



Barnstable County

Regional Government of Cape Cod

Mary Pat Flynn
Falmouth

Sheila Lyons
Wellfleet

Leo Cakounes
Harwich

Board of Regional Commissioners

AGENDA

POSTED
12/05/16 09:50 a.m.

Commissioner's Meeting Room
Superior Courthouse
3195 Main Street, Barnstable, MA 02630
Wednesday, December 7, 2016
10:00 a.m.

Call to Order

Pledge of Allegiance

Moment of Silence

1. Public Comment

2. General Business

- a. Discussion of Fiscal Year 2017 first quarter financial reports.
- b. Discussion and motion to modify the salary of the Barnstable County Register of Deeds, commencing in Fiscal Year 2017, for services rendered as register and assistant recorder of the land court, to be equivalent to the Barnstable County Register of Probate, as set out in MGL Chapter 217, 35A.
- c. Discussion and potential vote regarding an updated Barnstable County Sexual Harrassment and Discrimination Policy.
- d. Discussion and potential vote regarding the establishment of a Barnstable County Protected Class Harassment Policy and Procedures.
- e. Discussion and possible vote regarding the swearing in of County Commissioners by the Cape Cod Regional Government Clerk.

3. New Business – Other business not reasonably anticipated by the Chair

4. Commissioners' Actions

- a. Approval of the November 30, 2016 meeting minutes.

* If you are deaf or hearing impaired or are a person with a disability who requires an accommodation, contact the Commissioner's Office at 508-375-6648 at least 24 hours in advance of the meeting*

The County Commissioners' meeting may be viewed in real time at
<https://www.youtube.com/user/BarnstableCounty>, www.barnstablecounty.org





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- b. Appointment to the Executive Committee of the Cape Cod Hoarding Task Force of: Erika Woods for the term of December 1, 2016 through November 30, 2017; Paul Wild for the term of December 1, 2016 through November 30, 2017; Beth Albert for the term of December 1, 2016 through November 30, 2017; Lori Miranda for the term of December 1, 2016 through November 30, 2018; Kevin Grunwald for the term of December 1, 2016 through November 30, 2018; Lynn Mulkeen for the term of December 1, 2016 through November 30, 2018; Deborah Scavotto for the term of December 1, 2016 through November 30, 2019; and Kalliope Egloff for the term of December 1, 2016 through November 30, 2019 .
- c. Approval of Jack Yunits timesheet for the payroll period of 11/13/16 – 11/26/16.
- d. Approval of extension of vacation carry over requests for Mary McIssac and Joanne Nelson.
- e. Approval of an Estoppel Certificate for the Dennis Community Housing Preservation Associates Limited Partnership, owner of the Melpet Farms Rental Development in Dennis.
- f. Approval of an amendment to the contract with Desmond Well Drilling to provide well drilling services at the Fire Training Academy.
- g. Agreement with Provincetown Center for Coastal Studies for water quality monitoring of Cape Cod Bay, Buzzards Bay, and Nantucket Sound for fiscal years 2017 – 2019.
- h. Agreement with the Town of Eastham for water a quality monitoring and permeable reactive barrier investigation project for Eastham's Salt Pond from November 16, 2016 to June 30, 2018.
- i. Agreement with the Town of Falmouth for a water quality monitoring project for several Falmouth South Coast and West Falmouth locations through June 30, 2019.

5. County Commissioners' Reports

6. County Administrator's Report

Adjourn

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BARNSTABLE COUNTY
BUDGETED REVENUES
FISCAL YEAR 2017

| REVENUE SOURCE | FY2017 BUDGETED REVENUE | % OF BUDGET | JULY 2016 - SEPTEMBER 2016 ACTUAL REVENUE | REMAINING REVENUE TO COLLECT | % COLLECTED |
|---|-------------------------------|----------------|--|------------------------------------|----------------|
| TAX REVENUES: | | | | | |
| County Tax Assessment | 3,123,037 | 11.18% | 52,005 | 3,071,032 | 1.67% |
| CC Environmental Protection Tax | 3,348,321 | 11.99% | 55,757 | 3,292,565 | 1.67% |
| Registry of Deeds Tax | 9,850,000 | 35.26% | 3,005,303 | 6,844,697 | 30.51% |
| | <i>16,321,358</i> | <i>58.43%</i> | <i>3,113,065</i> | <i>13,208,294</i> | <i>19.07%</i> |
| INTERGOVERNMENTAL FUNDING: | | | | | |
| Court House Reimbursements | 1,500,000 | 5.37% | 388,775 | 1,111,225 | 25.92% |
| Procurement Fees | 1,000 | 0.00% | 0 | 1,000 | 0.00% |
| | <i>1,501,000</i> | <i>5.37%</i> | <i>388,775</i> | <i>1,112,225</i> | <i>25.90%</i> |
| GRANT CONTRACTS: | | | | | |
| Extension Service | 278,861 | 1.00% | 60,529 | 218,332 | 21.71% |
| County Health Department | 189,114 | 0.68% | 0 | 189,114 | 0.00% |
| Human Services | 447,876 | 1.60% | 156,048 | 291,828 | 34.84% |
| Children's Cove - Child Advocacy Center | 245,650 | 0.88% | 19,475 | 226,175 | 7.93% |
| Cape Cod Commission | 1,160,580 | 4.15% | 282,037 | 878,543 | 24.30% |
| | <i>2,322,081</i> | <i>8.31%</i> | <i>518,089</i> | <i>1,803,992</i> | <i>22.31%</i> |
| DEPARTMENT REVENUES: | | | | | |
| Resource Development Office | 30,000 | 0.11% | 0 | 30,000 | 0.00% |
| Finance Revenues | 18,000 | 0.06% | 5,000 | 13,000 | 27.78% |
| Building Rentals | 81,550 | 0.29% | 25,519 | 56,031 | 31.29% |
| Facilities Revenue | 36,900 | 0.13% | 9,489 | 27,411 | 25.72% |
| Extension Service | 89,000 | 0.32% | 19,552 | 69,448 | 21.97% |
| Registry of Deeds | 2,475,000 | 8.86% | 665,004 | 1,809,996 | 26.87% |
| Health Department Lab & Other | 600,000 | 2.15% | 169,032 | 430,968 | 28.17% |
| Health Department Sanitarian Services | 46,500 | 0.17% | 9,637 | 36,863 | 20.72% |
| Health Department Septic Repair Program | 314,130 | 1.12% | 208,380 | 105,750 | 66.34% |
| Health Department Septic System Test Center | 125,294 | 0.45% | 46,725 | 78,569 | 37.29% |
| Fire Training | 175,000 | 0.63% | 9,290 | 165,710 | 5.31% |
| Cape Cod Commission | 140,000 | 0.50% | 43,594 | 96,406 | 31.14% |
| License Plate Receipts - Rest Area | 34,834 | 0.12% | 12,134 | 22,700 | 34.83% |
| Miscellaneous Receipts | 65,500 | 0.23% | 9,886 | 55,614 | 15.09% |
| Interest Income | 160,000 | 0.57% | 5,531 | 154,469 | 3.46% |
| Joint Initiatives Revenues | 385,000 | 1.38% | 70,926 | 314,074 | 18.42% |
| IT/Regional Service Initiatives | 305,920 | 1.10% | 17,066 | 288,854 | 5.58% |
| | <i>5,082,628</i> | <i>18.20%</i> | <i>1,326,765</i> | <i>3,755,863</i> | <i>26.10%</i> |
| OTHER FUNDING SOURCES: | | | | | |
| Transfers In-General Fund | 0 | 0.00% | 0 | 0 | 0.00% |
| Treasury Balance (Reserves) | 200,000 | 0.72% | 200,000 | 0 | 100.00% |
| Assigned Fund Balance | 118,000 | 0.42% | 118,000 | 0 | 100.00% |
| CCEPF Reserve | 691,359 | 2.47% | 0 | 691,359 | 0.00% |
| | <i>1,009,359</i> | <i>3.61%</i> | <i>318,000</i> | <i>691,359</i> | <i>31.51%</i> |
| SUBTOTALS: | <i>26,236,426</i> | <i>93.92%</i> | <i>5,664,694</i> | <i>20,571,733</i> | <i>21.59%</i> |
| ENTERPRISE FUND: | | | | | |
| County Dredge Service | 1,697,504 | 6.08% | 346,717 | 1,350,787 | 20.43% |
| TOTALS: | 27,933,930 | 100.00% | 6,011,411 | 21,922,520 | 21.52% |

BARNSTABLE COUNTY
 GRANTS IN COUNTY BUDGET
 09/30/16

| Description | Original Budget | 07/16-09/16 Actual Revenues | Remaining Amount To Collect | % Collected |
|--|-------------------------|-----------------------------|-----------------------------|----------------------|
| <u>COOPERATIVE EXTENSION</u> | | | | |
| Coastal Geologist/Aquaculture Specialist/Marine Specialist | 171,554 | 41,311 | 130,243 | 24.08% |
| Municipal Assisting Host Community | 77,967 | 15,645 | 62,322 | 20.07% |
| Floodplain Outreach | 29,340 | 3,573 | 25,767 | 12.18% |
| | <u>278,861</u> | <u>60,529</u> | <u>218,332</u> | <u>21.71%</u> |
| <u>HEALTH DEPARTMENT</u> | | | | |
| Tobacco | 131,810 | 0 | 131,810 | 0.00% |
| Health & Medical Coordination Coalition | 57,304 | 0 | 57,304 | 0.00% |
| | <u>189,114</u> | <u>0</u> | <u>189,114</u> | <u>0.00%</u> |
| <u>HUMAN SERVICES</u> | | | | |
| HUD HOME Program | 37,000 | 4,626 | 32,374 | 12.50% |
| Serving the Health Needs of Everyone | 69,092 | 7,326 | 61,766 | 10.60% |
| Prevention Wellness Trust Fund | 88,294 | 88,294 | 0 | 100.00% |
| Continuum of Care | 52,600 | 11,121 | 41,479 | 21.14% |
| Opioid Abuse Prevention Collaborative | 100,000 | 22,792 | 77,208 | 22.79% |
| Substance Abuse Prevention Collaborative | 100,890 | 21,889 | 79,001 | 21.70% |
| | <u>447,876</u> | <u>156,048</u> | <u>291,828</u> | <u>34.84%</u> |
| <u>CHILDREN'S COVE</u> | | | | |
| SAIN | 75,400 | 14,050 | 61,350 | 18.63% |
| Department of Children & Families | 140,000 | 5,425 | 134,575 | 3.88% |
| Massachusetts Children's Alliance | 21,250 | 0 | 21,250 | 0.00% |
| National Children's Alliance | 9,000 | 0 | 9,000 | 0.00% |
| | <u>245,650</u> | <u>19,475</u> | <u>226,175</u> | <u>7.93%</u> |
| <u>CAPE COD COMMISSION</u> | | | | |
| Indirect Cost Reimbursements From Grants | 250,000 | 0 | 250,000 | 0.00% |
| US Dept of Transportation (Mass Dept of Trnsptn) | 602,110 | 186,893 | 415,217 | 31.04% |
| US Dept of Transportation (Federal Transit Trnsptn) | 68,470 | 22,644 | 45,826 | 33.07% |
| Regional Economic Strategy Executive Team | 240,000 | 72,500 | 167,500 | 30.21% |
| (from License Plate Funds) | <u>1,160,580</u> | <u>282,037</u> | <u>878,543</u> | <u>24.30%</u> |
| TOTALS | <u>2,322,081</u> | <u>518,089</u> | <u>1,803,992</u> | <u>22.31%</u> |

BARNSTABLE COUNTY
YEAR-TO-DATE EXPENDITURES
As of September 30, 2016

| <u>DEPT #</u> | <u>DESCRIPTION</u> | <u>CARRY-FORWARDS</u> | <u>ORIGINAL & SUPPLEMENTAL BUDGETS</u> | <u>YTD EXPENDITURES & ENCUMBRANCES</u> | <u>DIFFERENCE</u> | <u>% USED</u> |
|--------------------------------|----------------------------------|-----------------------|--|--|-------------------|---------------|
| <u>OPERATING BUDGET</u> | | | | | | |
| 100 | COUNTY COMMISSIONERS | 18,783 | 499,598 | 172,132 | 346,249 | 33.2% |
| 105 | INFORMATION TECHNOLOGY | 45,529 | 1,300,365 | 488,814 | 857,080 | 36.3% |
| 110 | RESOURCE DEVELOPMENT OFFICE | 60,994 | 922,587 | 278,128 | 705,453 | 28.3% |
| 130 | ASSEMBLY OF DELEGATES | 3,141 | 318,605 | 99,165 | 222,581 | 30.8% |
| 140 | FINANCE | 12,884 | 755,303 | 256,784 | 511,403 | 33.4% |
| 200 | FACILITIES | 40,320 | 2,442,257 | 675,394 | 1,807,183 | 27.2% |
| 230 | COOPERATIVE EXTENSION | 69,482 | 2,050,708 | 663,489 | 1,456,701 | 31.3% |
| 240 | REGISTRY OF DEEDS | 24,853 | 2,628,385 | 897,550 | 1,755,688 | 33.8% |
| 260 | JOINT INITIATIVES | 234,137 | 720,575 | 326,523 | 628,189 | 34.2% |
| 300 | HEALTH & ENVIRONMENT | 46,104 | 3,114,111 | 1,114,416 | 2,045,799 | 35.3% |
| 310 | HUMAN SERVICES | 85,286 | 1,121,854 | 454,670 | 752,470 | 37.7% |
| 320 | CHILDREN'S COVE | 14,180 | 737,799 | 218,783 | 533,196 | 29.1% |
| 330 | GRANTS FOR HUMAN SRVCS | 0 | 40,000 | 40,000 | 0 | 100.0% |
| 450 | SHERIFF'S RETIREES RETIREMENT | 0 | 1,334,120 | 1,334,120 | 0 | 100.0% |
| 460 | FIRE TRAINING ACADEMY | 36,684 | 443,555 | 133,040 | 347,199 | 27.7% |
| 500 | CAPE COD COMMISSION | 133,033 | 5,340,260 | 1,636,082 | 3,837,211 | 29.9% |
| 560 | WATER QUALITY INITIATIVES | 600,817 | 352,000 | 338,094 | 614,723 | 35.5% |
| 900 | FRINGE BENEFITS | 0 | 1,161,044 | 388,761 | 772,283 | 33.5% |
| 910 | MISC & CONTINGENCY EXP | 33,216 | 438,300 | 299,074 | 172,442 | 63.4% |
| 920 | DEBT SERVICE & INTEREST | 0 | 315,000 | 0 | 315,000 | 0.0% |
| 930 | APPROPRIATED RESERVES | 0 | 0 | 0 | 0 | 0.0% |
| | SUBTOTALS | 1,459,443 | 26,036,426 | 9,815,019 | 17,680,850 | 35.7% |
| 250 | ENTERPRISE FUND: DREDGE | 64,668 | 1,697,504 | 356,598 | 1,405,574 | 20.2% |
| 910 | TRANSFER TO SPECIAL REVENUE FUND | | 200,000 | 200,000 | 0 | 100.0% |
| | OPERATING BUDGET TOTALS | 1,524,111 | 27,933,930 | 10,371,617 | 19,086,424 | 35.2% |
| <u>CAPITAL BUDGET</u> | | | | | | |
| 105 | INFORMATION TECHNOLOGY | 248,300 | 325,000 | 130,086 | 443,214 | 22.7% |
| 200 | FACILITIES | 3,487,215 | 395,000 | 25,149 | 3,857,066 | 0.6% |
| 250 | DREDGE | 2,000,000 | 0 | 1,897,500 | 102,500 | 94.9% |
| 260 | JOINT INITIATIVES | 152,002 | 0 | 0 | 152,002 | 0.0% |
| 300 | HEALTH & ENVIRONMENT | 16,493 | 130,000 | 0 | 146,493 | 0.0% |
| | CAPITAL BUDGET TOTALS | 5,904,010 | 850,000 | 2,052,735 | 4,701,275 | 30.4% |
| | GRAND TOTALS | 7,428,121 | 28,783,930 | 12,424,352 | 23,787,699 | 34.3% |

BARNSTABLE COUNTY SEXUAL HARASSMENT POLICY

I. Introduction

It is the goal of Barnstable County to promote a workplace that is free of sexual harassment. Sexual harassment of employees occurring in the workplace or in other settings in which employees may find themselves in connection with their employment is unlawful and will not be tolerated by this organization. Further, any retaliation against an individual who has complained about sexual harassment or retaliation against individuals for cooperating with an investigation of a sexual harassment complaint is similarly unlawful and will not be tolerated. To achieve our goal of providing a workplace free from sexual harassment, the conduct that is described in this policy will not be tolerated and we have provided a procedure by which inappropriate conduct will be dealt with, if encountered by employees.

Because Barnstable County takes allegations of sexual harassment seriously, we will respond promptly to complaints of sexual harassment and where it is determined that such inappropriate conduct has occurred, we will act promptly to eliminate the conduct and impose such corrective action as is necessary, including disciplinary action where appropriate.

Please note that while this policy sets forth our goals of promoting a workplace that is free of sexual harassment, the policy is not designed or intended to limit our authority to discipline or take remedial action for workplace conduct which we deem unacceptable, regardless of whether that conduct satisfies the definition of sexual harassment.

II. Definition of Sexual Harassment

In Massachusetts, the legal definition for sexual harassment is this: "sexual harassment" means sexual advances, requests for sexual favors, and verbal or physical conduct of a sexual nature when:

- a. submission to or rejection of such advances, requests or conduct is made either explicitly or implicitly a term or condition of employment or as a basis for employment decisions; or,
- b. such advances, requests or conduct have the purpose or effect of unreasonably interfering with an individual's work performance by creating an intimidating, hostile, humiliating or sexually offensive work environment.

Under these definitions, direct or implied requests by a supervisor for sexual favors in exchange for actual or promised job benefits such as favorable reviews, salary increases, promotions, increased benefits, or continued employment constitutes sexual harassment.

The legal definition of sexual harassment is broad and in addition to the above examples, other sexually oriented conduct, whether it is intended or not, that is unwelcome and has the effect of creating a work place environment that is hostile, offensive, intimidating, or humiliating to male or female workers may also constitute sexual harassment.

While it is not possible to list all those additional circumstances that may constitute sexual harassment, the following are some examples of conduct which if unwelcome, may constitute sexual harassment depending upon the totality of the circumstances including the severity of the conduct and its pervasiveness:

- Unwelcome sexual advances -- whether they involve physical touching or not
- Sexual epithets, jokes, written or oral references to sexual conduct, gossip regarding one's sex life; comment on an individual's body, comment about an individual's sexual activity, deficiencies, or prowess
- Displaying sexually suggestive objects, pictures, cartoons
- Unwelcome leering, whistling, brushing against the body, sexual gestures, suggestive or insulting comments
- Inquiries into one's sexual experiences, and
- Discussion of one's sexual activities

All employees should take special note that, as stated above, retaliation against an individual who has complained about sexual harassment, and retaliation against individuals for cooperating with an investigation of a sexual harassment complaint is unlawful and will not be tolerated by this organization.

III. Complaints of Sexual Harassment

If any of our employees believes that he or she has been subjected to sexual harassment, the employee has the right to file a complaint with the County. This may be done in writing or orally.

If you would like to file a complaint you may do so by contacting Assistant Director of Human Resources Justyna Marczak at 508 375 6646. Ms. Marczak is also available to discuss any concerns you may have and to provide information to you about our policy on sexual harassment and our complaint process.

IV. Sexual Harassment Investigation

When we receive the complaint we will promptly investigate the allegation in a fair and expeditious manner. The investigation will be conducted in such a way as to maintain confidentiality to the extent practicable under the circumstances. Our investigation will include a private interview with the person filing the complaint and with witnesses. We will also interview the person alleged to have committed sexual harassment. The results of the investigation will be documented.

If it is determined that inappropriate conduct has occurred, we will act promptly to eliminate the offending conduct, and where it is appropriate we will also impose disciplinary action.

V. Disciplinary Action

If it is determined that inappropriate conduct has been committed by one of our employees, we will take such action as is appropriate under the circumstances. Such action may range from counseling to termination from employment, and may include such other forms of disciplinary action as we deem appropriate under the circumstances.

VI. State and Federal Remedies

In addition to the above, if you believe you have been subjected to sexual harassment, you may file a formal complaint with either or both of the government agencies set forth below. Using our complaint process does not prohibit you from filing a complaint with these agencies. Each of the agencies has a short time period for filing a claim (EEOC - 300 days; MCAD - 300 days).

[The United States Equal Employment Opportunity Commission](#) ("EEOC")

[The Massachusetts Commission Against Discrimination](#) ("MCAD")

Adopted by the Board of County Commissioners on December 7, 2016.

ACKNOWLEDGMENT OF RECEIPT

I, _____, an employee at _____, hereby

PRINT NAME

PRINT DEPARTMENT

acknowledge that I received a copy of the Barnstable County Sexual Harassment Policy.

Signature

(date)

Barnstable County

HARASSMENT OF INDIVIDUALS IN PROTECTED CLASSES:¹

POLICY AND PROCEDURES

I. Policy

A. Introduction

Barnstable County (the “County”) depends upon a work environment of tolerance and respect for the achievement of its goals. The County is committed to providing a working environment that is free of all forms of abuse, harassment, or discrimination. The County recognizes the right of all employees to be treated with respect and dignity.

Harassment on the basis of race, religion, creed, color, national origin, sex/gender, gender identity, age, physical or mental disability, sexual orientation, criminal record (inquires only), ancestry, retaliation, sexual harassment or genetic information (hereafter referred to as “protected class harassment”) is a form of behavior that adversely affects the employment relationship. It is prohibited by federal and/or state law. Protected class harassment of individuals occurring in the workplace or in other settings in which individuals of the County may find themselves in connection with their employment is unlawful and will not be tolerated by the County. The County also condemns and prohibits protected class harassment by any applicant, client, vendor or visitor.

Because the County takes allegations of protected class harassment seriously, it will respond promptly to complaints of protected class harassment and where it is determined that inappropriate conduct has occurred, it will act promptly to eliminate the conduct and impose such corrective action as is necessary, including disciplinary action where appropriate, including discharge.

