

### From the Board

eason's Greetings from the Citizens for the Protection of Waquoit Bay. We hope you had a safe and wonderful spring, summer, and fall. It has been a busy year for us and we are grateful you have shared it as a member. Please use the handy form on the back page of this newsletter to renew your membership. We will not be sending a separate membership mailing this year.

This year saw a significant increase in concern across Cape Cod about the degraded environmental conditions of the south coast bays and inland ponds. Waquoit Bay was no exception. The following are of note:

1. With CPWB's advocacy and others, Falmouth DPW installed a vegetated swale to capture road run off at the Childs River restoration project on Carriage Shop Road.

2. With the 2021 grant from CPWB to study the toxicity of road runoff entering Waquoit Bay, Falmouth High School student Askel Jensen won first

place at the High School Science Fair, 2nd place at the Region V Science Fair and 3rd Place Prize in the Massachusetts Science and Engineering Fair.

- 3. We spoke at a Falmouth Water Quality Management Committee (WQMC) meeting emphasizing our concern over the increasingly degrading water quality of the Moonakis/Quashnet River and held a meeting with over 50 fellow residents to discuss what should be done to address the problem and lack of action by the Committee. We also provided a grant to Tufts University students to examine what can be done about it.
- 4. We sent out action alerts asking for your support, attended public meetings, and submitted rulemaking comments to the Massachusetts Department of Environmental Protection supporting their proposed

regulations requiring Cape Cod towns to develop watershed plans aimed at fixing their degraded coastal waters.

- 5. The dog waste collection program continued around the Bay.
- 6. CPWB continued to address the growing number of invasive species such as green crabs and phragmites that are over taking the waters and marsh lands.

7. We listened with particular concern to water quality expert Professor Brian Howes tell the Mashpee Selectman that the "Quashnet River is the

> poster child for the worst water quality, worst habitat quality in Mashpee, and in fact, probably in most of the south shore and the Cape."

> 8. It seems the Falmouth WQMC does not intend to start addressing Waquoit Bay's degraded water quality until 2035. We remain

diligent in challenging this approach.

You will find additional information on these topics and more as you read on. This is an exciting edition with a lot to share with you! We have much more to do and have plenty of volunteer opportunities. If you're interested in helping out, email us at <a href="mailto:cpwb1981@gmail.com">cpwb1981@gmail.com</a>.

-Rick Otis, President

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# CITIZENS FOR THE PROTECTION OF WAQUOIT BAY



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Patty Waltner, Treasurer
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Mike Bingham
Eloise "Pam" Biscoe
Noah Clements
Maggie Megaw
Joan Muller
Win Munro
Matt Patrick
Dan Rothenberg
Marc Turgeon



#### **Contributors**

Around the Bay: Patty Waltner

## **Editor** Patty Waltner

### Newsletter Design Sara Slaymaker

#### **Contributors**

Matt Patrick Eloise Biscoe Bobye Anderson Patty Waltner Steve Monas

Photos Courtesy of: Steve Hurley Sara Slaymaker WBNERR Bobye Anderson Eloise Biscoe Rick Otis Steve Monas



### Infamous Mussel Oyster Gumbo Party Returns Post-Covid!

att Patrick invited all members to his house this past July to enjoy his spectacular mussel oyster gumbo and hear from his friends, Earl Barnhart and Hilde Maingay, who talked about urine diverting and composting toilets as options to consider to address wastewater concerns in our watershed. About thirty-three people showed up to listen to Earl and Hilde's presentation. They explained that urine contains about 80% of the nitrogen and 50% of the phosphorus that the body normally excretes in a day and how this could be used for fertilizer. If you have been following us for any length of time you know that these are the two chemicals in wastewater that are causing the problems in our salt water bays, (nitrogen) and fresh water ponds (phosphorus). It makes much more sense to not put it into the ground water. There were many questions and good conversations following the presentation.

During the evening's conversation, there was some discussion about establishing an authority elected by households within the Waquoit Bay watershed to manage urine diverting toilets, composting toilets and nitrogen removing toilets. In doing so, this area could see improvements in our water quality much sooner than what is currently scheduled by the towns of Mashpee and Falmouth. This elected authority would need to help us finance and install the alternative toilets. It could apply for grants and subsidies from the State and Federal Governments. It would oversee the maintenance of the nitrogen removing septic systems to make sure they work properly and are emptied when appropriate. This authority will help us dispose of the waste from the urine diverting or composting toilets or find markets for use as fertilizer in suitable agricultural settings.

