AGENDA
SELECT BOARD
MONDAY, APRIL 3, 2023
WAQUOIT MEETING ROOM
MASHPEE TOWN HALL
16 GREAT NECK ROAD NORTH
MASHPEE, MA 02649

Broadcast Live on Local Cable Channel 18
***Streamed Live on the Town of Mashpee Website:** https://www.mashpeema.gov/channel-18*

6:30 p.m. – Convene Meeting in Open Session

PLEDGE OF ALLEGIANCE
MOMENT OF SILENCE

MINUTES: Approval of the Following Minutes: Monday, March 20, 2023 Regular & Executive Sessions

APPOINTMENTS & HEARINGS

- Public Comment
- 6:35 p.m. Public Hearing: New Aquaculture Grant Application: 1.98 Acres, Waquoit Bay: *Jaime Pachico*
- Discussion and Possible Approval of New Aquaculture Grant Application: 1.98 Acres, Waquoit Bay: *Jaime Pachico*
- Presentation and Update on Opioid Abatement Funds and Application Process: *Human Services Director Gail Wilson*
- 6:45 p.m. Public Hearing: Modification of Entertainment License: *Barnstable Pizza Co d/b/a Finally Dino's*
- Discussion and Possible Approval of Modification of Entertainment License: *Barnstable Pizza Co d/b/a Finally Dino's*
- Discussion and Possible Approval of Request to Authorize the Use of Unrestricted Town Owned Property along Johnson Road for Nitrogen Aggregation as Allowed by Title V Regulations to be Credited to 474 Main Street/31 Ashumet Road to Facilitate Affordable Housing in Excess of Nine Bedrooms: *Joao Junqueira, Capewide Construction*
- Department of Natural Resources Presentations:
  Update on the Mashpee Wakeby Diagnostic Study: *Ed Eichner, TMDL Solutions, School of Marine Science and Technology (SMAST) University of Massachusetts Dartmouth*
  Santuit Pond Sediment Briefing: Baseline Monitoring, Interim Measures Focused Feasibility Assessment, Nutrient Inactivation Dosing Study Results: *Matt Ladewig, TRC Consultants*
- Discussion and Approval of the Following Resignations and Appointments:
  Resignation: Mashpee Community Garden Advisory Committee: *John Carter (Term Expires June 30, 2023)*
  Appointments:
  Cape Cod Commission, Mashpee Representative: *Ernest Virgilio (Term: April 25, 2023-April 24, 2026)*
  Board of Registrars: *Ernest Virgilio (Term Expires March 31, 2025); Yvonne Courtney (Term Expires March 31, 2026)*
  Conservation Commission: Member at Large: *Sandra Godfrey (Term Expires June 30, 2023)*

COMMUNICATIONS & CORRESPONDENCE

OLD BUSINESS
NEW BUSINESS

- Discussion and Possible Approval of Amending Select Board Policy #081 "Public Participation at Public Meetings"

ADDITIONAL TOPICS (This space is reserved for topics that the Chair did not reasonably anticipate would be discussed)

LIAISON REPORTS

WATER QUALITY UPDATES

TOWN MANAGER UPDATES
ADJOURNMENT

MASHPEE TOWN CLERK
MAR 30 '23 PM3:31

AGENDA
SELECT BOARD
MONDAY, MARCH 20, 2023
WAQUOIT MEETING ROOM
MASHPEE TOWN HALL
16 GREAT NECK ROAD NORTH
MASHPEE, MA 02649

Broadcast Live on Local Cable Channel 18
***Streamed Live on the Town of Mashpee Website:** https://www.mashpeema.gov/channel-18*

5:30 p.m. – Convene Meeting in Open Session

PLEDGE OF ALLEGIANCE
MOMENT OF SILENCE
EXECUTIVE SESSION
Discuss Strategy Regarding Negotiations with Nonunion Personnel (Personnel Administration Plan) and the Following Collective Bargaining Units, where an Open Meeting May have a Detrimental Effect on the Bargaining Position of the Town:

- MASS. C.O.P., Local 477, Unit C – Police Lieutenants
- Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit A;
- Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit B;
- Service Employees International Union (SEIU), Local 888, Clerical/Library/Dispatchers Chapter

RETURN TO OPEN SESSION:
Discussion and Possible Ratification of Approval of the Following Contracts:

- MASS. C.O.P., Local 477, Unit C – Police Lieutenants
- Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit A;
- Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit B;
- Service Employees International Union (SEIU), Local 888, Clerical/Library/Dispatchers Chapter

MINUTES: Approval of the Following Minutes: Monday, March 13, 2023 Regular Session
APPOINTMENTS & HEARINGS

- Public Comment
- 6:35 p.m. Public Hearing: 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals
- Discussion and Approval of 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals
- Presentation: Cape Cod Regional Technical High School Fiscal Year 2024 Budget: *Superintendent Robert Sanborn*
- Discussion and Approval of the Following Resignations and Appointments:
  Resignation: Conservation Commission: *Brian Weeden (Term Expires June 30, 2023)*
  Resignation: Historical Commission: *Brian Weeden (Term Expires June 30, 2024)*
  Appointment: Sewer Commission – Member at Large: *Erin Copeland (Term Expires June 30, 2023)*

COMMUNICATIONS & CORRESPONDENCE
OLD BUSINESS
NEW BUSINESS

- Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles:
- Addition of Article: Accept Provisions of MGL C. 83 §15C and §15D with Regard to Sewer Betterment Assessments
- Presentations on Various Articles: Planning Board Chair Mary Waygan; Town Planner Evan Lehrer, Department of Public Works Director Catherine Laurent
- Execution of the May 1, 2023 Special and Annual Town Meeting Warrants
- Discussion and Possible Action with Regard to two (2) Debt Exclusion Ballot Questions for the May 6, 2023 Town Election
- Discussion and Approval of May 6, 2023 Annual Town Election Warrant

ADDITIONAL TOPICS (This space is reserved for topics that the Chair did not reasonably anticipate would be discussed)
LIAISON REPORTS
WATER QUALITY UPDATES
TOWN MANAGER UPDATES
ADJOURNMENT

Mashpee Select Board
Minutes
March 20, 2023

Present: Selectman David W. Weeden, Selectman John J. Cotton, Selectman Thomas F. O'Hara, Selectman Carol A. Sherman, Selectman Michaela A. Wyman-Colombo
Town Manager Rodney C. Collins
Assistant Town Manager Wayne E. Taylor

Meeting Called to Order by Chairman Weeden at 5:30 p.m.
Mashpee Town Hall, Waquoit Meeting Room

EXECUTIVE SESSION

Discuss Strategy Regarding Negotiations with Nonunion Personnel (Personnel Administration Plan) and the Following Collective Bargaining Units, where an Open Meeting May have a Detrimental Effect on the Bargaining Position of the Town:
MASS. C.O.P., Local 477, Unit C – Police Lieutenants
Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit A;
Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit B;
Service Employees International Union (SEIU), Local 888, Clerical/Library/Dispatchers Chapter;

Motion made by Selectman Cotton to convene in Executive Session at 5:31 p.m. for the purpose of discussing strategy regarding negotiations with nonunion personnel relative to the Personnel Administration Plan and with the following collective bargaining units, where an Open Meeting may have a detrimental effect on the bargaining position of the Town:
MASS. C.O.P., Local 477, Unit C – Police Lieutenants
Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit A;
Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit B;
Service Employees International Union (SEIU), Local 888, Clerical/Library/Dispatchers Chapter
From which the Board will reconvene in Open Session.
Motion seconded by Sherman.
Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Respectfully submitted,

Kathleen M. Soares
Secretary to the Select Board

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RETURN TO OPEN SESSION: 6:26 p.m.

Discussion and Possible Ratification of Approval of the Following Contracts:
MASS. C.O.P., Local 477, Unit C – Police Lieutenants
Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit A;
Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit B;
Service Employees International Union (SEIU), Local 888, Clerical/Library/Dispatchers Chapter:

Motion made by Selectman Sherman to ratify the contract settlement agreements with the MASS. C.O.P., Local 477, Unit C - Police Lieutenants as presented.
Motion seconded by Selectman Cotton.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Motion made by Selectman Sherman to ratify the contract settlement agreements with the Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit A as presented.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Motion made by Selectman O'Hara to approve the contract settlement agreements with the Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit B as presented.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Motion made by Selectman Cotton to approve the contract settlement agreements with the Service Employees International Union (SEIU), AFL-CIO Local 888, Clerical/Library/Dispatchers Chapter as presented.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 4-0-1.
Roll Call Vote:

Selectman Weeden, abstained **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Mashpee Select Board
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MINUTES:

Monday, March 13, 2023 Regular Session:

Motion made by Selectman Cotton to approve the Regular Session minutes of Monday; March 13, 2023 as presented.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

APPOINTMENTS & HEARINGS

Public Comment:

Ken Dembrowski, Great Field Landing offered comment on the Town Meeting article proposed to borrow the sum of $8,000,000 to pay for capital expenditures. This includes a new Fire truck, HVAC replacement design, engineering and construction as well as an energy audit for the Mashpee Public School buildings, HVAC replacement design, engineering and construction for the Mashpee Police Department building, HVAC water piping design and construction at the Mashpee Town Hall and the design, engineering and construction of a roof at the Department of Public Works building.

Mr. Dembrowski indicated he understands the justification however, in his opinion this action could have been done individually. In concern Mr. Dombrowski stated there were no discussions regarding the debt service. He asked where the funding would derive from and how this expenditure would impact the average homeowner in the Town of Mashpee.

Public Hearing: 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals:
Discussion and Approval of 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals:

The Select Board, acting as the Local Licensing Authority for the Town of Mashpee opened the Public Hearing on the 2023 Seasonal Alcoholic Beverages and Entertainment License renewals. The Public Hearing notice was read aloud into the record to adhere to posting requirements.

It was disclosed the Building Department has verified that all licensed establishments have passed building and fire inspections. Verification was received from the Health Agent and Chief of Police. There are no reported violations. The Treasurer/Tax Collector's Office has confirmed that all licensed establishments are current on their property taxes. All seasonal license holders have submitted proof of workers' compensation insurance as well as proof of liquor liability insurance as required.

*Denotes an establishment is renewing its License for Weekday Entertainment and Entertainment on Sundays.

The Select Board opened the Hearing to solicit comment. Being none, the following action was taken;

Mashpee Select Board
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APPOINTMENTS & HEARINGS

Public Hearing: 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals:
Discussion and Approval of 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals: (continued)

Motion made by Selectman Sherman to close the Public Hearing.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Package Store – All Alcohol: (Mashpee Mart, Rapid Refill, Popponesset Fresh Market)

Motion made by Selectman Sherman to approve the Seasonal Alcoholic Beverages License – Package Store; All Alcohol License Renewal of Mashpee Mart, 44 Falmouth Road, Mashpee as presented.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Motion made by Selectman Sherman to approve the Seasonal Alcoholic Beverages License – Package Store; All Alcohol License Renewal of Rapid Refill, 414 Nathan Ellis Highway, Mashpee as presented.
Motion seconded by Selectman Cotton.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Motion made by Selectman Cotton to approve the Seasonal Alcoholic Beverages License – Package Store; All Alcohol License Renewal of Popponesset Fresh Market, 259 Shore Drive Building 1, Mashpee as presented.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

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APPOINTMENTS & HEARINGS

Public Hearing: 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals:
Discussion and Approval of 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals: (continued)

Restaurant - All Alcohol: (Cooke's Seafood, The Lure*, Bob's Seafood Café*, The Raw Bar*, New Seabury Athletic Club & Pool*, Popponesset Inn*)

Motion made by Selectman Cotton to approve the Seasonal Alcoholic Beverages License – Restaurant; All Alcohol License Renewal of Cooke's Seafood, 7 Ryan's Way, Mashpee as presented.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Motion made by Selectman Cotton to approve the Seasonal Alcoholic Beverages License – Restaurant; All Alcohol and Entertainment License Renewal of The Lure*, 60-80 Cross Road, Mashpee as presented.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Motion made by Selectman O'Hara to approve the Seasonal Alcoholic Beverages License – Restaurant; All Alcohol and Entertainment License Renewal of Bob's Seafood Café*, 259 Shore Drive, Unit #8, Mashpee as presented.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Motion made by Selectman O'Hara to approve the Seasonal Alcoholic Beverages License – Restaurant; All Alcohol and Entertainment License Renewal of The Raw Bar*, 259 Shore Drive, Unit #4 Mashpee as presented.
Motion seconded by Selectman Cotton.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

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APPOINTMENTS & HEARINGS

Public Hearing: 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals:
Discussion and Approval of 2023 Seasonal Alcoholic Beverages and Entertainment License Renewals: (continued)

Restaurant - All Alcohol: (continued)

Motion made by Selectman Cotton to approve the Seasonal Alcoholic Beverages License – Restaurant; All Alcohol and Entertainment License Renewal of New Seabury Athletic Club & Pool*, 60-80 Cross Road, Mashpee as presented.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes	**Selectman Cotton, yes**	**Selectman O'Hara, yes**
Selectman Sherman, yes	**Selectman Wyman-Colombo, yes**	**Opposed, none**

Motion made by Selectman Cotton to approve the Seasonal Alcoholic Beverages License – Restaurant; All Alcohol and Entertainment License Renewal of Popponesset Inn*, 252 Shore Drive, Mashpee as presented.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes	**Selectman Cotton, yes**	**Selectman O'Hara, yes**
Selectman Sherman, yes	**Selectman Wyman-Colombo, yes**	**Opposed, none**

Presentation: Cape Cod Regional Technical High School Fiscal Year 2024 Budget: Superintendent Robert Sanborn:

Robert Sanborn, School Superintendent of the Cape Cod Regional Technical High School was in attendance to update the Select Board on Fiscal 2024 school projections.

Mr. Sanborn began his presentation by expressing appreciation to the Town of Mashpee and its taxpayers for their positive actions in supporting the endeavors of the regional technical high school. The new building is in operational year 3. Mashpee's representatives David Bloomfield and Scott McGee were also acknowledged.

Enrollment has increased by 11 students in the twelve-member district educating 664 students enrolled in the technical programs. Two additional Mashpee students have been accepted into the FY24 program to bring forth a total tally of 50 students or 7.5% of total student enrollment. In this admission season, the wait list is growing.

Mr. Sanborn indicated the FY24 operating budget has increased by 3.86% or $16,750,000.
Most of the revenue derives from District Assessments $12,491,79, State Aid $3,593,921 and Local Revenue $665,000.

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APPOINTMENTS & HEARINGS

Presentation: Cape Cod Regional Technical High School Fiscal Year 2024 Budget: Superintendent Robert Sanborn: (continued)

In discussing the budget allocations it was noted that most of the $16,750,000 is used for Teacher Salaries; 34.7%, Insurance Benefits; 11.4%, Support Services; 8.8%, Plant Operations, 9.1% and Administration; 7.2%. 35% of the insurance budget funds health and dental benefits for retirees. Support services; $1,473,637 is comprised of funding for aids, mental health services, etc.

Capital debt for the new school is now in Year 5. A bond was issued in FY19 in the amount of $68,985,000 at 3.32% for 10 years, fixed principal. The amount to be funded in FY24 is $5,907,075. Mashpee's capital debt assessment is $444,810. The Town of Mashpee operating assessment is $981,293 bringing forth a total assessment of $1,426,103 in Fiscal Year 2024.

The school was constructed for 650 students at maximum capacity. Popular shops include HVAC, all construction related shops, culinary, auto and marine. Approximately 85-90% of the students with the exception of freshmen tend to get their first-choice shops in the technical high school program.

At this time the school is looking into a lease agreement for property located on Main Street in Harwich to potentially own a farm. The 33-acre site if attained and constructed would allow the school to offer workshops in the area of animal science, veterinary tech training, environmental technology and natural resources.

It was suggested the school consider renewable energy initiatives for grant funding to develop additional course offerings for the emerging new industries. Through existing programs and curriculums offered, students are now learning about solar enterprises. The school has also received grant funding to gain working knowledge of electric vehicles.

It was noted school enrollment has generally declined due to the housing issue

The district established a funding plan in 2015 after joining the Plymouth County OPEB Trust, an irrevocable trust program to fund Other Post Employment Benefits. The proposed funding for this program in FY24 is $275,000. It is anticipated the OPEB would have the ability to fully fund the health insurance liability in 2039.

Discussion and Approval of the Following Resignations and Appointments:

Resignation: Conservation Commission: Brian Weeden (Term Expires June 30, 2023):

Correspondence was received from Brian M. Weeden dated March 10, 2023 resigning from the Conservation Commission.

Motion made by Selectman Cotton to accept the letter of resignation from Brian M. Weeden from the Conservation Commission sending a letter of appreciation to Mr. Weeden for his dedicated service. Motion seconded by Selectman Sherman.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

APPOINTMENTS & HEARINGS

Discussion and Approval of the Following Resignations and Appointments: (continued)

Resignation: Historical Commission: Brian Weeden (Term Expires June 30, 2024):

Additional communication was received from Brian M. Weeden dated March 10, 2023 resigning from the Historical Commission.

Motion made by Selectman Sherman to accept the letter of resignation from Brian M. Weeden from the Historical Commission sending a letter of appreciation to Mr. Weeden for his dedicated service.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes	**Selectman Cotton, yes**	**Selectman O'Hara, yes**
Selectman Sherman, yes	**Selectman Wyman-Colombo, yes**	**Opposed, none**

Appointment: Sewer Commission – Member at Large: Erin Copeland (Term Expires June 30, 2023):

Correspondence was received from the Sewer Commission dated February 27, 2023 recommending the appointment of Erin Copeland to the Sewer Commission as a Member at Large. Ms. Copeland was in attendance requesting support for this appointment. Ms. Copeland also serves on the Conservation Commission.

Motion made by Selectman Sherman to appoint Erin Copeland to the Sewer Commission as recommended.
Motion seconded by Selectman Cotton.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes	**Selectman Cotton, yes**	**Selectman O'Hara, yes**
Selectman Sherman, yes	**Selectman Wyman-Colombo, yes**	**Opposed, none**

NEW BUSINESS

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles:

It was noted the articles are numbered on Draft #3, but are subject to change.

Addition of Article: Accept Provisions of MGL C. 83 §15C and §15D with Regard to Sewer Betterment Assessments:

Motion made by Selectman Sherman to add a new article for inclusion on the May warrant to Accept the provisions with regards to sewer betterment assessments.
Motion seconded by Selectman Cotton.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes	**Selectman Cotton, yes**	**Selectman O'Hara, yes**
Selectman Sherman, yes	**Selectman Wyman-Colombo, yes**	**Opposed, none**

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March 20, 2023

NEW BUSINESS

Addition of Article: Accept Provisions of MGL C. 83 §15C and §15D with Regard to Sewer Betterment Assessments: (continued)

This article would authorize the Town to assess and collect interest on an unpaid balance of a sewer betterment assessment at a rate of up to 2% above the net rate of interest chargeable to the Town for the project to which the assessment relates, and to apportion all future sewer assessments or unpaid balances of assessments over a period not to exceed 30 years.

The amendment with input from the Town Manager and Assistant Town Manager has been reviewed and is recommended by Town Counsel to form.

Motion made by Selectman Cotton to approve and recommend Article 12 to Accept the Provisions with regards to Sewer Betterment Assessments.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles:

Presentations on Various Articles: Planning Board Chair Mary Waygan; Town Planner Evan Lehrer, Department of Public Works Director Catherine Laurent:

It was noted the questions were addressed by the DPW Director regarding the Quashnet School playground.

Town Planner, Evan Lehrer and Planning Board Chair Mary Waygan were in attendance to review Town Meeting Articles 30, 31 and 32 with the Select Board. It is recommended the Board move forward with a new solar Bylaw to protect the public health, safety and welfare of the Town of Mashpee and its citizens.

The State of Massachusetts is encouraging the production of solar energy to generate clean and cheap electricity. Solar Energy Systems are protected by M.G.L., Chapter 40A, §3 whereby "*No zoning ordinance or bylaw shall prohibit or unreasonably regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare.*"

Citing a recent court case between the City of Waltham and Tracer Lane II Realty, LLC it was decided "*No zoning ordinance or bylaw shall prohibit or unreasonable regulate the installation of solar energy systems or the building of structures that facilitate the collection of solar energy, except where necessary to protect the public health, safety or welfare.*" It was also noted: *"preservation of residential character of neighborhoods is a legitimate municipal purpose to be achieved by local zoning control."*

NEW BUSINESS

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles: (continued)

Presentations on Various Articles: Planning Board Chair Mary Waygan; Town Planner Evan Lehrer: (continued)

It was explained the new bylaw would allow the Town of Mashpee to have more residential protection, more land, lower liability, and introduce stronger performance standards. The Town would also maintain its scenic natural beauty.

The proposed bylaw would require performance standard for medium and large systems, height limitation to 15', defined setbacks, a landscape plan, visual impact mitigation, vegetation controls, erosion and stormwater management, fencing, lighting restrictions, require systems maintenance, prohibit panels made with PFAS and require a decommissioning plan with abandonment surety.

Visual impact mitigation would provide for a year-round screen from all roadways and adjacent properties in residential use. A landscape plan would be required to replicate a naturally wooded area and/or berms with suitable plantings to screen neighboring properties and roadways. Defined setbacks would vary, but allow undisturbed natural vegetated conditions during the lifespan of the solar energy system.

Lighting would be required for safety and operational purposes. Vegetation management would minimize potential fires. Herbicides, pesticides or chemical fertilizers shall not be used to manage vegetation. Residential fencing would be required. Land clearing shall be limited with no topsoil removal.

A stormwater management plan is required. The owner or operator shall maintain systems facilities in good condition. No PFAS. An of importance is the requirement for a decommissioning plan to cover the cost of the removal in the event the Town must remove the installation and remediate the landscape.

A Public Hearing is scheduled on April 19, 2023 at 7:10 p.m. in the Waquoit Meeting Room of the Mashpee Town Hall on this proposal. Town Meeting is scheduled to be held on Monday, May 1, 2023. The Town Planner is the point of contract for information. He can be reached at elehrer@mashpeema.gov.

It was noted the 15' height restriction is not applicable to carports. The article as proposed would not impact the municipality or pre-existing projects approved for solar. The proposal would expand the C-1 and C-2 Commercial Zoning Districts.

It was agreed this proposal is a good step in the right direction for the Town of Mashpee. The decommissioning requirement was regarded highly as was the natural buffer. If there is not enough natural growth, a landscape plan is required.

A brief discussion followed regarding the clear cutting at the 950 Falmouth Road site for the Le Clair Village affordable housing project. It was noted the Planning Board is contemplating a tree bylaw for the October Town Meeting. It was agreed carports would be reviewed for the October meeting as well.

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March 20, 2023

NEW BUSINESS

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles: (continued)

Presentations on Various Articles: Planning Board Chair Mary Waygan; Town Planner Evan Lehrer: (continued)

The Planning Board was noted to have debated the particulars associated to the Mashpee Solar Energy Bylaw. It is important to protect the public health, safety and welfare.

Town Manager Rodney C. Collins strongly encouraged legal counsel be consulted regarding the conditions of the special permit to protect the interests of the Town of Mashpee.

The Select Board took the following action;

Article 30: To amend Table of Use Regulations for the development of medium scale solar energy systems.

Motion made by Selectman Cotton to approve and recommend May Town Meeting Article 30.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Article 31: To amend Land Space Requirements Table for the development of solar energy systems.

Motion made by Selectman Sherman to approve and recommend May Town Meeting Article 31.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Article 32: To add new section: Solar Energy Systems to the Zoning Bylaws.

Motion made by Selectman Cotton to approve and recommend May Town Meeting Article 32.
Motion seconded by Selectman Sherman.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

NEW BUSINESS

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles: (continued)

Article 1: To deficit spend the Snow & Ice Account.

Motion made by Selectman Sherman to approve and recommend May Special Town Meeting Article 1 for a sum of money to be determined.
Motion seconded by Selectman Cotton.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Article 4: CPC – Quashnet School Playground - $378,080.

Motion made by Selectman Sherman to approve and recommend May Special Town Meeting Article 4.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Article 17: To fund adjustments to the Personnel Administrative Plan for FY24; includes former Administrative Units A & B members; $307,407.

Motion made by Selectman Sherman to approve and recommend May Town Meeting Article 17.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Article 18: To fund negotiated adjustments to the Mashpee Permanent Fire Fighters Association, IAFF Local 2519 for FY24; $366,518.

Motion made by Selectman Cotton to approve and recommend May Town Meeting Article 18.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

NEW BUSINESS

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles: (continued)

Article 19: To fund negotiated adjustments to the MASS. C.O.P., Local 324, Unit A – Patrol Officers and Detectives for FY24; $201,746.

Motion made by Selectman Cotton to approve and recommend May Town Meeting Article 19.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:
Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Article 20: To fund negotiated adjustments to the MASS C.O.P., Local 320, Unit B – Sergeants; $101,192.

Motion made by Selectman Cotton to approve and recommend May Town Meeting Article 20.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:
Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Article 21: To fund negotiated adjustments to the MASS C.O.P., Local 477 Administrator's Unit C – Police Lieutenants for FY24; $26,773.

