The Watershed

Vol. 21

The Oyster Pond Environmental Trust Newsletter

2018

How to Create a Butterfly Friendly Garden: Attracting Butterflies & Bees with Beautiful & Easy-to-Grow Plants

Presented by MaryKay Fox, President Mashpee National Wildlife Refuge

at the

OPET Annual

Meeting

Thursday August 2nd, 7pm

Sea Education Association 171 Woods Hole Road, Falmouth

Light Refreshments

Falmouth's Plan to Clean-up Oyster Pond

The Town of Falmouth is mandated to reduce nitrogen entering our estuaries due to a lawsuit filed by the Conservation Law Foundation. The settlement agreement requires all Cape Cod Municipalities to comply with Section 208 of the federal Clean Water Act and to develop plans to stop the flow of nutrient wastewater into its water bodies. The Town appointed the Water Quality Management Committee (WQMC) to pursue solutions for cleaning up Falmouth's fifteen impacted estuaries. The WQMC is working with consultants to develop Comprehensive Wastewater Management Plans (CWMP) for each of these water bodies.

The high nutrient levels entering estuaries are due to nitrogen from too many septic systems in their watershed. Existing Title V septic systems are great at removing pathogens from entering groundwater, but not nitrogen. The primary source of nitrogen in Oyster Pond is also from septic systems (70%) according to the Massachusetts Estuaries Report for Oyster Pond. Just as nitrogen feeds your garden plants, it also feeds the plants or continued on page 2

MaryKay Fox, President of the Friends of Mashpee Na- Falmouth. It is the second largest, accessible open tional Wildlife Refuge, Inc. will be the featured speaker space on Cape Cod, encompassing two watersheds at the OPET Annual Meeting. She will discuss how to with unique and rare habitats such as Pine Barrens and use plants that grow well on Cape Cod to attract native Atlantic White Cedar Swamps. pollinators to your garden as well as support migrating species such as the monarch butterfly. Additionally, she will talk about why it is critical to provide native pollinators with nectar-rich plants. Ms. Fox has created gardens ranging in size from her own backyard to several acre meadows.

Since 2011, the Friends of Mashpee NWR has created stunned turtles and the Waquoit Bay National Estuapollinator gardens in the Refuge and throughout the rine Research Reserve as the Assistant Research Coorcommunity, including seven acres of butterfly meadows in Falmouth with a grant from the US Fish and Wild- has kept honeybees for 15 years. life. The meadows include host plants for both Monarch butterflies and fifteen other species.

and encompasses nearly 6,000 acres in Mashpee and

Ms. Fox has served on the Board of Directors for the Friends of Mashpee NWR since 2004 and as president for the last 7 years. She was instrumental in the creation of native pollinator gardens within the refuge. Prior to this position, she worked at the National Marine Life Center in Buzzards Bay where she rehabilitated cold dinator for their water quality monitoring program. She

A Special Bonus – To encourage pollinators to your garden, the Friends will donate a free, The Mashpee Wildlife Refuge was established in 1995 small lupine or butterfly weed plant to meeting attendees.

continued from page 1

algae in the pond. Too much nitrogen along with low salinity levels in the pond caused the algal bloom in the summer of 2016. Removing this pollution source will be the key to restoring Oyster Pond to a healthier ecosystem.

A CWMP considers all wastewater treatment alternatives and prepares a cost effective analysis of treatment options. What is the most economical and efficient method for cleaning



Plan 1 requires 145 dwelling units tie into the sewer line.

up Falmouth's estuaries? How much will it cost? Who will it impact? These are the questions explored in CWMPs. The level of treatment is based on how much nitrogen must be removed to return the water back to good water quality. The WQMC is exploring using everything from eco-toilets to sewers to inlet widening as treatment options, while tailoring them to fit the unique needs of each waterbody. The Oyster Pond CWMP concludes there are only two (out of an initial five) viable scenarios for the pond. Cost effectiveness analyses comparing the two alternatives are explored in detail in <u>Section 5.5 Focused Review</u> <u>of Plan 1 and Plan 5</u> on page 5-22.

Plan 1 requires roughly 70% of the homes in the Oyster Pond watershed tie into a sewer line. Plan 5 requires nearly all the homeowners upgrade to an advanced denitrifying Inno-



Plan 5 estimates 204 homes need to install an I/A system.

vative/Advanced (I/A) septic system. Sewering will require fewer homes to change their current wastewater treatment because the sewer line will take the entire effluent of those homes out of the Oyster Pond watershed to the Town Treatment Plant. To reach the same nitrogen removal goal under Plan 5, more homes in the watershed must upgrade to an I/A system. This is because I/A systems still emit some ni-

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trogen to the pond, even though the nitrogen effluent can be reduced to less than 10mg/l, a huge difference from a conventional septic system that releases 40mg/l.