The evening concluded with tours of Matt's urine diverting toilets and an almost empty gumbo crock as it had been consumed with wanton abandon. All in all, folks had a good time and left with full bellies and good information to consider in our ongoing water quality efforts.



### Proposed new Mass DEP Regulations-A Summary

The Massachusetts Department of Environmental Protection has finally decided to address the contamination of south coast bays by nitrogen released from septic tanks. It has proposed new Watershed Permit Regulations and held three public hearings this month to allow citizens and elected officials the opportunity to comment.

In short, the proposed MassDEP regulations would create a two-part approach. Towns could do either of the following:

Create a new Nitrogen Sensitive Areas (NSAs) designation for water bodies. This allows MassDEP to protect more water bodies. Certain water bodies would automatically be declared as NSAs in which all septic systems would have to be upgraded to include technology that eliminates or reduces the amount of nitrogen emitted within 5 years.

OR

Towns could apply for a MassDEP Watershed Permit that would exempt them from the NSA 5year upgrade requirement. The permit is effective for 20 years. To receive a Watershed Permit, a community must create a plan (or update and adapt an existing plan) to meet the water quality standards in its area and prove to MassDEP that the plan will be effective within the 20-year period.

Implementing these regulations will be challenging for our towns and us as homeowners, but it's achievable if we are constructive and creative. There are more funding sources available than town officials acknowledge. Cape Cod is now the most cost-effective place with the greatest level of assistance from state and federal governments. As we move down the road additional improvements will be made to the funding systems to enable this to become more easily affordable.

During the final hearing on December 5, Maggie Nivison with the Conservation Law Foundation stated the following:

"Residents of the Cape are in an awful position. The waters that make their homes special are becoming putrefied with sewerage and there's no inexpensive fix available. Decades of inaction by the state and towns have left residents without any easy solutions. Thankfully, the state is taking action now with these regulations. There's no time left for delay. There's no magical solution that will be uncovered in the next six months, year, or two years. The only effect of further delay is more sewage in the Cape's waters. As many have pointed out in these hearings, these regulations come with a cost. There's no free solution to a problem of this scale. However, the only way those costs fall on every homeowner of the Cape is if their towns continue to fail them. The watershed permits that these regulations provide for allow towns to apply for Watershed permits which would pause that five-year upgrade requirement and it lets the towns do exactly what they've spoken of in these hearings—implement the most efficient solution for their own areas rather than forcing everyone to upgrade their own systems. Residents will only bear these significant costs if towns continue to let their residents down by failing to protect them and the waters that make their homes special.

These regulations are an important step and one that needs to be taken as soon as possible. There cannot be a delay. The timelines and these regulations cannot be shortened. Loopholes for new construction need to be closed. Builders cannot be allowed to install undersized systems for oversized houses by calling a 12,000 sq ft mansion a three-bedroom house. Watersheds need to be in complete compliance with their water quality obligations. Funding to support upgrades must be robust and distributed equitably. People have spoken about family homes on the Cape and about wanting to pass them down to their children and grandchildren. There will be no idyllic Cape Cod for those children and grandchildren to enjoy if this problem is not addressed starting now. As we've

heard, the pristine Cape many enjoyed when they were children is already gone. Continued inaction will destroy what's left. Deliberate action taken now will start to restore what's been lost."

Our own CPWB President, Rick Otis, stated at the final hearing,

"CPWB wants to applaud your (MassDEP) action and urge you to continue. Waquoit Bay is a perfect example of why true watershed planning is necessary. It is a watershed split between three towns, Mashpee, Falmouth, and Sandwich. In 1965 the Bay had acres of eel grass, plentiful scallops and other truly wild shellfish, many fish species, mussels lining the marshes, and many other signs of a healthy ecosystem. Today, that ecosystem has collapsed. The eel grass is gone, the scallops are gone, many of the fish are gone, the water is murky and warm, algae mats cover places like the Moonakis River as early as April, mussels at the marsh edge are dying, and the marshes are breaking apart. Where Falmouth has decided to sewer, the Water Quality Management Committee (WQMC) deserves credit for the complexity of its work. But Waquoit Bay is far down on their list of things they're going to do. Last summer, WQMC laid out its next steps for sewers and they're not going to begin to look at the limited number of areas of Waquoit Bay where sewers might be feasible until 2035. During these hearings and in the news media we have heard distortions and disinformation from our elected and town officials. They are using false cost estimates to scare people. It's irresponsible."