Motion made by Selectman Cotton to approve and recommend May Town Meeting Article 21.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:
Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Article 22: To fund negotiated adjustments to the Service Employees International Union (SEIU), Local 888, Clerical/Library/Dispatchers Chapter for FY24; not to exceed $69,867.

Motion made by Selectman Sherman to approve and recommend May Town Meeting Article 22.
Motion seconded by Selectman Cotton.
VOTE: Unanimous. 5-0.
Roll Call Vote:
Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Mashpee Select Board
Minutes
March 20, 2023

NEW BUSINESS

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles: (continued)

Article 23: To fund negotiated adjustments to the Service Employees International Union (SEIU), AFL-CIO Local 888, Public Works Unit A for FY24; $94,062.

Motion made by Selectman Cotton to approve and recommend May Town Meeting Article 23.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:
Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Article 24: To fund negotiated adjustments to the Service Employees International Union (SEIU), AFL-CIP Local 888, Public works Unit B for FY24; $46,850.

Motion made by Selectman Cotton to approve and recommend May Town Meeting Article 24.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:
Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Petition Articles: (38-45)

Article 38: To layout and define Watson Drive.

Motion made by Selectman Cotton to approve and recommend Petition Article 38.
Motion seconded by Selectman Sherman.
VOTE: Unanimous. 5-0.
Roll Call Vote:
Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

NEW BUSINESS

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles: (continued)

Article 39: To increase the 100' buffer zone to wetlands to 150'.

Motion made by Selectman Cotton to take no position on Petition Article 39.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Article 40: To increase the 100' buffer zone to wetlands to 150' and to increase the current 50' vegetated buffer to 75'.

Motion made by Selectman Cotton to take no position Petition Article 40.
Motion seconded by Selectman Sherman.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Article 41: To layout and define Blue Castle Drive.

Motion made by Selectman Cotton to approve and recommend Petition Article 41.
Motion seconded by Selectman Sherman.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Article 42: Santuit Pond Prohibited Uses.

Motion made by Selectman Cotton to take no position on Petition Article 42.
Motion seconded by Selectman Sherman.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes Selectman Cotton, yes Selectman O'Hara, yes
Selectman Sherman, yes Selectman Wyman-Colombo, yes Opposed, none

Mashpee Select Board
Minutes
March 20, 2023

NEW BUSINESS

Discussion and Possible Approval of Draft #3 of the May 1, 2023 Special and Annual Town Meeting Warrant Articles: (continued)

Article 43: To amend Zoning Bylaw Table of Use Regulations.

Motion made by Selectman Cotton to take no position on Petition Article 43.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Article 44: Solar Energy Systems.

Motion made by Selectman Cotton to take no position on Petition Article 44.
Motion seconded by Selectman Sherman.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Article 45: To amend Zoning Bylaws.

Motion made by Selectman Wyman-Colombo to approve and recommend Petition Article 45.
There was no second. Motion fails.

Motion made by Selectman Cotton to not recommend Petition Article 45.
Motion seconded by Selectman Sherman.
VOTE: 3-2. Motion carries
Roll Call Vote:

Selectman Weeden, no **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, no** **Opposed, (2)**

The article proposes to remove the ability of the Board of Appeals to approve the raze/replacement of pre-existing/non-conforming dwellings by Special Permit.

Mashpee Select Board
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March 20, 2023

Execution of the May 1, 2023 Special and Annual Town Meeting Warrants:

Motion made by Selectman Sherman to execute the Special and Annual Town Meeting Warrant of May 1, 2023 as amended.
Motion seconded by Selectman Cotton.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Discussion and Possible Action with Regard to two (2) Debt Exclusion Ballot Questions for the May 6, 2023 Town Election:

The Select Board reviewed the Questions proposed for the May 6, 2023 Annual Election Warrant.
Question 1 proposes to fund the amount required to pay for the bonds to be issued to fund the construction completion of Phase 1 of the Town's comprehensive nitrogen and wastewater management, treatment and disposal improvement plans, including sanitary sewer mains, lift station and related wastewater improvements. The interest rate is 0% over the life of the loan.

Motion made by Selectman Cotton to add Question 1 to the May ballot.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Question 2 proposes to fund the bonds to purchase/~~lease~~ the new fire truck, HVAC design, engineering and construction with energy audit at the Schools, HVAC water piping design and construction at Town Hall, HVAC replacement, design, engineering and construction at the Police Department and the DPW roof replacement design, engineering and construction.

Craig Mayen, Treasurer/Tax Collector recommended approval of Question 2. Mr. Mayen indicated the purchase of the new fire truck is not a lease. The HVAC systems are intended to be bonded for a period of 20 years. However, lifespans are guided by Chapter 44 §8, and lifespans may differ. The additional projects would be funded for 30 years. The average cost to the taxpayer is $85 reducing to $44 after 15 years.
It was noted the initial $54 million for Phase I sewering has not been applied to the tax rate to date. Although the debt ratio appears high, it is actually low. The debt limit is 5% of the equalized value which is $4 million, 1% of the debt.

Motion made by Selectman Cotton to add Question 2 to the May ballot as amended by deleting the word: lease.
Motion seconded by Selectman Sherman.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Mashpee Select Board
Minutes
March 20, 2023

NEW BUSINESS

Discussion and Approval of May 6, 2023 Annual Town Election Warrant:

Correspondence was received from Deborah Kaye, Town Clerk dated March 9, 2023 presenting the Election Warrant for the May 6, 2023 Annual Town Election.

Motion made by Selectman Sherman to approve the May 6, 2023 Annual Town Election Warrant as amended by striking the word: lease.
Motion seconded by Selectman O'Hara.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

TOWN MANAGER UPDATES

Board of Health: Information regarding the number of cesspool units has been disseminated to the Select Board. According to the study, cesspools encompass 1.7% of the total septic units in the Town of Mashpee.

ADJOURNMENT

Motion made by Selectman Sherman to adjourn at 9:02 p.m.
Motion seconded by Selectman Wyman-Colombo.
VOTE: Unanimous. 5-0.
Roll Call Vote:

Selectman Weeden, yes **Selectman Cotton, yes** **Selectman O'Hara, yes**
Selectman Sherman, yes **Selectman Wyman-Colombo, yes** **Opposed, none**

Respectfully submitted,

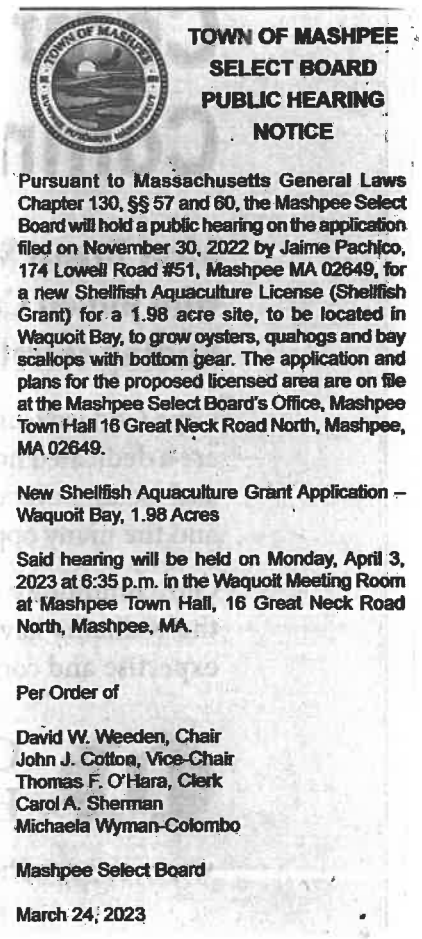
Kathleen M. Soares
Secretary to the Select Board

TOWN OF MASHPEE
SELECT BOARD
PUBLIC HEARING NOTICE

Pursuant to Massachusetts General Laws Chapter 130, §§ 57 and 60, the Mashpee Select Board will hold a public hearing on the application filed on November 30, 2022 by Jaime Pachico, 174 Lowell Road #51, Mashpee MA 02649, for a new Shellfish Aquaculture License (Shellfish Grant) for a 1.98 acre site, to be located in Waquoit Bay, to grow oysters, quahogs and bay scallops with bottom gear. The application and plans for the proposed licensed area are on file at the Mashpee Select Board's Office, Mashpee Town Hall 16 Great Neck Road North, Mashpee, MA 02649.

New Shellfish Aquaculture Grant Application – Waquoit Bay, 1.98 Acres

Said hearing will be held on Monday, April 3, 2023 at 6:35 p.m. in the Waquoit Meeting Room at Mashpee Town Hall, 16 Great Neck Road North, Mashpee, MA.



TOWN OF MASHPEE
SELECT BOARD
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New Shellfish Aquaculture Grant Application – Waquoit Bay, 1.98 Acres

Said hearing will be held on Monday, April 3, 2023 at 6:35 p.m. in the Waquoit Meeting Room at Mashpee Town Hall, 16 Great Neck Road North, Mashpee, MA.

Per Order of

David W. Weeden, Chair
John J. Cotton, Vice-Chair
Thomas F. O'Hara, Clerk
Carol A. Sherman
Michaela Wyman-Colombo

Mashpee Select Board

March 24, 2023

Per Order of

David W. Weeden, *Chair*
John J. Cotton, *Vice-Chair*
Thomas F. O'Hara, *Clerk*
Carol A. Sherman
Michaela Wyman-Colombo

Mashpee Select Board

TOWN OF MASHPEE

DEPARTMENT OF NATURAL RESOURCES

31 Mercantile Way Unit 6/7

Mashpee, Massachusetts 02649

Telephone – (508) 539-1410

MEMORANDUM

DATE: **March 21, 2023**

TO: Chair David Weeden and the Honorable Members of the Select Board

Rodney C. Collins, Town Manager

FROM: Department of Natural Resources – Shellfish Constable

RE: Select Board Public Hearing Request: Aquaculture Grant – Jaime Pachico

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Description

Jaime Pachico, a Mashpee resident, is seeking a 1.98 acre plot in Waquoit Bay to grow oysters, quahogs and bay scallops with bottom gear. He is seeking approval of the Select Board in a public hearing for the April 3, 2023 Select Board meeting.

Explanation

Mr. Pachico is currently a commercial shell fisherman in the Town of Mashpee. He has gained approval from the Shellfish Commission, Waterways Commission, the Shellfish Constable, and the Harbormaster. He has met with the only abutter who is in favor of this location and enterprise.

Recommendations

This aquaculture grant is recommended for approval by the Select Board

Pros and Cons

Pros –This grant will grow shellfish within our waterways to help improve the water quality in our waterways and bays and reward one of our town residents with a local sustainable business.

Cons – None

This is a win win for the Town of Mashpee

Respectfully Submitted,

Chris Avis – Shellfish Constable

Ashley K. Fisher - Director of the Department of Natural Resources

AQUACULTURE DESCRIPTION FORM

Clear Fields

Name: Last Pachico **First** Jaime **M.I.** A

Business Name (optional):

Mailing Address 174 Lowell Rd. Unit 51

City/Town Mashpee **State** MA **ZipCode** 02649

Telephone 774-563-9295 **Cell Phone** —

E-Mail Address Jaimepachico5@gmail.com

A. SITE DESCRIPTION

Location of proposed aquaculture license site(s) and access routes (Include a site map in USGS 1:24,000 or 1:25,000 format with site boundaries clearly outlined and both current and historic Massachusetts Department of Environmental Protection (MassDEP) mapped eelgrass layers depicted on the map. The MA-ShellfAST tool may be used for generating the map and measuring distances/acreage).

City/Town: Mashpee, MA

Shellfish Growing Area (SGA): Waquoit Bay

# of Acres: 1.9

Site boundaries defined by latitude and longitude in decimal degrees (i.e. 42.36115°, -71.057083°):

A.) 41.559855 -70.517919 B.) 41.560830, -70.513295 C.) 41.560558, -70.516628
D.) 41.559589, -70.577211

Have you conducted a survey of the site (Y/N)? Yes Date? 11-20-22

Method of Survey:

Raked the area with Quahog rake. Litte to no results.

Average Depth at Mean Low Tide (MLW): 2 to 3 feet

Mean High Tide (MHW): 5 to 6 feet

The site is located in an: ☐ intertidal area; ☑ subtidal area; ☐ spans both intertidal and subtidal areas.

What type of sediment or bottom substrate is on the site? (Benthic Habitat Conditions):

Hard sand and gravel bottom.

Is eelgrass currently present on or within twenty-five (25) ft. of the proposed site[1] (Y/N)? No

If eelgrass is present or currently/historically mapped by DEP within the shellfish growing area, what is the shortest distance to actual or mapped eelgrass from the proposed site? N/A ft.

Are there shellfish currently on the site (Y/N)? Yes

If yes what species and approximate densities?

I found a very small amount of large Quahog. 2 to 3 in 25 square feet.

Is the proposed grant site located within an Area of Critical Environmental Concern (ACEC) (Y/N)? Yes

Is the proposed grant site located within Natural Heritage Endangered Species Project (NHESP) mapped habitat (Y/N)? ***If yes, you must submit a MESA Project Review Checklist to NHESP.***

Yes

Is the proposed grant site located within an Outstanding Resource Waters (Y/N)? No

Is there an Environmental Justice (EJ) population located within 1-mile of the project site (Y/N)? No

If so, please complete the attached supplement to this form for projects located within 1-mile of EJ populations.

Describe whether alternative locations were considered and identify the siting criteria used to select this site and the characteristics of the site that make it suitable for aquaculture use. It may be helpful for this evaluation to be based on the siting criteria identified in DMF's Shellfish Planting Guidelines and the Army Corps of Engineers General Permit for Aquaculture.

Other sites were considered but I found this site to be the best for a number of reasons. 1.) There is no significant natural shellfish growth in this area. 2.) No eel grass in this area 3.) Low boat traffic or beach gowers. 4.) Hard sand bottom ideal for Quahog seed casting and bottom cages. 5.) Easily accessable by boat.

Has the site been used for private shellfish propagation within the last two years (Y/N)?

Has the site been used for municipal shellfish propagation within the last two years (Y/N)?

1. Proposed aquaculture license sites with eelgrass present within the footprint or within 25 ft. of eelgrass will not be granted certification by DMF.

B. SPECIES TO BE CULTURED

What species of shellfish do you plan to cultivate? (Select all that apply)

- [x] Eastern Oyster
- [x] Quahog or Hard Clam
- [ ] Softshell Clam or Steamer
- [ ] Surf Clam
- [ ] Razor Clam
- [x] Bay Scallop
- [ ] Blue Mussel
- [ ] Other _____

Do you propose on-bottom placement of cultch or spat on shell on the site (Y/N)?

If yes, explain.

C. GEAR

What methods of culture will be used (specify by species if necessary)?

On- bottom [x] Off- bottom submerged [x] Off- bottom floating [ ]

Describe the type of gear to be utilized for each species to be cultured, include dimensions (Cages, Racks, Trays, Bags, Nets, Floating): ***Depending on the gear type used, the project may require additional permitting by the Massachusetts Department of Environmental Protection (MassDEP). Consult with your Harbormaster, and if needed, with the MassDEP Waterways Program.***

See attached figures 1, 2, 3 as well as figure narrative for full gear and site description.

*Include with your submission of this form a site map on a USGS 1:24,000 map with site boundaries clearly outlined and a cross-section schematic of the gear to be deployed on the site.

If you will utilize floating gear, what measures will you take to deter birds (bird deterrence plan required)?

- ☐ Spikes
- ☐ Zip ties
- ☐ Kites/streamers
- ☐ Faux predators
- ☐ Wire cage exclusion
- ☐ Sweeps/spinners
- ☐ Sonic deterrents
- ☐ Other

Please describe your bird deterrence plan:

N/A

What methods will you utilize to harvest shellfish? (Hand, Drag, Other) Please describe:

Hand and Rake

How will the proposed license site be marked? (Buoy color, Type, Lines, Anchor)

Ball Yellow Buoys, 16 inches in diameter attached with chain to 75Lb concrete pyramid anchors.

How will you access the license site?

Boat

What equipment do you plan on utilizing to maintain the license site and transport product?

Vehicle: Make: Toyota Model: Tundra

Boat: Make: Home made Model: Open Tiller Drive

Will any accessory structures be used on the license site? (barge, float, upweller, etc.)

No

Will this be a seasonal operation (gear and product removed from site in winter) or year-round?

Please include any additional information here:

D. CUMULATIVE IMPACTS

After voting to grant the site license at a duly advertised public hearing (M.G.L. c.130 §60), the Select Board of the municipality must submit a request for site certification to the Division of Marine Fisheries (DMF). A site inspection that may include a site survey will be performed by DMF. If DMF determines that issuance of the site license and operational activities thereunder will have no substantial adverse impacts to natural resources and existing fisheries, DMF will issue a conditional certification letter to the municipality and include a summary table that identifies other existing and conditionally certified aquaculture sites, gear types, and acreage within the same embayment as the proposed site.

This table will be used to assess cumulative impacts if the project is subject to environmental review by the Massachusetts Environmental Policy Act (MEPA) Office and should be submitted as an attachment with your MEPA filing. If the project is subject to the MEPA Special Review Procedure (SRP), the applicant hereby acknowledges and agrees to following the procedures set forth in the SRP. The SRP can be viewed here.

All information furnished on this application is true and accurate to the best of my knowledge. I will notify the Division Marine Fisheries Shellfish Sanitation and Management Program immediately of any changes.

Signature of Applicant_____ Date 2-24-23

Division of Marine Fisheries

ATTN: Aquaculture Coordinator

706 South Rodney French Boulevard

New Bedford, MA 02744

Phone: (508) 742-9766

Jaime Pachico
174 Lowell Rd Unit 51
Mashpee, MA 02649

ATTN: Town of Mashpee Select Board
16 Great Neck Road North
Mashpee, MA 02649

I Jaime Pachico respectfully request by application a 1.98 acre shellfish aquaculture license with a total perimeter 1,248 feet in Waquoit Bay. Please see attached USGS map, narrative description and project outline.

Thank you for your time and consideration

Sincerely,

Jaime Pachico

Jamie Pachico Shellfish Aquaculture Lease Narrative and Project Proposal Outline:

My primary goals for this Waquoit Bay site is to propagate oysters, quahogs, and bay scallops to assist in the removal of nitrogen from the Waquoit Bay system and help in the prevention of upland beach erosion surrounding the areas of this site.

Shellfish seed will be purchased from state approved shellfish hatcheries and grown to market size. Oysters, quahogs, and scallops will be grown in fine mesh bags that will be placed in "hotel" / "condo" style bottom cages. Please see product description attached. After the quahogs reach 0.5 to 0.75 of an inches in diameter, they will be broadcasted on the bottom to grow in a more natural setting by imbedding themselves in the ground. Bottom netting will be used as needed for this process to prevent mortality from predation. Once they reach market size, the quahogs will be harvested by using a tooth and basket style steal quahog rake. The oysters and scallops will remain in bags and hotel cages until they reach market size for harvest.

All gear will be marked and secured to the bottom with chain and anchors. Anchors will be a style as approved within the Shellfish Aquaculture Regulations, and agreed upon by the Harbormaster. Standard summer marker balls of approximately 16 inch diameter will be switched out with winter sticks as outlined in the Mashpee mooring regulations.

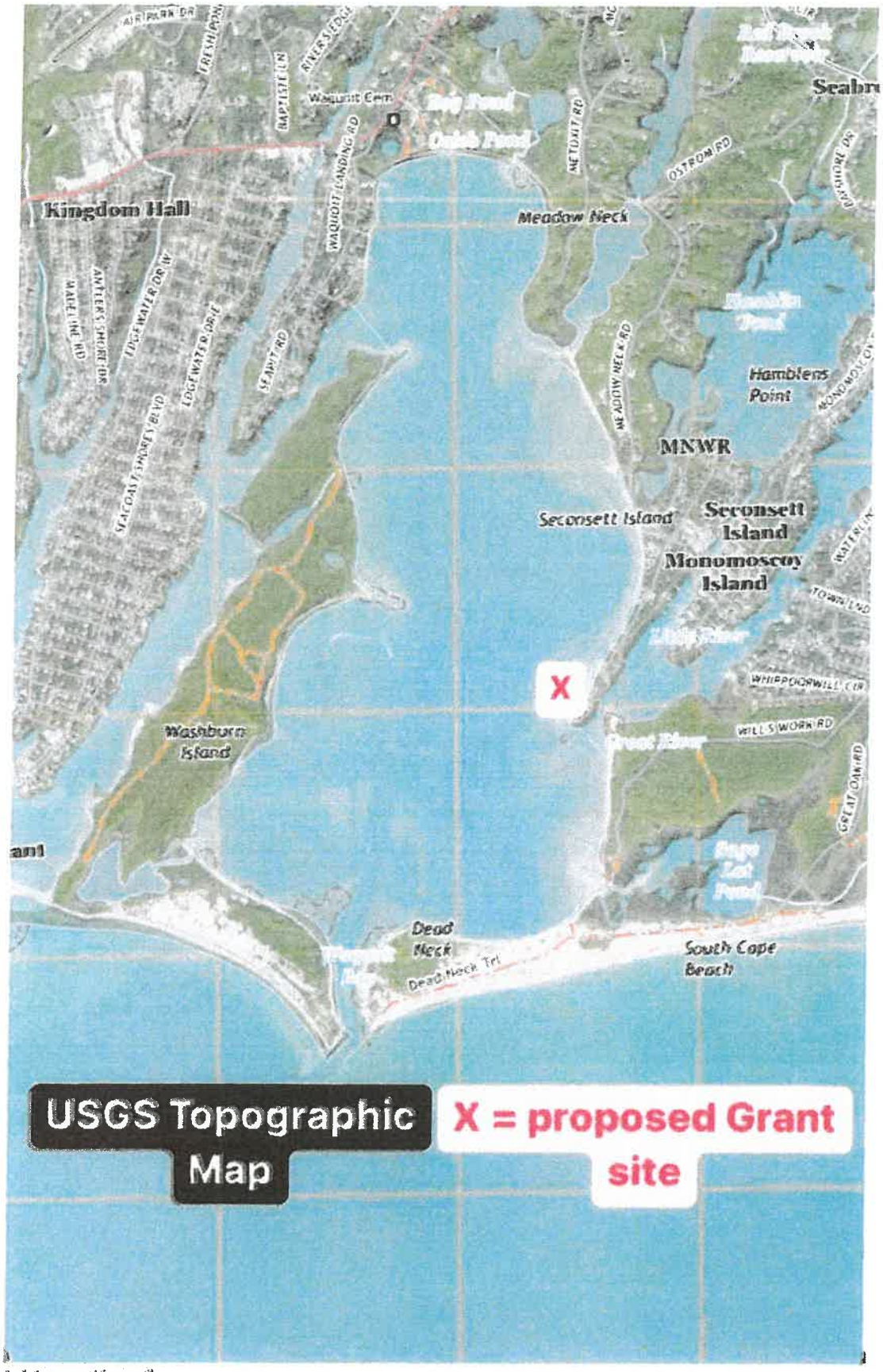
Location of this site is on the Eastern side of Waquoit Bay, just north of the mouth of Great and Little River. This is the area to the North of the tip of Seconsett Island. See attached topographic map. GPS coordinates of each area bound is outlined below. Please refer to "Seconsett Island Grant" map.

GPS Coordinates for corners of proposed aquaculture site:

A.) 41.559855 -70.517919
B.) 41.560830 -70.513295
C.) 41.560558 -70.516628
D.) 41.559589 -70.517211

Outer perimeter measurements:

A to B: 401.59
B to C: 219.36
C to D: 237.20
D to A: 390.35



Lol. I mean this email

Seconsett Island Grant

Map data should not be interpreted as the actual field survey data.

Figure 1 Narrative

There is no significant shellfish population in this area. The bottom is hard sand and optimum for the use of ground gear and seed casting. There is no eelgrass in this area.

Points A, B, C, D will be marked with buoys. Buoys will be yellow and approximately 16 inches in diameter with proper identification at all four corners of the grant. Two-inch lettering will be used to display this as a shellfish aquaculture lease area. Shellfish aquaculture lease numbers and D.E.P. numbers will be displayed (See figure 3). Buoys will be anchored with at least 75 pond concrete pyramid anchors. Note: these buoys will be the only floating gear within the leased area and they only object visible above water level during high tide. This leased area is outside of any navigable channel or mooring field.

Structures used will be cages, bags, rope, chain, and anchors. Cages will be "hotel" style and consist of vinyl coasted wire mesh. Cages will measure approximately 22.5 inches high, 45 inches long, and 40.5 inches wide. Bags will be vinyl coated wire mesh of approximately 19 inches wide and 39 inches long. These bags will either be placed within the hotel cages of directly on the bottom (see figure 2). All gear within the leased area will be marked with either plastic or metal identification tags with last name and license number. Hotel cages will sit on the bottom in navigable rows. Rope, chain, and anchors will be used to secure cages and gear to the bottom to prevent movement. No fill will be used on the site, and the bottom will not be altered in anyway.