It is important to note that while this policy sets forth our goals of promoting a workplace that is free of protected class harassment, the policy is not designed or intended to limit our authority to discipline or take remedial action for workplace conduct which we deem unacceptable, regardless of whether that conduct satisfies the definition of protected class harassment.

B. Definition of Protected Class Harassment

Protected class harassment refers to behavior, which is not welcomed by the employee, which is personally offensive to him or her, and which undermines morale and/or interferes with the ability of the employee to work effectively. While it is not possible to list all of the circumstances that may constitute protected class harassment, depending upon the totality of the facts, including the severity of the conduct and its pervasiveness, following is a list of situations that could constitute protected class harassment. The list of situations is non-exhaustive:

- verbal abuse on the basis of any protected status;
- use of words that degrade a protected class or person because of his/her protected class status;

¹ Sexual harassment is covered by a separate policy, which has been issued to all employees.

- jokes or language about a protected class;
- obscene or suggestive gestures or sounds intended to relate to the protected class;
- teasing related to the protected class;
- verbal comments of a nature about an individual's appearance or terms used to describe an individual that are related to the individual's protected class;
- verbal abuse, comments, jokes, teasing or threats directed at a person because of his/her protected class status;
- posting or distributing objects, pictures, cartoons or other materials degrading to the protected class or a person because of his/her protected class status;
- letters or notes that degrade the protected class or a person because of his/her protected class status;
- sending offensive or discriminatory messages or materials through the use of electronic communications (e.g., electronic mail, including the Internet, voice mail and facsimile) which are degrading to the protected class or a person because of his/her protected class status;
- condoning harassment on the basis of protected class.

Harassment on the basis of protected class status is not limited to behavior by a non-member of the protected class. Protected class harassment can occur in a variety of circumstances. Here are some things to remember:

- The harasser does not have to be the victim's supervisor;
- A member of the protected class may be victimized by another member of the protected class;
- The victim does not have to be the person at whom the unwelcome protected class harassment is directed. The victim may be someone who is affected by the harassing conduct, even when it is directed toward another person, if the conduct creates an intimidating, hostile, or offensive working environment for the co-worker or interferes with the co-worker's work performance.

Individual Responsibilities

Each individual of the County is personally responsible for:

- ensuring that his/her conduct does not harass any other employee or person with whom the employee comes in contact on the job, such as an outside vendor;
- cooperating in any investigation of alleged protected class harassment by providing any information he/she possesses concerning the matter being investigated;
- actively participating in efforts to prevent and eliminate protected class harassment and to maintain a working environment free from such discrimination; and
- ensuring that an employee who files a protected class harassment claim or cooperates in an investigation may do so without fear of retaliation or reprisal.

C. The Rule

It is, therefore, against the policy of the County for any individual, whether a member of a protected class or not, whether an employee or supervisor, to harass another individual on the basis of protected class status by:

- making submission to such conduct is made either implicitly or explicitly a term or condition of an employee's employment;
- making submission to, or rejection of, such conduct by an individual is made the basis for employment decisions affecting the employee;

- intending to or having the effect of interfering with an individual's work performance; or
- by creating a hostile or intimidating work environment for the employee.

It is also against the policy of the County for an individual to harass any person with whom the employee comes in contact on the job or to engage in any protected class harassment or inappropriate or unprofessional conduct in the workplace.

D. Retaliation

Retaliation against an individual for filing a complaint of protected class harassment or discrimination, or against any individual for assisting another file a complaint of protected class harassment or discrimination, or for cooperating in an investigation of a protected class harassment or discrimination complaint, is against the law, and will not be tolerated by the County.

II. Violation of Policy

Any individual violating this policy will be subject to disciplinary action, up to and including immediate discharge.

III. Procedures for Complaints

A. Complaint

The County has designated Assistant Human Resources Director Justyna Marczak to address any complaints. She can be reached at the Barnstable 3195 Main Street, Barnstable, MA and her telephone number is (508) 375-6646.

If any individual believes he or she has been subjected to harassment on the basis of his/her protected class, the individual should initiate a complaint by contacting the Ms. Marczak. The individual should file the complaint promptly following any incident of protected class harassment. The individual will be asked to write out his or her complaint to document the charge.

If an employee prefers to discuss a possible protected class harassment problem with his or her supervisor, the employee may always do so, but employees do not have to go through the regular chain of supervision when reporting protected class harassment and may go directly to Human Resources.

B. Investigation

On receiving the complaint, it will promptly be investigated. This process will be confidential to the extent consistent with an effective investigation, subject to the business needs of the County.

C. Decision

After the response of the charged individual has been made, and any further investigation that may be warranted has been carried out, the County will make a final decision. If the County finds that the allegations in the complaint have been established by the investigation, the County will initiate discipline of the charged individual. Discipline will be appropriate to the offense and employees involved, and may include discharge.

IV. State and Federal Agencies

The Massachusetts Commission Against Discrimination (“MCAD”), located at One Ashburton Place, Boston, MA 02108, and 436 Dwight Street, Springfield, MA 01103, is responsible for enforcing the Massachusetts discrimination and protected class harassment law. The U.S. Equal Employment Opportunity Commission (“EEOC”), located at JFK Federal Office Building, Government Center, Room 475, Boston, MA 02203, is responsible for enforcing the federal law prohibiting protected class harassment. The MCAD and EEOC may be contacted at the above addresses. A complaint to the MCAD or EEOC may be filed within 300 days of the last date of discrimination.

V. Acknowledgment of Receipt of Policy

I acknowledge receipt of this Protected Class Harassment Policy from the City, and I have read its contents.

Employee's Name (Print)

Employee's Signature

Witness

Date



BARNSTABLE COUNTY
DEPARTMENT OF HEALTH AND THE ENVIRONMENT
SUPERIOR COURT HOUSE
POST OFFICE BOX 427
BARNSTABLE, MASSACHUSETTS 02630

Phone: (508) 375-6613
FAX (508) 362-2603
TDD (508) 362-5885

Memo

To: Barnstable County Commissioners
From: Erika Woods, BCDHE, CCHTF Chair
cc:
Date: December 1, 2016
Re: Cape Cod Hoarding Task Force

At the November 30, 2016 meeting of the Barnstable County Commissioners, the draft guidelines for the formalization of the Cape Cod Hoarding Task Force (CCHTF) under the aegis of Barnstable County, to be administered by the BCDHE, was accepted by the County Commissioners. At that time a motion was made to request staggered term limits for all of the proposed members of the CCHTF Executive Committee.

Please find below a list of individuals we are requesting to be appointed to the Executive Committee of the CCHTF. Each term will end on November 30th of the year and individuals requesting appointment for vacant positions will be presented to the County Commissioners prior to that date.

| | |
|--|------------------|
| <i>Erika Woods, BCDHE</i> | <i>Exp. 2017</i> |
| <i>Paul Wild, Elder Services of CC&I</i> | <i>Exp. 2017</i> |
| <i>Deborah Scavotto, Smooth Moving for Seniors</i> | <i>Exp. 2019</i> |
| <i>Lori Miranda, Dennis Animal Control Officer</i> | <i>Exp. 2018</i> |
| <i>Kevin Grunwald, Harwich Council on Aging</i> | <i>Exp. 2018</i> |
| <i>Kalliope Egloff, Cape Cod Cooperative Extension</i> | <i>Exp. 2019</i> |
| <i>Beth Albert, Barnstable County Human Services</i> | <i>Exp. 2017</i> |
| <i>Lynn Mulkeen, BCDHE</i> | <i>Exp. 2018</i> |

Mary Pat Flynn

Sheila R. Lyons

Leo Cakounes

Date

BARNSTABLE COUNTY - NON-EXEMPT TIMESHEET (VER 2.0)

Period Beginning:

11/13/16

Jack Yunits

| | Sun | Mon | Tues | Wed | Thurs | Fri | Sat | Sun | Mon | Tues | Wed | Thurs | Fri | Sat |
|------------------|-----|------|------|------|-------|------|-----|-----|------|------|------|-------|-----|------|
| Time In: | | 8:30 | 8:30 | 8:30 | 8:30 | 8:30 | | | 8:30 | 8:30 | 8:30 | | | 8:30 |
| Lunch/Breaks: | | 0.50 | 0.50 | 0.50 | 0.50 | 0.50 | | | 0.50 | 0.50 | 0.50 | | | 0.50 |
| Time Out: | | 4:30 | 4:30 | 4:30 | 4:30 | 4:30 | | | 4:30 | 4:30 | 4:30 | | | 4:30 |
| Additional Time: | | | | | | | | | | | | | | |

TOTALS

| HOURS WORKED | | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | | | 7.50 | 7.50 | 7.50 | | | 7.50 | |
|--------------|--|------|------|------|------|------|--|--|------|------|------|--|--|------|-------|
| | | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | | | 7.50 | 7.50 | 7.50 | | | 7.50 | 67.50 |

| | | | | | | | | | | | | | | | | |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|------|--|--|--|------|
| Vacation | | | | | | | | | | | | | | | | |
| Sick | | | | | | | | | | | | | | | | |
| Personal | | | | | | | | | | | | | | | | |
| Holiday/Misc/Float | | | | | | | | | | | | 7.50 | | | | 7.50 |
| Comp Time Used | | | | | | | | | | | | | | | | |

| Daily Totals | Sun | Mon | Tue | Wed | Thu | Fri | Sat | Sun | Mon | Tues | Wed | Thurs | Fri | Sat | Total |
|--------------|-----|------|------|------|------|------|-----|-----|------|------|------|-------|------|-----|-------|
| | | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | | | 7.50 | 7.50 | 7.50 | 7.50 | 7.50 | | 75.00 |

Employee Signature:

Dept. Head Approval:

[Signature]

Compensatory Time Earned:

Compensatory Time Used:

| | |
|--|--|
| | |
| | |

Hourly Department Code Allocation

| | Sun | Mon | Tues | Wed | Thurs | Fri | Sat | Sun | Mon | Tues | Wed | Thurs | Fri | Sat | Total |
|--|-----|-----|------|-----|-------|-----|-----|-----|-----|------|-----|-------|-----|-----|-------|
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | |

Total cannot exceed 75 hours



NEEDS ACTION COVER SHEET

Submitted for : County Commissioners County Administrator

Date Submitted: 12/1/2016

Department: Human Services

Submitted by: Michelle Springer

Please select the document(s) being submitted:

- | | | |
|---|--|--|
| <input type="checkbox"/> Appointment(s) | <input type="checkbox"/> Bid Award | <input type="checkbox"/> Out-of-State Travel |
| <input type="checkbox"/> New Fund | <input type="checkbox"/> Fund Transfer | <input type="checkbox"/> Surplus Equipment |
| <input type="checkbox"/> Contract | <input type="checkbox"/> Contract Amendment | <input type="checkbox"/> Lease Renewal |
| <input type="checkbox"/> Prepayment | <input type="checkbox"/> Payment Authorization | <input checked="" type="checkbox"/> HOME Program |

Please complete the information below:

Vendor: _____ Amount: _____

Contract Period: _____ Org/Obj _____

Brief summary of request:

Estoppel Certificate for Dennis Community Housing Preservation Associates Limited Partnership owner of the Melpet Farms rental development located in Dennis.

This document has been reviewed by by our HOME Attorney Michael Dutton

For Finance Department internal use only:

Approved by: _____ Date _____
Chief Procurement Officer

Approved by: _____ Date _____
Director of Finance/Treasurer

ESTOPPEL CERTIFICATE

THIS ESTOPPEL CERTIFICATE is executed as of _____ by Barnstable County, a body politic of the Commonwealth of Massachusetts acting by and through its County Commissioners, (the "**Lender**")

Background

- A. The Lender is the holder of (i) a Promissory Note A dated November 13, 2014 made by Dennis Community Housing Preservation Associates Limited Partnership, a Massachusetts limited liability company (the "**Borrower**"), in the original principal amount of \$175,000 (the "**Note**") which Note is secured by, *inter alia*, that certain Mortgage dated November 13, 2014, recorded at the Barnstable Registry of Deeds at Book 28510, Page 111, granted by the Borrower in favor of the Lender (the "**Mortgage**") encumbering the property located at 812 Route 134, Dennis, Massachusetts, as more particularly described therein (the "**Property**"); and
- B. The Lender and the Borrower have entered into that certain Loan Agreement dated November 14, 2014 (the "**Loan Agreement**"), and various other related agreements (collectively, the "**Loan Documents**"); and
- C. The Lender is executing and delivering this Estoppel Certificate to U.S.A. Institutional Tax Credit Fund XCJX L.P., a Delaware limited partnership (the "**Investor**"), with the knowledge that it will be relied upon by the Investor.

Estoppel

NOW, THEREFORE, the Lender does hereby certify to the Investor as follows:

1. As of the date hereof, the unpaid principal balance of the Note is \$175,000, plus accrued, but unpaid, interest at the rate of 2.0 % per annum from the date of the Note through the date hereof.
2. To the best of the Lender's knowledge, the Borrower is not in default in the making of any payments required under the Notes or in the performance or observance of any covenants or obligations to be performed or observed by the Borrower under the Notes, the Mortgage or any of the Loan Documents.
3. To the best of the Lender's knowledge, there does not exist any event or condition which, with the passage of time or the giving of notice or both, would otherwise constitute a default by the Borrower under the Notes, the Mortgage, or any of the Loan Documents, or which would entitle the Lender to accelerate the payment or the indebtedness evidenced by the Notes or foreclose on the Property.

4. The agreements of Lender contained in this Certificate shall be binding on Lender and all Lender's assignees, transferees, and successors in interest.

LENDER:
BARNSTABLE COUNTY
By it Commissioners:

Name:

Name:

Name:

AMENDMENT
BETWEEN

Barnstable County
3195 Main Street
Barnstable, MA 02630

and

Desmond Well Drilling, Inc.
P.O. Box 2783
Orleans, MA 02653

THE AGREEMENT made the 1st day of December 2015, and ratified by the Commissioners on December 9, 2015 by and between Desmond Well Drilling, Inc. (hereinafter referred to as Contractor), and Barnstable County (hereinafter referred to as the County), but without any personal liability, is hereby amended as follows:

3. Time of Performance. Work in connection with the Agreement shall continue until November 30, 2017 or until the maximum contract amount of \$55,000.00 has been expended.

4. Payment. The County shall compensate the Contractor for services provided under Section 2, Scope of Services, at the rates provided in the Contractor's Bid, dated November 4, 2015, incorporated herein by reference.

This Amendment will not change any of the stipulations of the original, previously defined Agreement.

IN WITNESS WHEREOF, the County and Contractor have executed this Amendment this _____ day of _____ in the year two thousand and sixteen.

FOR BARNSTABLE COUNTY:

FOR THE CONTRACTOR:

Mary Pat Flynn, Chair

Sheila Lyons, Vice-Chair

Leo Cakounes, Commissioner

Date

Date

COUNTY OF BARNSTABLE
PURCHASING

DEPARTMENT OF FINANCE

SUPERIOR COURT HOUSE

P.O. BOX 427

BARNSTABLE, MASSACHUSETTS 02630

Phone: (508) 375-6637

Fax: (508) 362-4136

Email:

edavis@barnstablecounty.org

Elaine Davis
Chief Procurement Officer

November 9, 2015

MEMORANDUM

TO: County Commissioners

FROM: Elaine Davis, Chief Procurement Officer

RE: Bid Award

An Invitation for Bids was issued for Groundwater and Soil Assessment at the Barnstable Fire Training Academy. Only one bid was submitted from Desmond Well Drilling for \$52,562.00. Desmond Well drilling met all the requirements.

Please award the contract to Desmond Well Drilling as the responsive, responsible bidder offering the lowest price.

Thank you.

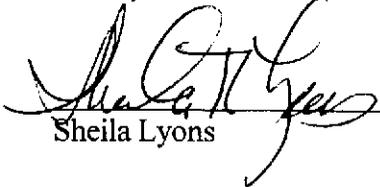


Michael Brillhart

11/19/15

Date

County Commissioners:



Sheila Lyons



Mary Pat Flynn



Leo Cakounes

11/18/15

Date

AGREEMENT BETWEEN

Barnstable County
3225 Main Street
Barnstable, MA 02630

and

Desmond Well Drilling, Inc.
P. O. Box 2783
Orleans, MA 02653

THIS AGREEMENT is made this *16th* day of *November* 2015 by and between Desmond Well Drilling, Inc. (hereinafter referred to as Contractor), and Sheila Lyons, Mary Pat Flynn and Leo Cakounes as they are the Commissioners of Barnstable County, but without any personal liability.

WITNESSETH, that the Contractor and County for the consideration hereinafter named agree as follows:

WHEREAS: The County Commissioners issued an Invitation for Bids for this service.

WHEREAS: The bids were bid in compliance with MA General Law Chapter 30B.

WHEREAS: The contractor is the responsive, responsible bidder offering the lowest price

NOW THEREFORE, the County and the Contractor do mutually agree as follows:

1. Employment of Contractor. The Contractor hereby agrees to perform the services hereinafter set forth in the Scope of Services. Contractor hereby agrees to hold the County and Towns harmless from any claims regarding worker's compensation benefits, unemployment compensation benefits, retirement benefits, or any other benefit normally attributable to the status of "employee" and Contractor specifically agrees to pay for all damages incurred by the County or Town, including costs, benefits, and reasonable attorney fees in the event the Contractor files such claim.
2. Scope of Services. The Contractor shall provide the services provided in the Scope of Services outlined in the County's Invitation for Bids dated October 14, 2015, incorporated herein by reference.
3. Time of Performance. Work in connection with the Agreement shall begin upon execution of this Agreement and continue until one year from date of execution unless an extension in time is agreed to in writing by both the Commission and the Contractor.
4. Payment. The County shall compensate the Contractor for services provided under Section 2, Scope of Services, at the rates provided in its Bid dated November 4, 2015, incorporated herein by reference, up to a maximum not to exceed fee of \$55,000. Travel and other expenses authorized shall be within the total contract limiting fee. Upon acceptance of the Contractor's invoice, payment will be made within thirty (30) days. If an invoice is not accepted by the County within fifteen (15) days, it shall be returned to the Contractor with a written explanation for the rejection. At the end of each County fiscal year Contractor must submit any outstanding invoices for services performed or delivered during the fiscal year (July 1-June 30) to the County no later than July 31st.
5. Termination or Suspension of Contract for Cause. If through any sufficient cause, the Customer or the Town shall fail to fulfill or perform its duties and obligations under this Contract, or if either party shall violate or breach any of the provisions of this Contract, either party shall thereupon have the right to terminate or suspend this Contract, by giving written notice to the other party of such termination or suspension and specifying the effective date thereof. Such notice shall be given at least fifteen (15) calendar days before such effective date.

6. Termination for Convenience of County. The County or Towns shall have the right to discontinue the work of the Contractor and cancel this contract by written notice to the Contractor of such termination and specifying the effective date of such termination. In the event of such termination or suspension of this Contract, the Contractor shall be entitled to just and equitable compensation for satisfactory work completed, for services performed and for reimbursable expenses necessarily incurred in the performance of this Contract up to and including the date of termination or suspension.

7. Changes. The Towns may, from time to time, require changes in the Scope of Services to be performed hereunder. Such changes, including any increase or decrease in the amount of the Customer costs, which are mutually agreed upon by the Town and the Customer, shall be incorporated in written amendments to this Contract.

8. Non-Discrimination in Employment and Affirmative Action. The Customer shall take affirmative action to ensure that qualified applicants and employees are treated without regard to age, race, color, religion, sex, marital status, sexual orientation, national origin, disability, or Vietnam Era Veteran status. The Customer agrees to comply with all applicable Federal and State statutes, rules and regulations prohibiting discrimination in employment including but not limited to: Title VII of the Civil Rights Act of 1964, as amended; Massachusetts General Laws Chapter 1518§(1); the Americans with Disabilities Act of 1990; and all relevant administrative orders and executive orders including Executive Order 246.

9. Subcontracting. None of the services to be provided to the Towns pursuant to this Contract shall be subcontracted or delegated in whole or in part to any other organization, association, individual, corporation, partnership or other such entity without the prior written approval of the Towns. No subcontract or delegation shall relieve or discharge the Customer from any obligation or liability under this Contract except as specifically set forth in the instrument of approval. If this Contract is funded in whole or in part with federal funds, Contractor further agrees to comply with the provisions of the Office of Management and Budget Circular A-110, as amended, with respect to taking affirmative steps to utilize the services of small and minority firms, women's business enterprises and labor surplus area firms. All subcontracts shall be in writing and shall contain provisions which are functionally identical to, and consistent with, the provisions of this Contract. The County shall have the right to obtain a copy of the subcontract upon request.

10. Interest of Members of Towns and Others. No officer, member or employee of the County, and no member of its governing body of the locality or localities in which the Project is situated or being carried out who exercises any functions or responsibility in the review or approval of the undertaking or carrying out of the Project, shall participate in any decision relating to this Contract which affects his personal interest or the interest of any corporation, partnership, or association in which he is directly or indirectly financially interested or has any personal or pecuniary interest, direct or indirect, in this Contract or the proceeds thereof.

11. Interest of Contractor. The Contractor covenants that it presently has no interest and shall not acquire any interest directly or indirectly which would conflict in any manner or degree with the performance of its services hereunder.

12. Assignability. The Contractor shall not assign any interest in this Contract and shall not transfer any interest in the same (whether by assignment or novation), without the prior written consent of the Towns or County thereto; provided, however that claims for money due or to become due the Contractor from the Towns under this Contract may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the County.

13. Recordkeeping, Audit, and Inspection of Records. The Contractor shall maintain books, records, and other compilations of data pertaining to the requirements of the Contract to the extent and in such detail as shall properly substantiate claims for payment under the Contract. All such records

shall be kept for a period of seven (7) years or for such longer period as is specified herein. All retention periods start on the first day after final payment under this Contract. If any litigation, claim, negotiation, audit or other action involving the records is commenced prior to the expiration of the applicable retention period, all records shall be retained until completion of the action and resolution of all issues resulting therefrom, or until the end of the applicable retention period, whichever is later. If this contract is funded in whole or in part with state or federal funds, the state or federal grantor agency, the County or any of its duly authorized representatives or designees, shall have the right at reasonable times and upon reasonable notice, to examine and copy, at reasonable expense, the books, records and other compilations of data of the Contractor which pertain to the provisions and requirements of this Contract. Such access shall include on-site audits, review and copying of records.