Other members of CPWB also spoke at the December 5th hearing. Glenn McCarthy addressed the challenge ahead of us.

"Look back and reflect on the history of cleaning up Boston Harbor. There is nothing wrong with requiring the proper treatment of sewage discharges so as to not pollute our ponds, bays, and rivers. Clean waters are not an unaffordable, unobtainable audacious goal. They are the basic foundation of a healthy, vibrant, and economically sound society. Clean waters form the foundation of Cape Cod's economy and underpin our property tax base as well as providing citizens with quality-of-life resources. Just as cleaning up Boston Harbor created economic growth, opportunity, and a major tax base for the city and state, cleaning up the Cape's waters will lead to a brighter future for the region. The shame of the situation and why I applaud and support what MassDEP is doing is that every Tuesday or Wednesday or Thursday the waters get worse, because on one of those days a local board holds a hearing and approves and ill-conceived, ill thought out, ill planned, ill project, on a septic system that does not actually not work. I am shocked and saddened to hear town leaders and industry spokespeople say the word impossible. I heard someone say 20 years is comically insufficient. We hear the words 30-40 years from now. I guess that tell us the reality of current state of affairs. There is no impetus or plan to solve this problem. At least they are saying out loud, "we are not going to do anything". Which is why these regulations are so important. We cleaned up Boston Harbor, we put a man on the moon in 12 years, surely we can stop polluting the estuaries of Cape Cod within the next 20 years. It seems very doable. I think we need to have an attitude of can do and figure it out as opposed to just stall and complain and delay."

Both Earl Barnhart and Hilde Maingay spoke at this final hearing, sharing alternative solutions that should not be overlooked in the watershed permitting process.

CPWB supports these regulations and hope you will too. We will continue to share information as it comes available. Our friends at the Association for the Preservation of Cape Cod (APCC) have put together an informative webpage to help you cut through all the disinformation you may hear. We encourage you to read it.

https://apcc.org/our-work/advocacy/apcc-supports-proposed-dep-water-quality-improvement-regulations/?blm\_aid=489476





### The Difficulties of Being a Good Dog Owner and Caring About the Environment

Warning, this article contains foul language, so read at your own risk!

Picking up dog s#!t in public is essential for the bays and estuaries we all love but can also be terrifically challenging and also, at times, embarrassing. Trying to hold on to your impatient dog while trying to find and open the plastic bag are physically demanding. It's a real test of our multi-tasking abilities which science tells us is a contradiction in terms. Reigning in my 80-pound black lab that's only sixteen months, with an attention span measured in micro seconds, is next to impossible. He's on to his next adventure.

Now, where did I put those bags? Is one going to be enough? No Scout, you don't have to kiss me when I stoop down to pick it up. Soupy ones are the worse because you can never get all of it. Sometimes you just forget to bring bags and since I have been publicly proselytizing about picking up after your dog I always come back later with a bag lest someone of my neighbors calls me out for my hypocrisy.

There is also the unpleasantness of bringing the full bag or bags home with you if you are out for a long walk. Where do you put them? In your pocket? Or just carry them with you? But any of you who, like me, are trying to be good environmental citizens know that even in the bag, s#!t stinks. It makes you wonder what else is going through the bag. I have deduced that this is why people leave full bags on the side of the path which is very unfortunate. I suggest double bagging if necessary just twisting the outer bag without tying it in a knot so you can use it again. And, perhaps bringing a little backpack to carry it back along with all the other accoutrements of walking dogs, like: as many tennis balls as you can carry, bug spray (for you), hand sanitizer and yes, more poop bags.

Being a good environmentalist, I will pick up full bags that others have impolitely left behind ignoring their recent pledge to protect the environment by cleaning up after their dogs. For those who do leave their full bags of s#!t behind, shame on you. You are shirking your duty! Please consider what an unsightly mess you are creating. Take it home and dispose of it in the proper way...in the trash!