Grow area 1 shows bottom cages placed in rows running from Southwest to Northeast to accommodate to the predominant Southwest winds and high surf affecting this area in the summer months. This will also accommodate for the predominant Northeast winds in the winter. Rows will be spaced approximately 5 to 6 feet apart for access and routine maintenance. There will also be gaps left in the rows every 6 to 8 cages to allow for easier access from row to row. The leased area will be accessed by boat and worked on from the water. These cages may be visible and protrude slightly out of the water during extreme low tides (see figure 2). All off-loading of gear and product will take place at the Great River Boat Landing.

Grow area 2 will be a quahog "nursery" area. This area will be used for growing small quahog seed in vinyl coated wire mesh or nylon bags until they are large enough to be broadcasted on the bottom of grow area 3. Bags will be secured to the bottom using u-shaped rebar stakes or "pins".

Grow area 3 will be a casting area for quahog seed once it reaches 0.5 to 0.75 of an inch in grow area 2 or "the nursey". The quahogs will be spread or "cast" on the bottom where they will bury themselves and continue to grow until they reach market size. No netting or other materials will be used to cover them once they are buried. Netting may be used if required, or if predation is found to be high. Once the quahogs have reached market size, they will be harvested with a steel quahog rake. Rake may be a "bull rake" or common recreational basket rake depending on need. This process will not alter or harm the bottom in any way.

Figure 1

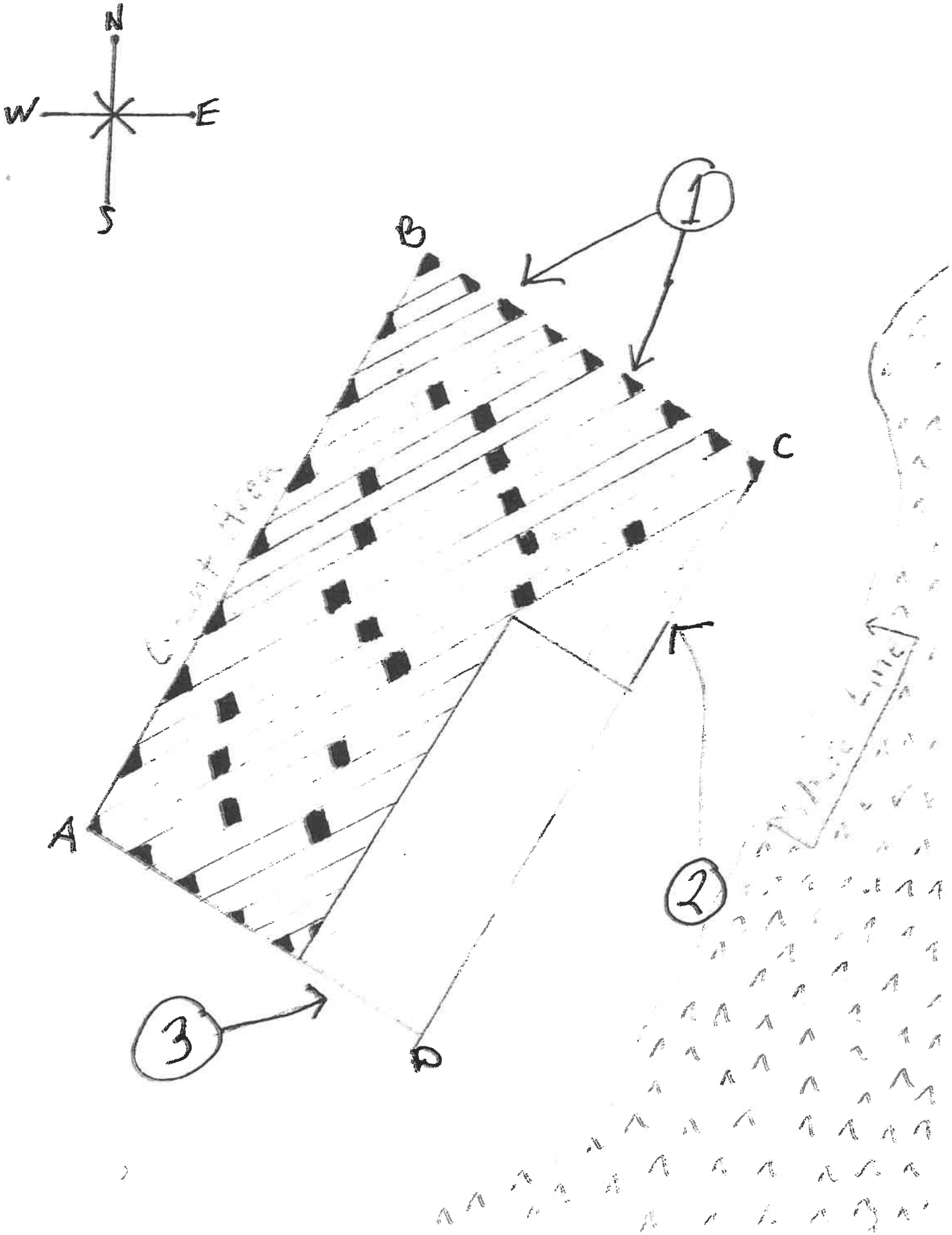


Figure 2

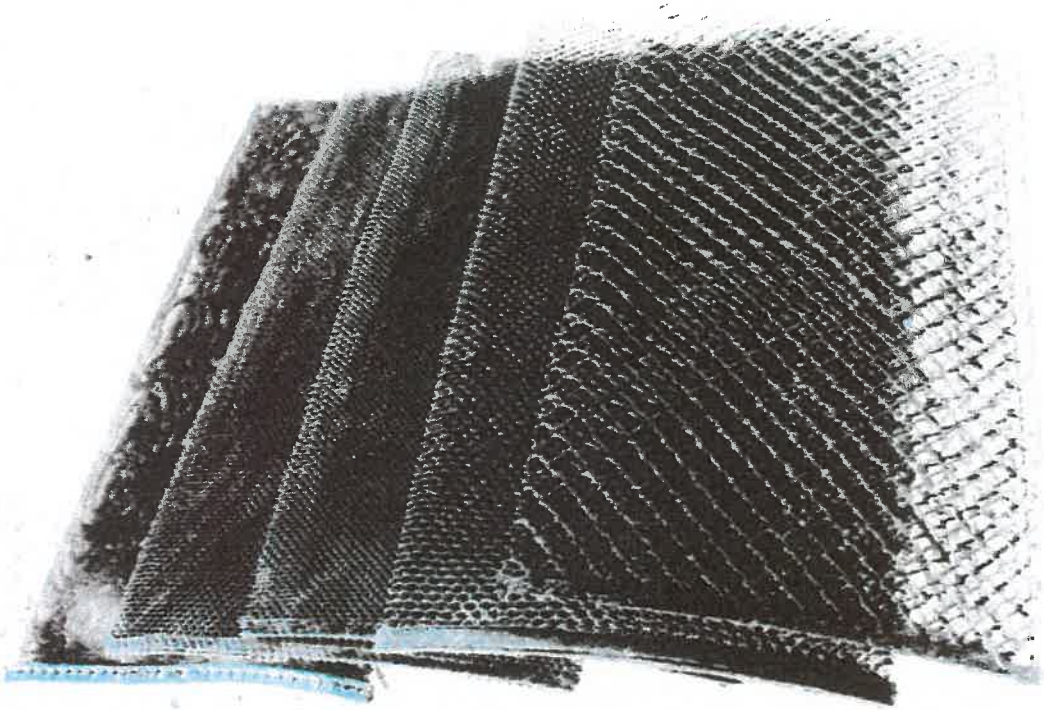
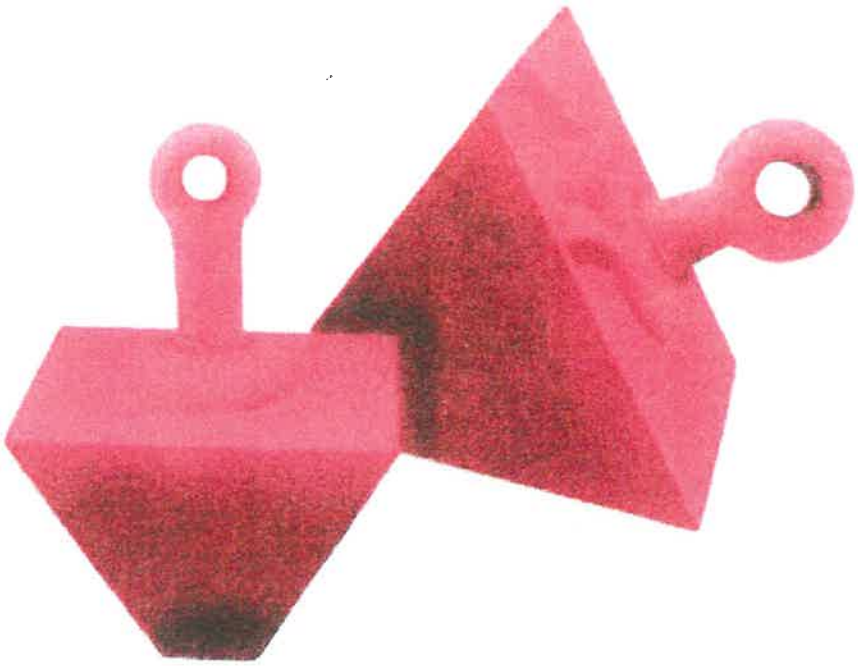
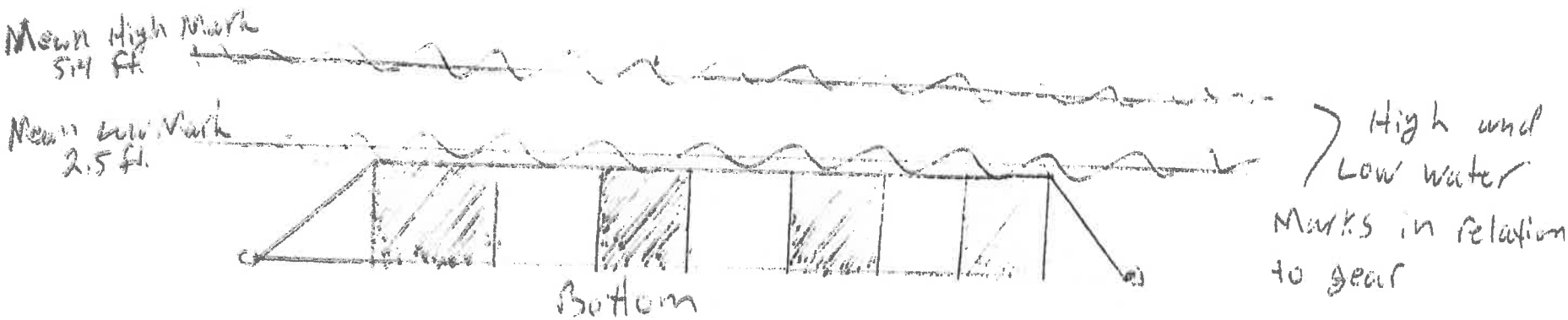


Figure 3




Mean High Mark
5.4 ft.
Mean Low Mark
2.5 ft.
Bottom
High and Low water Marks in relation to gear

TOWN OF MASHPEE
DEPARTMENT OF NATURAL RESOURCES
Mashpee Town Hall
16 Great Neck Road North
Mashpee, Massachusetts 02649
Telephone – (508) 539-1410

MEMORANDUM

DATE: December 6, 2022

TO: Ashley Fisher – DNR Director, Christopher Avis – Natural Resource Officer, and Jaime Pachico, Applicant

FROM: Robert Tomaino – Harbormaster

RE: J. Pachico, Shellfish Grant

Director Fisher, NRO Avis, and Mr. Pachico,

I am writing in support of Jaime Pachico proposed Shellfish Grant in the area of Seconsett Point Rd within Waquoit Bay. I have met with Mr. Pachico and have reviewed the proposed grant area. The area proposed does not pose any navigational hazards to the boating community nor does it pose any safety concerns. Mr. Pachico is aware that the area needs to be properly marked with the proper shellfish area buoys and this will be verified by my office once the grant is in place.

Respectfully Submitted,

Robert J. Tomaino
Mashpee Harbormaster

Town of Mashpee

Opioid Abatement Funding Application-Information Page

Introduction and Background: "On July 21, 2021 Massachusetts Attorney General Maura Healey announced a $26 billion settlement agreement with opioid distributors and Johnson & Johnson, which will provide more than $500 million to the Commonwealth and its cities and towns for prevention, harm reduction, treatment, and recovery across Massachusetts. This settlement holds accountable several corporations that contributed to the overprescription of opioids in Massachusetts and brings needed relief to people struggling with substance use disorder. The settlement agreement includes pharmaceutical distributers Cardinal, McKesson, and AmerisourceBergen as well as Johnson & Johnson, which manufactured and marketed opioids. The settlement also requires significant industry changes that are designed to prevent this from happening again. The AG's Office supports the settlement and has been laying the groundwork for its implementation in Massachusetts."

Important Program Notes:

- These funds will not be available until after appropriation at the Annual Town Meeting in May.
- Requests for funding will be on a twice yearly basis and contingent upon funding amount available for that fiscal year.
- Any funding dispersed must go to help Mashpee residents within four sectors as outlined by the state: Prevention, Harm Reduction, Recovery and Treatment, see attached link for more detailed information https://www.mass.gov/doc/massachusetts-abatement-terms-3-8-22/download
- "Municipal abatement funds shall not be used to fund care reimbursed by the state, including through Masshealth and the Bureau of Substance Addiction Services (BSAS), although local or area agencies or programs that provide state-reimbursed services can be supported financially in other ways that help meet the needs of their participants."
- Agencies or Group must have an organizational structure with a minimum of a 501c3 status.
- The **application deadlines** will be June 1 for July distribution and December 1 for January distribution.
- Any additional questions please contact Mashpee Human Services at: 508-539-1411. Office hours are Monday-Friday, 8:00am-4:00pm.

TOWN OF MASHPEE
DEPARTMENT OF HUMAN SERVICES
Mashpee Town Hall
16 Great Neck Road North
Mashpee, Massachusetts 02649
gwilson@mashpeema.gov
Telephone (508) 539-1411

APPLICATION FOR OPIOID ABATEMENT FUNDING

Internal use only

Date/Time Received: _____

File No. _____

Important Program Notes/Please Read

- Once the initial application has been received, you should expect a confirmation email. Please make sure you include an email that you check often, as this will be the main way of corresponding.
- Your initial email will also have a File Number on it and this will be used as a reference moving forward.
- Any assistance is in the form of a time limited grant and will require Data showing the specifics of programming and the number of Mashpee residents served.
- The grant amount will be determined based upon the information provided in the Application. The Applications will be reviewed by a three member panel with final approval by the Mashpee Human Services Committee.
- If you need assistance completing the application or have any questions, please do not hesitate to contact the Human Services Department at **508-539-1411.**
- Applications may be emailed to: **gwilson@mashpeema.gov or** mail to: Town of Mashpee, **16 Great Neck Road North, Mashpee, MA. 02649 ATTN: Human Services Department.** Office hours are Monday-Friday, 8:00am.-4:00pm.
- The **application deadlines** will be June 1 for July distribution and December 1 for January distribution.

I. Dollar amount being requested:$_____

A. Do you anticipate any increases/decreases in current financial support resources?

B. Please describe how the funding would be used, be as specific as possible. (Feel free to use additional space if necessary)

Description of Services:

Prevention Harm Reduction Treatment Recovery

(Circle all that apply)

TOWN OF MASHPEE
SELECT BOARD
PUBLIC HEARING NOTICE

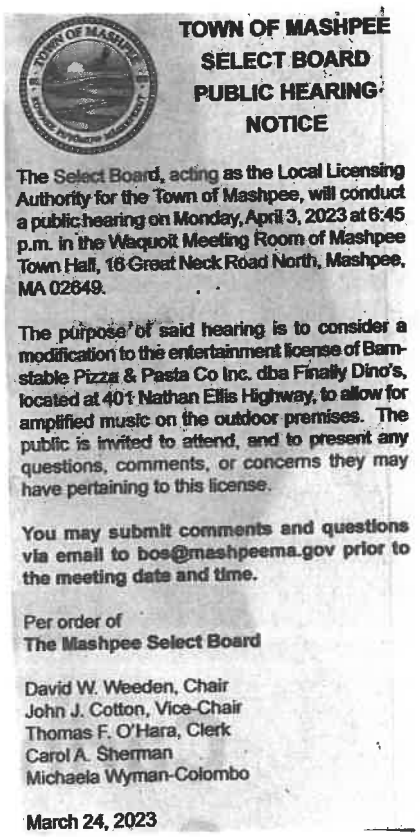
The Select Board, acting as the Local Licensing Authority for the Town of Mashpee, will conduct a public hearing on Monday, April 3, 2023 at 6:45 p.m. in the Waquoit Meeting Room of Mashpee Town Hall, 16 Great Neck Road North, Mashpee, MA 02649.

The purpose of said hearing is to consider a modification to the entertainment license of Barnstable Pizza & Pasta Co Inc. dba Finally Dino's, located at 401 Nathan Ellis Highway, to allow for amplified music on the outdoor premises. The public is invited to attend, and to present any questions, comments, or concerns they may have pertaining to this license.

You may submit comments and questions via email to bos@mashpeema.gov prior to the meeting date and time.

Per order of
The Mashpee Select Board

David W. Weeden, *Chair*
John J. Cotton, *Vice-Chair*
Thomas F. O'Hara, *Clerk*
Carol A. Sherman
Michaela Wyman-Colombo



TOWN OF MASHPEE
SELECT BOARD
PUBLIC HEARING NOTICE

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You may submit comments and questions via email to bos@mashpeema.gov prior to the meeting date and time.

Per order of
The Mashpee Select Board

David W. Weeden, Chair
John J. Cotton, Vice-Chair
Thomas F. O'Hara, Clerk
Carol A. Sherman
Michaela Wyman-Colombo

March 24, 2023

TOWN OF MASHPEE

OFFICE OF THE SELECT BOARD

16 Great Neck Road North
Mashpee, Massachusetts 02649
Telephone – (508) 539-1401
bos@mashpeema.gov

MEMORANDUM

Date: February 23, 2023

To: Rodney C. Collins, Town Manager and
Honorable Members of the Select Board

From: Stephanie A. Coleman, Administrative Secretary

Re: Public Hearing: Entertainment License Modification Barnstable Pizza & Pasta Co Inc.

Description

The Select Board, acting as the Local Licensing Authority for the Town of Mashpee, will conduct a public hearing on Monday, April 3, 2023 at 6:45 p.m. in the Waquoit Meeting Room of Mashpee Town Hall, 16 Great Neck Road North, Mashpee, MA 02649.

The purpose of said hearing is to consider a modification to the entertainment license of Barnstable Pizza & Pasta Co Inc. dba Finally Dino's, located at 401 Nathan Ellis Highway, to allow for amplified music on the outdoor premises.

The applicant also specifies that it would be for an orchestra/band of one to three people.

Current Weekday Entertainment License restrictions: TV, Live and/or Recorded music and Dancing by patrons, Outdoor Entertainment restricted to acoustic/non-amplified entertainment outdoors and outdoor entertainment must cease at 10 p.m.

Current Sunday Entertainment License restrictions: Live music, recorded music, dancing by patrons, DJ, coin operated devices. Outdoor entertainment restricted to acoustical music, must cease at 10 PM. Patio must close at 10 PM

⚙ WEEKDAY ENTERTAINMENT LICENSE APPLICATION (CHAPTER 140, SECTION 183A, M.G.L.)

APPLICATION DETAILS

Application #:	*WE-23-114590*	Date Issued:		Permit #:		Date Paid :	
Fee Payable: ($)	*0.00*	Fee Paid: ($)	*0.00*	Receipt # :			

SECTION 1 - SITE INFORMATION

Street Name	*NATHAN ELLIS HWY*	Map Block Lot	*72-0-57*
Street Number	*401*	Zone	*C2*
Unit No.			

SECTION 2 - BUSINESS OWNER INFORMATION

Business Owner Name	*Barnstable Pizza & Pasta Co. inc.*				
Street Number	*401*	Street Name	*Nathan Ellis Hwy*		
City	*Mashpee*	State	*MA*	Zip Code	*02649*
Telephone	*508-477-7030*	Email	*dsb2000@aol.com*		

SECTION 3 - APPLICANT INFORMATION

Applicant Name	*Dino Mitrokostas*				
Street Number	*401*	Street Name	*Nathan Ellis Hwy*		
City	*Mashpee*	State	*MA*	Zip Code	*02649*
Business Telephone	*508-367-3399*	Email	*dsb2000@aol.com*		

SECTION 4 - MAILING ADDRESS

Street Number		Street Name			
City	*Mashpee*	State	*MA*	Zip Code	*02649*
Telephone					

SECTION 5 - TYPE OF ENTERTAINMENT FOR WHICH LICENSE IS SOUGHT

- [x] Orchestra/Bar *1-3* pieces
- [ ] Disc Jockey
- [ ] Vocalist(s)
- [ ] Dancing by patrons
- [ ] Karaoke
- [ ] Floor show
- [ ] Other

Brief Description of Entertainment to be Performed

Outdoor entertainment currently limited to acoustic

Describe any amplification devices proposed to be used

amplified acoustic

SECTION 6 - EVENT DETAILS

Is this a one-time event? ○ Yes ○ No

Please list the exact date on which Entertainment will be conducted in accordance with the hours provided above

current hours of operation

SECTION 7 - HOURS OF OPERATION

Proposed Hours of Operation (Please indicate AM or PM)	From	To
Weekdays		

SECTION 8 - DECLARATION

- [x] **I do hereby certify under the pains & penalties of perjury that the information provided above is true and correct.**

Date *02/24/23*

Permit No - *WE-23-0005*

THE COMMONWEALTH OF MASSACHUSETTS

The Town Of Mashpee

Fee - *$700.00*

This is to certify that

Barnstable Pizza & Pasta Co., Inc. d/b/a Finally Dino's

(Name)

401 NATHAN ELLIS HWY

(Address)

IS HEREBY GRANTED A

Weekday Entertainment

Restrictions: TV, Live and/or Recorded music and Dancing by patrons, Outdoor Entertainment restricted to acoustic/non-amplified entertainment outdoors and outdoor entertainment must cease at 10 p.m.

This license is granted in conformity with the Statutes and ordinances relating thereto, and expires *12/31/23* unless sooner suspended or revoked.

Issue Date : *12/05/22*

David W. Weeden (Chair)

John J. Cotton (Vice-Chair)

Thomas F. O'Hara (Clerk)

Carol A. Sherman (Select Board)

Michaela Wyman-Colombo (Select Board)

TC 148108

State Fee, $ 100
Municipal Fee, $ _____

THE COMMONWEALTH OF MASSACHUSETTS
TOWN OF MASHPEE

RECEIVED
DEC 29 2022
Office of Public Safety and Inspections

LICENSE

For
PUBLIC ENTERTAINMENT ON SUNDAY

The Name of the Establishment is BARNSTABLE PIZZA & PASTA CO. INC. dba FINALLY DINO'S in or on the property at No.
401 NATHAN ELLIS HIGHWAY MASHPEE MA, 02649 (*address*)

The Licensee *or* Authorized representative, CONSTANTINOS MITROKOSTAS in accordance with chapter 136 of the General Laws, as amended, hereby request a license for the following program or entertainment:

DATE	TIME	Proposed dancing or game, sport, fair, exposition, play, entertainment or public diversion
1/1/2023 - 12/31/2023	11 AM – 12 AM	Live music, recorded music, dancing by patrons, DJ, coin operated devices. Outdoor entertainment restricted to acoustical music, must cease at 10 PM. Patio must close at 10 PM

Hon. _____ Mayor/ Chairman of Board of Selectman, Town of Mashpee (*City or Town*)

Fees per occurrence (Individual Sunday(s)): Regular Hours (Sunday 1:00pm – Midnight): $2.00 Special Hours (Sunday 12:00 am- Midnight): $5.00. Annual Fee (For Operating on every Sunday in calendar year): Regular Hours (Sunday 1:00pm – Midnight): $50.00 Special Hours (Sunday 12:00 am- Midnight): $100.00

This license is granted and accepted, and the entertainment approved, upon the understanding that such entertainment that the licensee shall comply with the laws of the Commonwealth applicable to licensed entertainments, and also to the following terms and conditions: The licensee shall at all times allow any person designated in writing by the Mayor, Board of Selectmen, or Commissioner of Public Safety, to enter and inspect his place of amusement and view the exhibitions and performances therein; shall permit regular police officers, detailed by the Commissioner of Public Safety or Chief of the local Police Department to enter and be about this place of amusement during performances therein; may employ to preserve order in his place of amusement only regular or special police officers designated therefore by the Chief of Police, and shall pay to said Chief of Police for the services of the regular police officers such amount as shall be fixed by him; shall permit at all times to enter and be about his place of amusement such members of the Fire Department as shall be detailed by the Chief of the Fire Department to guard against fire; shall keep in good condition, go as to be easily accessible, such standpipes, hose, axes, chemical extinguishers and other apparatus as the fire department may require; shall allow such members of the fire department in case of any fire in such place, to exercise exclusive control and direction of his employees and of the means and apparatus provided for extinguishing fire therein; shall permit no obstruction of any nature in any aisle, passageway or stairway of the licensed premises, nor allow any person therein to remain in any aisle passageway or stairway during an entertainment; and shall conform to any other rules and regulations at any time made by the Mayor or Board of Selectmen. This license shall be kept on the premise where the entertainment is to be held, and shall be surrendered to any regular police officer or authorized representative of the Department of Public Safety. This license is issued under the provisions of Chapter 136 of the General Laws, as amended, and is subject to revocation at any time by the Mayor, Board of Selectmen, or Commissioner of Public Safety.