14. Findings Confidential. Any reports, information, data, etc., given to or prepared or assembled by the Contractor under this Contract which the Towns requests to be kept as confidential shall not be made available to any individual or organization by the Contractor without the prior written approval of the County or Towns.

15. Publication, Reproduction and Use of Material. No material produced in whole or in part under this Contract shall be subject to copyright in the United States or in any other country. The County and Towns shall have the unrestricted authority to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data or other materials prepared under this Contract.

16. Political Activity Prohibited. None of the services to be provided by the Contractor shall be used for any partisan political activity or to further the election or defeat of any candidate for public office.

17. Anti-Boycott Warranty. During the term of this Contract, neither the Contractor nor any "affiliated company" as hereafter defined, shall participate in or cooperate with an international boycott, as defined in Section 999 (b) (3) and (4) of the Internal Revenue Code of 1954, as amended by the Tax Reform Act of 1986, or engage in conduct declared to be unlawful by Sections 2 and 3 of Chapter 151E, Massachusetts General Laws. As used herein, an "affiliated company" shall be any business entity of which at least 51% of the ownership interested is directly or indirectly owned by the Contractor or by a person or persons or business entity or entities which directly or indirectly own at least 51% of the ownership interests of the Contractor.

18. Choice of Law. This Contract shall be construed under and governed by the laws of the Commonwealth of Massachusetts. The Contractor and the agents thereof, agree to bring any federal or state legal proceedings arising under this Contract, in which the County or Towns are a party, in a court of competent jurisdiction within the Commonwealth of Massachusetts. This paragraph shall not be construed to limit any rights a party may have to intervene in any action, wherever pending, in which the other is a party. All parties to this contract and covenant agree that any disputes be litigated in the District or Superior courts in Barnstable County.

19. Force Majeure. Neither party shall be liable to the other nor be deemed to be in breach of this Contract for failure or delay in rendering performance arising out of causes factually beyond its control and without its fault or negligence. Such causes may include, but are not limited to: acts of God or the public enemy, wars, fires, floods, epidemics, strikes, or unusually severe weather. Dates or times of performance shall be extended to the extent of delays excused by this section, provided that the party whose performance is affected notifies the other promptly of the existence and nature of such delay.

20. Compliance with Laws. The Contractor shall promptly comply with all applicable laws, rules, regulations, ordinances, orders and requirements of the Commonwealth and any state or federal governmental authority relating to the delivery of the services described in this Contract subject to section 18 above. Unless otherwise provided by law, the Contractor shall promptly pay all fines, penalties and damages that may arise out of or are imposed because of the Contractor's failure to comply with the provisions of this section and, shall indemnify the County or Towns against any liability incurred as a result of a violation of this section. If the Contractor receives federal funds

pursuant to this Contact, Contractor understands and agrees to comply with all federal requirements including but not limited to audit requirements. Not-for-Profit entities that receive federal funds from the County or Towns must comply with the audit requirements outlined in the Office of Management and Budget OMB Circular A-133.

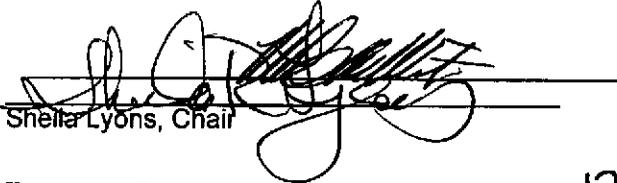
21. **Headings, Interpretation and Severability.** The headings used herein are for reference and convenience only and shall not be a factor in the interpretation of the Contract. If any provision of this Contract is declared or found to be illegal, unenforceable, or void, then both parties shall be relieved of all obligations under that provision. The remainder of the Contract shall be enforced to the fullest extent permitted by law.

22. **Waiver of Liability.** The Contractor and the County hereby covenant and agree to waive any and all claims against Barnstable County and release Barnstable County from any liability arising out of the Scope of Services described in the attached "Exhibit A".

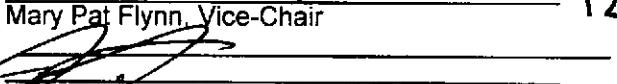
IN WITNESS WHEREOF, the County and Contractor have executed this Agreement this 1st day of ~~December~~ in the year two thousand and fifteen.

FOR THE COUNTY:

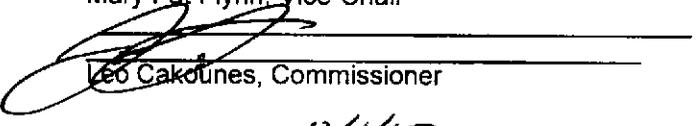
BARNSTABLE COUNTY COMMISSIONERS:



Sheila Lyons, Chair



Mary Pat Flynn, Vice-Chair



Leo Cakoules, Commissioner

Date

12/9/15

12/1/15

FOR THE CONTRACTOR:



Date

11-16-15

CERTIFICATE of NON-COLLUSION AND TAX COMPLIANCE (ATTACHMENT A)

Pursuant to MGL Chapter 62C, Section 49A, I certify under the penalties of perjury that I, to the best of my knowledge and belief, have complied with all laws of the Commonwealth of Massachusetts relating to taxes, reporting of employees and contractors, and withholding and remitting child support.

I certify under the penalties of perjury that this bid/proposal has been made and submitted in good faith and without collusion or fraud with any other person. As used in this certificate, the word "person" shall mean any natural person, business, partnership, corporation, union, committee, club or other legal organization, entity or group of individuals.

Company: Desmond Well Drilling Inc

Address: P.O. Box 2783

ORLEANS MA 02653

Signature of Individual Signing

Bid, or Corporate Officer:

Paul P. Desmond, Treasurer

Telephone Number: 508 240-1000

Social Security Number

Or Federal Identification Number: 04-2987656

Date: November 4, 2015

Any person or corporation which fails to execute this document
will be considered a non-responsive bidder
and will be rejected pursuant to MGL Chapter 30B.

BID FORM (Attachment B)

The undersigned BIDDER proposes and agrees, if the Bid is accepted to enter into an Agreement with the County, to complete all Work as specified or indicated in the "INVITATION TO BID: Subsurface Assessment and Groundwater Treatment System Repairs and Maintenance"

BIDDER accepts all of the terms and conditions of the Instructions to Bidders. This Bid will remain open for thirty (30) after the day of Bid opening. BIDDER will sign the Agreement and submit other documents (e.g. Bonds, Insurance Binders) required by the Contract Documents within 10 (10) working days after the date of the County's Notice of Award.

In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that: BIDDER has examined copies of all the Contract Documents and of the following Addenda:

Date _____ Number _____
 Date _____ Number _____

BIDDER agrees that Prevailing Wage Rates as attached will be paid for the appropriate classification of work.

BIDDER certifies as follows:

- that he is able to furnish labor that can work in harmony with all other elements of labor employed or to be employed in the work;
- that all employees at the worksite will have successfully completed a course in construction safety and health approved by the United States Occupational Safety and Health Administration that is at least 10 hours in duration at the time the employee begins work and who shall furnish documentation of successful completion of said course with the first certified payroll report for each employee

| ITEM # | DESCRIPTION | UNIT COST | ESTIMATED QUANTITY | TOTAL AMOUNT |
|-----------------------------------|--|-----------|--------------------|--------------|
| Recovery well construction | | | | |
| 1 | Mobilization/ Demobilization of drill rig and trenching equipment | \$ 800 | Lump sum | \$ 800 |
| 2 | Day Rate | \$ 2400 | Est. 1 days | \$ 2400 |
| 3 | 4-inch diameter PVC screen (Sch.40; 0.010 slot; (10-ft length) | \$ 350 | 1 | \$ 350 |
| 4 | 4" PVC Riser (Sch.40) | \$ 9 | 40 LF | \$ 360 |
| 5 | 4" Bottom Caps | \$ 20 | 1 | \$ 20 |
| 6 | Bentonite Seal | \$ 18 | 2 ft | \$ 36 |
| 7 | Concrete | \$ 12 | 2 ft | \$ 24 |
| 8 | Irrigation Boxes and pitless adaptor for 4-inch recovery well | \$ 785 | 1 | \$ 785 |
| 9 | U.F. electrical wire lines, per design. Specify gauge <u>10/2 w/ground</u> | \$ 1.40 | 250 LF | \$ 350 |

| | | | | |
|----|--|----------------|--------------------|---------------------|
| 10 | Electric conduit, per design, specify ID <u>1" PVC</u> | \$ <u>0.70</u> | 250 LF | \$ <u>175</u> |
| 11 | Poly pipe for water line, per design. Specify ID <u>2" P.P.P.</u> | \$ <u>4</u> | 250 LF | \$ <u>1000</u> |
| 12 | Submersible pumps, per design. Specify h.p. ^{1*} <u>25 GPM 1.5hp 230V</u> | \$ <u>1468</u> | 1 | \$ <u>1468</u> |
| 13 | Accessory tubing, couplings, electrical wiring and fittings | \$ <u>560</u> | EST | \$ <u>560</u> |
| 14 | Truck and two person team | \$ <u>240</u> | Est. 1 days | \$ <u>1920</u> |
| | | | Sub-Total = | \$ <u>10,248.00</u> |

Monitoring well construction for assessment work

| | | | | |
|----|--|----------------|--------------------|--------------------|
| 15 | Mobilization/ Demobilization of drill rig and trenching equipment | \$ <u>800</u> | Lump sum | \$ <u>800</u> |
| 16 | Day Rate | \$ <u>2400</u> | Est. 5 days | \$ <u>12000</u> |
| 17 | Bentonite Seal | \$ <u>18</u> | 2 ft | \$ <u>36</u> |
| 18 | Steel Protectors | \$ <u>125</u> | 10 | \$ <u>1250</u> |
| 19 | 2" PVC Screen (Sch.40; (10-ft length) | \$ <u>9</u> | 100 LF | \$ <u>900</u> |
| 20 | 2" PVC Riser (Sch.40) | \$ <u>6</u> | 210 LF | \$ <u>1260</u> |
| 21 | 2" Threaded Well Point/Plug | \$ <u>18</u> | 10 | \$ <u>180</u> |
| 22 | Cement | \$ <u>20</u> | 40 LF | \$ <u>800</u> |
| | | | Sub-Total = | \$ <u>17226.00</u> |

Geoprobe Soil Assess Work

| | | | | |
|----|--|---------------|----------|---------------|
| 18 | Mobilization/Demobilization of GeoProbe | \$ <u>800</u> | Lump sum | \$ <u>800</u> |
|----|--|---------------|----------|---------------|

ATTACHMENT C:

REFERENCE FORM

Bidder: DESIMOND WELL DRILLING INC

Bidder must provide references for:

Bidder must supply a list of all work completed on similar projects within the last five years.

Reference: Town of Falmouth / R.B. Ours Inc Contact: ABBY ROSE
Address: 24 GREAT WUTON RD Box 1539 Phone: 508-432-0538
N. HARWICH MA 02645 Fax: 508-432-4385
Description and date(s) of supplies or services provided: 9-2015
INSTALLATION OF MONITORING WELLS AT FALMOUTH WASTE WATER
RECHARGE BEDS

Reference: BARNSTABLE COUNTY / BCFTA Contact: TOM CAMBARERI
Address: 3225 MAIN ST. PO Box 226 Phone: 508-362-3828
BARNSTABLE MA 02630 Fax: 508-362-3136
Description and date(s) of supplies or services provided: 3 to 4/2015
SOIL SAMPLING WITH MONITORING WELL INSTALLATION

Reference: Town of Chatham / GHD Contact: DARLENE ZIELINSKI
Address: 1545 IYANOUGH RD Phone: 974-470-1630
HYANNIS MA 02601 Fax: 974-470-1631
Description and date(s) of supplies or services provided: Phase 1C - Sewer Design
Split spoon soil sampling at multiple sites
This job is on going

attach additional sheets if necessary



PO Box 10
Orleans, MA 02653

Treasurer's Check
Negotiate Within Six Months of Date of Issue

Date: 11/04/15

010126

REMITTER
DESMOND WELL DRILLING INC

Branch: 0020

\$2,628.10

PAY
TO THE
ORDER OF
EXACTLY **2,628 AND 10/100 DOLLARS
COUNTY OF BARNSTABLE

BID BOND-GROUNDWATER WELLS

On Miller
AUTHORIZED SIGNATURE

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Returned
12/1/15

AGREEMENT BETWEEN

Barnstable County
3225 Main Street
Barnstable, MA 02630

and

Desmond Well Drilling, Inc.
P. O. Box 2783
Orleans, MA 02653

THIS AGREEMENT is made this *16th* day of *November* 2015 by and between Desmond Well Drilling, Inc. (hereinafter referred to as Contractor), and Sheila Lyons, Mary Pat Flynn and Leo Cakounes as they are the Commissioners of Barnstable County, but without any personal liability.

WITNESSETH, that the Contractor and County for the consideration hereinafter named agree as follows:

WHEREAS: The County Commissioners issued an Invitation for Bids for this service.

WHEREAS: The bids were bid in compliance with MA General Law Chapter 30B.

WHEREAS: The contractor is the responsive, responsible bidder offering the lowest price

NOW THEREFORE, the County and the Contractor do mutually agree as follows:

1. Employment of Contractor. The Contractor hereby agrees to perform the services hereinafter set forth in the Scope of Services. Contractor hereby agrees to hold the County and Towns harmless from any claims regarding worker's compensation benefits, unemployment compensation benefits, retirement benefits, or any other benefit normally attributable to the status of "employee" and Contractor specifically agrees to pay for all damages incurred by the County or Town, including costs, benefits, and reasonable attorney fees in the event the Contractor files such claim.
2. Scope of Services. The Contractor shall provide the services provided in the Scope of Services outlined in the County's Invitation for Bids dated October 14, 2015, incorporated herein by reference.
3. Time of Performance. Work in connection with the Agreement shall begin upon execution of this Agreement and continue until one year from date of execution unless an extension in time is agreed to in writing by both the Commission and the Contractor.
4. Payment. The County shall compensate the Contractor for services provided under Section 2, Scope of Services, at the rates provided in its Bid dated November 4, 2015, incorporated herein by reference, up to a maximum not to exceed fee of \$55,000. Travel and other expenses authorized shall be within the total contract limiting fee. Upon acceptance of the Contractor's invoice, payment will be made within thirty (30) days. If an invoice is not accepted by the County within fifteen (15) days, it shall be returned to the Contractor with a written explanation for the rejection. At the end of each County fiscal year Contractor must submit any outstanding invoices for services performed or delivered during the fiscal year (July 1-June 30) to the County no later than July 31st.
5. Termination or Suspension of Contract for Cause. If through any sufficient cause, the Customer or the Town shall fail to fulfill or perform its duties and obligations under this Contract, or if either party shall violate or breach any of the provisions of this Contract, either party shall thereupon have the right to terminate or suspend this Contract, by giving written notice to the other party of such termination or suspension and specifying the effective date thereof. Such notice shall be given at least fifteen (15) calendar days before such effective date.

6. Termination for Convenience of County. The County or Towns shall have the right to discontinue the work of the Contractor and cancel this contract by written notice to the Contractor of such termination and specifying the effective date of such termination. In the event of such termination or suspension of this Contract, the Contractor shall be entitled to just and equitable compensation for satisfactory work completed, for services performed and for reimbursable expenses necessarily incurred in the performance of this Contract up to and including the date of termination or suspension.
7. Changes. The Towns may, from time to time, require changes in the Scope of Services to be performed hereunder. Such changes, including any increase or decrease in the amount of the Customer costs, which are mutually agreed upon by the Town and the Customer, shall be incorporated in written amendments to this Contract.
8. Non-Discrimination in Employment and Affirmative Action. The Customer shall take affirmative action to ensure that qualified applicants and employees are treated without regard to age, race, color, religion, sex, marital status, sexual orientation, national origin, disability, or Vietnam Era Veteran status. The Customer agrees to comply with all applicable Federal and State statutes, rules and regulations prohibiting discrimination in employment including but not limited to: Title VII of the Civil Rights Act of 1964, as amended; Massachusetts General Laws Chapter 1518§(1); the Americans with Disabilities Act of 1990; and all relevant administrative orders and executive orders including Executive Order 246.
9. Subcontracting. None of the services to be provided to the Towns pursuant to this Contract shall be subcontracted or delegated in whole or in part to any other organization, association, individual, corporation, partnership or other such entity without the prior written approval of the Towns. No subcontract or delegation shall relieve or discharge the Customer from any obligation or liability under this Contract except as specifically set forth in the instrument of approval. If this Contract is funded in whole or in part with federal funds, Contractor further agrees to comply with the provisions of the Office of Management and Budget Circular A-110, as amended, with respect to taking affirmative steps to utilize the services of small and minority firms, women's business enterprises and labor surplus area firms. All subcontracts shall be in writing and shall contain provisions which are functionally identical to, and consistent with, the provisions of this Contract. The County shall have the right to obtain a copy of the subcontract upon request.
10. Interest of Members of Towns and Others. No officer, member or employee of the County, and no member of its governing body of the locality or localities in which the Project is situated or being carried out who exercises any functions or responsibility in the review or approval of the undertaking or carrying out of the Project, shall participate in any decision relating to this Contract which affects his personal interest or the interest of any corporation, partnership, or association in which he is directly or indirectly financially interested or has any personal or pecuniary interest, direct or indirect, in this Contract or the proceeds thereof.
11. Interest of Contractor. The Contractor covenants that it presently has no interest and shall not acquire any interest directly or indirectly which would conflict in any manner or degree with the performance of its services hereunder.
12. Assignability. The Contractor shall not assign any interest in this Contract and shall not transfer any interest in the same (whether by assignment or novation), without the prior written consent of the Towns or County thereto; provided, however that claims for money due or to become due the Contractor from the Towns under this Contract may be assigned to a bank, trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the County.
13. Recordkeeping, Audit, and Inspection of Records. The Contractor shall maintain books, records, and other compilations of data pertaining to the requirements of the Contract to the extent and in such detail as shall properly substantiate claims for payment under the Contract. All such records

shall be kept for a period of seven (7) years or for such longer period as is specified herein. All retention periods start on the first day after final payment under this Contract. If any litigation, claim, negotiation, audit or other action involving the records is commenced prior to the expiration of the applicable retention period, all records shall be retained until completion of the action and resolution of all issues resulting therefrom, or until the end of the applicable retention period, whichever is later. If this contract is funded in whole or in part with state or federal funds, the state or federal grantor agency, the County or any of its duly authorized representatives or designees, shall have the right at reasonable times and upon reasonable notice, to examine and copy, at reasonable expense, the books, records and other compilations of data of the Contractor which pertain to the provisions and requirements of this Contract. Such access shall include on-site audits, review and copying of records.

14. Findings Confidential. Any reports, information, data, etc., given to or prepared or assembled by the Contractor under this Contract which the Towns requests to be kept as confidential shall not be made available to any individual or organization by the Contractor without the prior written approval of the County or Towns.

15. Publication, Reproduction and Use of Material. No material produced in whole or in part under this Contract shall be subject to copyright in the United States or in any other country. The County and Towns shall have the unrestricted authority to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data or other materials prepared under this Contract.

16. Political Activity Prohibited. None of the services to be provided by the Contractor shall be used for any partisan political activity or to further the election or defeat of any candidate for public office.

17. Anti-Boycott Warranty. During the term of this Contract, neither the Contractor nor any "affiliated company" as hereafter defined, shall participate in or cooperate with an international boycott, as defined in Section 999 (b) (3) and (4) of the Internal Revenue Code of 1954, as amended by the Tax Reform Act of 1986, or engage in conduct declared to be unlawful by Sections 2 and 3 of Chapter 151E, Massachusetts General Laws. As used herein, an "affiliated company" shall be any business entity of which at least 51% of the ownership interested is directly or indirectly owned by the Contractor or by a person or persons or business entity or entities which directly or indirectly own at least 51% of the ownership interests of the Contractor.

18. Choice of Law. This Contract shall be construed under and governed by the laws of the Commonwealth of Massachusetts. The Contractor and the agents thereof, agree to bring any federal or state legal proceedings arising under this Contract, in which the County or Towns are a party, in a court of competent jurisdiction within the Commonwealth of Massachusetts. This paragraph shall not be construed to limit any rights a party may have to intervene in any action, wherever pending, in which the other is a party. All parties to this contract and covenant agree that any disputes be litigated in the District or Superior courts in Barnstable County.

19. Force Majeure. Neither party shall be liable to the other nor be deemed to be in breach of this Contract for failure or delay in rendering performance arising out of causes factually beyond its control and without its fault or negligence. Such causes may include, but are not limited to: acts of God or the public enemy, wars, fires, floods, epidemics, strikes, or unusually severe weather. Dates or times of performance shall be extended to the extent of delays excused by this section, provided that the party whose performance is affected notifies the other promptly of the existence and nature of such delay.

20. Compliance with Laws. The Contractor shall promptly comply with all applicable laws, rules, regulations, ordinances, orders and requirements of the Commonwealth and any state or federal governmental authority relating to the delivery of the services described in this Contract subject to section 18 above. Unless otherwise provided by law, the Contractor shall promptly pay all fines, penalties and damages that may arise out of or are imposed because of the Contractor's failure to comply with the provisions of this section and, shall indemnify the County or Towns against any liability incurred as a result of a violation of this section. If the Contractor receives federal funds

pursuant to this Contact, Contractor understands and agrees to comply with all federal requirements including but not limited to audit requirements. Not-for-Profit entities that receive federal funds from the County or Towns must comply with the audit requirements outlined in the Office of Management and Budget OMB Circular A-133.