I/As use various techniques to capture and treat nitrogen coming from a septic system to convert it to harmless nitrogen gas. Usually an extra module is placed between the septic tank and leaching field. With some systems, the nitrogen effluent can be reduced to less

More details on this report will be presented by the WQMC at a Neighborhood Meeting on **Wednesday, August 15th at 6:30 pm at Sea Education Association, 171 Woods Hole Rd**. This is an opportunity for the public to learn additional information, ask questions and comment on the plans. A copy of the report and additional information about nutrients and how they impact the environment can be found at our web site under the Our Work/nutrient management tab. We urge you to attend the Neighborhood Meeting to listen and participate in the discussion.

than 10mg/l, a huge difference from a conventional septic system that releases 40mg/l. It will still be some time before either of these

plans is enacted. There are still many unanswered questions for both plans. The CWMP reviews some of the technical questions in Section 6 Next Steps. There are also political and economic considerations. Plan 1 ships Ovster Pond's collected wastewater to the Town Treatment Plant; however the plant can't accept any more sewage. The Town's treated effluent is released upstream from West Falmouth Harbor, but the harbor is also polluted by too much nitrogen. Even though the town's discharge nitrogen levels are very low, it is still too much. Another release location must be found before the plant accepts any more sewage. This is not an easy task as there are few release sites that do not impact another estuary or have other difficulties.

The Town of Falmouth will be breaking new ground if they choose I/A systems throughout the watershed. These systems need to be monitored to ensure they are functioning properly and removing the correct amount of nitrogen. A strong monitoring system must be created for the area that will satisfy the protocols of the Massachusetts Department of Environmental Protection.

These are just two of the many issues to consider for treatment plans for Oyster Pond

Join OPET Today!

Your Donations make it possible to continue our work to conserve and protect the natural environment and ecological systems of Oyster Pond.

Officers & Directors 2016-2017

President - John Dowling Treasurer - Keith Schwegel Clerk - Eva Nilsen Executive Director - Wendi Buesseler

Directors: David Bailey Tom Davenport Meredith Golden Richard Hale Melinda Hall Bill Kerfoot Steve Leighton Martin Monk Dana Rodin Jonathan Smith Mike Spall Dan Vlock Visit our web site at www.opet.org

Or send us an email at info@opet.org

OPET Board meetings are open to all OPET members. Meetings are at 4:30 pm on the second or third Sunday of the month at the Treetops Clubhouse.

We are a 501 c3 organization. Contributions are tax deductible. Tax Id number—04-3278142



2018

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Oyster Pond Environmental Trust

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The new Trail Map is here!

A Trail guide will be printed soon. Until then, please use this beautiful map to walk the trails.



A Message from John E. Dowling – OPET President

Dear Friends of Oyster Pond,

Again this year, there is much good news to report. Trails have been cut in the Headwaters land that we purchased two years ago, and they have been connected with trails in Zinn Park, another conservation area we bought several years ago, A trail map has been drawn (see above), a parking area developed at the end of Fells Road, and a Kiosk erected (thanks to the Falmouth Rotary Club) at the entrance to the land. We are now open for all to explore and

to enjoy this marvelous area!

On another front, thanks to help from the town, dredging of Trunk River has allowed the salinity of the pond to increase and it is now in the desired 2-4 parts per thousand range that inhibits algal growth. This should prevent algal blooms such as we experienced in the summer of 2016. WHOI scientists, led by OPET Director Mike Spall, measure frequently around the pond, giving us detailed information about salinity levels.

Our attention now is turning to the excess nitrogen levels in the pond and how to reduce them (see lead story). Two solutions appear promising - sewering houses around the pond or requiring homeowners to upgrade their septic systems to become denitrifying. Much discussion on the issues involved is presently going on around the town - see, for example, the Guest Commentary by Mark Rasmussen, President of the Buzzards Coalition and Eric Turkington, Chair of the Falmouth Water Quality Management Committee in the June 29th issue of the Falmouth Enterprise. It focuses on denitrifying septic systems, facts and fiction.

Regardless of the outcome of the discussions, it will not be until 2025 until a solution is implemented. Thus, I urge all who live near or on the pond and are building or renovating a home, or replacing a septic system, to install a denitrifying system. When we rebuilt our home three years ago, we installed one and the results have been spectacular with removal of over 90% of the nitrogen, far beyond the level of 70% removal thought achievable with such systems. Installing such a system would be a great gift to the pond!