Do not write in this box

This application and program must be signed by the licensee or authorized representative of entertainment to be held. No Change to be made in the program without permission of the authorities granting and approving the license.

THIS LICENSE MUST BE POSTED IN A CONSPICUOUS PLACE ON THE PREMISES

FORM 90

(Revised 2015)

 Citizen Contact

[Town of Mashpee MA] Dino's (Sent by MaryAnn and Duncan Campbell, [redacted]

Contact form at Town of Mashpee MA <cmsmailer@civicplus.com>
Wed 3/29/2023 5:58 AM
To: Rodney C. Collins <rccollins@mashpeema.gov>

Attention!: : Links contained herein may not be what they appear to be.☠. Please verify the link before clicking! Ask IT if you're not sure.

Hello rccollins,

MaryAnn and Duncan Campbell [redacted] has sent you a message via your contact form (https://www.mashpeema.gov/user/86/contact) at Town of Mashpee MA.

If you don't want to receive such e-mails, you can change your settings at https://www.mashpeema.gov/user/86/edit.

Message:

Hello, Rodney,

Hope you are well. Thank you for taking the time to speak with Duncan yesterday. Below is a letter I sent to the BOS regarding the hearing about Dino's. I can't believe this is happening again. Any suggestions you may have to help us would be most appreciative:

Dear Board Members,

Hello to you all,

This is in reference to the public hearing to be held Monday, April 3, 2023 in regards to reinstating a license for outdoor amplified music at Dino's Sports Bar.

My husband and I live on 4 Mohican Ave. behind Dino's. We moved here in 2004 well before Dino's established an outdoor patio. We were not made aware of any amplified music to be played. We had no choice.

As you know, in 2017, Dino Mitrokostas was found to have violated a fire code allowing seating in the alleyway and parking spaces through proof of photos. Because of this infraction, he was banned from playing amplified music. However, because the BOS does not live in our area, it's possible they do not understand how music from the patio travels in a cone-like fashion. It reaches certain areas of the neighborhood, but does not affect the periphery. This is why some people are quick to say that it does not affect them. There are several families that are affected, nontheless.

This is a direct violation of the Mashpee noise by-law which you are quite familiar with. Dino's blaring music bands created immense distress, anxiety, stress, and sleep disturbances amongst us. We have sick elderly people, as well as children with sleep disorders. We should not have to close our windows, turn on the AC and fan, and wear earplugs, (all of which used together are ineffective) to drown out the noise. This is not just a one-week venue like the Barnstable County Fair or the weekend-long

Wampanoag Powwow. Playing Thursday thru Sunday from 4pm to 9-10 pm for 14 weeks is reprehensible.

Dino attempted to mitigate the noise by creating a "soundproof" structure, but it was not effective. When musicians played with their backs to Rte 151, it forced music up and over the roof to homes hundreds of feet away in a megaphone fashion, creating high decibel levels in the 70s. Dino insincerely placated us, promising to turn the speakers away from the neighborhood and turning down the music, only to allow the bands to turn it up. Multiple phone calls and texts to him fell on deaf ears. Loud volume or not, this is NOT the venue for amplified music.

Dino has been disrespectful, inconsiderate, and disingenuous toward us, in addition to disparaging us in a radio ad about our disapproval of the loud volume. His only concern is the bottom dollar, not consideration. This speaks volumes about his character.

We have enjoyed the peace immensely these past five years. Dino has been having his big bands play inside during this time, and we can't hear a thing. We are asking you to please not reinstate his license to play amplified music outdoors. When you allowed acoustic music only, he pushed the envelope once again and had some form of amplified music played sporadically including drums. It does not matter if it is the big bands like BaHa Brothers and Moonlighters, or low-key bands, it is still amplified music which will always be loud. Perhaps the Selectboard or town manager can establish a town ordinance, restricting any outdoor amplified music at any retail establishment. It is unlawful to allow unreasonably disruptive noise that annoys or disturbs the public.

We do not want to battle this once again. Please consider the psychological damage he has done to this neighborhood. We were here first and deserve some peace and tranquility. Thank you for your time and supporting us in the past.

Sincerely,

MaryAnn and Duncan Campbell

Evan Lehrer
Town Planner
(508) 539-1414
elehrer@mashpeema.gov

Planning Department
Mashpee Town Hall
16 Great Neck Road North
Mashpee, MA 02649

To: David Weeden
Honorable Members of the Select Board
From: Evan Lehrer, Town Planner
Date: March 30, 2023
Re: Junqueira Request – 474 Main Street / 31 Ashumet

I have reviewed the letter submitted by Mr. Joao Junqueira on February 23, 2023 relative to nitrogen aggregation for the benefit of a proposed affordable housing project at 474 Main Street/31 Ashumet Road. The letter is consistent with the recommendations I made to Mr. Junqueira when he first notified me that he had acquired the parcels and indicated a desire to develop them for affordable housing with the caveat that 9 bedrooms would not provide adequate densities in consideration of his investment and bottom line.

I believe this site on Main Street would provide greater value to the Town as affordable housing as opposed to the permissible commercial uses allowed in the base zoning district and hope the Select Board will give due consideration to this request. Participation by the private sector in Mashpee's affordable housing development will be critical to meet the need.

Given these properties' location in a mapped Zone II, only 1 bedroom per 10,000 s.f. is permissible under Title V regulations. Mr. Junqueira presented a 32 bedroom concept to the Affordable Housing Committee on March 7, 2023 who unanimously voted to support affordable housing on these sites. Thirty-two bedrooms in a Zone II would require 320,000 s.f. To accommodate 32 bedrooms the property owner, without sewer access, would have to aggregate nitrogen credits from qualifying properties in the same Zone II by restricting approximately 221,119 s.f. of land area in the same Zone II and crediting that land area to the subject properties.

As shown on the locus provided by Mr. Junqueira as an attachment to his letter there are approximately 350,000 s.f. of unrestricted vacant town-owned property along paper Johnson Road directly across the street from the subject properties that meets the criteria for nitrogen aggregation.

As a basis for reference, the LeClair Village affordable housing project contains a total of 68 bedrooms and 39 units on 2.49 acres and Mr. Junqueira proposes slightly less than half of the bedrooms than LeClair on a comparably sized collection of two parcels. LeClair Village similarly restricted an approximately 7 acre parcel to accommodate the 39 bedrooms also in a Zone II. Habitat for Humanity has also brought affordable units online because of Town supported nitrogen aggregation.

If authorized to proceed, Mr. Junqueira would have to prepare a Nitrogen Aggregation Plan and Restriction and Easement documents for recording at the Barnstable County Registry of Deeds. Both the plan and documents would require approval by the Mashpee Board of Health. Both Mr. Junqueira and the appropriate signatory on behalf of the Town would have to execute the restriction documents.

I am unaware of any goals or future plans identified by the Town for the proposed facility land along and around Johnson Road and as such believe utilizing it for Nitrogen Aggregation to support affordable housing on Mashpee's Main Street is a worthwhile endeavor and recommend the Select Board vote accordingly to support this project. The project would still need to move through local permitting with the Zoning Board of Appeals for approval of a Ch. 40B Comprehensive Permit.

Cc: Zack Seabury, Health Agent
Rodney Collins, Town Manager

Capewide
CONSTRUCTION, INC.
53 Mercantile Way, Unit #6, Mashpee, MA 02649

To: David Weeden, Chair
Honorable Members of the Select Board
From: Joao Junqueira, President, Capewide Construction
Date: February 23, 2023
Re: 474 Main Street / 31 Ashumet Road Affordable Housing

Dear Mr. Weeden,

I am writing to urgently request an agenda item on an upcoming regularly scheduled meeting of the Mashpee Select Board for the purposes of discussion an affordable housing project at 31 Ashumet Road/474 Main Street. I specifically request the Board discuss partnering on this project by authorizing the use of adjacent town-owned land for the purposes of nitrogen aggregation. The Town has been exceptional to me and my business over the years and I have a strong desire to produce something that would provide substantial benefit to the Mashpee Community.

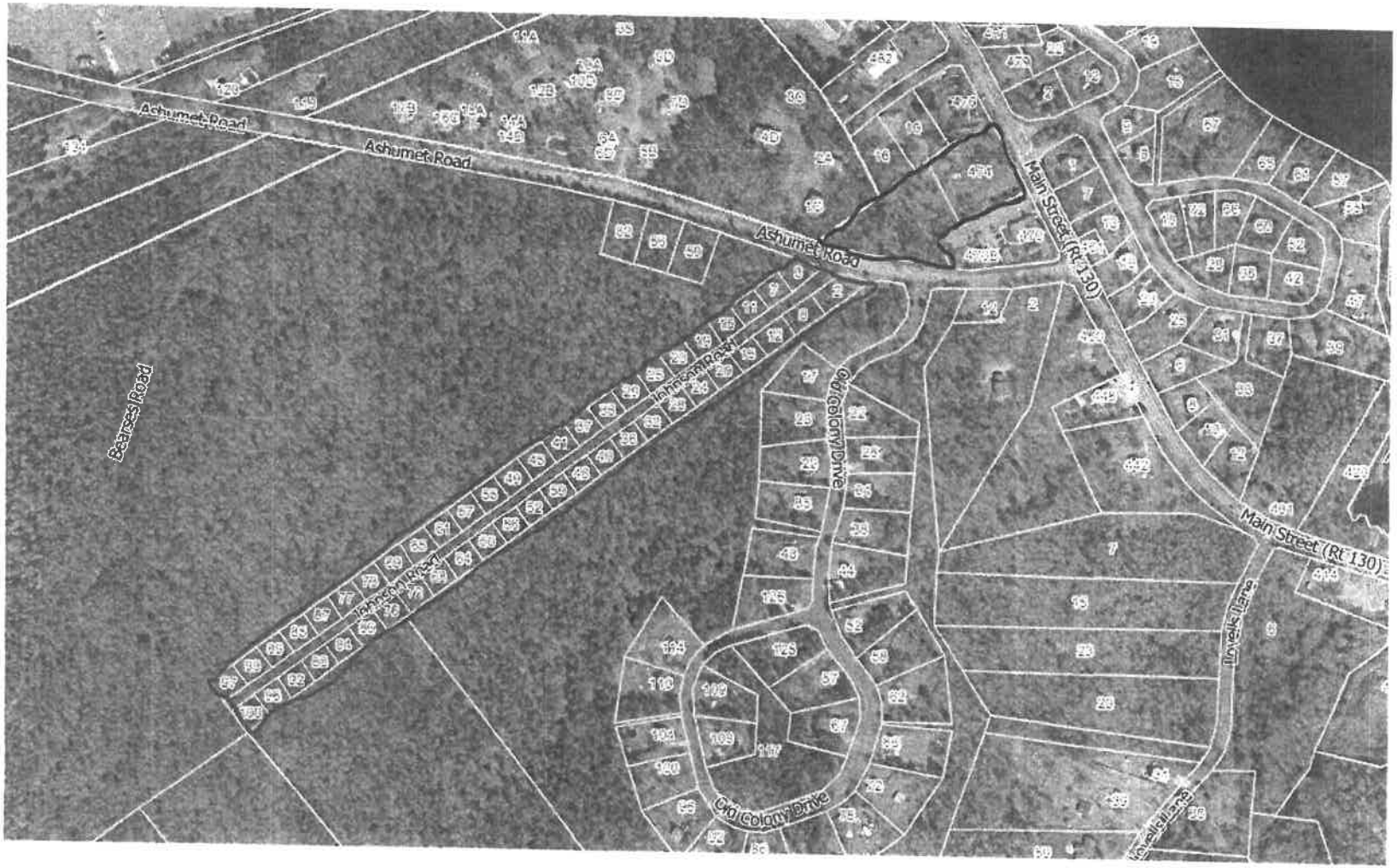
I am aware that the Mashpee Affordable Housing Trust recently contemplated the potential acquisition of the subject properties for the purposes of constructing affordable housing. I am writing to notify you that I recently purchased the subject properties from Mr. William Huldig and immediately contacted the Town Planner to indicate my interest in producing much needed and desired affordable housing at this location. Additionally, the Town Planner has put me in contact with the Affordable Housing Committee and I hope to make a presentation to them at an upcoming meeting.

The Town Planner further indicated to me that these properties are located in a Zone II Groundwater Recharge area and that only 1 bedroom per 10,000 square feet of lot area is permissible under current Title V Regulations. The subject properties total approximately 2.27 acres or 98,881 square feet and thus could sustain only 9 bedrooms. Given that I have the costs of acquisition impacting my bottom line, 9 bedrooms is not substantial enough to make an affordable housing project at this site feasible and greater densities are needed. Without additional bedrooms it would be my intention to develop commercial contractor bays/warehouse space as I have done along Industrial Drive, Mercantile Way, and Evergreen Circle over the past few years.

Located directly across the street from the subject properties are a collection of small postage-stamp residential lots along a paper road called Johnson Road with a land area totaling approximately 350,000 s.f. of Town-owned unrestricted lands located in the same Zone II that could be used for the purposes of nitrogen aggregation (Aerial Locus attached). It is my hope and my humble request that the Mashpee Select Board support an affordable housing project at this site by committing to work with myself and the Mashpee Board of Health on a Nitrogen Aggregation Plan for the benefit of 31 Ashumet and 474 Main Street. I am happy to assume any costs associated with the on the ground survey work required and the document preparation for recording at the Registry of Deeds.

Thank you for your thoughtful consideration of this request. I look forward to appearing.

Sincerely,
Joao Junqueira
President, Capewide Construction



RED = Unrestricted Town-owned land for potential use as facility parcel

BLUE = Subject parcels 31 Ashumet and 474 Main Street

Aerial Locus

TOWN OF MASHPEE
DEPARTMENT OF NATURAL RESOURCES
31 Mercantile Way Unit 6/7
Mashpee, Massachusetts 02649
Telephone – (508) 539-1410

MEMORANDUM

DATE:	March 9th, 2023
TO:	Rodney C. Collins, Town Manager
FROM:	Department of Natural Resources
RE:	Update on the Mashpee Wakeby Diagnostic Study – School of Marine Science and Technology – University of Massachusetts Dartmouth SMAST.

Presenter: Ed Eichner, Principal, TMDL Solutions – SMAST

Description:

Ed Eichner, Principal from TMDL solutions and the School of Marine Science and Technology at UMass Dartmouth requests to be added to the April 3rd agenda, to update the Select Board on progress made during the first year of the Mashpee Wakeby Diagnostic Study. Ed will review data from stream outflow measurements and water quality sampling, water column sampling (profiles, sampling, clarity, and continuous readings), along with plans for 2023 data collection.

Explanation / Background:

The School of Marine Science and Technology at UMass Dartmouth have completed their first year of sampling efforts for the Mashpee Wakeby Diagnostic Study. So far, dissolved oxygen profiles suggest a greater sediment oxygen demand in the Wakeby basin than in the Mashpee basin, meaning that the level of nutrient impairment may be, and most likely is, higher in the Wakeby basin. This is consistent with historic data collected during the Ponds and Lake Stewardship sampling program

The Wakeby basin is the primary receiver of nutrient impaired ground water due to its location within the watershed. Nutrient input concentrations and level of impairment will be further reviewed in 2023. The diagnostic assessment will include a review of the basin watersheds and their nutrient sources and sinks of both phosphorous and nitrogen.

Please see the full Technical Memorandum form the School of Marine Science and Technology for further review:

Respectfully Submitted,

Ashley Fisher

Ashley K. Fisher | Director
Department of Natural Resources
Office: 508.539.1410 | Cell: 508.364.3358
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Mashpee Wakeby Pond Diagnostic Study and Management Plan

YR1 Status Update

Town of Mashpee Select Board

April 3, 2023

Ed Eichner
Principal/Water Scientist, TMDL Solutions
Adjunct Professor
Coastal Systems Program
School for Marine Science And Technology
University of Massachusetts Dartmouth

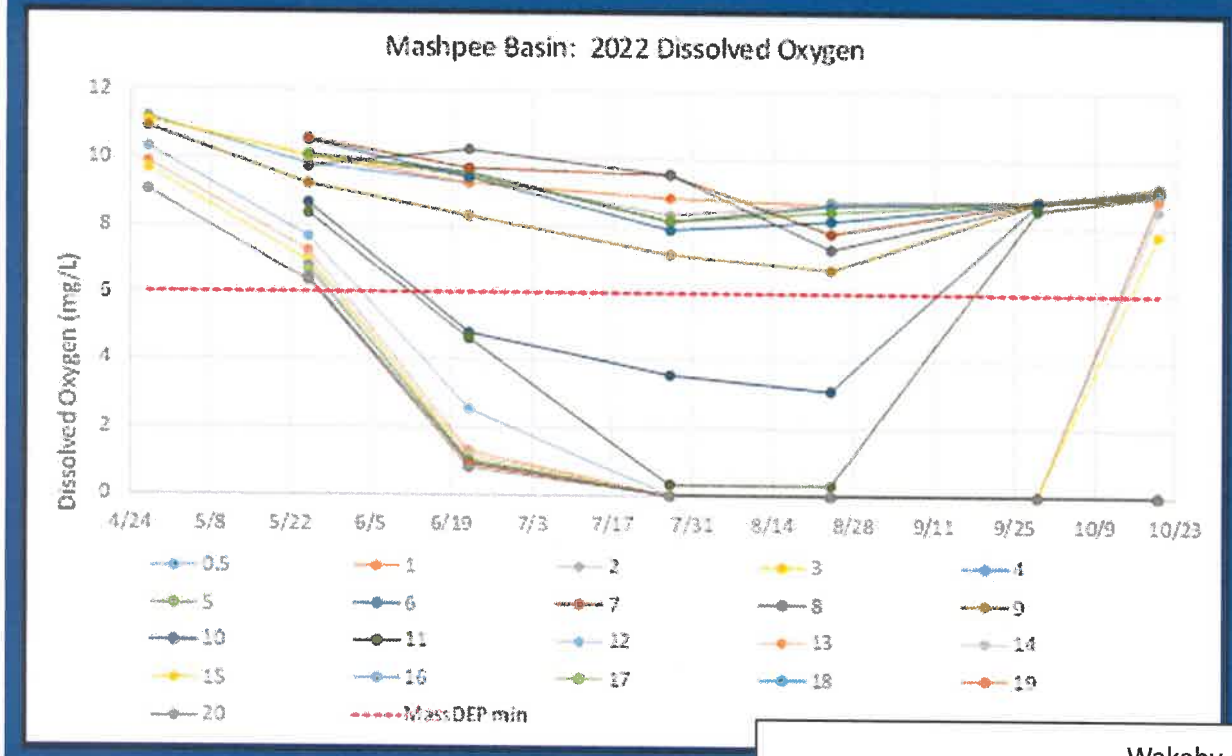
Diagnostic Study and Management Plan

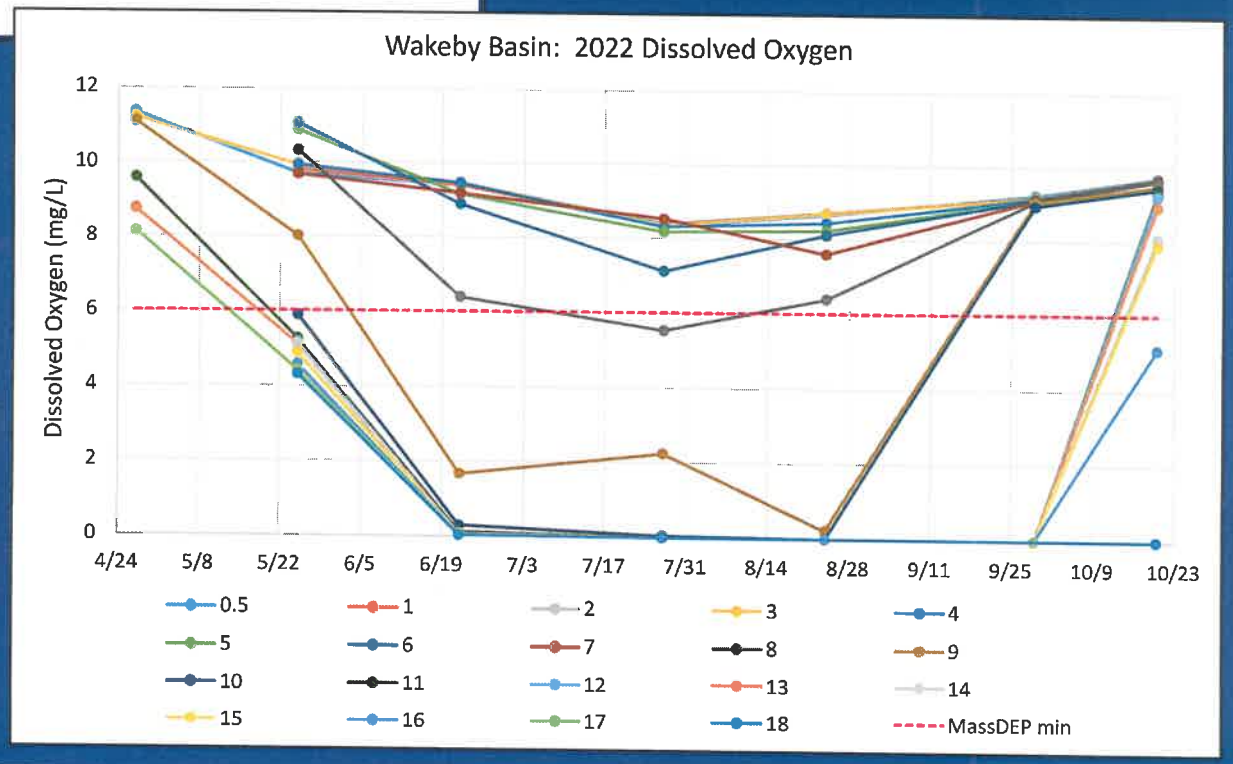
TASKS

1. Project Kickoff Meeting
2. Collection and review of previous Mashpee-Wakeby Pond data
3. Mashpee-Wakeby Pond Diagnostic Assessment
   a. Water Column Monitoring in each basin (2 years)
      i. DO and Temp profiles, Secchi clarity, WQ samples
      ii. Continuous DO, Temp, chl, depth readings
      iii. Phytoplankton surveys: whole population
   b. Sediment survey in each basin
   c. Stream outflow
   d. Rooted plant and mussel surveys
   e. Watershed assessment and water, N, and P budgets
   f. Stormwater survey
4. Mashpee-Wakeby Pond Management Plan and Outreach

YR1 Dissolved Oxygen Profiles

Will be repeated in YR2 (beginning in April)





Both basins impaired

Stratify beginning in May
Deep anoxia by June 22

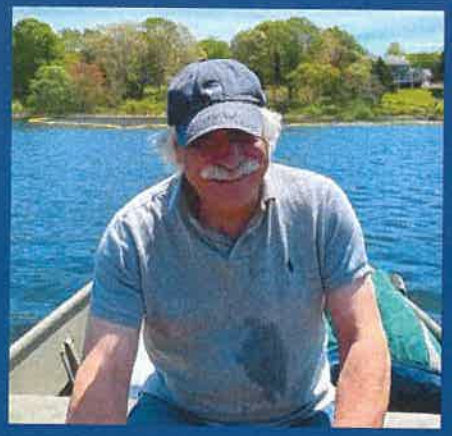
Coastal Systems Program
University of Massachusetts Dartmouth

Science for Management

Questions & Discussion

Coastal Systems Program:

Ed Eichner
Roland Samimy
David Schlezinger
David White
Dale Toner
Sara Sampieri
Jen Benson



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TOWN OF MASHPEE
DEPARTMENT OF NATURAL RESOURCES
31 Mercantile Way Unit 6/7
Mashpee, Massachusetts 02649
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MEMORANDUM

DATE: March 10th, 2023
TO: Rodney C. Collins, Town Manager
FROM: Department of Natural Resources
RE: **Santuit Pond Sediment Briefing:** Baseline Monitoring, Interim Measures Focused Feasibility Assessment, Nutrient Inactivation Dosing Study Results

Presenter: Town of Mashpee Natural Resources, Matt Ladewig, TRC Consultants

Description:
During the January 19th Select Board meeting the Town of Mashpee's consultant Fuss and O'Neill provided an overview of the sources of phosphorus to Santuit Pond. They noted that a significant source of excessive phosphorus was attributed to internal sources, also referred to as accumulated bottom sediment. The sediment layer in the pond is 8 feet deep in some areas (USACE 2021). The sediment layer is attributed to past and present land use (agriculture and residential), algal die-off and settling. Phosphorus is released from the top 1.6 inch (4 cm) "active layer" under anoxic conditions.