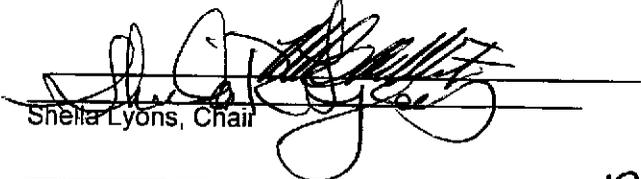
21. **Headings, Interpretation and Severability.** The headings used herein are for reference and convenience only and shall not be a factor in the interpretation of the Contract. If any provision of this Contract is declared or found to be illegal, unenforceable, or void, then both parties shall be relieved of all obligations under that provision. The remainder of the Contract shall be enforced to the fullest extent permitted by law.

22. **Waiver of Liability.** The Contractor and the County hereby covenant and agree to waive any and all claims against Barnstable County and release Barnstable County from any liability arising out of the Scope of Services described in the attached "Exhibit A".

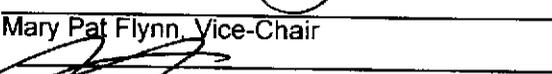
IN WITNESS WHEREOF, the County and Contractor have executed this Agreement this 1st day of ~~December~~ in the year two thousand and fifteen.

FOR THE COUNTY:

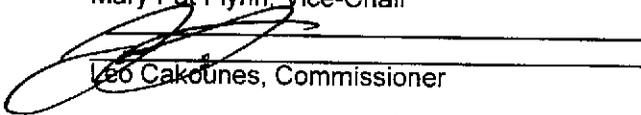
BARNSTABLE COUNTY COMMISSIONERS:



Sheila Lyons, Chair



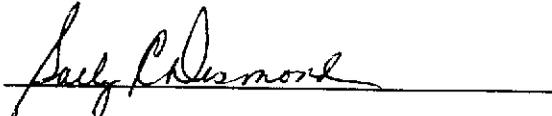
Mary Pat Flynn, Vice-Chair



Leo Cakounes, Commissioner

12/9/15
Date

FOR THE CONTRACTOR:



11-16-15
Date

AGREEMENT
BETWEEN

Barnstable County through
Cape Cod Water Protection Collaborative
3225 Main Street
Barnstable, MA 02630

and

Center for Coastal Studies
Herbert Marine Laboratory
5 Holway Avenue
Provincetown, MA 02657

THIS AGREEMENT, made this _____ day of _____, 2016 by and between the Provincetown Center for Coastal Studies (hereafter referred to as Grantee), and Barnstable County, acting by and through the Cape Cod Water Protection Collaborative (hereafter referred to as the Collaborative) but without any personal liability.

WITNESSETH THAT:

WHEREAS, Barnstable County, through the Collaborative, seeks to enhance the water and wastewater management efforts of towns, and

WHEREAS, the Collaborative wishes to contribute accurate, unbiased science that can be used to guide decision-makers in cleaning up coastal waters, and

WHEREAS, the Collaborative requires technical expertise to manage a water quality monitoring program, and

WHEREAS, the Grantee has specific expertise in this area,

NOW THEREFORE, the Collaborative and the Grantee do mutually agree as follows:

1. Employment of Grantee. The Collaborative hereby engages the Grantee to perform the services hereinafter set forth in the Scope of Services. Grantee shall not be considered an employee of Barnstable County. Grantee hereby agrees to hold Collaborative harmless from any claims regarding worker's compensation benefits, unemployment compensation benefits, retirement benefits, or any other benefit normally attributable to the status of "employee" and Grantee specifically agrees to pay for all damages incurred by the Collaborative, including costs, benefits, and reasonable attorney fees in the event the Grantee files such claim.
2. Scope of Services. Under the direction of the Collaborative's Project Manager, Andrew Gottlieb, the Grantee shall perform the scope of services as set forth in Attachment A.
3. Time of Performance. Work in connection with the Agreement shall begin upon execution of this Agreement and continue until June 30, 2019 unless an extension in time is agreed to in writing by both the Collaborative and the Grantee.
4. Payment. The Collaborative shall compensate the Grantee for services provided under Section 2, Scope of Services in accordance with the rates and amounts set forth in Attachment B, up to a maximum of \$250,000 per year, contingent upon annual funding appropriation. Travel and other expenses shall be within the total Agreement limiting fee. The Grantee may submit invoices on a monthly basis and upon acceptance, payment will be made within thirty (30) days. If an invoice is not

accepted by the Collaborative within fifteen (15) days, it shall be returned to the Grantee with a written explanation for the rejection. At the end of each Collaborative fiscal year Grantee must submit any outstanding invoices for services performed or delivered during the fiscal year (July 1-June 30) to the Collaborative no later than July 31st.

5. Termination or Suspension of Agreement for Cause. If through any sufficient cause, the Grantee or the Collaborative shall fail to fulfill or perform its duties and obligations under this Agreement, or if either party shall violate or breach any of the provisions of this Agreement, either party shall thereupon have the right to terminate or suspend this Agreement, by giving written notice to the other party of such termination or suspension and specifying the effective date thereof. Such notice shall be given at least fifteen (15) calendar days before such effective date.

6. Termination for Convenience of Collaborative. The Collaborative shall have the right to discontinue the work of the Grantee and cancel this Agreement by written notice to the Grantee of such termination and specifying the effective date of such termination. In the event of such termination or suspension of this Agreement, the Grantee shall be entitled to just and equitable compensation for satisfactory work completed, for services performed and for reimbursable expenses necessarily incurred in the performance of this Agreement up to and including the date of termination or suspension.

7. Changes. The Collaborative may, from time to time, require changes in the Scope of Grantee Services to be performed hereunder. Such changes, including any increase or decrease in the amount of the Grantee's compensation, which are mutually agreed upon by the Collaborative and the Grantee, shall be incorporated in written amendments to this Agreement.

8. Non-Discrimination in Employment and Affirmative Action. The Grantee shall take affirmative action to ensure that qualified applicants and employees are treated without regard to age, race, color, religion, sex, marital status, sexual orientation, national origin, disability, or Vietnam Era Veteran status. The Grantee agrees to comply with all applicable Federal and State statutes, rules and regulations prohibiting discrimination in employment including but not limited to: Title VII of the Civil Rights Act of 1964, as amended; Massachusetts General Laws Chapter 151B§(1); the Americans with Disabilities Act of 1990; and all relevant administrative orders and executive orders including Executive Order 246.

9. Subcontracting. None of the services to be provided by the Grantee pursuant to this Agreement other than those previously identified shall be subcontracted or delegated in whole or in part to any other organization, association, individual, corporation, partnership or other such entity without the prior written approval of the Collaborative. No subcontract or delegation shall relieve or discharge the Grantee from any obligation or liability under this Agreement except as specifically set forth in the instrument of approval. If this Agreement is funded in whole or in part with federal funds, Grantee further agrees to comply with the provisions of the Office of Management and Budget Circular A-110, as amended, with respect to taking affirmative steps to utilize the services of small and minority firms, women's business enterprises and labor surplus area firms. All subcontracts shall be in writing and shall contain provisions which are functionally identical to, and consistent with, the provisions of this Agreement. The Collaborative shall have the right to obtain a copy of the subcontract upon request.

10. Interest of Members of Collaborative and Others. No officer, member or employee of the Collaborative and no member of its governing body of the locality or localities in which the Project is situated or being carried out who exercises any functions or responsibility in the review or approval of the undertaking or carrying out of the Project, shall participate in any decision relating to this Agreement which affects his personal interest or the interest of any corporation, partnership, or association in which he is directly or indirectly interested or has any personal or pecuniary interest, direct or indirect, in this Agreement or the proceeds thereof.

11. Interest of Grantee. The Grantee covenants that it presently has no interest and shall not acquire any interest directly or indirectly which would conflict in any manner or degree with the performance of its services hereunder.

12. Assignability. The Grantee shall not assign any interest in this Agreement and shall not transfer any interest in the same (whether by assignment or novation), without the prior written consent of the Collaborative thereto; provided, however that claims for money due or to become due the Grantee from the Collaborative under this Agreement may be assigned to a bank,

trust company, or other financial institution without such approval. Notice of any such assignment or transfer shall be furnished promptly to the Collaborative.

13. Recordkeeping, Audit, and Inspection of Records. The Grantee shall maintain books, records, and other compilations of data pertaining to the requirements of the Agreement to the extent and in such detail as shall properly substantiate claims for payment under the Agreement. All such records shall be kept for a period of seven (7) years or for such longer period as is specified herein. All retention periods start on the first day after final payment under this Agreement. If any litigation, claim, negotiation, audit or other action involving the records is commenced prior to the expiration of the applicable retention period, all records shall be retained until completion of the action and resolution of all issues resulting therefrom, or until the end of the applicable retention period, whichever is later. If this Agreement is funded in whole or in part with state or federal funds, the state or federal grantor agency, the Collaborative or any of its duly authorized representatives or designees, shall have the right at reasonable times and upon reasonable notice, to examine and copy, at reasonable expense, the books, records and other compilations of data of the Grantee which pertain to the provisions and requirements of this Agreement. Such access shall include on-site audits, review and copying of records.

14. Findings Confidential. Any reports, information, data, etc., given to or prepared or assembled by the Grantee under this Agreement which the Collaborative requests to be kept as confidential shall not be made available to any individual or organization by the Grantee without the prior written approval of the Collaborative.

15. Publication, Reproduction and Use of Material. All data and analyses prepared or assembled by the Grantee under this Agreement will be owned by the Collaborative. No material produced in whole or in part under this Agreement shall be subject to copyright in the United States or in any other country. The Collaborative shall have the unrestricted authority to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data or other materials prepared under this Agreement.

16. Political Activity Prohibited. None of the services to be provided by the Grantee shall be used for any partisan political activity or to further the election or defeat of any candidate for public office.

17. Anti-Boycott Warranty. During the term of this Agreement, neither the Grantee nor any "affiliated company" as hereafter defined, shall participate in or cooperate with an international boycott, as defined in Section 999 (b) (3) and (4) of the Internal Revenue Code of 1954, as amended by the Tax Reform Act of 1986, or engage in conduct declared to be unlawful by Sections 2 and 3 of Chapter 151E, Massachusetts General Laws. As used herein, an "affiliated company" shall be any business entity of which at least 51% of the ownership interested is directly or indirectly owned by the Grantee or by a person or persons or business entity or entities that directly or indirectly own at least 51% of the ownership interests of the Grantee.

18. Choice of Law. This Agreement shall be construed under and governed by the laws of the Commonwealth of Massachusetts. The Grantee and the agents thereof, agree to bring any federal or state legal proceedings arising under this Agreement, in which the Collaborative is a party, in a court of competent jurisdiction within the Commonwealth of Massachusetts. This paragraph shall not be construed to limit any rights a party may have to intervene in any action, wherever pending, in which the other is a party.

19. Force Majeure. Neither party shall be liable to the other nor be deemed to be in breach of this Agreement for failure or delay in rendering performance arising out of causes factually beyond its control and without its fault or negligence. Such causes may include, but are not limited to: acts of God or the public enemy, wars, fires, floods, epidemics, strikes, or unusually severe weather. Dates or times of performance shall be extended to the extent of delays excused by this section, provided that the party whose performance is affected notifies the other promptly of the existence and nature of such delay.

20. Compliance with Laws. The Grantee shall promptly comply with all applicable laws, rules, regulations, ordinances, orders and requirements of the Commonwealth and any state or federal governmental authority relating to the delivery of the services described in this Agreement subject to section 18 above. Unless otherwise provided by law, the Grantee shall promptly pay all fines, penalties and damages that may arise out of or are imposed because of the Grantee's failure to comply with the provisions of this section and, shall indemnify the Collaborative against any liability incurred as a result of a violation of this

section. If the Grantee receives federal funds pursuant to this Contact, Grantee understands and agrees to comply with all federal requirements including but not limited to audit requirements outlined in the Office of Management and Budget Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR Part 200 Subpart A-F.).

21. Headings, Interpretation and Severability. The headings used herein are for reference and convenience only and shall not be a factor in the interpretation of the Agreement. If any provision of this Agreement is declared or found to be illegal, unenforceable, or void, then both parties shall be relieved of all obligations under that provision. The remainder of the Agreement shall be enforced to the fullest extent permitted by law.

IN WITNESS WHEREOF, the Collaborative and Grantee have executed this Agreement this ____ day of _____ in the year two thousand and sixteen.

BARNSTABLE COUNTY COMMISSIONERS:

FOR THE GRANTEE:

Mary Pat Flynn, Chair

Richard Delaney, President and CEO

Sheila Lyons, Vice-Chair

Date

11/22/16

Leo Cakounes, Commissioner

Date

FOR THE COLLABORATIVE:

Andrew Gottlieb, Executive Director

Date

11/22/16

SCOPE OF SERVICES

Center for Coastal Studies

Coastal Water Quality Monitoring Program for Cape Cod Bay, Buzzards Bay and Nantucket Sound

The Center for Coastal Studies (CCS) will expand the water quality monitoring program in Nantucket Sound that we are currently doing under contract with Barnstable County to include Cape Cod Bay. We will partner with the Buzzards Bay Coalition (BBC) as a subcontractor to execute a similar effort in western Buzzards Bay.

This coastal water quality monitoring program will document and evaluate nitrogen related water quality in the coastal waters of Cape Cod and its major harbors, coves and embayments and will provide valuable baseline data on nutrients (nitrogen, phosphorous), water temperature, salinity, dissolved oxygen concentrations, chlorophyll and turbidity.

This work has been on-going for over a decade in Cape Cod Bay and over two decades in Buzzards Bay. One of the key strengths of these long-term datasets is that they provide information on the long-term water quality trends in the bays, and thereby help local and state managers make informed science-based decisions about the restoration and protection of the Cape's coastal waters. These monitoring programs' efforts also help raise awareness and educate the public on the impacts from human activities on watershed and bay marine resources, and may also help provide information on the relative success of various management actions taken to protect the Bays and Sound.

This information will be instrumental to future wastewater planning initiatives, and, even more importantly, it will give state agencies, Cape Cod regional authorities and towns the ability to identify and address problems before conditions worsen.

Project goals:

- To contribute accurate, unbiased science that can be used to guide decision-makers in cleaning up coastal waters.
- To network with Cape and Islands organizations with similar interests in water quality to promote data sharing and education and outreach
- To increase public awareness of the importance of preserving water quality and the actions they can take to help eliminate pollution

Task 1: Water Quality Sample Collection: Water quality data and samples for analyses of water quality parameters will be collected from stations located throughout Cape Cod Bay, Buzzards Bay and Nantucket Sound and the embayments, creeks, and ponds along the shoreline of Cape Cod (Figure 1) from stations that have historically been sampled by CCS and BBC as well as sentinel stations established by the Massachusetts Estuaries Project (MEP).

CCS will continue to partner with organizations that have been involved in water quality monitoring work in these water bodies (e.g. Three Bays Preservation, Harwich Water Quality Task Force, Waquoit Bay National Estuarine Research Reserve) and provide field and laboratory support where needed.

Details on sampling schedule and parameters for each monitoring station are given in Appendix 1.

Task 2: Water Quality Sample Analyses: The methods for analysis of water quality parameters are discussed in detail in the CCS Laboratory Quality Assurance (QA) Plan, which has been approved by DEP, CZM, and EPA. The BBC will work in close partnership with the Ecosystems Center at the Marine Biological Laboratory (MBL) for sample analyses. Methods of analysis used by CCS and MBL are similar, ensuring that the laboratory results for all samples will be comparable.

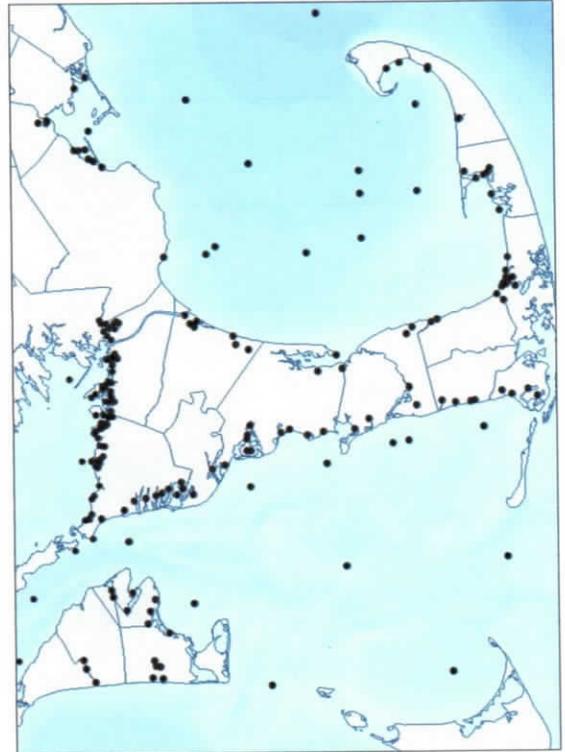


Figure 1. Location of water quality monitoring stations

Task 3: Project Management, Data Synthesis and Reporting:

Reporting of water quality data that has gone through a quality assurance/quality control protocol will be submitted to the County point of contact in spreadsheet format for use and review. A Water Quality Technical Memorandum will be submitted along with the data. The Tech Memo will include data synthesis, summary graphics and comparisons to existing TMDLs previously established by the Massachusetts Estuaries Project for the sentinel stations included in this monitoring effort. The Tech Memo will be submitted by January 31 following the previous field sampling season. All data collected and analyzed by CCS will also be made available on line in both graphic and tabular format via the website www.capecodbay-monitor.org.

Data Sets will be annotated and aggregated as follows:

- A notes page with the following documentation:
 - GPS coordinates for all sampling stations;
 - Definitions for all terms; and
 - Conversion of micro-Moles (μM) to milligrams per liter (mg/L) for nitrogen species (nitrate+nitrite, ammonium, total nitrogen), phosphorus species (ortho-phosphate and total phosphorus) and particulate organic carbon (POC)¹.

¹ POC will be measured contingent on additional state funding

- Confirmation that these are the standard conversion factors currently being used for the overall water quality monitoring programs:
 - $\mu\text{M N (}10^{-6}\text{ M/L)} \times 0.0140067 = \text{mg N/L}$
 - $\mu\text{M C} \times 0.012011 = \text{mg C/L}$
 - $\mu\text{M PO}_4 \times 0.03097376 = \text{mg P/L}$
- Summarize the source data in each column, including:
 - If the value is a direct measurement;
 - Where measurement is made (field/lab);
 - Field sampling equipment and technique (particularly for DO), laboratory used for analysis, laboratory method and instrumentation used, and the instrument's limit of detection;
 - Filter size and standard method used for particulates;
 - If the value is calculated, what calculations are performed; and
 - If applicable, comments as to why SOPs were not utilized and details concerning alternative methodology used.
- Aggregation of data into existing data sets provided under a previous contract with the County

Background – Program Partners

Center for Coastal Studies

The Center for Coastal Studies (CCS) was founded in 1976 as an independent nonprofit, membership-supported institution. Its mission is to conduct scientific research on marine animals and coastal and marine habitats of the western North Atlantic; to promote marine conservation through directed research, public policy and management strategies; to conduct educational activities to promote public stewardship; and to create collaborations wherever possible to advance this work.

Buzzards Bay Coalition

The Buzzards Bay Coalition, founded in 1987, is a membership-supported nonprofit organization dedicated to the restoration, protection, and sustainable use and enjoyment of our irreplaceable Bay and its watershed. The Coalition works to improve the health of the Bay ecosystem for all through education, conservation, research and advocacy.

Qualifications to Conduct a Coastal Water Quality Monitoring Program

Center for Coastal Studies: CCS is conducting the longest-running and only bay-wide monitoring in Cape Cod Bay, and the only comprehensive water quality monitoring in Nantucket Sound. The Cape Cod Bay Monitoring Program began in 2000 to document a baseline of physical, chemical and biological oceanographic data through which the ecology of Cape Cod Bay could be assessed. A key element of this monitoring was tracking of diagnostic indicators of “sewage nitrogen” in response to public concerns over the relocation of the Massachusetts Water Resources Authority (MWRA) municipal wastewater discharge outfall tunnel and its potential to impact the waters of Cape Cod Bay. Following standard EPA guidelines, CCS’s study complemented and expanded upon the MWRA’s monitoring program by adding a significant number of monitoring sites within Cape Cod Bay from 2000-2002. Between 2003 and 2005 the Center maintained a limited monitoring program, and in 2006 expanded both the number of variables to be assessed and the number of stations throughout the Bay. Findings of this long-term monitoring program have indicated an overall decline in environmental conditions at about one third of the stations monitored, primarily in the inshore regions of the Bay. Significantly, this decline is occurring in the waters that are in the highest demand for human activities such as swimming, boating, fishing, and shellfishing.

In 2010 CCS initiated its Nantucket Sound Water Quality Monitoring Program, sampling at nine stations throughout the Sound. CCS currently collects samples at over 100 stations throughout Cape Cod Bay and Nantucket Sound, which are analyzed for key indicators of environmental health (i.e. nitrogen, phosphorus, chlorophyll, turbidity, temperature, salinity, dissolved oxygen) by scientists at the CCS state-certified laboratory, under its state-certified QAPP. The information collected through this monitoring program is expanding our understanding of how human activities and management actions affect our surrounding water bodies.

The CCS was the first institution to document the presence of contaminants of emerging concern (CECs) in the coastal waters of Cape Cod. This work began in 2010, when CCS conducted preliminary testing for three CECs in five estuaries on Cape Cod. The results of this preliminary work led to a larger scale project in 2012, funded by the Massachusetts Bays Program, that focused on the estuaries and embayments that drain into Cape Cod Bay. CCS’s work in Cape Cod Bay demonstrated the impact of

humans on our coastal waters and suggested a link between land use, water quality and concentrations of CECs. In 2013, with funds from the Massachusetts Environmental Trust FY013 and FY014 grants, this work expanded into Nantucket Sound and the coastal ponds and embayments that drain into the Sound.

Buzzards Bay Coalition: Nitrogen inputs were identified in the 1991 Buzzards Bay Comprehensive Conservation and Management Plan (CCMP) as one of the greatest threats to the health of the Bay's more than 30 shallow, often poorly flushed, coastal embayments. In 1992, the Buzzards Bay Citizens Water Quality Monitoring Program "Baywatchers" was established as a joint effort between The Buzzards Bay Coalition (BBC) (formerly the Coalition for Buzzards Bay), the Buzzards Bay Project National Estuary Program, and scientists from the Woods Hole Oceanographic Institution (WHOI). The program was established to document and evaluate nitrogen related water quality and long-term ecological trends in Buzzards Bay. In 2012, the Baywatchers program expanded to include monitoring of Vineyard Sound waters.