The net impact of CPWB's doggy bag campaign is tremendous. If you calculate roughly ½ pound of dog excrement per bag along with all the pathogens and toxins in it, times 300 bags per roll, times forty-eight rolls per box, times four boxes since we started you get an idea of how much dog s#!it was being left in the water shed along our roads and hiking paths before we started. All of it was carried into our roadside drains, rivers and bays and estuaries during a rain storm. That runoff from those rain storms included not only dog waste but toxic auto exhaust emissions, heavy metals and rubber from tires and fertilizers from lawns. Taken together these close our shellfish beds and kill fish. Nitrogen from septic systems is the long-term problem but the sudden fish kills and shellfish bed closures are caused by surface pollutants that run into our water bays, rivers, lakes and ponds.

CPWB's brochure on why its important to pick up dog waste in the watershed is being used by other environmental organizations in town. You can find them at trailheads on the Quashnet off Martin Road or contact us to get one at CPWB1981@gmail.com.

It's great to see that the town Department of Public Works installed a vegetated swale designed to eat up the pathogens and toxins coming off the road at the intersection of Carriage Shop Road and the Childs River. It was CPWB's advocacy that made it happen.

Hats off to Deborah Viera who has taken on the task of keeping all of our dog bag dispensers filled up throughout the watershed! Thanks Deb! Want to help or do you have a good location for a dispenser, send us an email at CPWB1981@gmail.com.

### Meeting on the Moonakis

It was a near perfect late summer afternoon: warm humid air, a light breeze, and the sound of ospreys calling over the nearby Moonakis River. People were checking in, talking to each other, getting refreshments, and sitting on the folding chairs arranged in a wide semi-circle around an elevated deck. Our local non-profit Citizens for the Protection of Waquoit Bay sponsored a "Meeting on the Moonakis" event held at 126 Metoxit Road on Friday, August 19th. It was very well-attended, with 56 members, guests, neighbors, and interested individuals.

The welcoming mood was continued, as long-term residents Hannah Werdmuller and Noah Clements, guitars in hand, came to the deck and opened the meeting with "The Moonakis Song", written for the occasion. CPWB Board member Marc Turgeon introduced himself, welcomed everyone, and thanked the singers. He told of the on-going concern in the organization about the condition of the Moonakis River and the need for an action plan; he then introduced CPWB President Rick Otis.



A resident of Washington DC and long term Waquoit summer resident, Rick thanked the committee members and then told of his background in the environmental field, its laws and regulations, and the EPA. He gave the background of CPWB - its beginning in 1981 to prevent the development of Washburn Island and later to help lobby for the protection of South Cape Beach and the founding of Waquoit Bay National Estuaries Research Reserve (WBNERR). It continues to work in advocating for the improvement of the quality of water and life on Waquoit Bay.

Rick then stated that the purpose of the meeting was to review the condition of the Moonakis River and the causes, to discuss what can be done to help both bodies of water, and to ask for CPWB membership and help in this endeavor from interested individuals and those with specific skill sets. Acknowledging our common concerns, he has the goal of using a "reasoned, rational point of view" in planning for the future of Waquoit Bay with funding, staffing, and advocates in town politics and environmental committees.

With his family home on the beach where the Moonakis River flows into Waquoit Bay, Rick remembers a childhood with the Bay having eel grass so thick it clogged outboard engines, with clear water, an abundance of shellfish, and a diversity of plant and animal life. Today's Waquoit Bay has floating algae islands, areas of clouded water, mats of algae on the sand beneath the water, shorelines where the invasive phragmites have choked native plants, and ever decreasing eelgrass beds. Clams, scallops, and other shellfish are scarce and without their yearly seeding by the towns, would be even more scarce. Individuals in the audience were nodding in agreement at their own observances of the changes in the Bay during their lifetime.

We know why this has happened. As Brian Howes said at the Mashpee Water Quality presentation, "We now know that the sources of pollution are 61% wastewater, 21% storm runoff, and 18% lawn fertilizer"; he also said "For the first time in 20 years, I have nothing good to report." On-going studies of the TMDL (Total Minimum Daily Load) have been established but 2035 is the year proposed by the

Town of Falmouth for action – with Waquoit Bay being the last body of water. With the low population density in Waquoit, Rick stated that a non-sewer action plan needs to be in place as soon as possible. The problem is researched. Time is of the essence. Now the question is "What needs to happen now?"