The Mashpee Department of Natural Resources has worked with the U.S. Army Corps of Engineers, SNEP Network and ESS Group, LLC/TRC Companies to carry out a number of studies to evaluate options to address internal phosphorus loads in Santuit Pond. These studies include:

- Sediment Sampling and Testing in Support of Project Design: Santuit Pond – Section 206 Aquatic Ecosystem Restoration Project (USACE 2021)
- Santuit Pond Focused Feasibility Study (ESS Group, LLC 2022)
- Santuit Pond Baseline Monitoring, Sediment Coring, and Nutrient Inactivation Dosing Study (TRC 2022)

The purpose of this briefing is to provide the public and members of the Select Board with a summary of findings and recommended options to address the internal sediment source.

Explanation :
Ongoing efforts to advance the restoration of Santuit Pond have become challenging due to the lack of public understanding of the relationship between internal phosphorus loads and current water quality conditions.

A number of studies have been undertaken by experienced professionals over the last few years to build on the work conducted by AECOM in 2010 and to update this information. These studies have recently been completed and will provide useful information to increase public understanding of the causes and cures to address the internal phosphorus loading. These studies have verified that the internal sediment remains a significant contributor to poor water quality in the pond.

Using existing data, ESS conducted a focused feasibility study of potential management actions to address phosphorus sources and improve water quality in Santuit Pond. The purpose of this study was to evaluate and recommend the most appropriate measures for in-pond implementation. The report recommended sediment nutrient inactivation as the primary management tool for improving water quality.

In June of 2022, TRC conducted additional water quality and sediment sampling at Santuit Pond to provide more current data on which to develop dosing recommendations for nutrient inactivation. The study concluded that the management actions taken to date, including operation of six SolarBee circulators, may have provided some water quality improvement to Santuit Pond. However, this improvement has not been sufficient to address the bulk of the internal phosphorus load from the sediments. This is evidenced by the following water quality observations:

1. Ongoing depletion of dissolved oxygen in the pond at certain times of the year and over the course of the day, which facilitates the release of phosphorus from the sediments.
2. Water column phosphorus concentrations that remain several times higher than the value predicted by AECOM (2010) if internal loading had been eliminated in Santuit Pond.

Additionally, sediment cores collected by TRC were sampled for phosphorus content. The phosphorus analysis involved fractionation, a process that identifies how phosphorus is bound in pond sediments. Phosphorus was determined to be mostly bound to organic matter and iron in the top 4 cm of sediment. Aluminum- and calcium-bound phosphorus were also found but present at much lower concentrations. Of these fractions, iron-bound phosphorus is readily released when dissolved oxygen concentrations are low, making it a particularly potent source of internal phosphorus loading.

To remedy this and convert the iron-bound phosphorus into a form that will be more effectively retained in the sediments of Santuit Pond, nutrient inactivation using alum (aluminum sulfate) buffered with sodium aluminate was recommended. A recommended treatment dose and application schedule was also developed based on the sediment core sampling results. Sediment nutrient inactivation would use a common element (aluminum) that is already found in Santuit Pond sediments to permanently capture more of the phosphorus before it is released from the sediments into the water column. The products proposed for use in the nutrient inactivation process are widely used by water suppliers to remove undesirable pollutants from drinking water as part of the treatment process. They have also been used safely and successfully for decades in other ponds throughout Massachusetts and on Cape Cod.

On a parallel path the USACE and the Mashpee Wampanoag Tribe executed a feasibility cost sharing agreement (FCSA) to conduct a feasibility study to formulate and assess measures to address water quality and restore the aquatic ecosystem of the Santuit River basin. While a final report has not been published to date, our contacts at the USACE have concluded that it is cost prohibitive to dredge all the sediment from Santuit Pond. Their recommendation would be to remedy phosphorus sediment inputs in 25 acres portion of the 170-acre lake bottom, which will not significantly reduce the phosphorus concentration in the Pond to the extent needed to restore water quality.

We are recommending that the Town move forward with sediment nutrient inactivation and are asking for approval to begin scoping the implementation of this remedy. Questions have arisen regarding the safety and efficacy of sediment nutrient inactivation. There is a need for public outreach to address community questions.

Key Points:

- Dredging the entire pond to address internal phosphorus is financially and technically infeasible
- Sediment nutrient inactivation is the most viable option to address internal phosphorus loading.
- We are seeking approval to scope out next steps for sediment inactivation.
  We are seeking approval to submit 319 NPS Grant application to obtain funding to advance sediment inactivation treatment.

Attachments:

Santuit Pond Focused Feasibility Study, ESS
Santuit Pond Baseline Monitoring, Sediment Coring, and Nutrient Inactivation Dosing Study, TRC
Santuit Pond - Section 206 Aquatic Ecosystem Restoration Project Mashpee, MA, USACE

Thank you.

Respectfully Submitted,

Ashley Fisher

Ashley K. Fisher | Director
Department of Natural Resources
Office: 508.539.1410 | Cell: 508.364.3358
Email: afisher@mashpeema.gov

Santuit Pond

Results of Focused Feasibility Study, Baseline Monitoring, and Nutrient Inactivation Dosing Study Results

Mashpee Select Board Meeting

March 13, 2023

SUPPORTING [DOING] LEADING

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Presentation Overview

- Focus on connection between sediments and water quality
- Internal loading of phosphorus
  - Why is it a problem at Santuit Pond?
  - What drives it?
  - How can it be addressed?
- These questions will be addressed in the context of recent studies of Santuit Pond
  - Focused Feasibility Study (ESS Group 2022)
  - Baseline Monitoring, Sediment Coring, and Nutrient Inactivation Dosing Study (TRC 2022)

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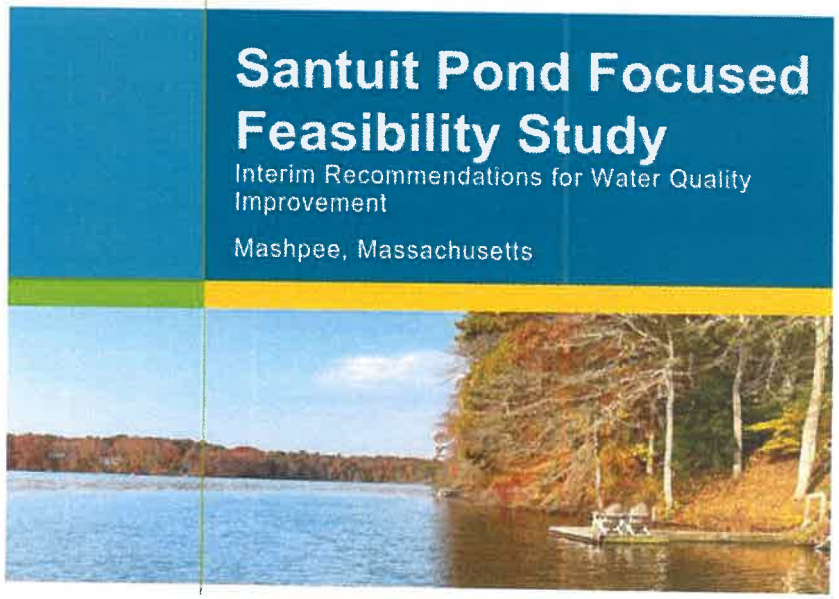
Focused Feasibility Study for Water Quality Improvement

- Completed by ESS Group (2021-2022)
- Conducted site visit in October 2021
- Reviewed existing information
  - AECOM's 2010 Diagnostic Study
  - MassDEP's Integrated List of Waters (2018/2020 Reporting Cycle)
  - USACE 2021 Sediment Sampling and Testing
  - Other sources of recent and historical water quality data
- Identified important environmental resource designations and jurisdictions
- Assessed feasibility of different in-pond management tools that could be used to improve water quality



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Focused Feasibility Study for Water Quality Improvement

AECOM Diagnostic Study Key Findings

- Pond is highly nutrient-enriched with high phosphorus, low transparency, and high chlorophyll a (algae)
- Dissolved oxygen depletion at pond bottom allows release of iron-bound phosphorus from sediments into the water (internal loading)
- 78% of the annual phosphorus load from internal sources
- Recommended target phosphorus concentration of 15 ppb to avoid recurring algae blooms
- Examined three in-pond restoration options:
  - Dredging – not recommended
  - **Circulation - recommended**
  - **Nutrient inactivation - recommended**

AECOM Environment

Prepared for
Town of Mashpee
Mashpee, Massachusetts

Prepared by:
AECOM
Westford, MA
60140124
July 19, 2010

Santuit Pond Diagnostic Study
Mashpee, Massachusetts

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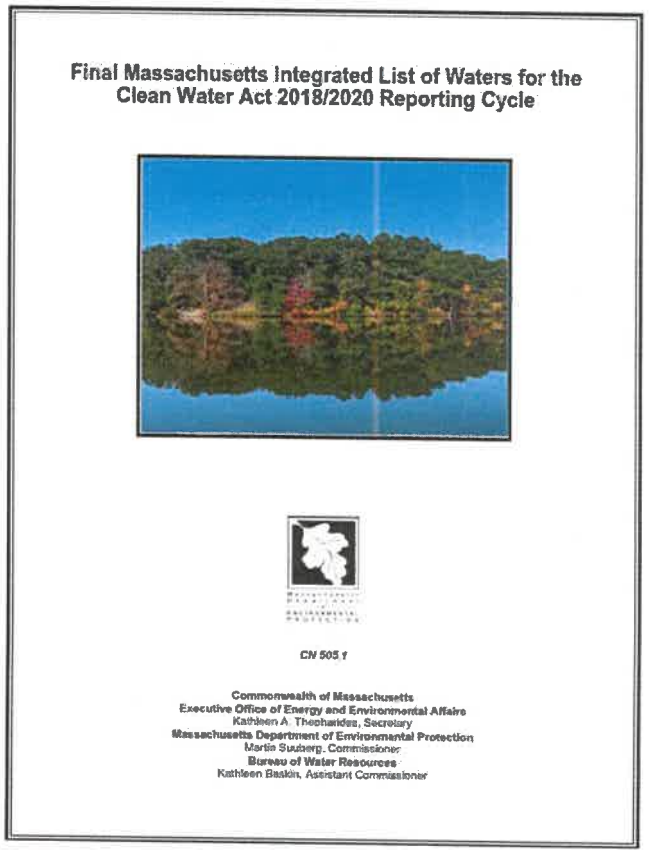
Focused Feasibility Study for Water Quality Improvement

MassDEP's Final Integrated List of Waters

- Santuit Poind still listed for multiple water quality impairments, including:
  - Chlorophyll a
  - Harmful algal blooms
  - Nutrient/eutrophication biological indicators
  - High pH
  - Total phosphorus
  - Transparency/clarity
- These are interrelated impairments and largely echo findings of the AECOM Diagnostic Study



Final Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle

CN 505.1

Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
Kathleen A. Theoharides, Secretary
Massachusetts Department of Environmental Protection
Martin Suuberg, Commissioner
Bureau of Water Resources
Kathleen Baskin, Assistant Commissioner

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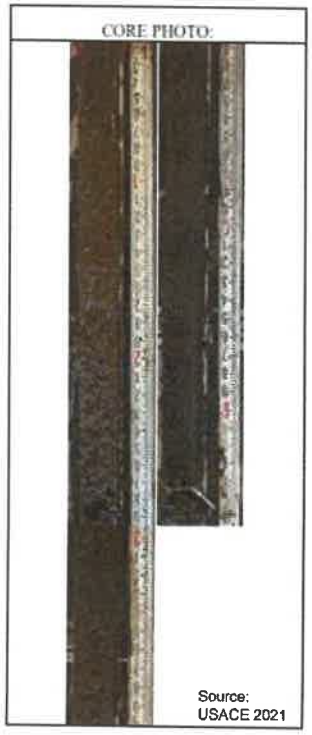
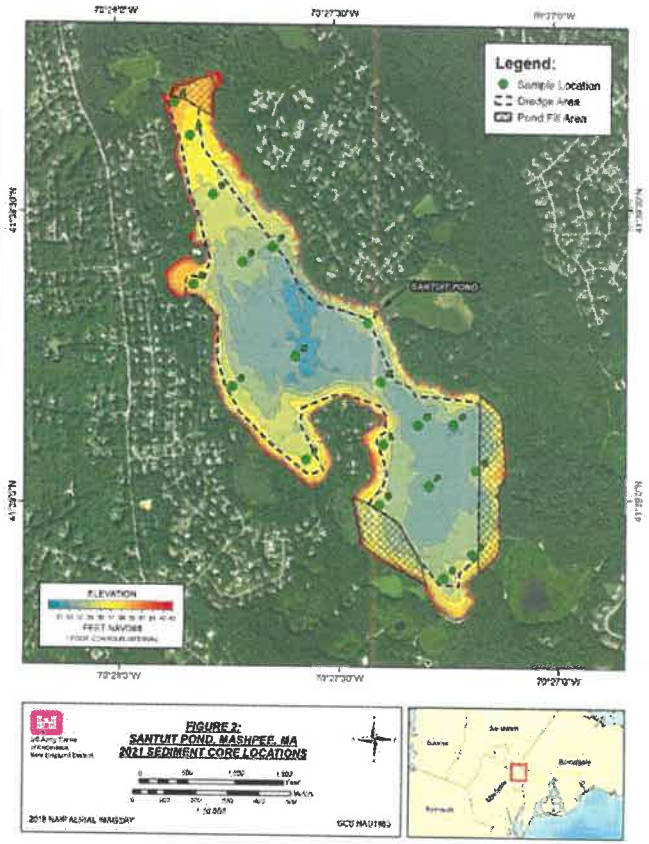
Focused Feasibility Study for Water Quality Improvement

USACE Sediment Sampling and Testing Key Findings

- Fine sediments present over much of the pond, often in excess of eight feet thick
- Some contaminants found at values that may exceed state soil and groundwater standards if sediment were to be placed on land
- Total phosphorus variable by depth of sediment and location in the pond but plentiful
- Average phosphorus in first two feet of sediment was 0.35 mg/g
- Average phosphorus for uppermost portion of all cores (up to 8 ft) was 8.55 mg/g
- Phosphorus not broken into fractions so it is difficult to know from this study alone how much would be available for internal loading





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Focused Feasibility Study for Water Quality Improvement

Management options reviewed included multiple biological, chemical, and physical approaches

- **Aeration/circulation - recommended**
- **Algaecides - recommended**
- Barley straw – not recommended
- Bioaugmentation – not recommended
- Biochar – not recommended
- Biomanipulation – not recommended
- **Nutrient inactivation - recommended**
- Sonication – not recommended
- Recommended options were most likely to be feasible and effective at the scale needed

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Focused Feasibility Study for Water Quality Improvement

- Circulation: SolarBee circulators already in place and should continue to be used for now
- Algaecides: may be of use to control blooms but will not address the underlying cause
- Nutrient inactivation: could be used to address cause (phosphorus release from sediments) but would require additional study:
  - Provide updated information on concentrations of phosphorus (as fractions) present in sediment
  - Determine depth of the sediment layer that is most actively contributing to internal phosphorus loading
  - Calculate the dosage needed to bind available phosphorus in this active layer

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Baseline WQ, Sediment, and Dosing Study

- Completed by TRC (2022)
- Follow-up to the Focused Feasibility Study
- Designed to address outstanding data gaps on internal loading of phosphorus and develop the appropriate dosing for nutrient inactivation
- Included field collection of baseline water quality and sediment cores
- Sampling conducted under EPA-approved Quality Assurance Project Plan

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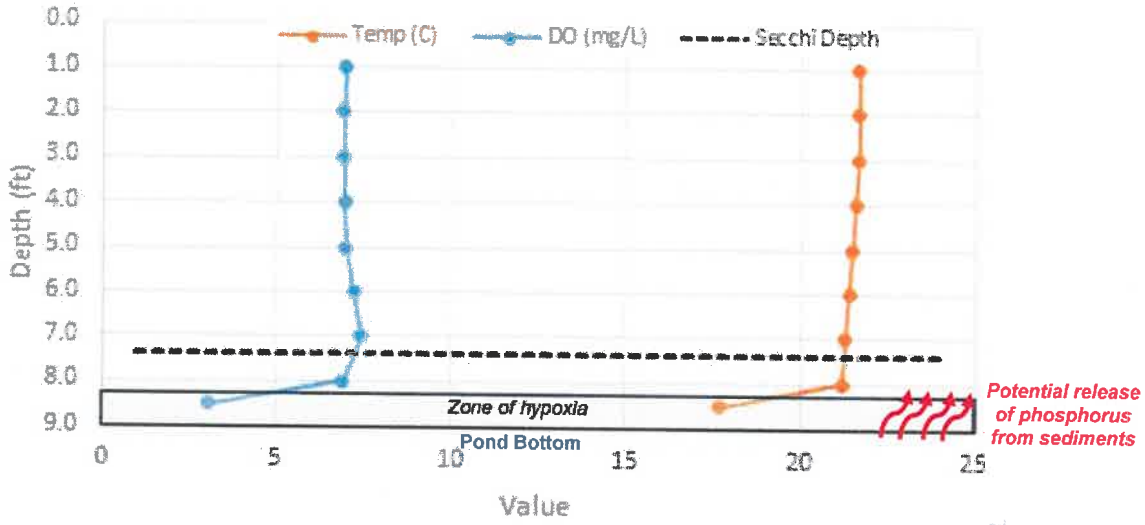
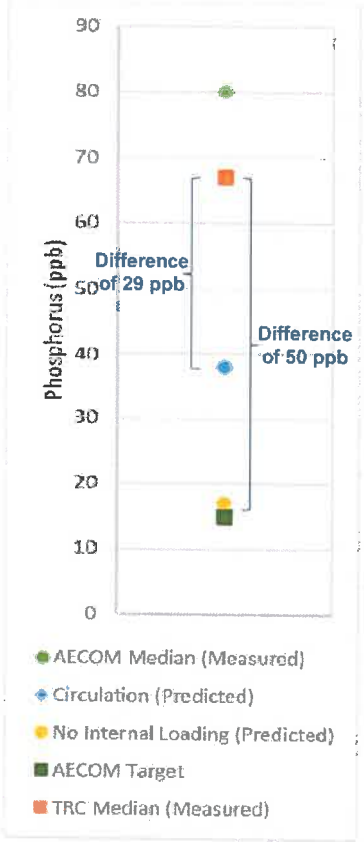
Baseline WQ, Sediment, and Dosing Study

- Evidence of low dissolved oxygen (hypoxia) at bottom of pond
- Represents early June – conditions may worsen in July/August as temperatures rise and respiration rates increase
- Represents mid-day when photosynthesis active – conditions worsen at night when photosynthesis stops



Baseline WQ, Sediment, and Dosing Study

- Total phosphorus remains elevated
  - Median of 67 ppb
- Compare to:
  - AECOM median of 80 ppb in 2010 study
  - AECOM predicted 38 ppb with circulation
  - AECOM predicted 17 ppb with no internal loading
  - AECOM target of 15 ppb



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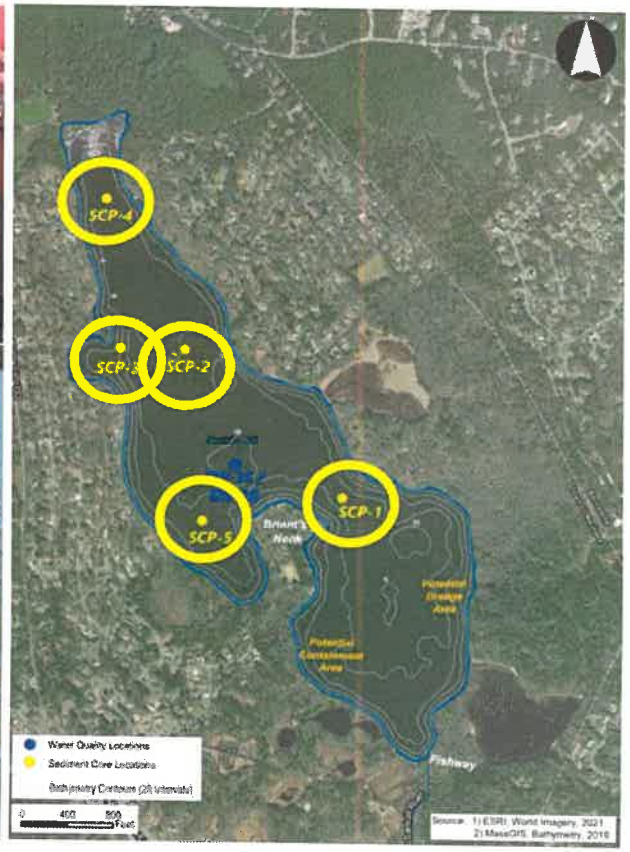
Baseline WQ, Sediment, and Dosing Study

- Reassessment of sediment phosphorus fractions
- Collected five sediment cores, including two from locations previously sampled by AECOM
- Cores collected to at least 20 cm below the sediment surface
- Once on boat, sediment pushed up through top of core liner, where it was sliced into undisturbed 2-cm sections
- Each section was placed into a separate jar
- This collection process allowed for detailed analysis of vertical profile in the sediment



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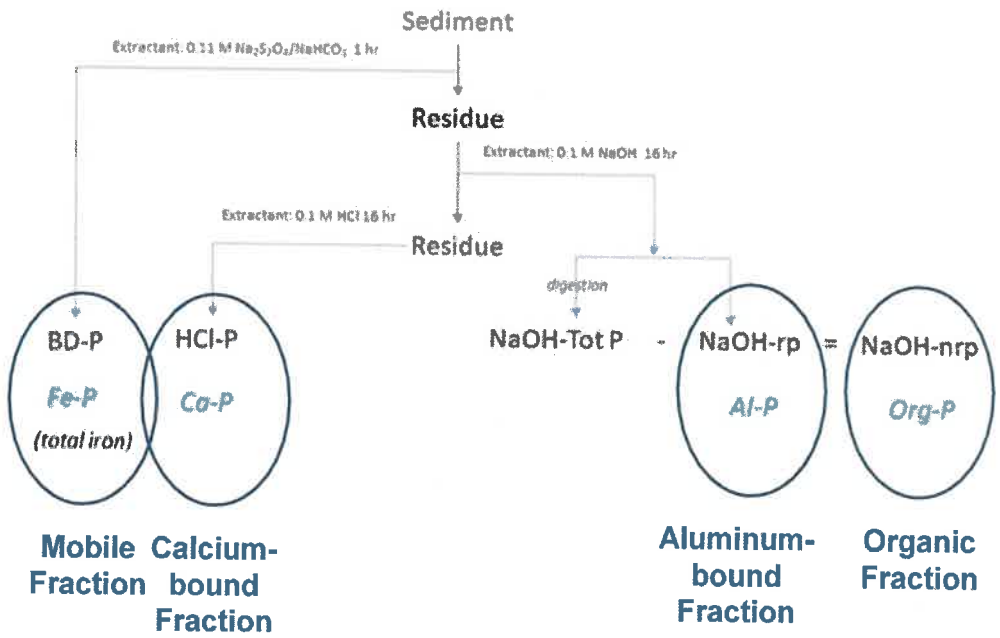
Baseline WQ, Sediment, and Dosing Study

Analyzed each section for the following phosphorus fractions:

- Mobile – includes iron-bound
  - Rapid release into water column when dissolved oxygen is low
- Organic
  - Gradual release into water column as organic matter breaks down
- Calcium-bound phosphorus
  - Stable under typical environmental conditions but may release when pH is low
- Aluminum-bound phosphorus
  - Stable under typical environmental conditions

Simplified Phosphorus Fractionation Analytical Process



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Baseline WQ, Sediment, and Dosing Study

Key Sediment Findings

- Primary phosphorus fractions were organic and iron-bound
- Despite slightly different methodologies, results remarkably in line with those found by AECOM
- Suggests potential for internal loading of phosphorus remains about as high as it was pre-2010

Sediment Core ID	Composition: Avg of Top 4 cm (mg g^{-1} dry sediment)				
	Iron and Loosely Sorbed P (Fe-P)	Organically Bound P (Org-P)	Calcium Bound P (Ca-P)	Aluminum Bound P (Al-P)	Total P
SCP1	0.31	0.52	0.027	0.023	0.88
SCP2	0.29	0.58	0.030	0.025	0.93
SCP3	1.01	0.53	0.041	0.041	1.62
SCP4	0.29	0.69	0.039	0.069	1.09
SCP5	0.29	0.68	0.038	0.038	1.05
Average	**0.44**	**0.60**	**0.035**	**0.039**	**1.11**
AECOM (2010)	**0.37**	**Not Measured**	**Not Measured**	**Not Measured**	**1.20**