The Baywatchers monitoring program relies on volunteer citizen scientists. Involving citizen volunteers at the ground level was the most cost-effective way to achieve the ambitious goal of monitoring all of the Bay's major. This program has had the dual benefit of collecting comprehensive water quality data, while educating and empowering people to get involved, be better stewards and make a difference in the management and restoration of the Bay's resources.

In addition to measurements made by volunteers, Baywatchers has partnered with research institutions to do targeted more in-depth analysis of nutrient parameters and to provide additional support for data analysis. Initially, the program partnered with WHOI scientists and the partnership continued when, in 1997, the scientists moved to the School of Marine Science and Technology at UMass-Dartmouth (SMAST). Beginning in 2009, Baywatchers has been run in partnership with the Ecosystems Center at the Marine Biological Laboratory (Ecosystems Center MBL) in Woods Hole, MA.

Monitoring data collected by the Baywatchers Monitoring Program for the past 22 years has revealed that most of the harbors and coves are showing some signs of nitrogen related water quality decline. Until the inception of this program, no other comprehensive database existed on nutrient concentrations and the extent of eutrophication (degraded quality) in the most sensitive areas of the Bay ecosystem.

Budget

The following budget is for \$250,000. Actual anticipated costs are \$290,000 and are expected to be covered when state funds have been appropriated. Therefore, this budget assumes a 10% reduction in all expenses and a reduced overhead cost. Costs associated with the sub-contract to the Buzzards Bay Coalition are also reduced by \$20,000.

Additional potential add-ons:

- If analysis for POC for all samples is also to be included (see footnote above) the line item for program supplies/services will increase by \$4,500.
- Costs of monitoring additional stations at the frequency described in the scope of work (May – October, every 2 weeks =10 times per sampling season) will cost approximately \$500 per station but will vary depending on location and accessibility (i.e. boat-based or shore-side sampling).

ATTACHMENT B
BUDGET

**Coastal Water Quality Monitoring Program for Cape Cod
Bay, Buzzards Bay and Nantucket Sound**

| CATEGORY | FY17 Budget |
|---|------------------------|
| Personnel | |
| Director of Monitoring Programs | \$33,133 |
| Research Assistant | \$26,123 |
| Director of Marine Policy | \$3,465 |
| Taxes and Benefits (20%) | \$12,544 |
| Total Personnel Expenses | \$75,265 |
| Direct Program Costs | |
| Program Supplies & Services | \$19,110 |
| Equipment Repair and Maintenance | \$8,663 |
| Marine Ops (Vessel Use, Captain) | \$49,203 |
| Travel/Mileage/Towing | \$1,733 |
| Total Direct Program Costs | \$78,709 |
| Indirect (49.376% of personnel + direct) | \$76,026 |
| Sub-Contract: Buzzards Bay Coalition | \$20,000 |
| TOTAL EXPENSES | \$250,000 |

MEMORANDUM OF AGREEMENT
BETWEEN

Barnstable County acting through the
Cape Cod Water Protection Collaborative
3225 Main Street
P. O. Box 226
Barnstable, MA 02630

and

Town Administrator on behalf of
Town of Eastham
2500 State Highway
Eastham, MA 02642

This Memorandum of Agreement (Agreement) is entered into this 16 day of Nov by and between Barnstable County, acting by and through the Cape Cod Collaborative (hereafter referred to as the "Collaborative") and the Town Administrator on behalf of the Town of Eastham (hereafter referred to as the "Town.")

WHEREAS, Barnstable County, through the Collaborative, seeks to enhance the water quality and wastewater management efforts of towns, and

WHEREAS, the Collaborative wishes to contribute accurate, unbiased science that can be used to guide decision-makers in cleaning up coastal waters, and

WHEREAS, the Town is interested in utilizing Collaborative funds for this purpose.

NOW THEREFORE, the Town enters into this Memorandum of Agreement with the Collaborative.

1. RESPONSIBILITIES OF THE TOWN

- a) The Town agrees to use these funds for expenses related to the Salt Pond Groundwater Analysis and PRB Investigation project per Attachment A. The Town also agrees to provide all data collected to the Collaborative for integration into the Cape Cod Water Quality Monitoring Data Base in a format compatible with the fields detailed in Attachment B. A blank database template may be downloaded at www.watershedmvp.org/waterqualitymonitoring.
- b) The Town shall maintain books, records, and other compilations of data pertaining to this work and/or services performed and the funds received and paid out under this Agreement to the extent and in such detail as shall properly substantiate claims for payment under the Agreement. All such records shall be kept for a period of six (6) years or for such longer period as is specified herein. All retention periods start on the first day after final payment under this Agreement. If any litigation, claim, negotiation, audit or other action involving the records is commenced prior to the expiration of the applicable retention period, all records shall be retained until completion of the action and resolution of all issues resulting therefrom, or until the end of the applicable retention period, whichever is later.
- c) The Town shall maintain financial records of the application and expenditure of the funds received hereunder in at least as much detail as may be contemporaneously required to comply with the financial reporting and record keeping requirements mandated by the Bureau of Accounts of the Department of Revenue, or any successor thereto, with respect to the Town's ordinary custody and expenditure of funds.

2. RESPONSIBILITIES OF THE COLLABORATIVE

The Collaborative agrees to provide the Town with \$48,800 for expenses incurred in connection with this Agreement. The Town will document expenditure of funds by providing to the Collaborative copies of vendor invoices and will submit written requests for payment of funds along with project status reports as work progresses.

3. DURATION

- a) This Memorandum of Agreement shall be effective until June 30, 2018 unless an extension in time is agreed to in writing by both parties.
- b) Either the Town or the Collaborative may terminate this Agreement by written notice to the other party, if the other party substantially fails to fulfill its obligations hereunder through no fault of the terminating party, or if the other party violates or breaches any of the provisions of this Agreement. Such notice shall be delivered by certified mail at least thirty (30) days before such effective date. In the event of such termination or suspension of this Agreement, the Collaborative shall be entitled to just and equitable compensation for satisfactory work completed, for services performed and for reimbursable expenses necessarily incurred in the performance of this Agreement up to and including the date of receipt of notice of termination or suspension.

4. AMENDMENT. This Agreement may be amended as mutually agreed by both parties in writing.

5. SIGNATORY AUTHORIZATION

The respective signatories hereto represent and warrant that they are duly authorized to execute this Agreement on behalf of the public entity on whose behalf they have signed this Agreement, and that all substantive and procedural preconditions to their effective execution of this Agreement on behalf of said public entities have been satisfied.

6. INTEGRATED INSTRUMENT. This Agreement shall take effect as an integrated instrument.

IN WITNESS WHEREOF, the TOWN and the COLLABORATIVE execute this Agreement this 16 day of November in the year two thousand and sixteen.

BARNSTABLE COUNTY COMMISSIONERS

Mary Pat Flynn, Chairman

Sheila Lyons, Vice-Chairman

Leo Cakounes, Commissioner

Date

TOWN OF EASTHAM

Sheila Vanderhoef

Sheila Vanderhoef, Town Administrator

16 Nov 2016
Date

FOR THE CAPE COD COLLABORATIVE

[Signature]

Andrew Gottlieb, Executive Director

11/21/16

Date



TOWN OF EASTHAM

2500 State Highway, Eastham, MA 02642
All Departments 508-240-5900
www.eastham-ma.gov

October 19, 2016

SCOPE OF SERVICES: EASTHAM SALT POND GROUNDWATER ANALYSIS AND PRB INVESTIGATION, TOWN OF EASTHAM, MASSACHUSETTS CAPE COD WATER PROTECTION COLLABORATIVE FUNDING REQUEST

PROJECT BACKGROUND: The Town of Eastham is continuing with wastewater planning to address the need to protect public health and the environment. Planning identified health needs, to be addressed through the installation of the public water system currently underway and several environmental needs related to the health of their freshwater ponds and saltwater ponds and embayments. Most recently the Town is focusing on freshwater pond treatments in the initial effort to address part of the environmental need.

The Town of Eastham is planning to expand its efforts to address environmental threats to coastal waters and estuaries. The Town submitted Watershed Reports to the Cape Cod Commission as part of the Cape Cod Area Wide Water Quality Management Plan (208 Plan), and as part of this effort is interested in completing targeted evaluations, determining feasibility, and implementing solutions to abate the effects of nutrient overload on coastal resources.

The Massachusetts Estuaries Project (MEP) Report for Nauset Harbor indicates Salt Pond has an estimated 100 percent wastewater nitrogen removal requirement. As part of the Town's hybrid approach to wastewater management for Salt Pond, a groundwater permeable reactive barrier (PRB) is considered an option which requires additional investigation.

As part of a previous grant application that was submitted to the USEPA, but subsequently not funded; the Cape Cod National Seashore (CCNS) Salt Pond Visitor Center was identified as a proposed PRB location. This location is upgradient of Salt Pond and downgradient of the Town's landfill, and could provide a dual benefit. Recently, the Cape Cod Commission funded a limited PRB initial site characterization at the CCNS Salt Pond Visitor Center to support assessment of the site for pilot demonstration. As part of this effort, three groundwater monitoring wells were installed and sampled in order to assess nitrate concentrations and groundwater chemistry. In an

effort to continue and supplement this important initial work, the following project is being submitted for funding consideration.

PROJECT GOAL: The proposed next step of the project is to gather available Town groundwater data upgradient of Salt Pond and collect additional water quality samples from existing monitoring wells and the stormwater outfall that discharges to Salt Pond. The goal of this effort is to build upon the efforts of the most recent CCC project, develop a more complete picture of the problem by mining existing information, and then with that information in hand, develop a strategic monitoring well placement and monitoring plan to be implemented in the next project phase.

Work is proposed to be done by GHD Inc. and their subconsultant, MT Environmental Restoration. The proposed tasks include the following in more detail.

TASK 1: Compile available Town groundwater data upgradient of Salt Pond

This information gathering and data analyses would include:

- nitrate data from the residential drinking water well program
- nitrate and other pertinent data collected as part of the Town's municipal landfill sampling program
- making information available to the Cape Cod Commission

Once this information is mined from the available sources, the information would be put into a spreadsheet for use in technical analyses.

TASK 2: Existing well groundwater and Salt Pond outfall surface water sample collection and survey

- Chemical analysis of water samples which would include field water-quality characteristics (specific conductance, pH, dissolved oxygen), major cations and anions, nutrients (N species and phosphate), dissolved organic carbon, and selected minor elements (iron, manganese, boron) for the following existing monitoring wells:
 - Existing ESMW-1S, ESMW-1I, ESMW-1D, ESMW-2, ESMW-2S, ESMW-2I, ESMW-2D, ESMW-3S, ESMW-3I, ESMW-3D, ESMW-4I, ESMW-4D.
 - ESMW-11I, ESMW-11S, ESMW-12S located on the CCNS property and installed under a previous effort
 - Salt Pond MassDOT stormwater outfall
- Survey to identify exact location and elevation (ground surface and top of PVC casing) of the new monitoring wells (ESMW-11I, ESMW-11S, ESMW-12S) as a recommendation from the most recent CCC project.

TASK 3: Development of a technical memorandum with findings

Engineer will provide a Draft for review by the Town. The Final will then be revised by Engineer based on one set of compiled Town comments. The technical memorandum will be developed with tables and figures as applicable under the following general outline:

- Executive Summary
- Introduction
- Summary of Task 1
- Summary of Task 2
- Discussion and Next Steps
- Conclusions

TASK 4: Meetings and Presentation to the CCWPC

The task will include the following meetings and presentations:

- One (1) meeting with the Town and appropriate Barnstable County staff to kick-off the project and to go over the data available under Task 1.

- One (1) joint meeting with the Town to go over Town comments from the Draft Technical Memorandum.
- Monthly progress updates via email to the Town from the Engineer.
- One (1) project presentation at a regularly scheduled CCWPC meeting to provide information on the project and how the knowledge may benefit other Cape Cod communities.

PROJECT BUDGET: Total Project Budget not to exceed \$48,800.

PROJECT TIMELINE: Work is expected to be completed 8 months after notice to proceed by Town.

DELIVERABLES:

- One (1) Draft Technical Memorandum (pdf and hard copy) as identified in Task 3.

One (1) Final Technical Memorandum (pdf and hard copy) as identified in Task 3 Please distribute results to the appropriate departments.

Do not hesitate to contact me if I could provide any additional information.

Sincerely,

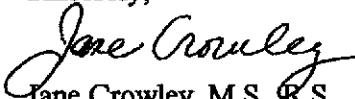
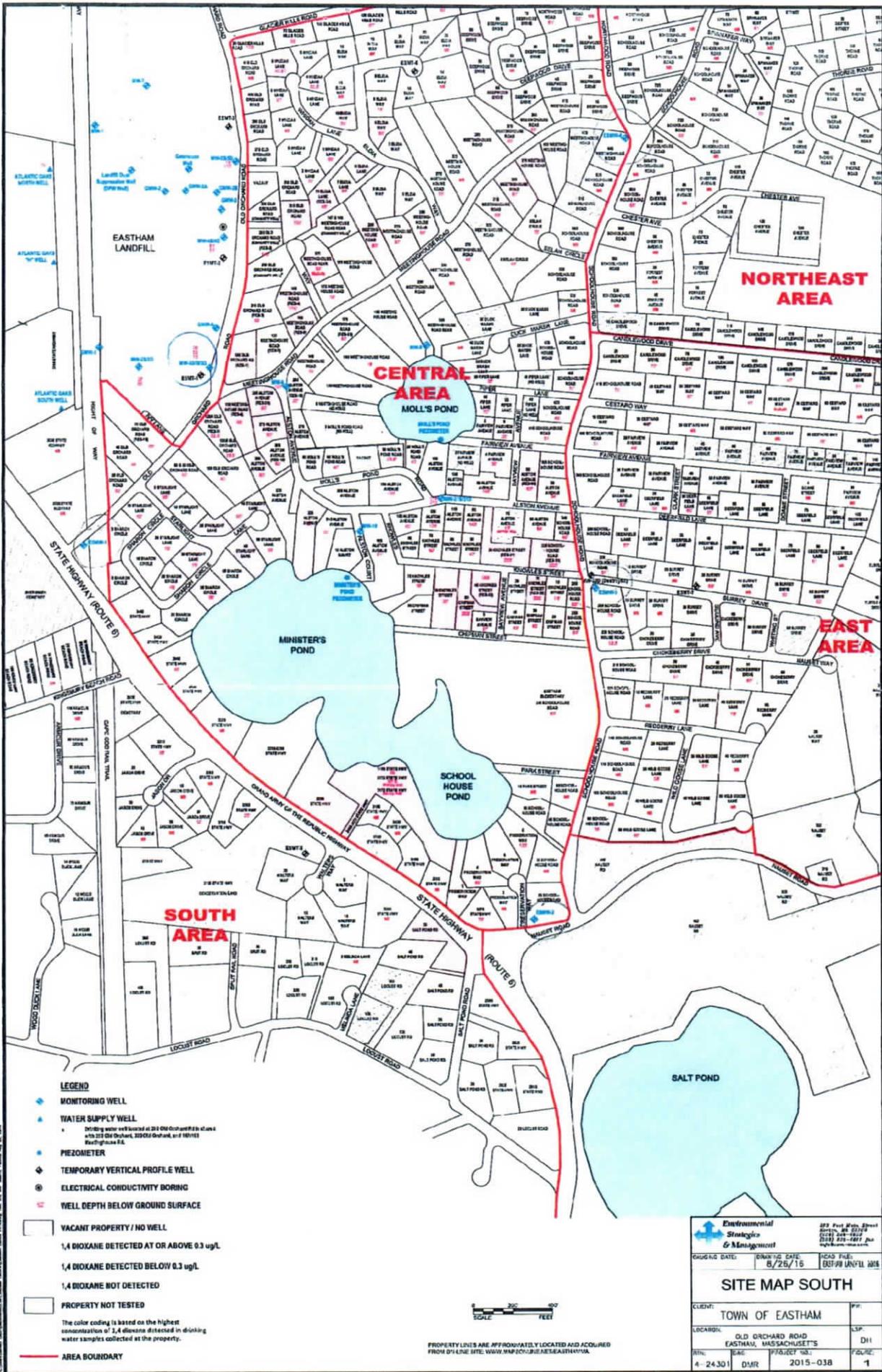

Jane Crowley, M.S., R.S.
Eastham Health Agent

Table 1
Proposed Budget for
Eastham Salt Pond Groundwater Analysis and PRB Investigation
Town of Eastham, Massachusetts
October 18, 2016

| Task | Estimated Labor Hours | | | | | | Total Hours | GHD Labor Cost | Expenses/Outside Tech Services | Total |
|---|---|--|---|-------------------------------------|---|-------------------------------|-------------|-----------------|--------------------------------|-----------------|
| | Project Director Marc Drainville, P.E., BCEE | Senior Project Manager J. Jefferson Gregg, P.E., BCEE | Project Manager/Engineer Jessica P. Janney | Project Engineer Craig T. Curdin | Drafting / GIS Specialist James J. O'Brien | Word Processing Laura Muir | | | | |
| Task 1. Complete available Town groundwater data upgradient of Salt Pond | 0 | 1 | 8 | 80 | 2 | 2 | 93 | \$9,743 | \$693 | \$10,336 |
| Task 2. Groundwater/Surface Water Sampling, Analysis and Existing Well Survey | 0 | 2 | 2 | 0 | 2 | 1 | 7 | \$939 | \$20,022 | \$20,961 |
| Task 3. Development of Technical Memorandum with Findings | 1 | 4 | 23 | 0 | 6 | 4 | 38 | \$5,122 | \$5,315 | \$10,436 |
| Task 4. Meetings and Presentation to CCWPC | 2 | 8 | 16 | 8 | 1 | 2 | 37 | \$4,810 | \$2,157 | \$7,067 |
| TOTAL TASKS 1-4 | 3 | 15 | 49 | 88 | 11 | 9 | 175 | \$20,714 | \$23,067 | \$43,781 |

Other Support Documents



- LEGEND**
- ◆ MONITORING WELL
 - ▲ WATER SUPPLY WELL
 - PIEZOMETER
 - ◇ TEMPORARY VERTICAL PROFILE WELL
 - ⊕ ELECTRICAL CONDUCTIVITY BORING
 - ⊖ WELL DEPTH BELOW GROUND SURFACE
 - VACANT PROPERTY / NO WELL
 - 1,4 DIOXANE DETECTED AT OR ABOVE 0.3 ug/L
 - 1,4 DIOXANE DETECTED BELOW 0.3 ug/L
 - 1,4 DIOXANE NOT DETECTED
 - PROPERTY NOT TESTED
- The color coding is based on the highest concentration of 1,4-dioxane detected in drinking water samples collected at the property.
- AREA BOUNDARY



PROPERTY LINES ARE APPROXIMATELY LOCATED AND ACQUIRED FROM D1-16 USE: WWW.MAPCORP.US/EASTHAM/MA.