At this point, Rick turned the meeting over to Guest Speaker Scott Horsley.

Scott spoke of his consulting background and teaching at Tufts and Harvard. Horsley Consulting that works both locally and globally to promote the preservation and restoration of water resources with nature-based solutions. Scott has recently been working with the Cape Cod Commission to develop and implement the 208 Plan to clean Cape Cod waters. In the past, sewers were considered the only option; by his count now, Scott says there are over 40 different options and methods to do this work. He is currently working with the towns of Wellfleet, Truro, and Barnstable to find non-sewer solutions. He agrees that the towns



around Waquoit Bay need to be pushed to develop alternatives. And he agrees that we already know the nitrogen sources.

CPWB has engaged Scott's firm to focus on the Moonakis River and find possible strategies for water remediation. Five of his college student researchers are conducting a three-month study to be completed in early December. Their mission is to review the most current data on the Moonakis, identify potential strategies, and prepare a summary with recommendations to be presented in an online meeting.

Scott briefly reviewed what strategies he felt were most promising for the Moonakis: the introduction of enhanced IA (Innovative Alternative) septic systems using high tech wood chips; storm water management with new interception systems; PRB's (Permactive Reaction Barriers) such as the one in front of WENERR; and possible dredging. He encouraged the prioritization of retrofitting septic systems closest to the river; water moves slowly underground and it can take up to ten years for the water quality to improve. From his on-going work with other Watershed areas on Cape Cod, he has seen the value of property owner initiatives on areas closest to the water that can lead to a new tank of wood chips between septic systems and leaching fields. Rick thanked Scott; he then made the point that we are not in favor of imposing new septic systems on residents but rather on educating ourselves regarding IA septic systems and possible funding sources.

The meeting was then opened up to questions; some examples were why the Bay seems to be deteriorating so swiftly (development at the heads of the rivers opening into the Bay), would urine-diverting toilets be one answer (yes and check into the Rich Earth Institute), how much communication is taking place between towns (one of the great areas of need), and what can be done about medications getting into systems (again, wood chips appear to be both an effective and financially reasonable way to do this). Rick thanked everyone for attending and stressed that we are all in this together in wanting the best for Waquoit Bay and asked for support and help in solving the problems.

Marc added his thanks, along with a Frederick Douglass quote he had recently heard and thought appropriate for the evening's event: "We can make progress with our Pen, our Voice, and our Vote". The meeting was adjourned but most of the attendees stayed behind, seemingly reluctant to leave the setting. They relaxed and socialized over refreshments, had discussions and read the materials, and enjoyed the evening colors in the summer sky before heading back.

### Tufts Students Visit the Moonakis for the Restoration Plan Project

ou may recall that the weather on the weekend of November 4-5 was not just sunny but also uncommonly warm. That was a lucky break for the six Tufts University students in Scott Horsley's Water Resources Policy and Watershed Management course who are working on the Moonakis River Restoration Plan project that CPWB commissioned last spring. They drove down

from Boston to explore the Moonakis River firsthand and to speak with community members. With undergraduate backgrounds that include biology, political science, geology, geography and mechanical engineering, they are a very impressive group of Master level students.

The main goal of the study is to present an analysis of alternative approaches to reducing the nitrogen load in the Moonakis. The students are undertaking three primary tasks. The first is to compile and review the ample existing information about the Moonakis. The next task is to identify and evaluate restoration strategies. This includes but is not limited to enhanced innovative and alternative (EIA) septic systems, permeable reactive barriers (PRBs), storm water management, and fertilizer management. The strategies will be evaluated for performance and cost effectiveness and be compared to conventional collection and treatment (sewering) alternatives. Then, based on this research, the third task is to prepare a restoration plan that includes the analysis of various alternative approaches, probable nitrogen loading reductions, and cost effectiveness.