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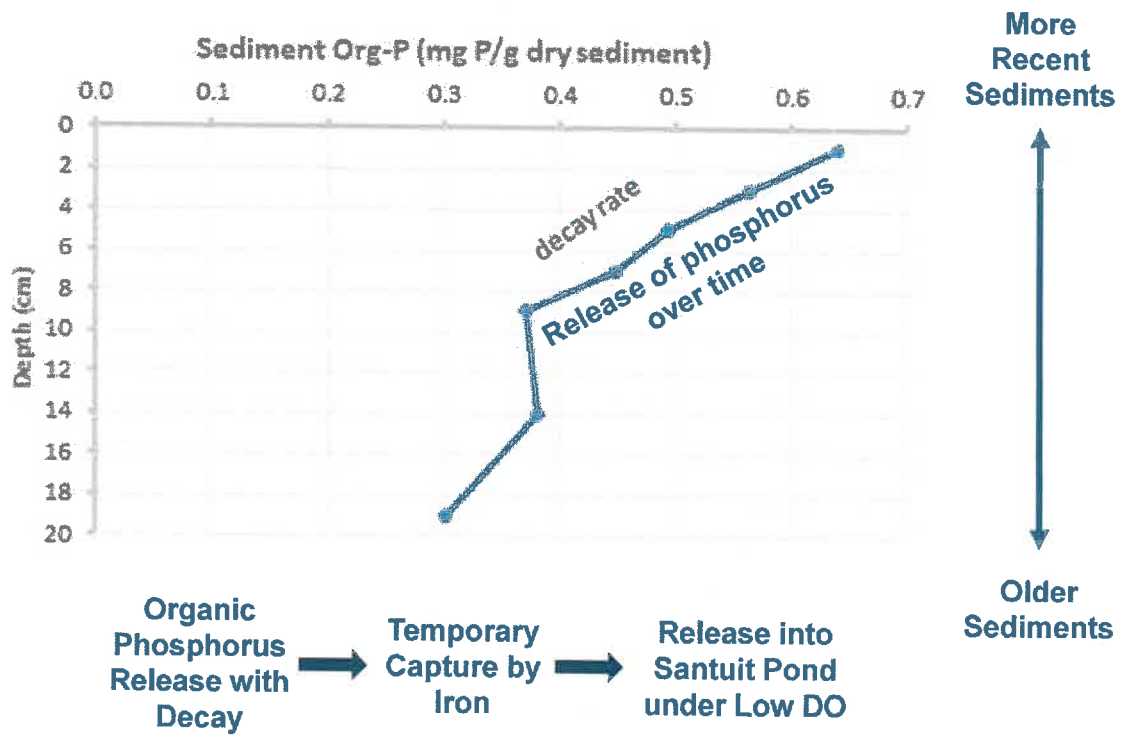
Baseline WQ, Sediment, and Dosing Study

Key Sediment Findings

- Organic phosphorus higher in new sediments than old – slope of graph is decay rate
- Iron is plentiful in sediment – 22 times more iron than organic phosphorus
- As organic phosphorus is released, iron can capture it but only in the presence of dissolved oxygen (DO)
- As oxygen depletes, phosphorus is released into pond water where it is available to algae / cyanobacteria



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Baseline WQ, Sediment, and Dosing Study

Factors that Favor Sediment-Targeted Nutrient Inactivation

- Excessive phosphorus is driving recurring algae blooms
- A substantial portion of the phosphorus is due to internal loading
- The flushing rate of the water body is not excessive
- A rapid improvement in water quality is desired
- Cleared space for staging and chemical storage
- Existing access for treatment vessels
- Cost-effectiveness is important

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Baseline WQ, Sediment, and Dosing Study

Nutrient Inactivation Recommendations

- Convert oxygen-sensitive iron-bound phosphorus into a more stable form
- Alum (aluminum sulfate) has been used safely for decades in Massachusetts, including Cape ponds
  - Same chemical used in drinking water treatment processes
  - Injected underwater, forms flocculent and sinks to the bottom
  - Switches iron-bound phosphorus to aluminum-bound, forming a stable bond, even where dissolved oxygen is absent
  - Cost per kilogram of phosphorus removed is very low ($100s) compared with most other approaches
  - Works immediately and is effective for extended periods of time, especially if external phosphorus loading is reduced
- Often buffered with liquid sodium aluminate where alkalinity is low, as it is in Santuit Pond

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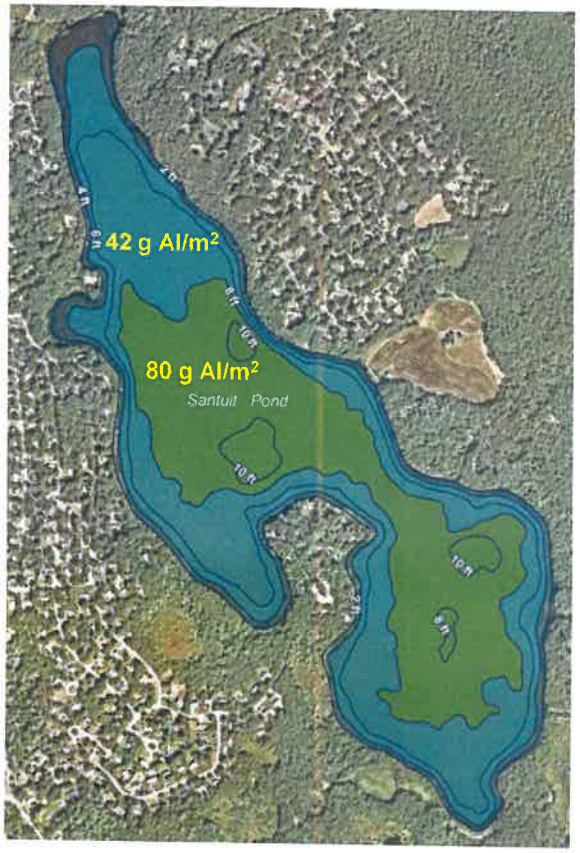
Baseline WQ, Sediment, and Dosing Study

Nutrient Inactivation Recommendations

- Developed dose to capture more than 90% of iron-bound phosphorus in the active layer of sediments
- Would apply below the 4-foot depth contour (~145 acres)
- Recommend a higher rate of application below 8-foot contour (~67 acres) because this is where phosphorus becomes most concentrated
- Could split treatment over two years to enhance effectiveness in a shallow pond like Santuit Pond
- If circulation is also continued, reduction of in-pond phosphorus concentration to less than 20 ppb is possible



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Thanks!

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Santuit Pond Focused Feasibility Study

Interim Recommendations for Water Quality Improvement

Mashpee, Massachusetts

PREPARED FOR
Kimberly Groff
Massachusetts Liaison
SNEP Network

PREPARED BY
ESS Group, LLC
404 Wyman Street, Suite 375
Waltham, Massachusetts 02451

Project No. U175-000
February 18, 2022

www.essgroup.com

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FIGURES

Figure 1	Santuit Pond Key Features and Conceptual Management Zones

1.0 INTRODUCTION

ESS Group, LLC (ESS) was contracted by the University of Maine System to prepare this focused feasibility study of potential management actions to improve water quality in Santuit Pond. The purpose of this study is to evaluate and recommend the most appropriate measures for in-pond implementation over the short-term.

To do this efficiently, the focused feasibility study makes use of existing information available from prior studies, publicly available documents or data, and direct input from project stakeholders.

This focused feasibility study report includes the following key elements:

east-central shoreline. The northern and southern ends of the pond remain undeveloped, although a few abandoned cranberry bogs are present.

(Left) Historical USGS topographic map showing Santuit Pond in 1941. Note diversion to Lovell's Pond at Southeastern end of Santuit Pond.
(Right) Santuit Pond watershed as depicted in MassDEP's Watershed-Based Planning tool (2021)

As with most of Cape Cod, Santuit Pond is located in an area of thick glacial outwash deposits. As a result, the pond is primarily groundwater-fed and has no permanent surface tributaries, although surface flows may reach the pond in the form of stormwater runoff. The Santuit Pond dam was built in the mid-1800s but was rehabilitated and outfitted with an improved fish ladder to aid passage of anadromous river herring in 2013 (USACE 2021). Additionally, an historical diversion to Lovell's Pond in Barnstable was closed off following the cessation of active cranberry operations in the early 2000s (WRS 2014). Although some seepage from Santuit Pond may still flow toward Lovell's Pond, the Santuit River now effectively serves as the only surface outlet of the pond.

3.0 EXISTING CONDITIONS AND RECENT STUDIES

Santuit Pond is classified by MassDEP as a Class B freshwater body. Pursuant to 314 CMR 4.02, these waters are "designated as a habitat for fish, other aquatic life, and wildlife, including for their reproduction, migration, growth and other critical functions, and for primary and secondary contact recreation...Class B waters shall be suitable for irrigation and other agricultural uses and for compatible industrial cooling and process uses. These waters shall have consistently good aesthetic value."

Under the *Final Massachusetts Integrated List of Waters for the Clean Water Act 2018/2020 Reporting Cycle* (MassDEP 2021), Santuit Pond is listed as a Category 5 water body (i.e., needing a TMDL) and is impacted by the following impairments:

1. Fish passage barrier
2. Abnormal fish deformities, erosions, lesions, tumors
3. Chlorophyll-a
4. Harmful algal blooms
5. Nutrient/eutrophication biological indicators
6. High pH
7. Total phosphorus
8. Transparency/clarity

With the possible exception of the first two, these impairments are highly interrelated. For example, excessive total phosphorus is likely to result in eutrophication biological indicators, including harmful algal blooms, which likewise result in high concentrations of chlorophyll a. These impairments, in turn, reduce transparency and can lead to high pH levels. This suggests that the reduction of phosphorus concentrations in Santuit Pond could have cascading benefits.

The most recent comprehensive study of the pond and its watershed was the *Santuit Pond Diagnostic Study* (AECOM 2010). This diagnostic study included field sampling of surface water, stormwater, cranberry bog floodwater, and groundwater. It also involved limited sediment sampling and biological surveys of aquatic macrophytes and waterfowl. Additionally, this study reviewed and incorporated historical data as well as contemporaneous water quality data collected by others, including the Pond and Lake Stewardship (PALS) program, the Mashpee Wampanoag Tribe, the Town of Mashpee, MassDEP, and the Massachusetts Department of Public Health (MDPH).

The key diagnostic findings of this study were as follows:

diagnostic study, it is possible that phosphorus release rates and composition of phosphorus fractions (iron-bound, organically bound, etc.) may also have changed substantially.

Results of this study and subsequent consultations with the project sponsor (Mashpee Wampanoag Tribe) and co-sponsor (Town of Mashpee) resulted in the identification of a preferred preliminary alternative, which includes the removal of approximately 100,000 cubic yards of fine sediments from a 25-acre area in the southeastern portion of Santuit Pond. Due to concerns about offsite disposal, the preliminary design of this alternative would also include the placement of the dredged sediments into a coir-log containment area to create new fringe emergent and shrub-scrub wetlands along the southwestern shoreline.

4.0 POND MANAGEMENT ISSUES AND GOALS

Watershed management actions to provide long-term improvement of water quality in Santuit Pond are currently in the planning or design stage. These include enhancements in wastewater collection and treatment as well as upgraded stormwater management. Although these actions are anticipated to result in the reduction of external pollutant loading to Santuit Pond over time, the gains will take years to realize. In the case of septic loading, the extended time of travel for groundwater movement means that full benefits may take five years or more, after implementation, to reach the pond.

Given these limitations, in-pond management actions could help to accelerate the improvement of water quality in Santuit Pond in the interim, thereby serving as a bridge until watershed source controls can be brought fully online. As such, this feasibility study is focused on developing a prioritized list of in-pond management actions for the improvement of water quality. The actions evaluated and ultimately recommended for implementation will be centered on and driven by the primary management issues and goals for Santuit Pond.

The primary management issues affecting Santuit Pond include the following:

Table A. Suggested Management Goals

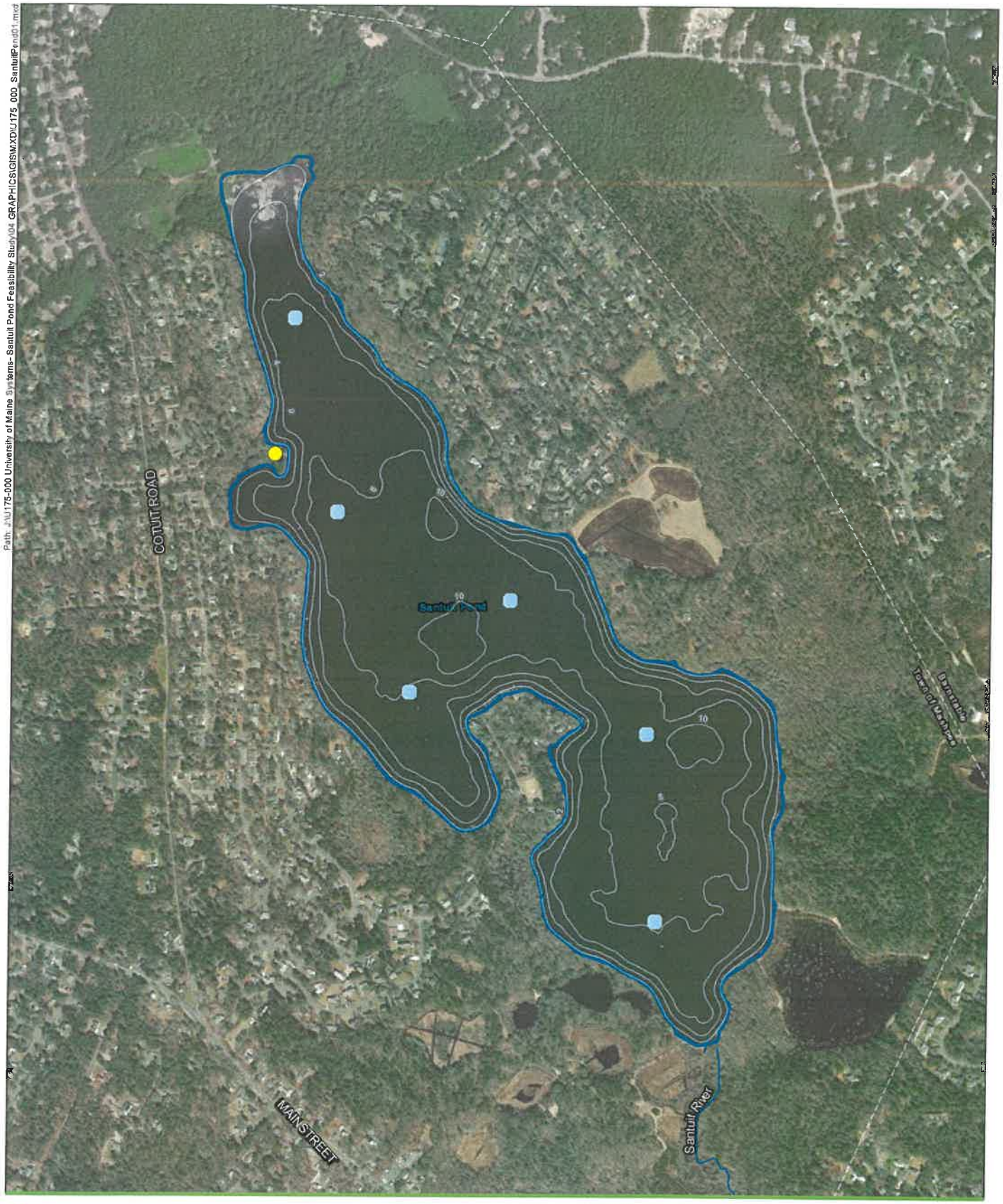
Management Goal	Uses Benefited by Action
Improve water quality by decreasing nutrient concentrations	Water Quality Fish and Wildlife Habitat
Reduce the duration and severity of cyanobacteria blooms	Aesthetics Fish and Wildlife Habitat Recreation Water Quality
Control non-native aquatic plant growth	Aesthetics Fish and Wildlife Habitat Recreation

The selection and practical implementation of measures to address management issues and achieve goals could be aided by the conceptual delineation of management zones with Santuit Pond. This approach recognizes that some issues affect the entire pond while others are either more localized or subject to certain constraints or opportunities.

Santuit Pond can be conceptually divided into three management zones to help facilitate a discussion of possible management activities (Table B, Figure 1). This conceptual identification of management zones is based on the types of management issues present, physical characteristics, visibility, and the presence of existing management or monitoring infrastructure.

Table B. Conceptual Management Zones in Santuit Pond

Zone	Description	Management Issues	Observations and Considerations
1	Town landing and areas to the north	Water quality Algae blooms Non-native aquatic plants	Shallowest water Highest public visibility (Town landing) One SolarBee circulator
2	Bordered by Town landing to the north and Briant's Neck to the south	Water quality Algae blooms	Deepest water Highest resident visibility (densely developed shoreline) Three SolarBee circulators Water quality monitoring sonde deployed in this area Identified by USACE as potential dredge and fringe wetland restoration area
3	South and east of Briant's Neck	Water quality Algae blooms	Intermediate public and resident visibility Two SolarBee circulators Near dam and fish ladder



Santuit Pond

Source: 1) ESS Survey, 2021
2) ESRI, World Imagery, 2021
3) MassGIS, Bathymetry, 2019

5.0 RECOMMENDED MANAGEMENT ACTIONS OVER THE NEXT FIVE YEARS

As documented in the 2010 *Santuit Pond Diagnostic Study* (AECOM) and also identified by both the community and other sources (e.g., MassDEP 2021), Santuit Pond faces a myriad of management challenges. However, the primary purpose of this study is to focus on the prioritized management issues and address those with a streamlined set of in-pond management recommendations that can be implemented at Santuit Pond in the near future, should key stakeholders desire. As such, this section provides a description of potential and recommended management options for implementation while watershed improvements are coming online.

In considering the best path forward for Santuit Pond, it is helpful to understand the environmental resource designations and jurisdictions that may affect the manner in which management actions are designed, permitted, and/or implemented. A summary of key designations is presented in Table C and these will be used to inform the management actions that follow in this section.

Table C. Environmental Resource Designations or Jurisdictions in Vicinity of Santuit Pond

Designation / Jurisdiction	Present	Location(s)	Impact on In-Pond Management Activities
Anadromous Fish Run	Y	All of Santuit Pond	Coordination with Town Herring Warden/ Division of Marine Fisheries to avoid impact on anadromous fish passage. An April to June time-of-year restriction is typical for many activities.
Area of Critical Environmental Concern	N	N/A	None anticipated.
Coastal Zone	Y	All of Santuit Pond	None anticipated.
Coldwater Fisheries Habitat	Y	Santuit Pond, extending downstream into Santuit River.	Division of Fisheries and Wildlife may provide comment on NOI submitted under Wetlands Protection Act and implementing regulations.
Estimated Habitat of Rare Wildlife	N*	Present adjacent to the southern shoreline	None anticipated.
Great Pond	Y	All of Santuit Pond	Chapter 91 permitting may apply for projects involving fill, dredging, or water level manipulation.
Groundwater Protection District (Municipal)	Y	All of Santuit Pond and adjacent areas	None anticipated.
Outstanding Resource Water	N	N/A	None anticipated.
Priority Habitat of Rare Species	N*	Present adjacent to the southern shoreline	None anticipated.
Surface Water Protection Area	N	N/A	None anticipated.

Designation / Jurisdiction	Present	Location(s)	Impact on In-Pond Management Activities
Wellhead Protection Area	N*	Zone II adjacent to portions of Santuit Pond.	None anticipated.
Wetland Resource Area	Y	Resource areas present in and near Santuit Pond. Examples include Land Under Water and Inland Bank.	Order of Conditions from the Mashpee Conservation Commission required to undertake most management actions.

*Located adjacent to but not within footprint of Santuit Pond.

Although the focus of this study is on water quality improvement, an effective control program for variable-leaf milfoil should be in place prior to or coincident with implementation of any in-pond water quality improvement actions. This is because improved water transparency is expected to enhance the habitat for this plant by allowing more light to penetrate through the water column. If variable-leaf milfoil were to become established over large portions of the pond, it could have its own impact on water quality (e.g., greater biological oxygen demand) and also reduce or degrade spawning habitat for anadromous river herring. Therefore, in addition to the in-pond water quality improvement options, ESS also considered nuisance vegetation measures targeted to variable-leaf milfoil.

In evaluating in-pond management options, ESS primarily considered those assessed in the General Environmental Impact Report (Mattson 2004). However, given recent developments in lake management that could have a material impact on the success of an in-pond management program at Santuit Pond, ESS also considered new products and methods. Dredging was not considered as an in-pond management option for the purposes of this study, given that evaluation of the viability of this approach is already being vetted by the USACE and project stakeholders.

The two priority recommended actions are as follows

1. Herbicides to control non-native nuisance vegetation (variable-leaf milfoil).
2. Nutrient inactivation to control excessive algal growth and improve water quality.

In addition to these priority actions, several other in-pond water quality management options are recommended as supplemental or optional actions, including aeration/circulation, algaecides, and hand harvesting. Five other management options were also considered but are not currently likely to be useful or feasible at a meaningful scale in Santuit Pond. (Table D).

Table D. Management Tools by Issue Addressed

Management Tool	Included In 2004 GEIR	Issue Addressed		
		Excessive Algal Growth	Nuisance Vegetation	Nutrients / Water Quality
Primary Recommendations				
Herbicides	Y**		D	
Nutrient Inactivation	Y	D		D
Secondary Recommendations				
Aeration/Circulation	Y	I		I
Algaecides	Y	D		
Hand Harvesting	Y		D	
Not Currently Recommended				
Barley Straw	Y	I		
Bioaugmentation (Bacterial Additives)	N*	I		I
Biochar and Proprietary Phosphorus Removal Devices	N	I		D
Biomanipulation	Y	I		I
Sonication	N*	D		

Y=Yes; N=No; D = Directly Controlled; I = Indirectly Controlled
*Mentioned briefly but not fully assessed.
**Broadly included but neither flumioxazin (Clipper) nor florpyrauxifen-benzyl (ProcellaCOR) were registered for use in Massachusetts at the time.

Each of the recommended management actions can be further refined by conceptual management zone (Table E).

Table E. Recommendations by Conceptual Management Zone

Management Tool	Conceptual Management Zone		
	1 - North	2 - Central	3 - South
Primary Recommendations			
Herbicides	Y	N	N
Nutrient Inactivation	Y	Y	C*
Secondary Recommendations			
Aeration/Circulation	Y	Y	Y
Algaecides	A	A	A
Hand Harvesting	A	A	A

Y=Yes; A=As-needed; C=Conditional; N=No
*Only in areas that would not be disturbed by dredging

Finally, the approximate costs associated with each recommended management action over a five-year period are summarized in Table F. The estimated costs for non-recommended management options are also presented for context. Each of these actions is described in more detail in the following section.

Table F. Approximate In-Pond Management Costs

Management Tool	Anticipated Management Quantity	Approximate Costs over Five-year Period			
		Permitting and Design*	Implementation	Operations & Maintenance	Total
Primary Recommendations					
Herbicides	<20 acres	$9,000	$50,000	$0	$59,000
Nutrient Inactivation	125 acres	$40,000	$400,000	$50,000	$480,000
Subtotal		*$49,000*	*$450,000*	*$50,000*	*$549,000*
Secondary Recommendations					
Aeration/Circulation	6 units	$N/A	$N/A	$50,000	$50,000
Algaecides	<75 acres	$9,000	$50,000	$0	$59,000
Hand Harvesting	<1 acre	$7,500	$25,000	$0	$32,500
Subtotal		*$16,500*	*$75,000*	*$50,000*	*$141,500*
Total Recommended		***$65,500***	***$525,000***	***$100,000***	***$690,500***
Not Currently Recommended					
Barley Straw	176 acres	$7,500	$350,000	$0	$357,500
Bioaugmentation (Bacterial Additives)	176 acres	$7,500	$400,000	$0	$407,500
Biochar and Proprietary Phosphorus Removal Devices	176 acres	$7,500	$200,000	$0	$207,500
Biomanipulation	176 acres	$20,000	$150,000	$0	$170,000
Sonication	4 units	$25,000	$200,000	$50,000	$275,000

*If completed as a standalone action. Substantial cost savings may be possible by combining the permitting for two or more actions.

5.1 Descriptions of Recommended Priority Management Actions

5.1.1 Herbicides

The primary advantage of herbicides is that they can be used to efficiently address aquatic nuisance plant growth over large areas within a relatively small timeframe and with little or no physical disturbance. Label restrictions are typically limited to irrigation with few or no restrictions on use for primary recreation, boating, fishing, or drinking. Therefore, direct impacts to non-target species or practical use of the pond are usually minimal. Rather, indirect impacts (e.g., changes in aquatic vegetative cover or temporary increase in oxygen demand as plant dieback occurs) are often the

primary concern. However, these impacts can be managed through appropriate selection and application of herbicides.

Although other herbicides are available (e.g., diquat dibromide), the three identified for potential use in the control of variable-leaf milfoil at Santuit Pond are florpyrauxifen-benzyl, flumioxazin, and fluridone (Table G). Of these, florpyrauxifen-benzyl would be the preferred option, should herbicide use be pursued for management of variable-leaf milfoil. Each of these herbicides is discussed in more detail below.