Environmental Strategic & Management

323 Post Office Street
Eastham, MA 02542
Tel: 508-255-2222
Fax: 508-255-2222
www.esm.com

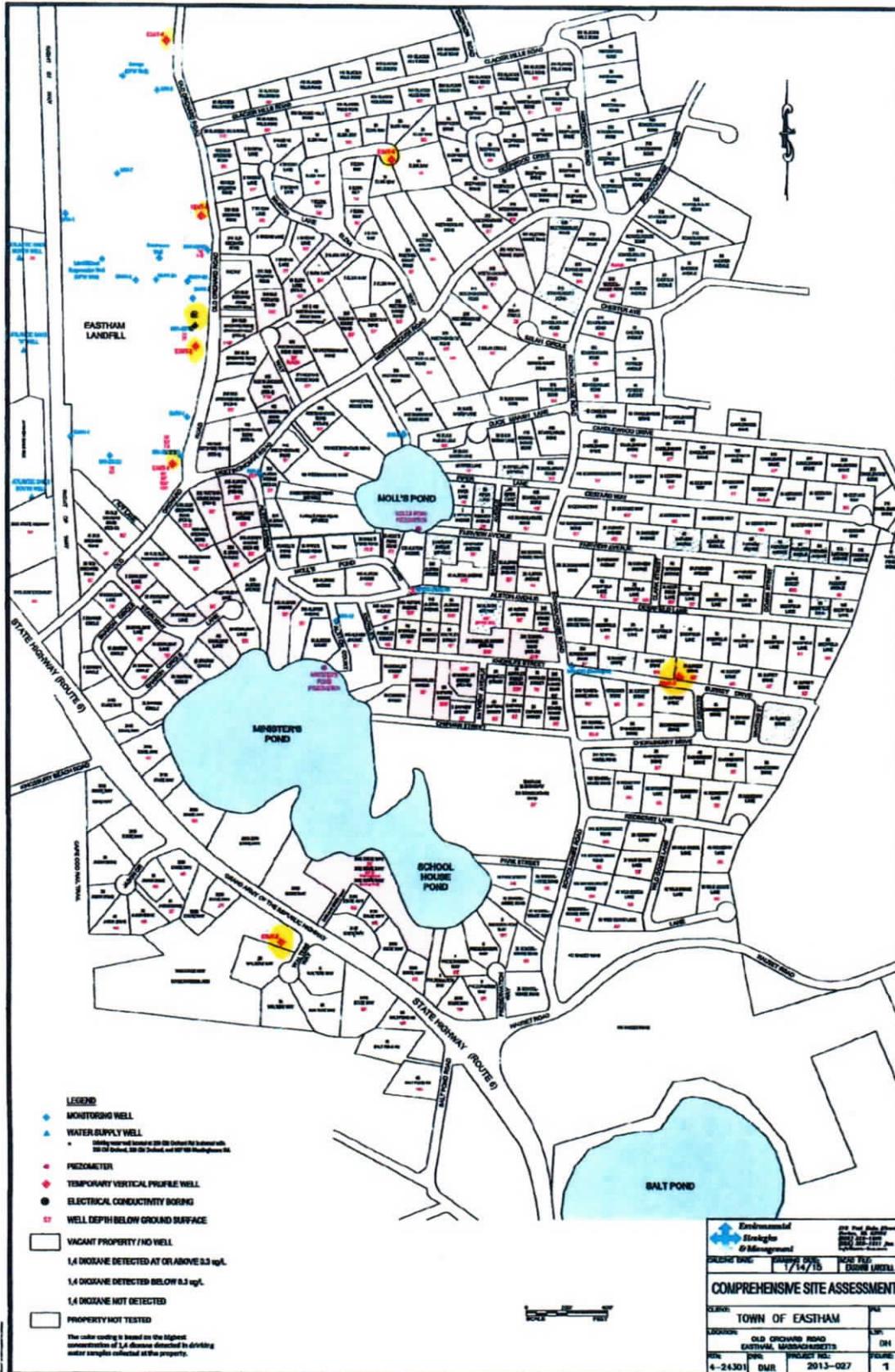
DRAWING DATE: 8/26/15
ISSUE DATE: 8/26/15

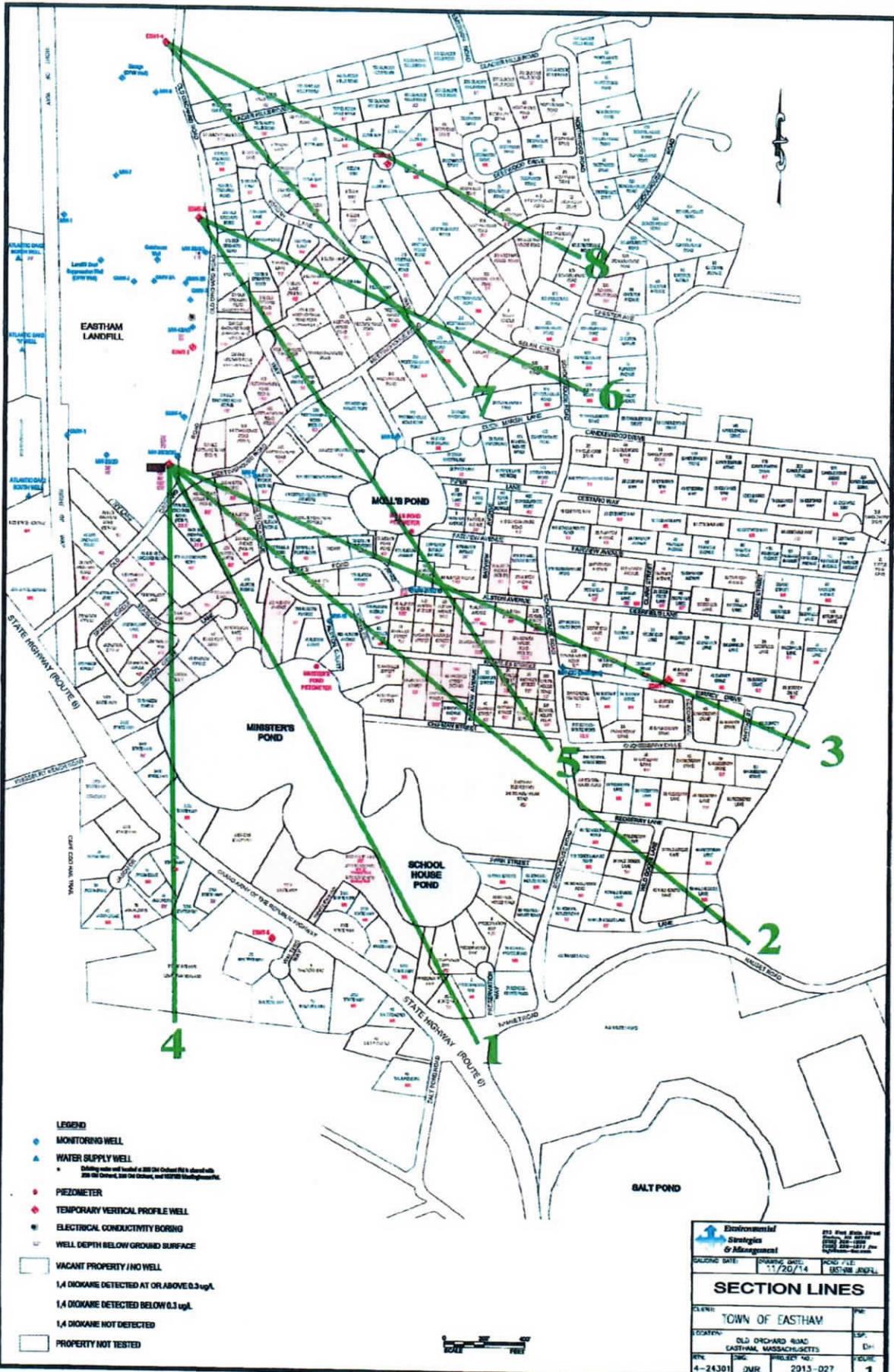
SITE MAP SOUTH

CLIENT: TOWN OF EASTHAM
PROJECT: OLD ORCHARD ROAD
EASTHAM, MASSACHUSETTS

DATE: 4-24-30
DMR: 2015-038

SCALE: 1

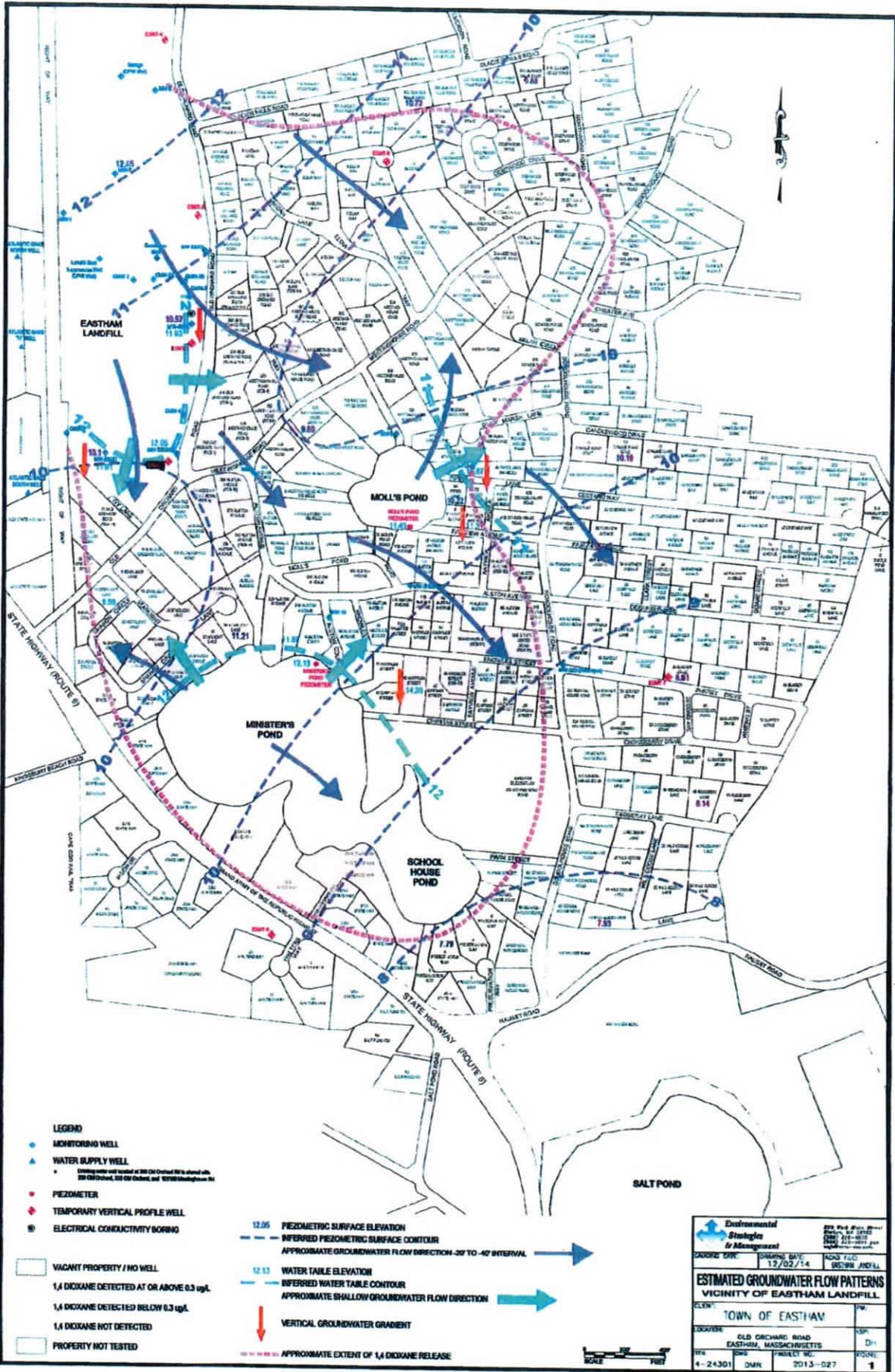




- LEGEND**
- MONITORING WELL
 - ▲ WATER SUPPLY WELL
 - PIZIOMETER
 - TEMPORARY VERTICAL PROFILE WELL
 - ELECTRICAL CONDUCTIVITY BORING
 - WELL DEPTH BELOW GROUND SURFACE
 - VACANT PROPERTY / NO WELL
 - 1,4 DIOXANE DETECTED AT OR ABOVE 0.3 ug/L
 - 1,4 DIOXANE DETECTED BELOW 0.3 ug/L
 - 1,4 DIOXANE NOT DETECTED
 - PROPERTY NOT TESTED

| | | |
|---|---------------------------------|--|
| Environmental Strategies & Management | | 215 West Street Eastham, MA 01939 Phone: 508-837-1111 Fax: 508-837-1112 |
| DRAWING DATE: 11/20/14 | DRAWING SHEET: EASTHAM JMW14 | PROJECT NO: 2013-027 |
| SECTION LINES | | |
| TOWN OF EASTHAM | | |
| CLIENT: OLD ORCHARD ROAD EASTHAM, MASSACHUSETTS | DATE: APR 2013 | SHEET NO: 1 |





- LEGEND**
- MONITORING WELL
 - ▲ WATER SUPPLY WELL
 - ◆ PIEZOMETER
 - ◆ TEMPORARY VERTICAL PROFILE WELL
 - ⊗ ELECTRICAL CONDUCTIVITY BORING

- VACANT PROPERTY / NO WELL
- 1,4 DIOXANE DETECTED AT OR ABOVE 0.3 ug/L
- 1,4 DIOXANE DETECTED BELOW 0.3 ug/L
- 1,4 DIOXANE NOT DETECTED
- PROPERTY NOT TESTED

- 12.05 PIEZOMETRIC SURFACE ELEVATION
- INFERRED PIEZOMETRIC SURFACE CONTOUR
- APPROXIMATE GROUNDWATER FLOW DIRECTION -30 TO -40' INTERVAL
- 12.13 WATER TABLE ELEVATION
- INFERRED WATER TABLE CONTOUR
- APPROXIMATE SHALLOW GROUNDWATER FLOW DIRECTION
- ↓ VERTICAL GROUNDWATER GRADIENT
- APPROXIMATE EXTENT OF 1,4 DIOXANE RELEASE

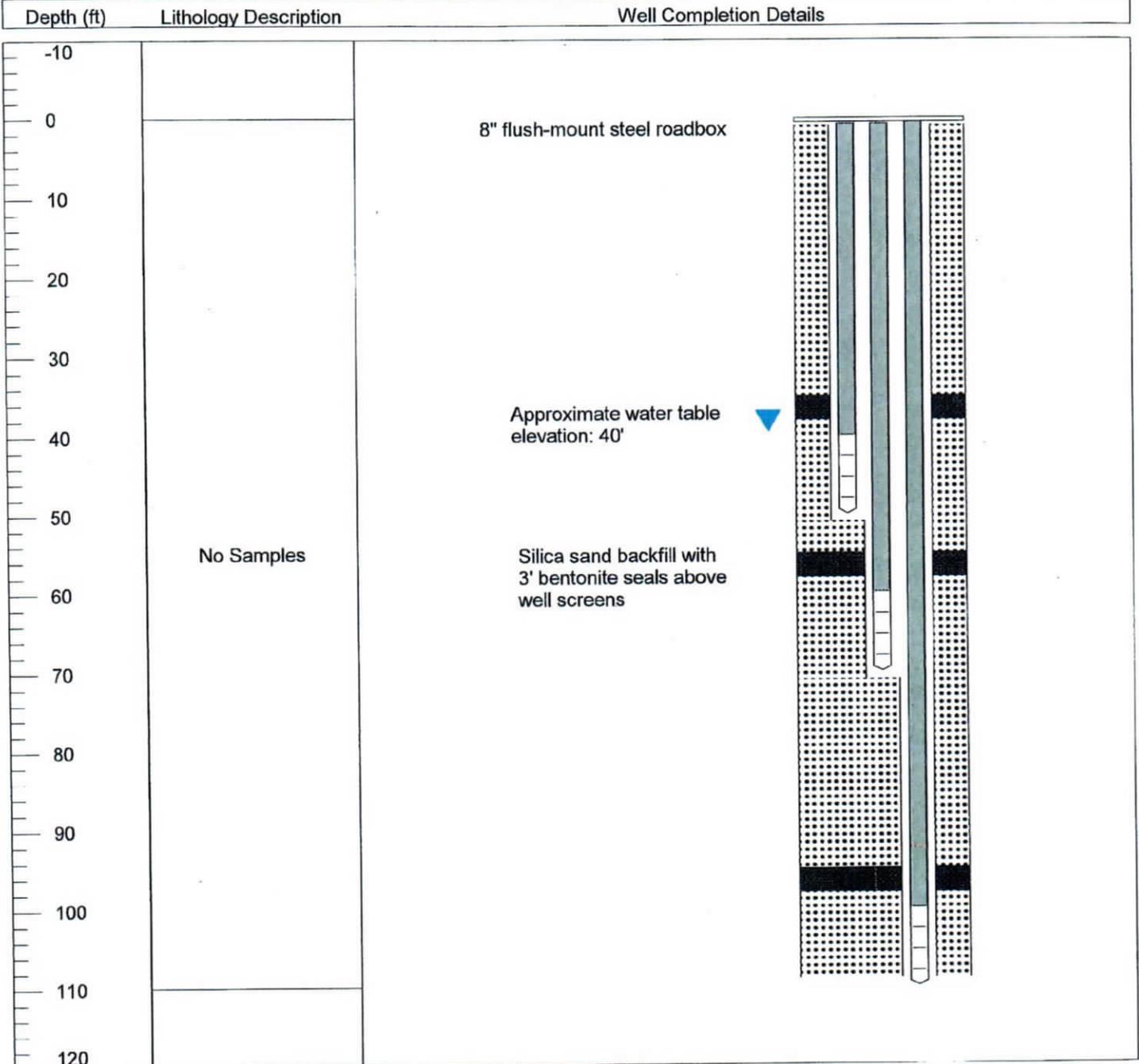
| | | |
|--|---|---|
| Environmental Strategies & Management | | 225 West Street Boston, MA 02111 TEL: 617-552-1111 FAX: 617-552-1112 |
| ADDRESS: 12/02/14 DATE: 12/02/14 SCALE: AS SHOWN AND ALL | ESTIMATED GROUNDWATER FLOW PATTERNS VICINITY OF EASTHAM LANDFILL | |
| CLIENT: TOWN OF EASTHAM | PROJECT NO.: 1 | |
| LOCATION: OLD ORCHARD ROAD EASTHAM, MASSACHUSETTS | DATE: 12/02/14 | |
| TITLE: GROUNDWATER FLOW PATTERNS | DRAWN BY: DMR | |
| PROJECT NO.: 1 | DATE: 12/02/14 | |



Project: Eastham Landfill
 Project #: 2015-038
 Drill Date: November 3, 2015
 Geologist: E. Cucé



Well: ESMW-1s/i/d



Environmental Strategies & Management, Inc.
 273 West Main Street
 Norton, MA 02766
 508-226-1800

Borehole Depth: 110'
Drill Method: Casing Drive
Screen Intervals:
 -1s: 40-50'
 -1i: 60-70'
 -1d: 100-110'

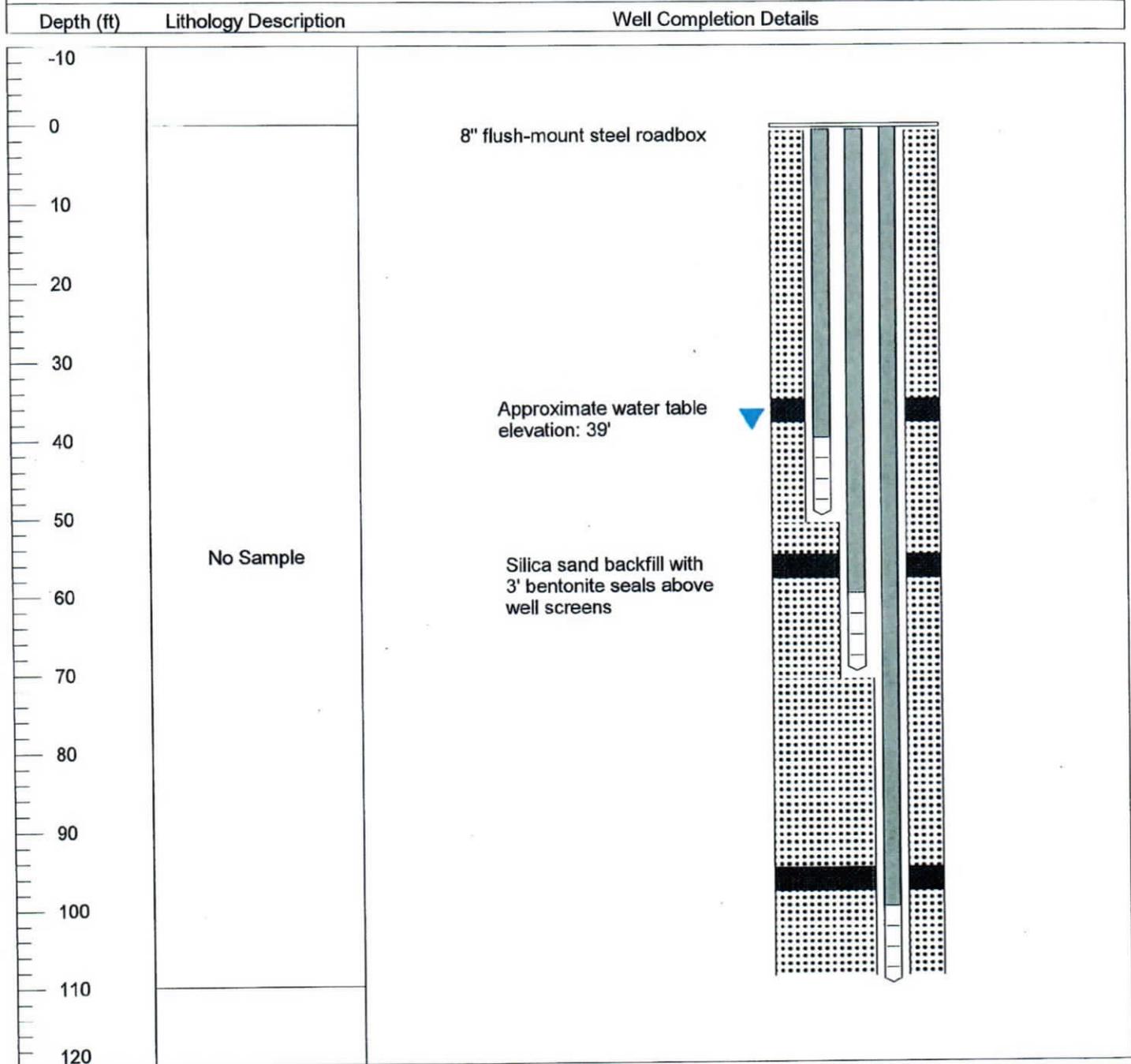
Driller: Technical Drilling Services, Inc.
Borehole Diameter: 4"
Well diameter: 3/4" PVC
Sample Type: none

Project: Eastham Landfill
 Project #: 2015-038
 Drill Date: November 4, 2015
 Geologist: E. Cucé



Environmental
 Strategies
 & Management

Well: ESMW-2s/i/d



Environmental Strategies & Management, Inc.
 273 West Main Street
 Norton, MA 02766
 508-226-1800

Borehole Depth: 110'
 Drill Method: Casing Drive
 Screen Intervals:
 -2s: 40-50'
 -2i: 60-70'
 -2d: 100-110'