For their Waquoit visit, the students organized themselves into two groups. On Saturday morning, one group of three boarded an electric-outboard skiff skippered by a CPWB member and went out on the Moonakis. Starting from the mouth, they first inspected the deterioration of the marsh. Then, using a long metal rod, the students measured bottom sediment about every 50 feet up the river to a point in sight of the Rt. 28 overpass. A very low tide prohibited any further motoring northward. Scott guided their efforts from a nearby canoe, and other CPWB folks watched from a rowboat and kayak. After lunch on a sunny porch overlooking the river, they headed out to observe the



Urine Separating No-Mix Toilet

Moonakis/Quashnet above Rt. 28. (The upper reaches of the river are called the Quashnet.) Hiking the trail off Martin Road gave students an important view of this fresh water part of the river.

Meanwhile, a second group of three students met with Hilda Maingay and Earl Barnhart at New Alchemy to learn about eco-toilets as a nitrogen reduction strategy. Later, they hiked along the banks of the Moonakis looking specifically for storm water run-offs. Then, the three met with Matt Patrick, previous CPWB president and long-time environmental activist, and George Heufelder, one of the founders and past director of the Massachusetts Alternative Septic System Test Center (MASSTC), to talk about alternative septic systems. In



the evening, the students and members of the community, including local activists and members of science and land management organizations, enjoyed a delicious potluck dinner at a member's house overlooking Bournes Pond.

On Sunday, after a hearty breakfast at the Moonakis Cafe, the students toured the upper reaches of the Quashnet River. They walked along the shore of Johns Pond as the headwaters of the river and drove around various streets to better understand the density of residential

developments that are on individual or group septic tanks. They also examined the golf course at the head of the river and a new housing development being built that will further add to the pollution of the groundwater feeding the river.

CPWB members were very pleased to share their knowledge of and hopes for the Moonakis with such a dedicated group of students. A presentation of the final research results will take place at a CPWB meeting in the new year. Stay tuned for the announcement of date and time!



## **Around The Bay**

### An interview with people making a difference in the waters of Waquoit Bay.

Steve Hurley, MassWildLife Aquatic Biologist, has been busy around Waquoit Bay. One of his responsibilities is to monitor and report the southeast district's fisheries data. As a follow-up to the article on the Childs River Restoration Project, we caught up with Steve and he shared his most recent findings. (For reference, Farley Bog is located approximately a half mile north of the new bridge/culvert on Carriage Shop Road. The Former Pond Area encompasses the area on either side of the new bridge/culvert.) Here's what Steve had to say:

On September 13 and 14, 2022 the Childs River was again sampled by electrofishing and 84 trout were captured including 47 young-of-year (YOY) and 23 recaptures. Thirty-four trout were captured in the lower reaches including 15 YOY and 10 recaptures, 34 trout were captured in the old pond area including 18 YOY and 12 recaptures while 16 trout including 14 YOY and one recapture were captured in the Farley bog area.

Total Brook Trout Catch by Area in the Childs River, 2020-2022.

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	Total Brook Trout Catch by Area			
D .	Lower Childs	Pond	Farley	m . 1
Date	River	Area	Bog	Total
Jun-20	24	О	О	24
Sep-20	42			42
May-21	29	О		29
Sep-21	42	1	2	45
May-22	31	19	17	67
Sep-22	34	34	16	84

Based on the length frequency distributions, 2022 appeared to produce a good year class in the Childs River which may reflect the increased spawning areas created by the restoration of the Farley Bog and Former Pond Area.



Young of year brook trout captured in the former pond area of the Childs River on May 18, 2022 indicating that spawning had occurred in or near this newly restored area.

This is exciting news for the Childs River Restoration Project! Are you tracking any other streams/rivers in the Waquoit Bay watershed? Please tell us about your findings, challenges, successes, etc.

The Quashnet River is also annually sampled in a similar manner which started in the Fall of 2007 and three antennas are now monitoring fish movements in that river. The Quashnet River has been the site of habitat improvement efforts by Trout Unlimited since 1975. Habitat improvement efforts, catch and release regulations and the stopping of brown trout stocking allowed the brook trout population to increase to a level that allows transfers of brook trout to restore a population of brook trout to the Childs River.



### To backtrack a bit, please describe the process of sampling.

The river is sampled by electrofishing in an upstream direction in May and September when stream temperatures are optimal for brook trout. A backpack electrofisher produces about 400 volts of pulsed DC current which temporarily stuns the fish and allows them to be captured. Trout are measured for total length in millimeters and weighed in grams, trout over 80 mm in length are tagged with a PIT tag which gives them a unique ID for future tracking and then released.