Table G. Summary of Herbicides Effective in Controlling Variable-leaf Milfoil

Herbicide	Type	Mode of Action	Selectivity	Recommendation
Florpyrauxifen-benzyl (e.g., ProcellaCOR)	Systemic	Auxin mimic	High – little to no action on non-target species at the recommended dosage.	Preferred herbicide for use at Santuit Pond due to selectivity, systemic control, and effectiveness outside the April to June time-of-year restriction.
Flumioxazin (e.g., Clipper)	Contact	PPO inhibitor	Low – action on a broad spectrum of non-target species. This can be mitigated by limiting area of application.	Not preferred due to potential to impact non-target species and short-term control.
Fluridone (e.g., Sonar)	Systemic	Carotenoid biosynthesis inhibitor	Moderate – some action on non-target species. This can be mitigated by using low dosage.	Not preferred due to need for extended contact time (45 days or more) and reduced effectiveness outside the April to June time-of-year restriction.

Florpyrauxifen-benzyl – Systemic Herbicide: Florpyrauxifen-benzyl (trade name ProcellaCOR) is a reduced risk systemic herbicide that acts as an auxin mimic. Auxin is a key plant hormone that regulates growth processes; herbicides that mimic auxin are able to control target species by disrupting these processes. In certain dicot plant species auxin mimics can be very effectively translocated throughout the plant, allowing the growth disruption to impact the overall plant and eventually resulting in death.

Florpyrauxifen-benzyl was fully approved for use in Massachusetts in 2019 and has since been used in multiple locations. It is effective on exotic milfoils at low concentrations and requires much less contact time than most other systemic aquatic herbicides. This means that it can be applied at very low doses and is unlikely to require costly booster treatments. These factors make florpyrauxifen-benzyl both cost-effective and protective of non-target plants when treating exotic milfoils.

Additionally, based on the ProcellaCOR EC SDS, florpyrauxifen-benzyl appears to be practically non-toxic to birds, other terrestrial organisms, and fish and only slightly toxic to freshwater invertebrates. Therefore, florpyrauxifen-benzyl appears to present minimal risk to non-target resources, particularly

when used at the very low doses required for effective control of exotic milfoils. This product was recently used to control exotic milfoil in another Mashpee pond with a herring run (Johns Pond).

Flumioxazin – Contact Herbicide: Flumioxazin (trade name Clipper) is a fast-acting contact herbicide and works by inhibiting protoporphyrinogen oxidase (PPO), an enzyme necessary for photosynthesis. Inhibition of PPO causes destruction of plant cell plasma membranes in the presence of sunlight, resulting in rapid dieback of plant tissues. As might be expected, plant cells not directly exposed to the agent or sunlight (e.g., roots) are not killed by flumioxazin. Therefore, plants with sufficient energy reserves may re-grow from the roots during the subsequent growing season.

Flumioxazin requires very little contact time to be effective and can be successfully applied in summer, outside of the time-of-year restrictions currently anticipated for river herring. One drawback of flumioxazin is that, as a contact herbicide, it is likely to only kill topgrowth. Although this may weaken the target plants, it is likely that at least some will return from the roots during the subsequent growing season.

Additionally, flumioxazin is effective on a relatively broad range of aquatic dicot species. Therefore, non-target species impacts would be likely. However, this issue could be mitigated by judicious application of the chemical only in the immediate vicinity of the target variable-leaf milfoil beds.

Fluridone – Systemic Herbicide: Fluridone (trade name Sonar) is a systemic herbicide that acts as a carotenoid biosynthesis inhibitor, effectively leading to the depletion of chlorophyll. This results in chlorosis (bleaching) and the eventual starvation of the entire plant.

Fluridone is provides good control of variable-leaf milfoil, even at low concentrations, with minimal impact to other plants. However, these target fluridone concentrations must be maintained for a relatively long period of time (up to 90 days) to achieve effective systemic treatment. This typically requires the use of pelleted formulations and booster treatments. It also means that most fluridone treatments are effectively whole-lake treatments, even if the target beds are limited to small areas. This makes fluridone treatments more expensive than most other herbicides.

One side benefit of this slow action is that it attenuates the plant tissue decay process, thereby avoiding spikes in dissolved oxygen demand that sometimes occur during rapid plant die-off.

Fluridone is most effective when applied in spring or early summer so that target species can uptake and translocate the herbicide effectively from one part of the plant to another. Therefore, its use would be difficult if impacted by time-of-year restrictions associated with anadromous fish runs.

Estimated Costs

Treatment costs at Santuit Pond will depend on the herbicide used and the area treated. ESS is not aware of available maps showing the current extent and density of variable-leaf milfoil growth. However, if all beds are currently located north of the Town landing, it is likely that the extent is less than 20 acres. Assuming ProcellaCOR is used, treatment costs could be expected to be in the range of $10,000 to $20,000 for the initial treatment. Depending on the control achieved, additional treatment costs may be incurred in future years. However, if regrowth is limited, hand harvesting would potentially become a viable option for ongoing control (see Section 5.2.3).

5.1.2 Nutrient Inactivation

Nutrient inactivation in Massachusetts primarily involves the addition of alum (aluminum sulfate), which is typically injected just below the water surface. The alum precipitates out of solution and binds to available phosphorus in the water column and surficial sediments. Aluminum is highly effective at binding phosphorus under most naturally occurring conditions and is not sensitive to oxygen-poor (anoxic) conditions. Aluminum is also one of the most common metals on the plant and naturally found in soils and pond sediments. Other nutrient inactivation products are available (e.g., Phoslock, polyaluminum chloride) but tend to be more costly and offer few advantages over alum for in-pond treatments. Additionally, some of some of the proprietary nutrient inactivation products make use of rare earth materials. In addition to being more difficult to source, the potential impacts of those materials in the aquatic environment are less well-understood. Barring substantial shifts in cost, alum remains the favored nutrient inactivation approach for in-pond treatments.

Due to the large volumes required, sediment dose alum treatments are applied using a pontoon boat / barge and typically require the ability to launch from a trailer.

A crane can also be used to deploy the treatment vessel, where traditional access is determined to be insufficient.

Alum can be applied at a high dose if the goal is to treat the sediments and prevent continued release of phosphorus from the sediments. Alternatively, it can be applied at a low dose if the goal is only to strip phosphorus and algae from the water column for the short term.

Alum has the potential to addresses a substantial fraction of internal phosphorus loading and, given the low flushing rate of Santuit Pond, could possibly reduce internal loading rates for multiple years. Therefore, nutrient inactivation is anticipated to be highly cost-effective at reducing phosphorus, as compared to most other in-pond management options.

Due to the low alkalinity reported from Santuit Pond (and typical of coastal plain ponds in Massachusetts), sediment dose nutrient inactivation is usually accomplished with a buffered treatment. Sodium aluminate is the most commonly used buffer for this purpose and has the attractive property of also forming an aluminum oxide flocculent (i.e., additional phosphorus binding sites).

The goal of buffering is to prevent the formation of free aluminum by keeping the pH of the pond within a safe operating range (typically between 6.0 and 8.0). In practice, a 2:1 ratio of alum to sodium aluminate has worked well for most buffered treatments in eastern Massachusetts. Occasionally, a

higher ratio is used when ongoing algae blooms have resulted in elevated pH conditions. However, this is typically an adjustment that is made based on treatment monitoring.

Sediment dose nutrient inactivation is typically conducted with a specially outfitted vessel that has been designed for stability and efficiency in application of large volumes of product to open waters. The vessel usually features a boom that is directed into or toward the water. Application is through direct injection or, more commonly, via weighted hoses that are fitted with nozzles. In buffered applications, the liquid chemicals are kept entirely separate until injected into the water column, at which point where they are then able to mix freely.

A sediment dose nutrient inactivation project also requires an area for chemical storage that is reasonably accessible for tanker truck deliveries. Trucks must either be able to back into the area or have sufficient radius to turn around for site egress. Traffic detail may be required for busy roads, although that is unlikely to be an issue if the Town landing is used (access from Timberlane Drive).

A location adjacent to the pond is also required for chemical storage tanks and tanker deliveries..

A visible flocculent trail forms during the initial injection. This settles rapidly to the pond bottom when applied during appropriate weather conditions.

The appropriate dosage for a sediment dose alum treatment is selected based on the availability of phosphorus in sediments, as well as the targeted sediment depth and longevity of treatment. In eastern Massachusetts, sediment aluminum doses have ranged from as low as 20 g/m^2 to well over 100 g/m^2. To determine the appropriate dosage to maximize the longevity of the treatment while avoiding impacts to aquatic life, a sediment coring and dosing study is recommended prior to permitting and bidding the treatment work. Due to the potential for deep sediments to release phosphorus under anoxic conditions, sediment cores should be targeted for penetration to 25 cm (10 in), if possible. Additionally, undisturbed cores should be sectioned to provide a vertical profile of phosphorus availability in the sediments. This will provide critical information on the existing gradient in mobile phosphorus, which will inform the depth to which a sediment dose treatment would need to be targeted to provide long-term control. The dosing study also typically forms the foundation for required permit applications.

Low dose alum treatments are more logistically simple but would also be expected to provide only short-term benefits, unless applied repeatedly over several years. Formal dosing studies are not typically required for low dose treatments. Rather, an aluminum concentration of 2 mg/L to 5 mg/L (areal equivalent of approximately 4.5 g/m^2 to 10.5 g/m^2) is usually targeted depending on site conditions, budget, and concentration of phosphorus in the water column. A repeated annual regimen

of low dose alum application was recently implemented at West Monponsett Pond in Halifax and appears to have achieved some success in reducing phosphorus concentrations and cyanobacteria blooms over a multi-year period. However, the longevity of the project has not been established. Additionally, low dose treatments fill up a much higher percentage of phosphorus binding sites than sediment dose treatments. This means that a lower proportion of the alum goes toward reduction of internal loading from the sediments.

Estimated Costs

The costs to undertake an alum dosing study would be expected to range from $25,000 to $30,000 depending on the extent and density of sampling required. Permitting would be expected to cost another $8,000 to $10,000, inclusive of abutter notification and production costs.

The costs to implement a nutrient inactivation program varies with the dosage required, the total area targeted for treatment, and the price of the commodities used. For example, based on an informal market survey of local vendors, the price of sodium aluminate has risen substantially in the last year, which could impact the cost of a buffered treatment at Santuit Pond. Additionally, a certain base level of mobilization costs should be expected and may be more than $20,000 for a high dose treatment. The actual treatment costs range from $2,500 per acre to more than $4,000 per acre depending on dosage and treatment efficiency.

Treatment costs at Santuit Pond will depend on whether a sediment dose or low dose treatments is applied, as well as the total area treated. However, a 100-acre sediment dose treatment focused on the northern two-thirds of the pond (i.e., avoiding areas that might be within the footprint of a dredging project) is likely to range from $275,000 to $400,000 or more, depending on the final dosing. A low dose treatment would likely be $55,000 to $120,000 per application.

Detailed water quality and biological monitoring is likely to be required prior to, during, and following the treatment and is recommended to help avoid impacts to potentially sensitive non-target species, such as fish. Additionally, monitoring would be recommended to track the success of the nutrient inactivation program as an interim water quality improvement measure. Monitoring for alum treatments could be expected to range from $7,500 to $50,000. The lower end of this range would typically be associated with low dose treatments (per treatment) while the high end would be associated with a sediment dose treatment. Ultimately, the cost will depend on the number of days required to complete the treatment and whether deployment of additional sensors (e.g., data buoys) or collection of samples for laboratory analysis are required.

5.2 Descriptions of Recommended Secondary or Optional Management Actions

5.2.1 Aeration/Circulation

Aeration and circulation are related techniques used to treat problems with excessive algal growth and low dissolved oxygen concentrations. The primary difference is that aeration uses injection of air to raise dissolved oxygen concentration in the water column while circulation focuses on inducing currents to redistribute dissolved oxygen. Most, but not all, kinds of aeration systems also induce circulation. Air diffusers, aerating fountains, and water pumps are common types of equipment that may be installed to increase aeration or circulation in a lake or pond.

Aeration and circulation systems increase dissolved oxygen concentrations in the water. When properly designed and implemented, the increase in dissolved oxygen can benefit aquatic life while reducing the bioavailability of phosphorus by encouraging the formation of compounds with low solubility in water (e.g., ferric phosphates).

Additionally, the induced currents of many of these systems can potentially help control algae blooms by physically disturbing the vertical position of phytoplankton cells. To some degree this can prevent or lessen the severity of blooms by reducing photosynthetic efficiency or disrupting the buoyancy control that some cyanobacteria use to seek optimal water column positions for nutrient uptake.

Aeration and circulation systems are usually powered from shore, which requires operational expenses (sometimes substantial) to keep the unit(s) running. However, solar-powered units are also available.

The cost of purchasing, installing, and maintaining this equipment becomes substantial as water body size increases. Likewise, the effectiveness of the equipment tends to decline with pond size as it is difficult to achieve sufficient circulation in large bodies of water.

A SolarBee unit in Santuit Pond.

In the years since the AECOM (2010) study was completed, in-pond water quality management has been limited primarily to the installation and operation of solar surface circulators (SolarBees). A total of six solar surface circulators have been deployed at Santuit Pond. The approximate distribution of these units suggests that they were installed to enhance circulation in all portions of pond. However, it is not currently known whether the number and arrangement of the units deployed is aligned with the manufacturer's recommendations for Santuit Pond. Additionally, ESS is unaware of any studies that have been undertaken to specifically evaluate the effectiveness of these units in improving dissolved oxygen concentrations or reducing cyanobacteria. Although Santuit Pond continues to experience seasonal cyanobacteria blooms, it is difficult to surmise whether those blooms would have been better, worse, or the same without the solar surface circulators. The *Santuit Pond Diagnostic Study* (AECOM 2010) suggested that circulation could reduce internal phosphorus loading by 67 percent but also cautioned that circulation could potentially worsen algae blooms if improperly designed or executed.

Therefore, ESS recommends that the solar surface circulators continue to be used for now, especially if nutrient inactivation cannot be implemented in the near future. However, their use should be accompanied by a water quality study to document the lateral and vertical gradients in key parameters within the pond. According to the manufacturer, SolarBee units are designed to draw water in from below and release it near the top of the water column in a radial pattern of near laminar flow. Smaller secondary currents are also induced by this action, resulting in additional water column circulation between the surface and the depth of the bottom intake. This information can be used to design a site-specific study that examines both the extent of the circulation generated as well as the end result for key water quality parameters in the pond. This study could be conducted over a short period of time to

keep costs low but the measurements should be frequent and of a sufficient density to provide the answers needed to support operational decision-making.

Estimated Costs

If no additional aeration or circulation units are deployed, the primary costs would be associated with ongoing operations and maintenance of the six SolarBee units. Additional costs would be expected to study the effectiveness of the units. Together, the costs would be anticipated to run approximately $50,000 over the next five years.

The cost of alternative or additional units would likely be much more substantial. However, this is not currently recommended at Santuit Pond.

5.2.2 Algaecides

Algaecides are analogous to herbicides in many ways but primarily target algae and cyanobacteria. Application of algaecides results in almost immediate control of a broad spectrum of planktonic and filamentous algae. A variety of registered algaecide formulations are available for use, including copper sulfate and chelated copper-based formulations (e.g., Captain and K-Tea), which will generally control most nuisance green algae and cyanobacteria species. Peroxide-based formulations (e.g., PAK 27) are also available for control of nuisance algae.

Of these formulations, peroxide-based algaecides are typically the most expensive, although they can be useful where the use of copper-based algaecides is undesirable due to sensitive environmental receptors (e.g., rare aquatic life, surface water supplies). Chelated copper-based formulations remain active in the water column longer than copper sulfate and are therefore more effective at lower doses. These are typically intermediate in cost. Copper sulfate is the least expensive and most frequently used algaecide. However, copper sulfate tends to settle out of solution faster than chelated copper, which means more of the product ends up in the sediments, thereby reducing the longevity of the treatment.

Water use restrictions associated with most algaecides are minimal and temporary. Some labels do not carry any restrictions.

Algaecides may be useful for short-term control of excessive algal growth on an as-needed basis. Although effective, algaecides treat only the symptom (i.e., excessive algae) and do not address the cause of algae blooms (i.e., excessive nutrients). Therefore, long-term improvements should not be anticipated from the use of algaecides alone.

Estimated Costs

Treatment costs at Santuit Pond will depend on the algaecide used and the area treated. If alum treatment is implemented, then algaecide costs would be expected to be minimal in any given year. However, an annual budget of $10,000 to $15,000 is recommended to be kept in reserve, in case it is needed for response to nuisance blooms during the growing season.

5.2.3 Hand Harvesting

The simplest form of harvesting is hand pulling of selected plants. Depending on the depth of the water at the targeted site, hand harvesting may involve wading, snorkeling, or SCUBA diving. Pulled plants and fragments are placed in a mesh bag or container that allows for transport and disposal of the

vegetation. Hand harvesting of submerged perennial vegetation (e.g., variable-leaf milfoil) aims to remove entire plants, including the roots, thereby preventing re-growth in subsequent seasons.

Hand harvesting is an excellent approach for control of pioneer infestations when bed extent and density are limited. Although divers are typically required, most pioneer infestations can be effectively contained or even eradicated with a day or two of harvesting. Hand harvesting in these cases should proceed as soon as possible to prevent further spread of the plants. This should be followed by detailed surveys of the area to find and remove any plants that may have been missed or incompletely removed by the dive team. The establishment of pioneer infestations is hard to predict, especially where the presence of public access at the Town landing in Mashpee increases the risk of new plants being introduced to the pond. However, the opportunity to contain or eradicate a new infestation is of enormous potential benefit to the Town because it can save tens to hundreds of thousands of dollars in future management costs and much more when lost recreational, habitat, and property value are factored into the equation. For this reason, ESS strongly recommends that the Town maintain a standing budget for rapid response hand harvesting operations at Santuit Pond.

DASH operations are able to pump harvested weeds directly into mesh bags on deck, reducing the amount of fragmentation in the water.

For larger, more established infestations diver assisted suction harvesting (DASH) may be the most appropriate form of hand harvesting. DASH involves the uses of a hose lift system to transport pulled plants to a collection vessel at the surface. This significantly reduces the time it takes for the diver to handle and return plants to the surface and also helps to minimize the fragmentation that may occur over the course of typical harvesting operations.

Despite the increased efficiency, DASH is still a labor-intensive process that is likely to require repeat harvesting over several years to successfully manage an established infestation. Fragment barriers can be placed to minimize redispersal and recolonization by plant fragments while harvesting control efforts are being implemented.

Hand harvesting and DASH are both very selective methods because each plant must be pulled by hand. Although some incidental removal of non-target species is still likely to occur, most non-target vegetation would be expected to remain in place. Therefore, they tend to have only negligible to minor impacts on non-target species.

As with any physical plant removal program, implementation of hand harvesting or DASH operations should include identification of temporary stockpiling and permanent disposal areas as well as fragment release control methods prior to initiation of each project phase.

Due to the sustained, intensive effort required to control submerged invasive plants (like variable-leaf milfoil) over a period of years, hand harvesting is only recommended as a secondary or optional control measure at this time. The urgency of control suggests that a more efficient and effective measure be implemented first at Santuit Pond. Therefore, herbicides are likely to be the better initial choice for

control of variable-leaf milfoil and are recommended as the primary control measure (See Section 5.1.1).

Hand harvesting costs at Santuit Pond will depend on the extent and density of the beds to be managed. Costs for diver harvesting or DASH typically range from $1,500 to $3,000 per day. The rate of progress will be faster for DASH than traditional diver harvesting. However, clearance of more than 0.5 acre per day is unlikely, except where beds are very sparse.

Estimated Costs

Hand harvesting costs at Santuit Pond will be largely dependent on the effectiveness of any herbicide treatments, as well as the ability to successfully prevent new invasive species from entering the pond. However, an annual budget of $5,000 to $10,000 is recommended, in case hand harvesting or DASH becomes necessary to respond to small areas of variable-leaf milfoil regrowth or pioneer infestations of other species.

5.3 Descriptions of Other Management Options – Not Currently Recommended

5.3.1 Barley Straw

Barley straw has been promoted as a "natural" method to control algae blooms. Although the virtues of this method are extolled by a few pond supply warehouses and state agricultural cooperative extensions, the mode of action is not completely certain. It may be related to the release of chemicals as the barley straw decomposes in water but it is not clear exactly which chemicals are responsible for the control or whether they are exuded from the barley straw itself or a metabolic byproduct produced by decomposers. Regardless, the chemicals appear to act more as a preventative (algaestat) rather than killing existing algae (algaecide). Therefore, barley straw is not regulated by US EPA as a pesticide.

Based on limited laboratory studies and field trials, barley straw may be more effective on planktonic algae and cyanobacteria and less so on filamentous or benthic algal mats, although the reasons for this are not clear. Additionally, at least one published study (Molversmyr 2001) suggests that barley straw may stimulate the growth of certain planktonic cyanobacteria. Overall, the use of barley straw appears to have very unreliable results (Mattson et al. 2004). Therefore, as with many biological control methods, successful use of barley straw is likely to require an iterative approach.

Although there is little agreement in the literature on the appropriate dosage, one suggested application rate is 225 pounds of barley straw per surface acre of lake (Haberland and Mangiafico 2011). The straw is typically deployed by loosely packing it into a cage or netting, then securing it at or near the surface of the pond with a stake or tether. Depending on conditions, barley straw may need to be replaced every four to six months to continue being effective. Some recent studies suggest that barley straw extract may be effective, in lieu of deploying straw bales (e.g., Peczula 2013).

Estimated Costs

Barley straw addition is usually implemented in smaller water bodies or isolated coves. If scaled up to extend along more of the perimeter of Santuit Pond, costs of $50,000 to $75,000 per year would not be unexpected. Costs could be even higher if replacement of the straw was required more than once per year.

5.3.2 Bioaugmentation

Bioaugmentation includes a wide variety of approaches involving the addition of biological organisms or extracts to solve a lake management issue. This may include the addition of enzymes or microbial agents to stimulate biodegradation of bottom sediments, control pathogens, manage algae, improve water clarity, or reduce aquatic plant growth. A wide variety of proprietary bioaugmentation blends are available and range from generic pond "cleaners" to specific seasonal "boosters" and fortified "muck-eaters." Products are sold in many different forms, including blocks, bags, liquids, powders, pucks, and pellets.

The actual implementation of this approach requires a highly iterative process of testing, product application, retesting, and subsequent adjustment of product type or application rate repeated over the course of the year. Recommended reapplication rates may be as frequent as every week but depend on the product and environmental conditions. Some proprietary bioaugmentation systems also require the purchase of a special aeration or circulation system for the process to work as intended.

Unfortunately, the peer-reviewed research regarding this approach is primarily associated with its use in wastewater treatment processes, where automation reduces the logistical challenges and environmental conditions can be more easily manipulated. Evaluations concerning the effectiveness of this approach in lakes and ponds are primarily limited to studies conducted directly by the vendor or vendor partners and have not been published in the peer-reviewed literature.

Ultimately, bioaugmentation does not currently appear to be a reliable process for phosphorus reduction, algae control, or aquatic plant management, especially when scaled up from relatively controlled environments to natural lakes and ponds.

Estimated Costs

Bioaugmentation is usually implemented in smaller water bodies, where costs can be kept reasonably to scale while the approach is tested and tuned. Most bioaugmentation products require frequent reapplication over the course of the year. Therefore, full-scale application of this method in Santuit Pond could be expected to cost upwards of $75,000 per year.

5.3.3 Biochar and Proprietary Phosphorus Removal Devices

Biochar describes a wide range of products derived from biomass that has been processed (often pyrolyzed) to enhance its nutrient adsorption capacity. When used for lake management purposes, biochar is typically deployed in porous socks, which are then staked in a location where the material can come into contact with nutrient-rich sources (e.g., tributary flows), thereby acting as a filter before the water enters the lake or pond. They can also be deployed in-pond from floating islands or anchored in groups to remove ambient nutrients from the water column.

Biochar socks are typically left in place for a few weeks to a few months, depending on environmental conditions. At some point, the adsorption process becomes inefficient, as binding sites begin to fill up, and the spent biochar is removed, disposed of, and replaced with new material.

The use of biochar for lake and pond management is still under evaluation. Many of these products were originally designed for water and wastewater treatment processes, which are more controlled

environments than natural lakes and ponds. However, to date it appears that biochar's primary advantage in lake management is the ability to market it as a "natural" remedy for excess nutrients.

Biochar quality varies greatly with source, which makes it difficult to develop an effective dose to reduce nutrient concentrations to the desired level. In fact, unmodified biochars appear to be of limited utility due to the paucity of binding sites in most materials, as well as the potential for release of nutrients when submerged (Zhang et al. 2020). Therefore, the most effective biochars are likely to be those which have been modified through the addition of metal oxides (e.g., aluminum oxide) to provide more binding sites. This effectively transforms biochar into a disposable version of nutrient inactivation, whereby the metal cations that capture dissolved nutrients are embedded in a removable substrate.

EutroSORB is a proprietary (SePRO Corporation) phosphorus removal technology that can be used in a similar manner to biochar. The manufacturer claims that this technology removes more phosphorus than biochar, although the effectiveness of EutroSORB has not been demonstrated within the peer-reviewed literature and the "nutrient-binding media" it relies on appears to be a trade secret. Until this product develops more of a track record, it is difficult to recommend its use at anything more than a pilot scale.

