Griffiths Parrott, Education and Outreach Coordinator Central Pine Barrens Commission & Claire Barnwell ACE Intern @ Wertheim National Wildlife Refuge

Because of Covid many schools could not participate outside of the classroom, so the team adapted the model to collect data for students and educators to use. They filmed in 6 locations including Carmans

River at Wertheim, Peconic Estuary, Forge River, Fire Island, Nissequogue River, and Connetquot River. It was important to keep the nine years of data collected going and to maintain this connection and education for the students. Water quality tests and ecosystem assessment were still able to be conducted by students - analyzing the data provided and by using a multi-disciplinary approach.

Video showing highlights of A Day in the Life of the Carmans River- <https://youtu.be/8727HHwMP1k>

Peter Fontaine TOB Division of Environmental Protection- on the Brookhaven Regional Recovery and Recycling Residue Facility.

The Town has a proposal for this project - TOB adopted a positive declaration, there was a public scoping meeting on Oct 1, and there is a draft scope out for comment. Comment period on the draft scope has been extended to Jan 15, 2021 and can be submitted through website or through emailing Peter Fontaine directly. Website for current information and comment.

<https://www.brookhavenny.gov/1190/Regional-Recovery-and-Recycling-Residue->

Final Report from John Pavacic Central Pine Barren Commission, Executive Director

Partnership, Plan, And Goals for the Future

Carmans River Water Shed -A Culture of Preservation and Protection back to the 1800s recognized the river for its natural resources and significant fish. All the way through to present. Partnership itself is not a formal organization but has been instrumental in fostering and facilitating the preservation of the river, keeping interest and addressing issues as they arrive in the watershed.

Management plan, goals and recommendations- Key Accomplishments- expansion Central Pine Barrens and compatible growth area, open space acquisitions, up-zonings and re-zonings, code changes, and watershed protections, land use laws.

Continue: Stormwater improvements, sanitary systems, regulation improvements, management of water quality and invasives.

Goals: Reduce nitrogen to both groundwater and stormwater. Expand use of alternate wastewater treatment systems including on publicly owned land. Expanding sewage treatment districts. Improve surface water quality. Improve stormwater retention and treatment at Rt 25, Middle Country Road, Country Road 21, Town roads – and employ alternate methods where conventional methods are not feasible. Pursue additional acquisitions along entire length of river. Aggressively pursue wetlands violations and encroachments on wetland surface waters within watershed. Control and eradicate invasives - phragmites along river. Forest management including prescribed fire. Maintain fish passages. Deer Management - reduce impacts of deer browse. Engage in preservation and restoration of scenic and cultural resources. Restore blighted and degraded properties. Conduct ecological inventories in areas like Warbler Woods. Acknowledge and address climate change impacts especially for areas of tidal marsh. Robinson Duck Farm - remediate, regrade, revegetate and restore former duck sludge lagoons and disturbed areas of site - a study was done, and it needs attention, an area that can be

turned into a viable habitat. Public Education and Outreach - possibly a Carmans River Festival. Keep partnership going another 20years!

Closing Remarks from Anthony Graves former Town of Brookhaven Chief Environmental Analyst
Not a lost year - we have all found ways, like monitoring water quality and adjusting a day in the life, in spite of a world-wide pandemic – Barger’s observations are vital- there is no substitute for eyes on the river. In addition to the goals listed by Pavacic, a benthic survey would be useful to determine the health of the river.

Water quality data and pesticide data provided by the USGS is key to monitoring the health of the river and watershed. It’s important to continue this great preservation work and to recognize how each generation has played a huge role.