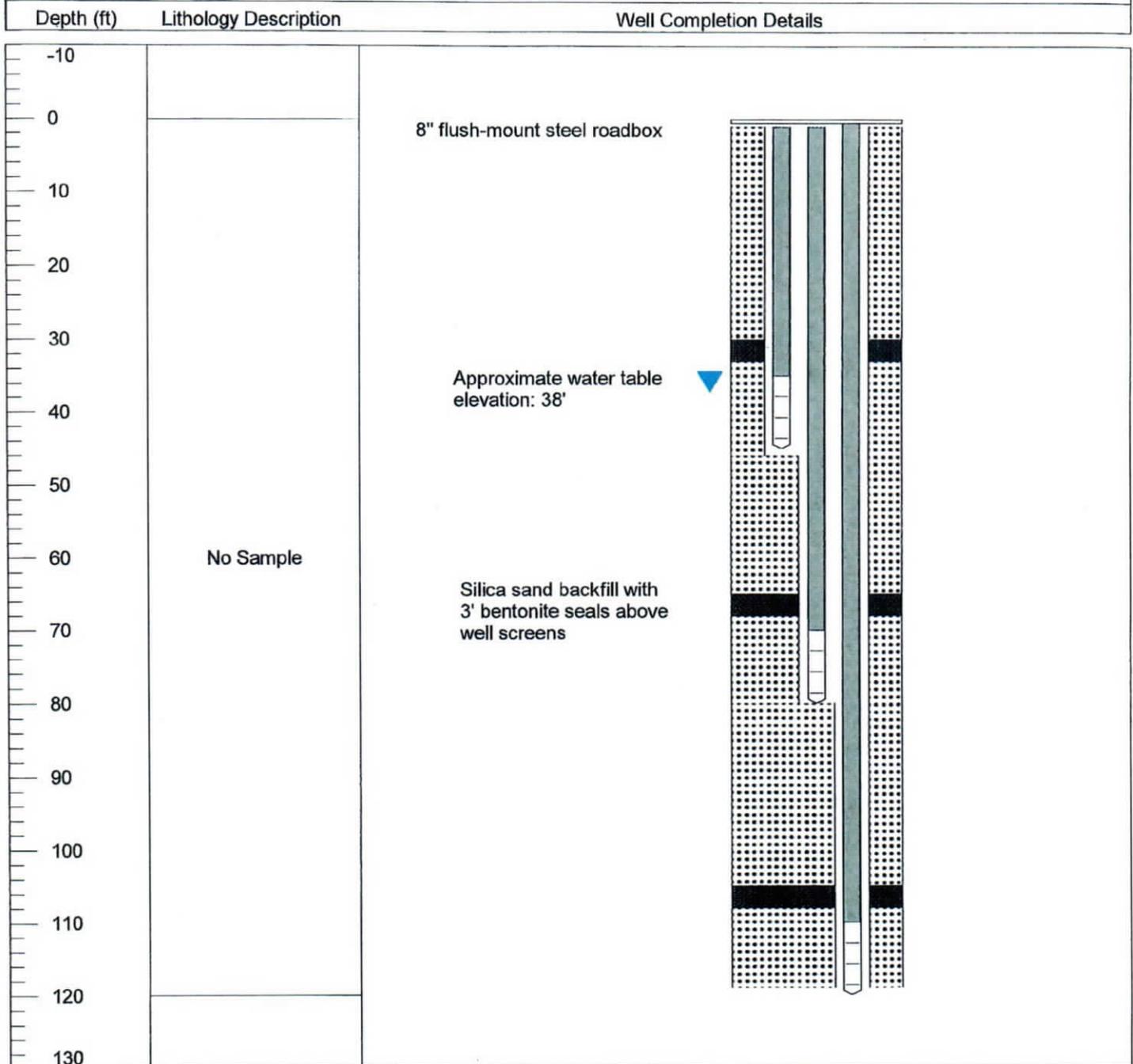
Driller: Technical Drilling Services, Inc.
 Borehole Diameter: 4"
 Well diameter: 3/4" PVC
 Sample Type: none

Project: Eastham Landfill
Project #: 2015-038
Drill Date: November 6, 2015
Geologist: E. Cucé



**Environmental
 Strategies
 & Management**

Well: ESMW-3s/i/d



Borehole Depth: 120'
Drill Method: Casing Drive
Screen Intervals:
 -3s: 35-45'
 -3i: 70-80'
 -3d: 110-120'

Environmental Strategies & Management, Inc.
 273 West Main Street
 Norton, MA 02766
 508-226-1800

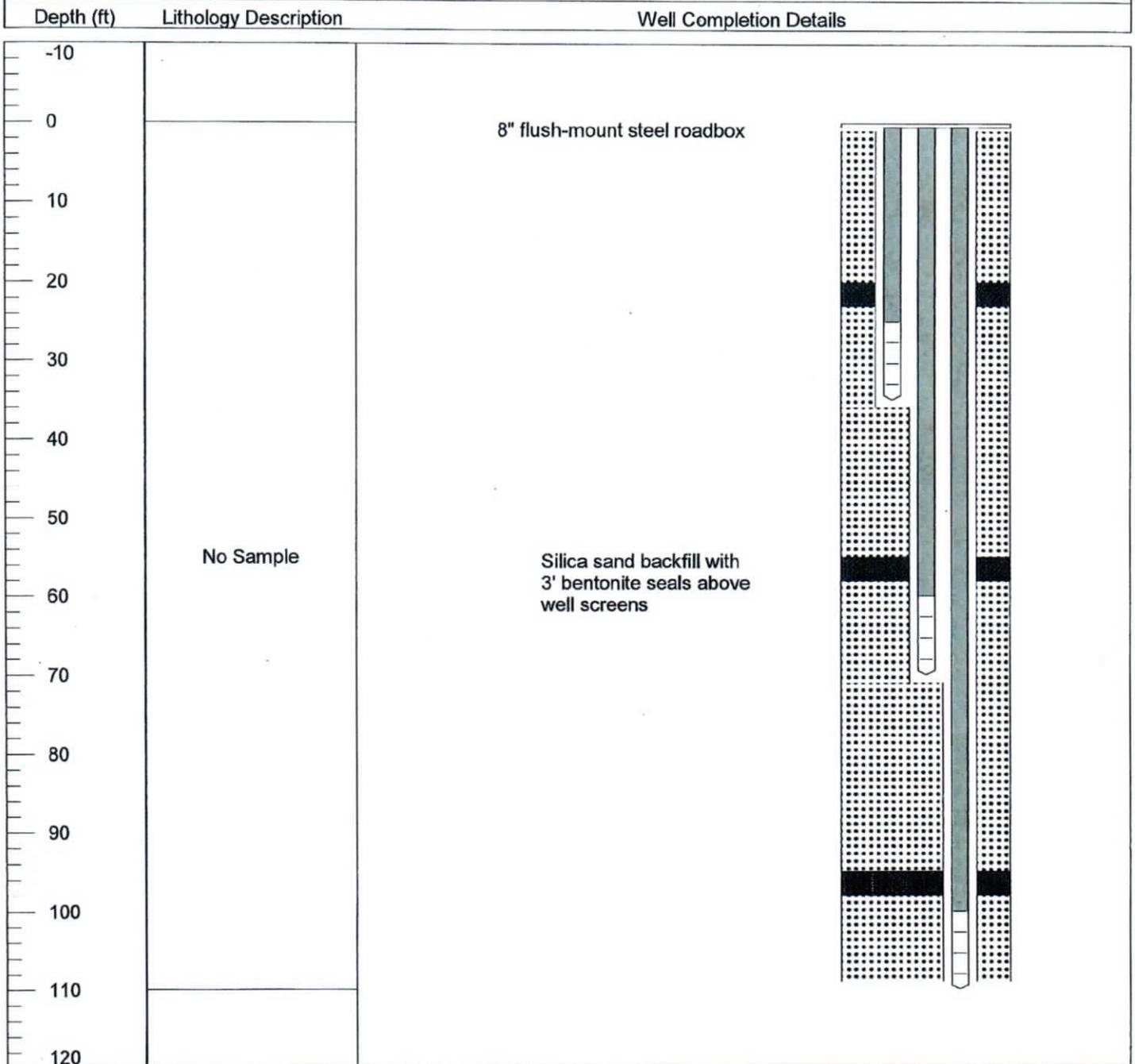
Driller: Technical Drilling Services, Inc.
Borehole Diameter: 4"
Well diameter: 3/4" PVC
Sample Type: none

Project: Eastham Landfill
 Project #: 2015-038
 Drill Date: November 9, 2015
 Geologist: E. Cucé



Environmental
 Strategies
 & Management

Well: ESMW-4s/i/d



| | | |
|--|--|--|
| <p>Borehole Depth: 110' Drill Method: Casing Drive Screen Intervals: -4s: 25-35' -4i: 60-70' -4d: 100-110'</p> | <p>Environmental Strategies & Management, Inc. 273 West Main Street Norton, MA 02766 508-226-1800</p> | <p>Driller: Technical Drilling Services, Inc. Borehole Diameter: 4" Well Diameter: 3/4" PVC Sample Type: none</p> |
|--|--|--|

TABLE 1
SUMMARY OF ANALYTICAL RESULTS
GROUNDWATER
1,4 DIOXANE AND DISSOLVED METALS
EASTHAM LANDFILL MONITORING WELLS

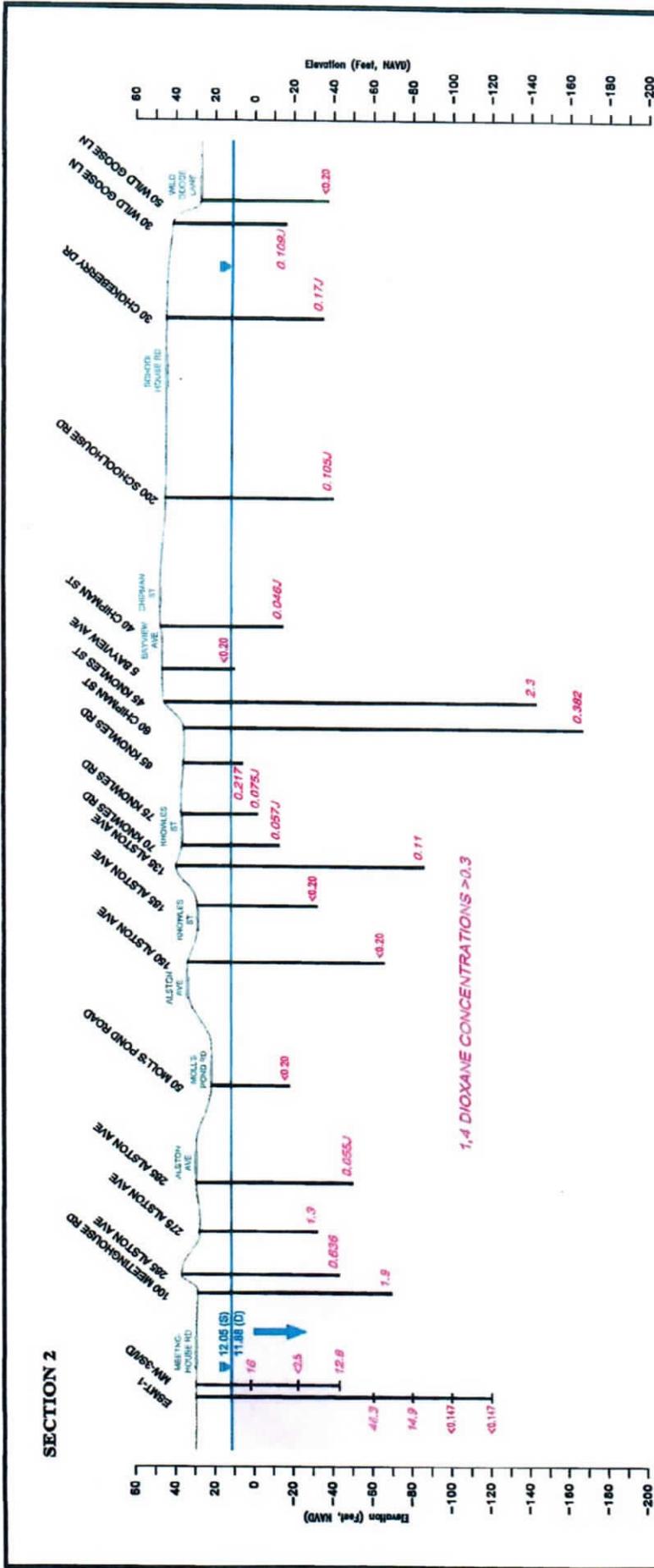
| Sample ID | Date Sampled | 1,4-DIOXANE (ug/L) | ARSENIC (ug/L) | BARIUM (ug/L) | CADMIUM (ug/L) | CHROMIUM (ug/L) | COPPER (ug/L) | IRON (ug/L) | LEAD (ug/L) | MANGANESE (ug/L) | MERCURY (ug/L) | SELENIUM (ug/L) | SILVER (ug/L) | ZINC (ug/L) |
|-----------|--------------|-----------------------|-------------------|------------------|-------------------|--------------------|------------------|----------------|----------------|---------------------|-------------------|--------------------|------------------|----------------|
| ESMWH-18 | 08/21/2016 | 1.39 | 2.0J | 182 | <4.0 | <10 | 2.0J | 20J | <10 | 576 | <0.2 | <10 | <7.0 | 12J |
| ESMWH-11 | 08/21/2016 | 0.264 | <4.0 | 56 | <4.0 | 3.3J | 2.0J | 960 | <10 | 60 | <0.2 | <10 | <7.0 | 8.0J |
| ESMWH-10 | 08/21/2016 | <0.144 | <4.0 | 6.0J | <4.0 | <10 | <10 | 1100 | 3.0J | 306 | <0.2 | 3.0J | <7.0 | <50 |
| ESMWH-28 | 08/21/2016 | <0.156 | <4.0 | 34 | <4.0 | 20 | 6.0J | 4400 | 5.0J | 56 | <0.2 | <10 | <7.0 | 12J |
| ESMWH-21 | 08/21/2016 | <0.147 | 18 | 204 | 1.0J | 200 | 151 | 51000 | 66 | 434 | <0.2 | <10 | <7.0 | 289 |
| ESMWH-25 | 08/21/2016 | 0.172 | <4.0 | 3.0J | <4.0 | <10 | <10 | 310 | <10 | 38 | <0.2 | <10 | <7.0 | <60 |
| ESMWH-35 | 08/21/2016 | 0.148 | 21 | 126 | <4.0 | 186 | 48 | 59000 | 38 | 785 | <0.2 | <10 | <7.0 | 176 |
| ESMWH-31 | 08/21/2016 | 0.195J | 15 | 71 | <4.0 | 80 | 28 | 32000 | 21 | 1790 | <0.2 | <10 | <7.0 | 95 |
| ESMWH-30 | 08/21/2016 | 0.197J | 38 | 381 | 1.0J | 400 | 188 | 140000 | 140 | 1470 | <0.2 | <10 | <7.0 | 527 |
| ESMWH-41 | 08/21/2016 | <0.147 | <4.0 | 11 | <4.0 | <10 | 2.0J | 90 | <10 | 201 | <0.2 | <10 | <7.0 | <60 |
| ESMWH-40 | 08/21/2016 | <0.147 | <4.0 | 15 | <4.0 | 3.7J | 4.0J | 2900 | 3.0J | 87 | <0.2 | <10 | <7.0 | 9.0J |



TABLE 1
SUMMARY OF ANALYTICAL RESULTS
GROUNDWATER
PRB SITE CHARACTERIZATION
EASTHAM LANDFILL MONITORING WELLS

| Sample ID | Date Sampled | DISSOLVED ORGANIC CARBON (mg/L) | NITROGEN, AMMONIA (mg/L) | NITROGEN, NITRATE (mg/L) | NITROGEN, NITRATE/ NITRITE (mg/L) | NITROGEN, NITRATE/ NITRITE (mg/L) | NITROGEN, NITRATE/ NITRITE (mg/L) | NITROGEN, NITRATE/ NITRITE (mg/L) | OXIDATION/ REDUCTION POTENTIAL (mV) | PH | SULFATE (mg/L) | TOTAL NITROGEN (mg/L) |
|-----------|--------------|--|--------------------------------|--------------------------------|---|---|---|---|--|-----|-------------------|-----------------------------|
| ESMAW-1S | 08/21/2016 | 2.0 | 2.6 | 32.9 | 35 | 0.029J | 0.029J | 0.907J | 290 | 5.1 | 13 | 53 |
| ESMAW-1I | 08/21/2016 | 0.81J | 0.097 | 18.4 | 16 | 0.012J | 0.012J | 0.151J | 260 | 5.4 | 6.4J | 16 |
| ESMAW-1D | 08/21/2016 | 0.55J | -0.075 | 1.71 | 1.7 | 0.029J | 0.029J | 0.478 | 190 | 5.7 | 6.3J | 2.2 |
| ESMAW-2S | 08/21/2016 | 3.4 | 0.478 | -0.1 | -0.1 | -0.05 | -0.05 | 1.24 | 120 | 5.7 | 1.0J | 1.2 |
| ESMAW-2I | 08/21/2016 | 7.5 | 1.64 | 0.030J | 0.031J | 0.013J | 0.013J | 3.71 | 68 | 5.7 | 2.2J | 5.7 |
| ESMAW-2D | 08/21/2016 | 0.38J | -0.075 | -0.1 | -0.1 | -0.05 | -0.05 | 0.34 | 190 | 5.0 | 14 | 0.34 |
| ESMAW-3S | 08/21/2016 | 1.0 | 0.065J | 1.96 | 1.6 | -0.05 | -0.05 | 2.94 | 200 | 5.5 | 15 | 4.5 |
| ESMAW-3I | 08/21/2016 | 0.84J | 0.492 | -0.1 | -0.1 | -0.05 | -0.05 | 3.95 | 190 | 5.5 | 6.5J | 3.4 |
| ESMAW-3D | 08/21/2016 | 0.89J | 0.191J | 1.28 | 1.2 | -0.05 | -0.05 | 7.8 | 200 | 5.5 | 10 | 9.0 |
| ESMAW-4I | 08/21/2016 | 0.59J | -0.15 | 4.31 | 4.3 | -0.05 | -0.05 | 2.88 | 190 | 6.1 | 7.4J | 7.0 |
| ESMAW-4D | 08/21/2016 | 0.94J | 0.196J | 2.8 | 2.8 | -0.05 | -0.05 | 4.1 | 210 | 5.9 | 6.8J | 6.9 |





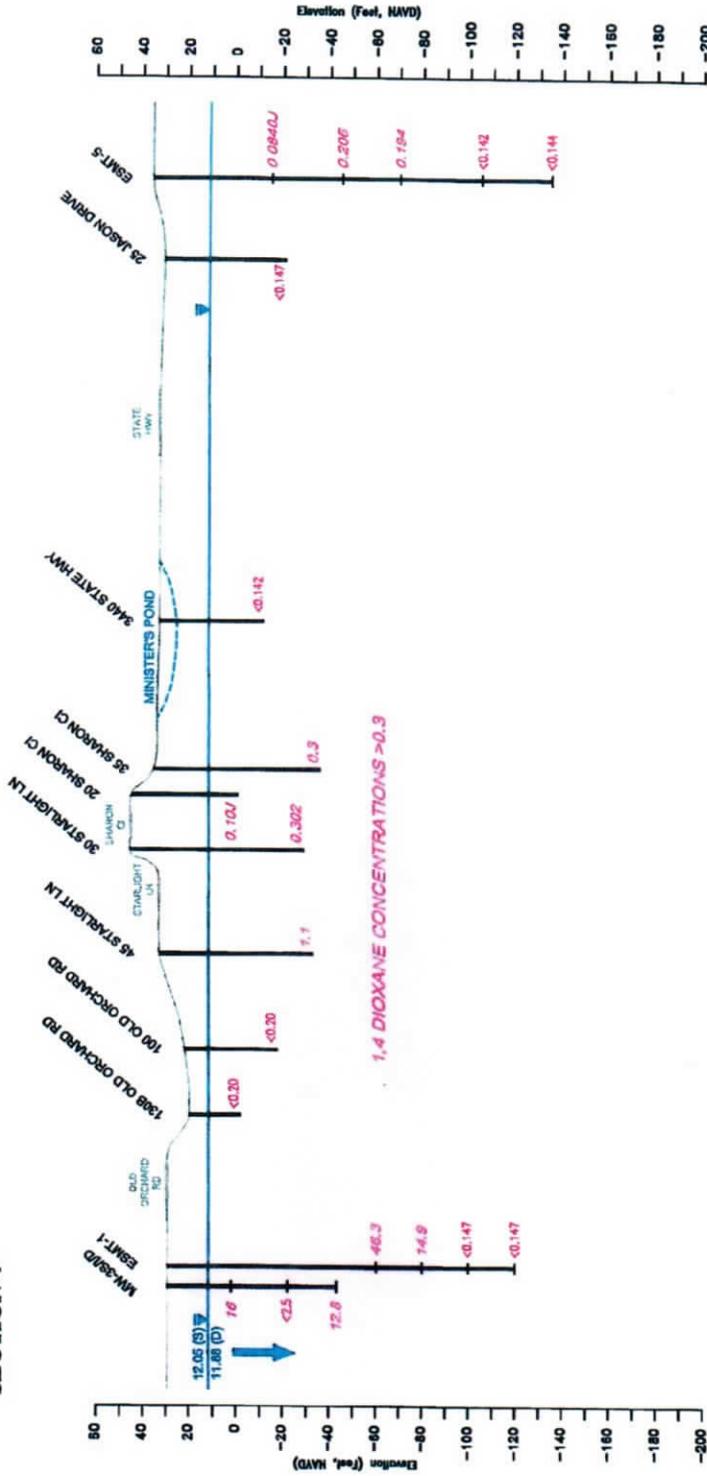
| | | | |
|------------------|--|---|----------|
| | | 270 West Jamb Street Boston, MA 02118 (617) 552-1000 (800) 338-1811 Fax info@es-and-m.com | |
| GAUGING DATE: | 10/30/14 | DRAWING DATE: | 11/20/14 |
| AGAD FILE: | EASTHAM LANDFILL | | |
| SECTION 2 | | | |
| CLIENT: | TOWN OF EASTHAM | | |
| LOCATION: | OLD ORCHARD ROAD EASTHAM, MASSACHUSETTS | | |
| RTN: | 4-24301 | PROJECT NO.: | 2013-027 |
| DMR: | DMR | FIGURE: | 1 |

50'

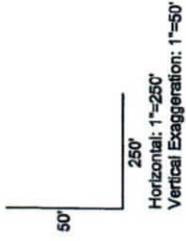
250'

Horizontal: 1"=250'
Vertical Exaggeration: 1"=50'