Estimated Costs

Assuming biochar or EutroSORB socks were deployed primarily near known areas of focused stormwater runoff and near the locations of the existing SolarBees (where they could take advantage of the induced flow), annual costs would likely range from $25,000 to $50,000. This assumes a replacement interval of once every month or two during ice-free periods of the year.

5.3.4 Biomanipulation

Biomanipulation involves the introduction of top-down (predators/herbivores) or bottom-up (prey/plants/pathogens) biological controls to effect changes in the pond food web. At Santuit Pond, the ultimate target of a biomanipulation program would be the algal community.

One way to influence phytoplankton is by changing the structure of the zooplankton grazing community to favor species that are more effective grazers. Stocking of zooplankton is not a widely used approach due to the difficulty and cost that would be involved in harvesting or culturing a large enough population sufficient to influence a sizeable water body like Santuit Pond.

Rather, stocking of top-level piscivorous (predatory) fish would likely be the preferred approach. Such an introduction would be expected to increase predation pressure on planktivorous forage fish (e.g., sunfish, minnows). Since forage fish are important predators on zooplankton (with a preference for large-bodied species), a reduction in forage fish populations could relieve predation pressure on zooplankton, thereby resulting in more large-bodied zooplankton to graze on phytoplankton. An alternative approach would be to directly harvest planktivorous fish from the pond. Neither of these approaches can be fully recommended without more direct study of the desired target organisms, as well as potentially sensitive non-target species (e.g., river herring).

Biomanipulation relies on very complex relationships that are highly sensitive to random disturbances. Therefore, success of a biomanipulation program requires a thorough understanding of biological

community and population structure prior to implementation. Monitoring would also be required to ensure that adjustments could be made in a timely matter.

Biomanipulation can be cost-effective and result in secondary benefits (e.g., improved recreational fishery), but manipulating a complex food web within a variable natural environment leads to low predictability of outcome.

Estimated Costs

Costs to stock predatory fish depend on the supplier and the sizes stocked. However, a cost of $1,000/acre to $3,000/acre would be anticipated.

5.3.5 Sonication

Sonic disruption technologies utilize ultrasound for the control of phytoplankton (algae). These devices generate specific ultrasound frequencies (inaudible to the human ear), that are emitted from a transducer located under the water surface. The frequency is "tuned" to generate structural resonance in the specific targeted subset of phytoplankton. In cyanobacteria, sonication disrupts vacuoles, causing them to lose buoyancy control and sink to the pond bottom where they eventually starve. In other types of phytoplankton (e.g., green algae), sonication damages inner cell walls, thereby preventing nutrient transfer and the ability of the cell to successfully reproduce. These changes lead to a gradual loss of viability in the target phytoplankton over the course of several days to several weeks. Sonication does not directly cause lysis (splitting) of algal cells, which may reduce or prevent the direct release of toxins from toxigenic species.

Due to the nature of ultrasound waves, these devices are only effective on waters that are in "line-of-of sight" to the sonication buoy. Therefore, any islands, peninsulas, or other shoreline irregularities would minimize their effectiveness and require additional buoys to achieve full coverage of the pond..

Sonication offers less immediate results than most other algae control measures. Sonic disruption technology is best implemented in a natural pond system by suspending the sonic device in the water from a solar powered buoy anchored to the pond bottom.

Sonic disruption device anchored in a reservoir with a solar buoy.

However, sonication systems are still relatively unproven outside of controlled aquatic systems in Europe and little information is available in the peer-reviewed literature. Manufacturers indicate that sonication buoys can manage up to 50 acres per buoy, although this would apply to ideal and unobstructed conditions. Anecdotally, where these systems have been used in New England, they appear to have some effect on algal growth but not on a large enough scale to be a cost-effective management option.

Estimated Costs

Costs to purchase and install each buoy are approximately $50,000 to $70,000 with additional costs for annual maintenance ($15,000 to $20,000). The acreage and elongate morphology of Santuit Pond suggest that four to five sonication buoys would be the minimum for whole-pond control of algae blooms, which would imply a minimum capital expenditure of at least $200,0000. However, a pilot-scale deployment or a single buoy could be implemented at a reduced cost.

6.0 POTENTIAL FUNDING OPTIONS

Although a number of funding opportunities exist to address watershed water quality and stream continuity issues, fewer funding opportunities are targeted specifically to in-pond management work. However, a few potential funding sources are available, as described in this section.

In-pond management projects are often funded directly by communities or through locally generated funding sources, such as the Community Preservation Act (CPA), which can also leverage state funds. The Mashpee Community Preservation Committee is responsible for funding these projects in the Town of Mashpee. Maintenance projects are not eligible for funding through this program. However, costs associated with assessment, design, and permitting of projects in an acceptable category may be. Additionally, project implementation may also be eligible as long as the project is not considered to be a maintenance activity.

The state Municipal Vulnerability Preparedness program may also be a source of funding through an MVP Action Grant. This grant program is relatively new and is focused on adaptation to climate change impacts. To be eligible, a project must specifically address how it will prepare the community and its environmental resources for resiliency in the face of climate change impacts.

Other state and federal funding opportunities (including loan programs) that may be relevant to Santuit Pond frequently arise through the Southeast New England Program (SNEP), the New England Interstate Water Pollution Control Commission (NEIWPCC), and various state grant programs (e.g., Massachusetts Environmental Trust). However, the funding, focus, and requirements of these programs may vary from year-to-year. Therefore, it may be worthwhile to evaluate these programs for potential project funding on an annual basis.

Finally, the state-managed Section 319 grant program is funded annually and targets projects that implement nonpoint source reductions. The Section 319 grant program typically requires a 40% non-federal match and an EPA "nine key elements" watershed-based plan. However, the grants can be used to fund project permitting, final design, and implementation. MassDEP has also awarded Section 319 grants to fund in-pond nutrient loading controls, including alum treatment. Recent awards of this nature include West Monponsett Pond in Halifax and Lake Attitash in Amesbury. Typical award values range from $100,000 to $300,000 but awards outside of this range are occasionally made.

In most cases, grant proposals that specifically address the primary concerns of the funding program, document some form of match, and demonstrate broad support, collaboration, and commitment will be more likely to receive funding.

7.0 REFERENCES

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TOWN OF MASHPEE

OFFICE OF THE SELECT BOARD

16 Great Neck Road North
Mashpee, Massachusetts 02649
Telephone – (508) 539-1401
bos@mashpeema.gov

MEMORANDUM

Date: March 30, 2023

To: Rodney C. Collins, Town Manager and
Honorable Members of the Select Board

From: Stephanie A. Coleman, Administrative Secretary

Re: Board, Committee and Commission: Resignations and Appointments

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Description

Discussion and Approval of the Following Resignations and Appointments:

Resignation:
Mashpee Community Garden Advisory Committee: *John Carter (Term Expires June 30, 2023)*

Appointments:
Cape Cod Commission, Mashpee Representative: *Ernest Virgilio (Term: April 25, 2023-April 24, 2026)*
Board of Registrars: *Ernest Virgilio (Term Expires March 31, 2025); Yvonne Courtney (Term Expires March 31, 2026)*
Conservation Commission: Member at Large: *Sandra Godfrey (Term Expires June 30, 2023)*

John M. Carter

Mashpee, Ma. 02649

March 16, 2023

Town of Mashpee
Board Of Selectmen
Mashpee Town Hall
16 Great Neck Road North
Mashpee, Ma. 02649

Members of The Board,

Please accept this letter as my formal resignation from my appointed position on the Mashpee Community Advisory Committee, effective March 16,2023.

In light of the recent allegations of racism on my part during my service on this committee, and on advice of legal counsel, I cannot continue to serve or support The Town of Mashpee in any way.

Please remove my name and any personal information from the MCGAC portion of the Town Of Mashpee website at your earliest convenience.

John M. Carter

Cc Virginia Scharfenberg

Chair, MCGAC

TOWN MANAGERS OFFICE
MAR 20 '23 PM5:04

3225 MAIN STREET • P.O. BOX 226
BARNSTABLE, MASSACHUSETTS 02630

(508) 362-3828 • Fax (508) 362-3136 • www.capecodcommission.org

CAPE COD
COMMISSION

March 16, 2023

Board of Selectmen
Town of Mashpee
16 Great Neck Road North
Mashpee, MA 02649

RE: Mashpee Representative to the Cape Cod Commission

Dear Board of Selectmen:

As you know, towns are requested to appoint a representative to the Cape Cod Commission for a term of three years. After reviewing our records, we noted that your town's appointment is due to expire on April 24, 2023.

Your current member, Ernest Virgilio has expressed his interest in continuing to serve as the Mashpee Representative to the Cape Cod Commission for another term. Therefore, at this time, I would ask your Board to consider reappointing Mr. Virgilio or make a new appointment, for the **three-year term effective April 25, 2023 through April 24, 2026.** According to legislation, all appointments are for three years and all members must be residents and registered voters in Barnstable County.

As you consider your appointment for this position, please know that I am available at your convenience to discuss this with you. Enclosed for your review are the *"Roles and Responsibilities of Cape Cod Commission Members."*

Please forward all appointment letters to Lisa Dillon at the Cape Cod Commission office at the address above. Thank you for your prompt attention to this matter.

Sincerely,

Harold W. Mitchell

Harold W. Mitchell, Chairman

Enclosure

cc: Ernest Virgilio, Mashpee Representative
Lisa Dillon, Commission Clerk

TOWN MANAGERS OFFICE
MAR 20 '23 PM4:43

CAPE COD COMMISSION

CAPE COD COMMISSION

Roles and Responsibilities of Cape Cod Commission Members

The Cape Cod Commission was created in 1990 by an Act of the Massachusetts General Court and confirmed by a majority of Barnstable County voters to protect the region's unique natural, coastal, historical, cultural, and other values.

The Commission functions as a department of Barnstable County, but is funded separately through the Cape Cod Environmental Protection Fund and other sources. Its work is divided into three major areas: **planning**, **technical assistance**, and **regulation**. The Cape Cod Regional Policy Plan, adopted as an ordinance of Barnstable County, sets the goals, priorities, and performance standards used in its regulatory work.

3225 Main Street
Barnstable, MA 02630
508-362-3828 | www.capecodcommission.org

COUNTY OF BARNSTABLE • MASSACHUSETTS •

Commission Activities

Among other areas, technical assistance is provided to Cape communities on:

- Land use planning
- Transportation
- Economic development
- Water quality and supply
- Solid and hazardous waste management
- Affordable housing
- Land protection

Commission planners and technical staff have expertise in a wide variety of areas, such as landscape architecture, land use planning, economic development, affordable housing, historic preservation, wetland and wildlife resources, water resources, coastal resources, waste management, transportation planning, and geographic information and mapping.

Commission Makeup

The Cape Cod Commission is made up of 19 appointed members, including representatives from each of Barnstable County's 15 towns; one County Commissioner, one Native American, one Minority Representative, and a Governor's appointee. All members are citizen volunteers who receive and evaluate information from the agency's professional staff, consider policies to guide the agency's activities, and make regulatory decisions about development proposals under the agency's jurisdiction.

Meetings of the Commission Board and Standing Committees

The full 19-member Cape Cod Commission board generally meets every other Thursday afternoon in the First District Courthouse of the Barnstable County Complex (off Route 6A) in Barnstable. Meetings last about two hours.

Commission members may also be asked by the board's chair (elected by the members annually) to serve on a standing committee. Participation is voluntary on the Committee on Planning and Regulations. The Executive Committee's includes the Chair, Vice Chair, Secretary, and Pre-

vious Past Chair. Standing committees generally meet in the Commission office to discuss issues prior to meetings of the full Commission.

Regulatory Responsibilities

Commission members are expected to serve on regulatory subcommittees to review specific Development of Regional Impact (DRI) proposals. Members rely on the technical expertise of the agency's staff – a diverse group of professionals who gather and interpret data and advise on project consistency with the Regional Policy Plan's standards to make decisions. The evaluation of data and benefits and detriments of a project are vested in Commission members. In this way, members serve as "quasi-judicial" officials.

DRI subcommittees review written applications, materials, and reports; conduct required public hearings; and hold public meetings to discuss issues and concerns and to formulate their recommendations about the DRI decisions to be voted on by the full membership of the Cape Cod Commission.

Depending on the nature and complexity of a development proposal, regulatory subcommittee work can require a significant commitment of time. Meetings may take place during the day and in the evening. Whenever possible, the first hearing is held in the town where the project is proposed. Other hearings and meetings may also be held there or in Barnstable. Preparation for and travel to meetings add to the time commitment.

Community Responsibilities

Commission members also serve as liaisons with their towns. Making periodic reports about Commission activities to the Board of Selectmen (or the Town Council, in the case of Barnstable) is an important duty. Within the limits defined by the state Open Meeting Law and the agency's own Public Relations Policy and the Communications Policy for Cape Cod Commission Members, members should make themselves available to answer questions and provide information about Commission activities.

Regional Advisory Responsibilities

Commission members are an advisory board responsible for guiding many of the agency's policies and initiatives. Members may also be appointed to represent the agency on special committees or other boards. Most importantly, members help the agency fulfill its mission and uphold the Cape Cod Commission Act and ordinances adopted by Barnstable County.

Communication Rules for Commission Members

Cape Cod Commission members serve in several different roles:

1. They are representatives of and liaisons to the 15 Cape towns and Barnstable County residents.
2. They are regional policy makers in issue areas such as land use, transportation and affordable housing.
3. They are quasi-judicial board members regulating development proposals.

In the first two roles, members are encouraged to communicate freely and regularly with local and county officials and the general public. In the third role, however, Commission members are more limited in when and how they may communicate.

Members of Development of Regional Impact subcommittees and the full Commission serve in quasi-judicial roles during project review and the DRI appeal period.

Each member must confine his or her review to the oral and written information received during the public hearing process.

Cape Cod Commission members have adopted and follow written policies governing their communications. The primary policies are the **Communications Policy for Cape Cod Commission Members** (approved June 12, 2008) , and the **Cape Cod Commission Public Relations Policy** (approved July 9, 2007).

CAPE COD COMMISSION

3225 Main Street
Barnstable, MA 02630
508-362-3828 | www.capecodcommission.org

Deborah Kaye
Town Clerk
(508) 539-1418
dkaye@mashpeema.gov

Office of the Town Clerk
Mashpee Town Hall
16 Great Neck Road North
Mashpee, MA 02649

To:Board of Selectmen

From: Deborah F. Kaye
Town Clerk

Date: March 21, 2023

Re: Reappointment of Registrar Members

The term for Ms. Yvonne Courtney, a member of the Board of Registrars, will expire on March 31, 2023. Ms. Courtney represents the "Democratic" voters of Mashpee. Attached is the Democratic Committee's recommendation that Ms. Courtney be reappointed for a three-year term.

The term for Mr. Ernest Virgilio, a member of the Board of Registrars, expired on March 31, 2022. Mr. Virgilio represents the "Republican" voters of Mashpee. Attached is the Republican Committee's recommendation that Mr. Virgilio be reappointed for a two-year term.

Since Ms. Courtney and Mr. Virgilio have performed their duties in a manner that is above reproach and therefore have my full support for their reappointment.

At this time I would ask that the Select Board reappoint Ms. Courtney to a term to expire on March 31, 2026 and reappoint Mr. Virgilio to a term to expire on March 31, 2025.

Mashpee Republican Town Committee
Dino's Sports Bar Rte 151

Meeting open 4:30 - Call to order

In attendance Bill Kelley
Betty Kelley
Phyllis Sprout
Owen Mahoney

motion: Put into nomination three names for consideration for Republican Registrar for the Town of Mashpee.

1. Earrie Virgilio
2. Owen Mahoney
3. Phyllis Sprout

motion: ~~Owen~~ Mahoney

Second ~~Betty~~ Kelley

Vote ~~voted the~~ slate

Meeting ~~A~~ Closed 4:32

Secretary Temp.

Phyllis Sprout

MASHPEE TOWN CLERK
FEB 13 '23 AM11:00

Chairman

Re: Yvonne Courtney - Reappointment to Board of Registrars

Catherine Gallagher <.
Tue 3/14/2023 8:18 PM
To: Deb F. Dami <dkaye@mashpeema.gov>

Attention!: : Links contained herein may not be what they appear to be.☠. Please verify the link before clicking! Ask IT if you're not sure.

Hi Deb,

The Committee met today and we agreed that Ms. Courtney would continue to make a great representative to the Mashpee Board of Registers. We unanimously voted to support her reappointment.

Catherine Gallagher
Mashpee Democratic Town Committee
Chairperson

On Feb 16, 2023, at 2:00 PM, Deb F. Dami <dkaye@mashpeema.gov> wrote:

Hi Catherine,

At your next Democratic Town Committee meeting, would you be so kind as to add to your agenda the reappointment of Ms. Courtney to the Mashpee Board of Registrars. Yvonne has done a fine job over the last year.

Deb

Deb Kaye, MMC, CMMC
Town Clerk
16 Great Neck Road North
Mashpee, MA 02649
P: 508-539-1400, 8534
F: 508-539-1142
C: 508-776-6349

Practice random acts of kindness.

Commissioner change of status

Andrew McManus <amcmanus@mashpeema.gov>

Wed 3/29/2023 11:44 AM

To: Terrie Cook <tmcook@mashpeema.gov>

Cc: Rodney C. Collins <rccollins@mashpeema.gov>;Wayne E. Taylor <wtaylor@mashpeema.gov>;Paul D Colombo

Hi Terrie,

The Conservation Commission voted to unanimously approve/endorse the change of status of current Associate Commissioner Sandi Godfrey, to full time. This vote took place at the Commission's March 23rd, 2023 public meeting.

Can we add this to the next Select Board agenda for their approval? We did the same process when previous associate commissioner Erin Copeland was endorsed for full time status. Let me know if there are any questions.

Sincerely,

-Drew

Drew McManus
Town of Mashpee Conservation Agent
Office: 508-539-1400 X8539
Cell: 774-836-0945
amcmanus@mashpeema.gov

"We in America do not have government by the majority, we have government by the majority who participate"
-Thomas Jefferson

"In the end, our society will be defined not only by what we create but what we refuse to destroy"
-John C. Sawhill, The Nature Conservancy

December 10, 2022

Dear Chairperson Weeden and Honorable Select Board Members,

I am writing to express my interest in the vacancy on the Conservation Commission. I am interested in serving as either Full or Associate Commissioner. I have owned my home in Mashpee since 1990 and have been a full-time resident since 2008.

I bring 37 years of administrative experience at Harvard University that would be immediately transferrable to work on the Conservation Commission. For example, at Harvard I regularly organized and facilitated meetings for faculty and administration. I have experience with Robert's Rules of Order and am thus ready to participate in Conservation Commission meetings. At Harvard, I also conducted preliminary reviews of student entrance applications and transcripts based on University standards. This skill set will directly transfer to the careful and thoughtful review of applicants' proposals to the Conservation Commission based on Massachusetts and local wetlands regulations.

As an environmentalist and an avid distance walker, I am intimately familiar with most areas of Mashpee. Further, I have the time and energy to participate in site visits for proposed projects.

Yours truly,

Sandra Godfrey

cc: Andrew McManus, Conservation Agent

Paul Colombo, Conservation Commission Chair

Town of Mashpee
Select Board

Policy No: 081

Public Participation at Public Meetings

I. INTRODUCTION

The Mashpee Select Board welcomes everyone to its meetings and meetings of all other public Town boards, committees and commissions. All regular and special meetings of boards, committees and commissions shall be open to the public and shall conform at all times to the requirements of the Open Meeting Law of the Commonwealth of Massachusetts. (See Chapter 30A, Section 20 of Massachusetts General Laws) and Town General Bylaw Chapter 7 (Public Records and Open Meetings). The public shall be precluded from attending an executive session meeting of a public body for a valid reason pursuant to MGL Chapter 30A, Section 21. (Meeting of public body in executive session). All comments made by the public during meetings shall comport with this Policy and all speakers are encouraged to be civil and respectful.

II. AUTHORITY OF CHAIR

No person shall address a meeting of a public body without permission of the Chair (presiding official), and all persons shall, at the request of the Chair, be silent. No person shall disrupt the proceedings of a meeting of a public body. If a person: 1) Speaks out of order, 2) Engages in other disorderly or disruptive conduct during a meeting, 3) Attempts to engage in dialogue regarding pending litigation or other subject matter otherwise subject to executive session privilege, or 4) Attempts to address a matter that is not within the public body's scope of authority or jurisdiction (unless such comment is made within a designated "Public Comment Segment" for which no particular subject matter is identified on the meeting agenda), the Chair, in order to assure the orderly and peaceable conduct of the meeting, may, in their discretion, rule said person out of order, and, after clear warning from the Chair, may order the person to cease and desist such conduct. If, notwithstanding such order, a person continues to disrupt the proceedings, the Chair may order the person to withdraw from the meeting, and if the person does not withdraw, the Chair may authorize a constable or other duly authorized officer to remove the person from the meeting if necessary to maintain peace and good order. (See Massachusetts General Law Chapter 30A, Section 20, sub-section (g)). Notwithstanding the limitations outlined within this section, citizens may offer petitions, presentations, criticism of a policy or practice, or reference any matter of public interest without being considered "out of order", consistent with the constitutional rights of free speech and assembly and in due recognition of the principle that a public body cannot prevent all speech at a public meeting that may be upsetting and/or offensive to others.

III. PUBLIC HEARING COMMENTS

If a public hearing is posted within a public meeting, input from the public shall be permitted on the subject matter of the public hearing when the Chair invites public comment on such agenda item. Any person requesting to make a comment should identify themselves and state their address for the record of the proceedings.

IV. COMMENTS ON PUBLIC HEARING AGENDA ITEMS

If the Chair decides to allow public comment on a specific agenda item, other than comment from a person with a particular interest in the said agenda item, the comment time for each such person shall generally be limited to three (3) minutes or such other duration as may be deemed appropriate by the Chair. Any person requesting to make a comment should identify themselves and state their address for the record. Large groups addressing the same topic and offering similar sentiments are encouraged, but not required, to consolidate their remarks for meeting efficiency purposes.

V. PUBLIC COMMENT SEGMENTS OF MEETINGS

It is the policy of the Select Board to facilitate and encourage public engagement in Town matters of general public interest. To that end, the Board will routinely provide a public comment opportunity at its meetings. Public comment shall be subject to the Chair's authority to ensure that a meeting is conducted in an orderly and peaceable manner and that comments can be made in an open and welcoming atmosphere without regard to the content thereof.

Public comment periods provide an opportunity to address matters of public concern to the Board for future Board action or response. Public comment segments of meetings are intended to afford speakers an opportunity to address matters of broad public interest, to raise an individual concern, and to address matters of public policy. To that end, speakers are encouraged to be civil and respectful. Should a member of the public have issue with an individual Board member, town employee or other person, it is recommended that such concern be expressed and presented to the Board ,in writing, and the matter will, as warranted, be investigated and addressed at a future meeting.

The Chair may set reasonable time, place and manner standards for the conduct of public comment segments of meetings as follows:

1. Set reasonable time limits on individual comments at the start of the public comment period.
2. Ask all speakers to sign up in advance of the commencement of the comment period.
3. Recognize speakers prior to anyone addressing the Board.
4. Direct all speakers to address the Board from the lectern or table facing the Board unless any speaker requires a special accommodation to speak from another location.
5. Rule any speaker out of order for violating this Policy or,as the Chair may deem necessary, to assure that the meeting is conducted in an orderly and peaceable manner.
6. Suspend or adjourn the meeting should a speaker fail, after appropriate warning, to adhere to directions from the Chair.
7. Take any other action needed to allow the business before the Board to be conducted in an orderly and peaceable manner.

If the posted agenda for a public meeting includes a "public comment" item, input from the public shall be permitted when the Chair acknowledges said item on the agenda. Members of the public shall sign up or request to speak at the time designated by the Chair. Comments from the public shall generally be limited to three (3) minutes for each individual. Any person requesting to make a comment should identify themselves and state their address for the record. Large groups addressing the same topic are encouraged to consolidate their remarks.

VI. RESPONSE TO PUBLIC COMMENTS

Upon closing of a public hearing, further public comments on the subject matter of the hearing shall not be heard. If public comments are allowed by the Chair with respect to a posted agenda item, further discussion/additional comment may be permitted in the discretion of the Chair. If an individual makes comments during a "public comment segment" of a meeting, consistent with requirements of the Open Meeting Law, the public body will generally not discuss or respond to such comments, except under extenuating circumstances and only if the Chair permits. General public comment segments of public meetings are not intended to initiate discussion, debate, or dialogue between and among the public body and an individual on any matter which is not duly identified and posted in the meeting agenda; rather, they are intended to provide citizens with an opportunity to express a statement or opinion in the public forum of the public body.

VII. REASONABLE ACCOMMODATIONS

Any person who wishes to make a public comment before any board, committee or commission and requires accommodations on the basis of a speech-related disability or who requires language interpretation services may be allotted a total of five minutes to present their comments. Speakers should notify the board, committee or commission forty-eight (48) hours in advance by telephone if such arrangements need to be made.

Adopted by the
Mashpee Board of Selectmen
September 23, 2019
Revised May 23, 2022
Proposed for Revision April 3, 2023