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Planning for the Future: OPET's & Yours

by Mindy Hall–OPET Fund Raising Chair

Now that we have had two years to bask in the glow of pay as much as \$45 per share in tax on the capital successfully acquiring the Headwaters property for preservation, we need to plan for sustaining our fu- So if you want to make a \$190 donation, you save ture. Absent emergency situations like the massive yourself \$45 by giving a share of Apple stock instead algal bloom in the summer of 2016, our budget of of donating cash! Even without itemizing deductions, \$42,000 covers such work as water sampling, land you come out ahead. maintenance, and eradication of invasive plants. We have a board of 15 dedicated volunteers, and a parttime Executive Administrator who manages and oversees everything that we do (and more!). So fundraising is never far from our minds! Therefore, here are some additional ways to support OPET.

Qualified Charitable Distributions from an Deduction amount, you may have no advantage in IRA: If you are over 70 ¹/₂ years old and own an IRA, itemizing your deductions. But what if your allowed you are required to take out a Required Minimum deductions are near the Standard Deduction level? Distribution each year. This distribution is taxed as if With planning, you can double up on your donations it were ordinary income. But what if you don't need in one calendar year, with the understanding that you all of it and want to avoid paying taxes on part of it? Then you can make a Qualified Charitable Distribu- you might lift the value of your allowed deductions tion (up to \$100,000) to a qualified charity of your choice. The catch is that the distribution must be made *directly* from the IRA to the qualified organization. You do not pay any income tax on any amount that is distributed in this way, as that amount goes directly to the non-profit and not to yourself. (Reporting requirements are not onerous: see the IRS website for more information.)

bly read or heard about the advantages of making a investment account. This is referred to as a donation of stocks, instead of cash, to your favorite "transfer on death (TOD) registration for the accharity. The recipient gets the full value of the securi- count". The beneficiary designation supersedes any ty and you pay no capital gains tax on the appreciated instructions that may be in your will, and in general value. In the past you might have listed the amount also means that those assets do not go through proon Schedule A, Itemized Deductions, of your tax re- bate. Everybody wins! turn. The savings can be significant in some cases.

Gifts to OPET in memory of:

- Barbara A. Lankow from Richard Lankow
- Wendy S. Child from John Child
- Dr. Artemas J. Stewart from Jean H. Stewart
- Bob Livingstone from Art and Booje Calfee
- Dick Backus from Denise Backus
- ▼ Jayne A. Starosta from Norman Starosta, Peter & Cynthia Starosta
- Arlette Swift from Mary Lou Welch
- ▼ Erza Laderman from Aimlee Laderman
- Robert C. King from Virginia King
- Werner Loewenstein from Joel Martin & Laurie Baefsky

For example, had you bought Apple stock in early 1983, you would have paid the equivalent of 67 cents per share. That same share has lately traded at around \$190! Depending on your income, you could gain incurred by selling the stock (23.8% of \$189.33).

Group as many donations into a single calendar year as possible: Maybe you used to itemize your deductions. Under the new Tax Cuts and Jobs Act, deducting state and local taxes is no longer allowed, and mortgage interest payments are subject to new limitations. Combined with the higher Standard will skip donating the next calendar year. By doing so, above the new Standard Deduction levels.

Finally, if you donate to many organizations regularly, you have probably had an earful (or eveful!) of information on planned giving, and we won't repeat it all here. But there is one straightforward way to ensure that your favorite organization is taken care of, without the burden of complicated estate planning: You can designate the organization as your Gifts of appreciated securities: You have proba- beneficiary on any individual (nonretirement)

- Wes Gregory from Sue Gregory
- Dick Edwards from Anne Edwards
- Aya Spektor from Elena Gorlovsky
- Irwin M. Golden from Meredith Golden & Bob Chen
- Gifts to OPET in honor of:
- Cecily Selby from Jeanne Guillemin
- Andrew Wexler from Geri Wexler in honor of my husband on his retirement
- Lou Turner from Alec & Judy Ziss
- Linda and Ben Butcher from Hilary Simonds
- Mindy Hall from Leslie Hall

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2018

Neighborhood Meeting to Discuss Nitrogen Treatment Options for Oyster Pond

Wednesday, August 15th at 6:30 pm—SEA Education Association—171 Woods Hole Road, Falmouth

The Town of Falmouth Water Quality Management Committee (WQMC) is looking for public input on the proposed plans for Oyster Pond (more info inside). We urge you to attend!

Light Refreshments Served t71 Woods Hole Road Falmouth

SEA Association

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Nildlife Refuge President, Friends of Mashpee

ΜaryKay Fox

Beautiful & Easy-to-Grow Plants Attracting Butterflies & Bees with

Presented by

Friendly Garden:

How to Create a Butterfly

OPET Annual Meeting —Thursday, August 2nd at 7pm

The Oyster Pond Environmental Trust

P.O. Box 496

Woods Hole, MA 02543

stamp