#### Is Red Brook on the MassWildlife radar?

Red Brook in Mashpee/Falmouth had been known as a sea run brook trout stream by MassWildlife before the 1950s. Red Brook like many Cape Cod streams was heavily modified by cranberry culture from its original state as a groundwater fed tributary of Waquoit Bay. Permanent flooding of the bogs in association with development of the surrounding uplands in the 1970s greatly degraded the brook stream habitats and created public safety concerns for Red Brook Road. It was included in the 2010 restoration plan for the Waquoit Bay tributaries done by Louis Berger and associates but both Jim Rassman and I felt Red Brook did not

receive enough attention for its restoration potential. The summer 2020 failure of the former bog culvert at Red Brook Road refocused MassWildlife, WBNERR and the towns interests in both addressing the public safety issues of the flooded bog and restoration potential for the entire system. MassWildlife is interested in Red

Brook both as an abutting property owner (South Mashpee Pine Barrens WMA) and for its future restoration potential. I have already observed mummichogs from Waquoit Bay above Red Brook Road that were formerly blocked from this area due to the former culvert which was a barrier to fish passage.

### Is MassWildlife doing anything to assist in the fight against invasive species, like phragmites?



Childs River brook trout after tagging and release just above Carriage Shop Road

MassWildlife actively manages phragmites and other invasive plants on its wildlife management after through moving, selective herbicide treatments and other control methods. It has produced a variety of publications and press releases for educational purposes on this major threat to our fish and wildlife resources and works closely with other partners on this issue.

Invasive plant management for habitat restoration | Mass.gov

What can members and readers of our newsletter do to get involved with MassWildlife's pursuit of the conservation of freshwater fish and wildlife in the Commonwealth?

MassWildlife is your state agency responsible for conserving freshwater fish and wildlife in the Commonwealth. You can learn more about it at mass.gov/masswildlife and facebook.com/masswildlife.

### Preserving the Milton Servis Property

When Milton Servis died in 2015, he left a 1,177 square foot single-family home built in 1946, in fair to poor condition, surrounded by 3.8 acres bordered on the South by Bourne Pond, and on the North by Route 28. Other than the house and a short driveway fronting Route 28, the lot is an undeveloped, densely wooded tract stretching 700 feet from Route 28 to the Pond. It's still owned by Milton's estate. We have been in contact with the representatives of the Estate, who tell us that they have a "firm offer" from Johnson Homes in Falmouth to purchase the property for \$900,000 for the purpose of developing it as three separate buildable lots, with a road connecting the three lots to Route 28. This development (after tearing down the existing small house) would add three new, presumably large dwellings, with septic systems, to the edge of Bourne Pond, increasing potential nitrogen loading to the Waquoit Bay estuarine system, as well as cutting down a significant number of old trees and disturbing wildlife habitat in the immediate area. There has also been discussion of the possibility of more dense development as a 40B affordable housing project.

At this point both The 300 Committee Land Trust and WBNERR have expressed their support for our efforts to preserve the property. Representatives of The 300 Committee walked the tract with us in June, shared the cost of an appraisal, and have offered to pay \$100,000 for a Conservation Restriction on the "bottom" 2.8 acres fronting the Pond. The idea would be to have the Lawrence and Monas families purchase the entire Property and sell the house and remaining lot fronting Route 28 to defray the cost of the purchase. This would be a substantial investment for



the two families; while there is no current appraisal of the house, we are guessing the market value to be between \$300,000 and \$350,000. WBNERR would need to get a specific commitment from the MA Dept. of Conservation and Recreation, but their representatives have agreed that the Property is within their jurisdiction and their mission to protect the Waquoit Bay watershed.

Tonna-Marie Rogers and Ryan Clark of WBNERR organized a Zoom meeting on September 29 with Shaun Provencher, Land Protection Specialist for the MA DCR; Jessica Whritenour from The 300 Committee; Kelly Grant, Land Protection Specialist for the Compact of Cape Cod Conservation Trusts; and me, to discuss the role of and possible contributions from WBNERR and the DCR. While Shaun agreed that the property meets several of the criteria required for the DCR to be involved (public access from Route 28, and the possibility of linking the Property to the 12+ acre Caleb's Pond preserve managed by WBNERR), he was concerned among other things that the appraisal obtained by the Committee values the Property at \$570,000 after subtracting the projected costs of development, far less than the current asking price and reported firm offer. I have subsequently followed up with the Servis Estate to try to determine whether the \$900,000 offer they have quoted is before or after development but have not had a response.

One possible alternative that has been raised is to take control of the development of the property as an environmentally progressive 40B project on the acre abutting Route 28, with the 2+ acres south of that set aside as Conservation land. We would envision the project having I/A septic systems, urine diverting toilets, and if feasible, solar power. It could be a model for addressing both housing needs and conservation needs on Cape Cod in a way that demonstrates they are not mutually exclusive objectives; this may also be a way for DCR and WBNERR to justify providing State funding and may attract other funding sources as well. For this, since we are way out of our depth here, we would need help getting connected to people able to advise and possibly partner with us.

So as of today we have a team consisting of the immediate neighbors, The 300 Committee and WBNERR; with the support of CPWB we would have a powerful grassroots organization behind our efforts, and would be able to demonstrate substantial community interest. If among us we can raise the funding to purchase the Property from the Estate, we would be able to protect the water quality of Bourne Pond and the Bay, preserve at least part of the Property from further development with a Conservation Restriction, and expand the acreage adjacent to Waquoit Bay that is managed by WBNERR.

UPDATE: We have recently received a new appraisal from Joseph Clancy that values the 419 property at \$840,000, much closer to the \$900,000 asking price. In the revised appraisal, Mr. Clancy made the assumption that the best (commercial) use of the property would not be to separate it into three building lots as previously proposed, but to separate it into two lots and connect the second lot to Route 28 with a modest driveway. This would result in substantial savings in the development costs, which in turn results in the higher appraised value. We are hopeful that this new appraisal will make it more feasible for WBNERR and the DCR, as well as other potential partners, to invest in the property.

- Steve Monas



Bourne Pond, showing the proximity of Waquoit Bay. The property in question is just to the left of the house in the bottom left corner.

# Meeting on the Moonakis













# Winterscape Solstice Walk DECEMBER 21 AT 10:30



WAQUOIT BAY
NATIONAL
ESTUARINE
RESEARCH
RESERVE



Take a one-hour morning break from the holiday hustle and bustle on Tuesday, December 21 at 10:30 am at Waquoit Bay Reserve. Join us on the shortest day of the year for a hike to tour Reserve headquarters to view examples of tree, shrub, and other perennial plant choices for a colorful winter landscape. *Dress for the weather.* 

Learn about plants that you can buy at a nursery to plant in your own yard to provide interest and attract wildlife even in the coldest of seasons.

Meet at the Visitor Center for this FREE Event - 131 Waquoit Highway, Waquoit

Joan Muller, Education Coordinator, and Robert Golder, a cultivator of holly trees, will join us on the walk to add their expertise.

Registration is preferred, but not required.

Please register at http://waquoitbayreserve.org/event-registration/?ee=1299

For more information check www.waquoitbayreserve.org

Citizens for the Protection of Waquoit Bay is a 501(c)(3) Non-Profit organization dedicated to the preservation and protection of Waquoit Bay and its estuaries.
(Tear here and send to: P.O. Box 3021, Waquoit, MA 02536)
Yes, I want to help restore Waquoit Bay!
\$250\$100\$50\$35Other \$ Please make checks payable to: Citizens for the Protection of Waquoit Bay (CPWB) OR Donate securely online at <a href="https://www.protectwaquoitbay.org/">https://www.protectwaquoitbay.org/</a> Name:
Company/Organization:
Summer Address:
Winter Address:
Email:
Please send me more information on:VolunteeringPlanned Giving

Thank you for your support! FOLLOW US ON FACEBOOK & INSTAGRAM

### From MORNING EDITION with STEVE INSKEEP as the host:

A great tradition of cooking is that you use what's available. How else do you suppose that snails became a French luxury food? A distillery in New Hampshire follows that tradition by making use of an invasive species - tiny, green crabs. They're considered a threat to the New England ecosystem. So the distillery says the answer is to eat them. Its new whiskey has a bourbon base steeped with corn, spice and crab.





PO Box 3021 Waquoit, MA 02536