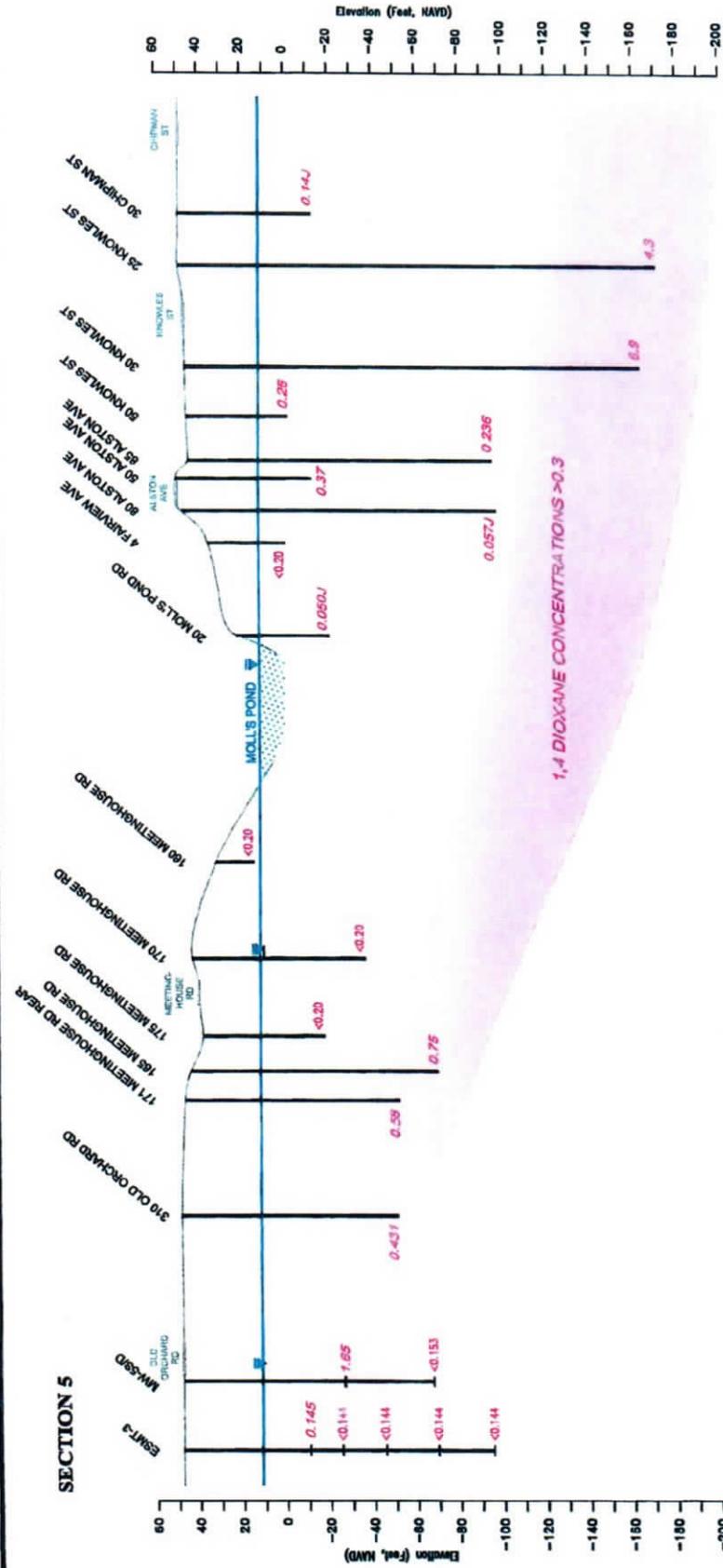
SECTION 4



| | | |
|-------------------------|--|---|
| | Environmental Strategies & Management 278 West Main Street (508) 228-1800 (508) 228-1811 Fax info@esm-ma.com | DRAWING DATE: 10/30/14 DRAWING DATE: 11/20/14 ACAD FILE: EASTHAM LANDFILL |
| | <h2 style="text-align: center;">SECTION 4</h2> | |
| CLIENT: TOWN OF EASTHAM | LOCATION: OLD ORCHARD ROAD EASTHAM, MASSACHUSETTS | PM: DH |
| RTR: 4-24301 DMR | PROJECT NO.: 2013-027 | FIGURE: 1 |



SECTION 5



1,4 DIOXANE CONCENTRATIONS > 0.3

LEGEND

APPROXIMATE WELL LOCATION AND DEPTH ON PROPERTY INDICATED

1.9 1,4 DIOXANE DETECTED IN UG/L

<0.20 BELOW DETECTION LIMIT

APPROXIMATE WATER TABLE



Horizontal: 1"=250'
Vertical Exaggeration: 1"=50'

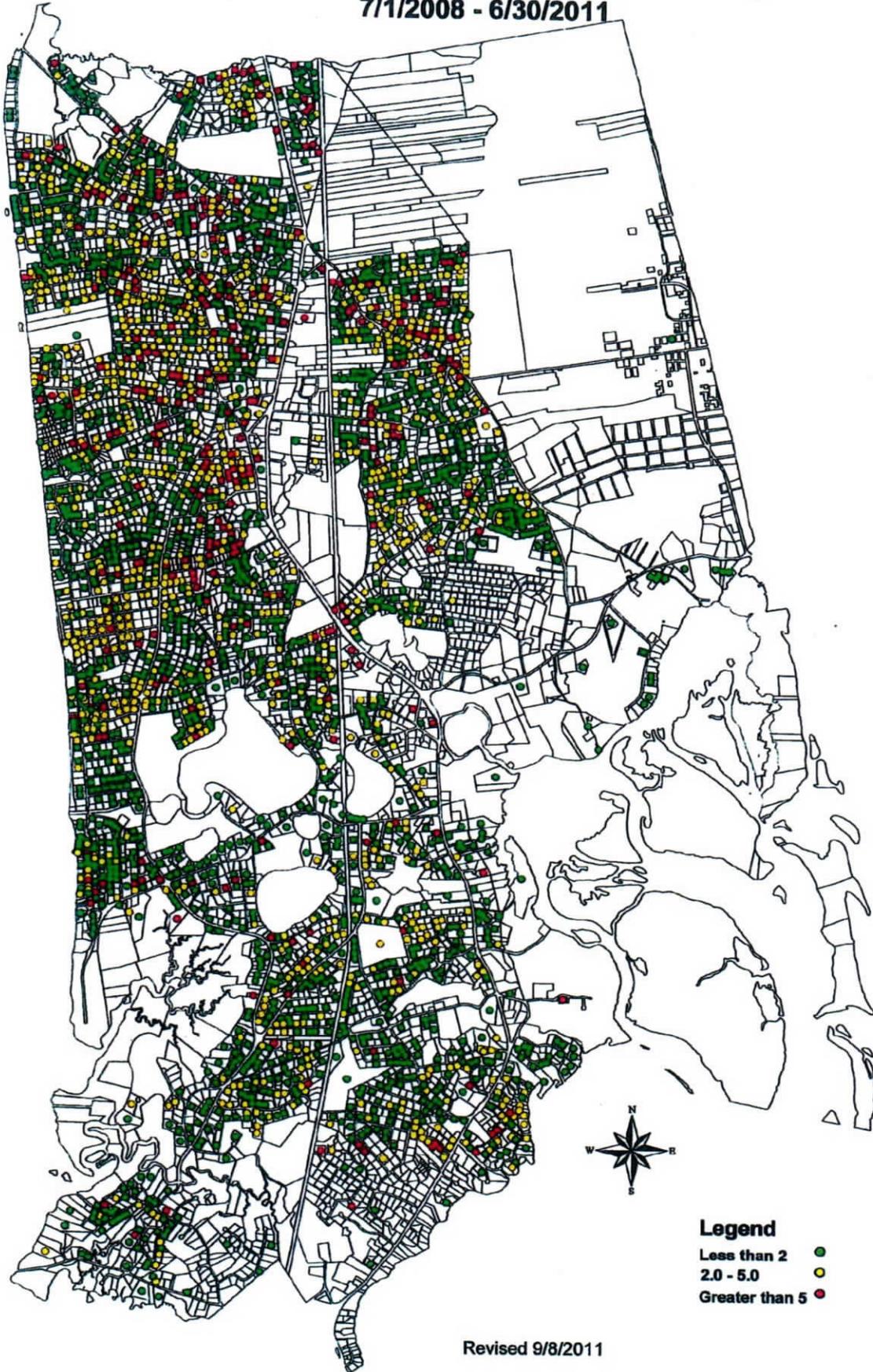
Environmental Strategies & Management
775 West Main Street
Eastham, MA 01920
(508) 255-1800
(508) 255-1811 Fax
info@esm-ma.com

GAUGING DATE: 10/30/14
DRAWING DATE: 11/20/14
ACAD FILE: EASTHAM LANDFILL

SECTION 5

| | | | |
|-----------|--|--------------|----------|
| CLIENT: | TOWN OF EASTHAM | FIGURE: | 1 |
| LOCATION: | OLD ORCHARD ROAD EASTHAM, MASSACHUSETTS | LSP: | DH |
| RTN: | 4-24301 | PROJECT NO.: | 2013-027 |
| DMR: | | | |

Eastham Water Survey Program - Nitrate Analysis
7/1/2008 - 6/30/2011



Legend

- Less than 2 ●
- 2.0 - 5.0 ●
- Greater than 5 ●

Revised 9/8/2011

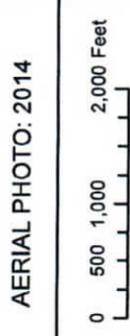
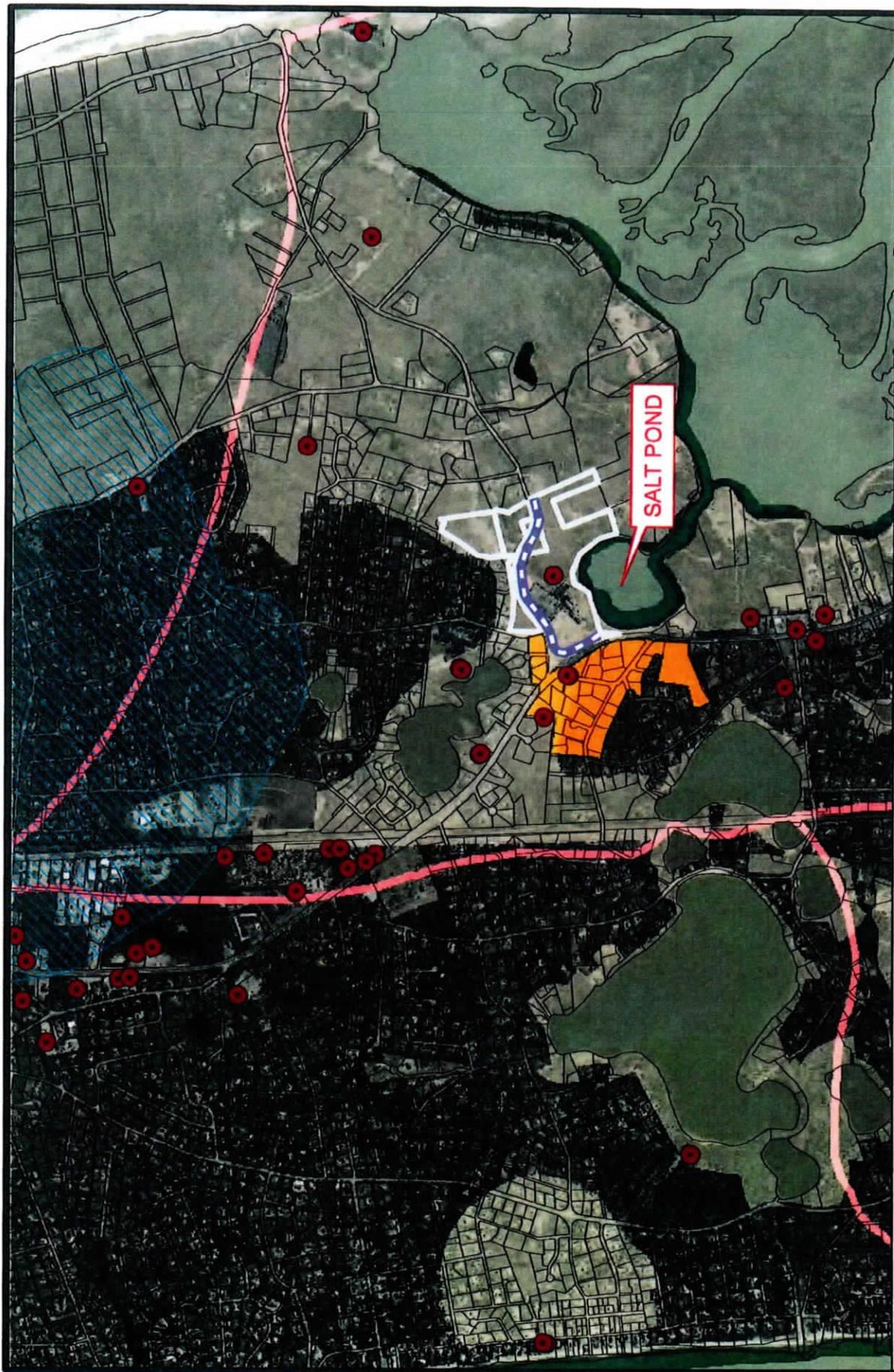
Eastham Water Survey Program - Nitrate Analysis
7/1/2005 - 6/30/2008



Revised 10/29/08

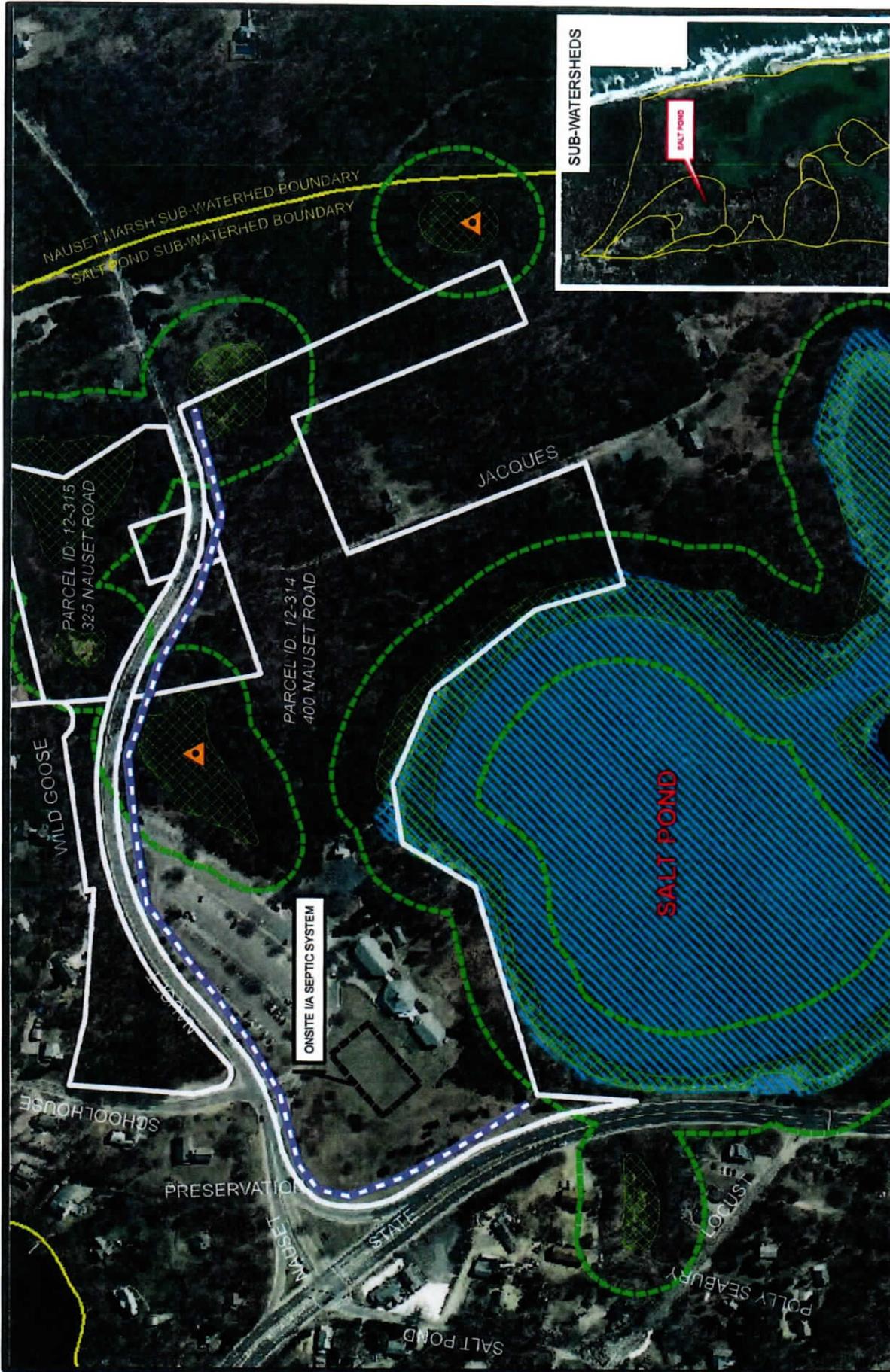
Eastham Water Survey Program
Nitrate Analysis
FY 2003 - FY 2004





Town of Eastham
SALT POND STUDY AREA
MAP 2: REGULATORY

- PUBLIC SUPPLY WELLS
- ZONE II EMBAYMENTS
- POTENTIAL PERMEABLE REACTIVE BARRIER
- NATIONAL SEASHORE PROPERTY ESTIMATED PRIORITY HABITAT
- OLD TOWN CENTER HISTORIC DISTRICT



AERIAL PHOTO: 2014



Town of Eastham
SALT POND STUDY AREA
MAP 1: ENVIRONMENTAL

-  CERTIFIED VERNAL POOLS
-  POTENTIAL PERMEABLE REACTIVE BARRIER
-  NATIONAL SEASHORE PROPERTY
-  DEP WETLANDS
-  100 FOOT BUFFER WETLANDS
-  FEMA FLOOD ZONE AE
-  SUB-WATERSHEDS

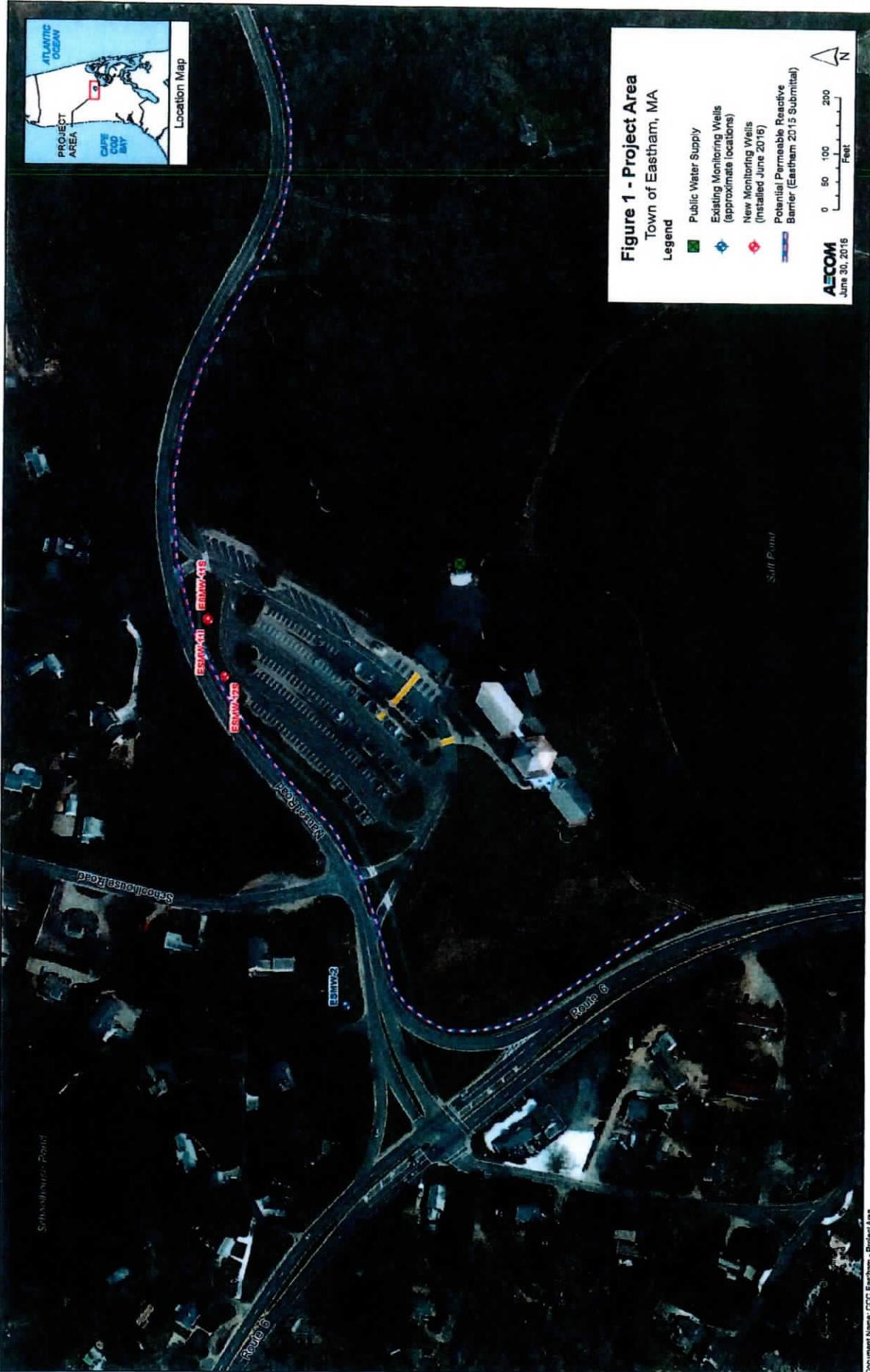


Figure 1 - Project Area
 Town of Eastham, MA

Legend

- Public Water Supply
- Existing Monitoring Wells (approximate locations)
- New Monitoring Wells (Installed June 2016)
- Potential Permeable Reactive Barrier (Eastham 2015 Submittal)

0 50 100 200 Feet

AECOM
 June 30, 2016



Table 5 – June 2016 Groundwater Sampling Results

| Parameter | Unit | ESMW-11S | ESMW-11I | ESMW-12S |
|------------------------------|----------|----------|----------|----------|
| Field Parameters | | | | |
| pH | pH units | 6.02 | 6.67 | 6.98 |
| Specific Conductivity | µS/cm | 170.00 | 242.00 | 431.00 |
| DO | mg/L | 6.52 | 5.60 | 3.76 |
| ORP | mV | 74.00 | -148.00 | -260.60 |
| Turbidity | NTU | 33.00 | 67.80 | 290.00 |
| Laboratory Parameters | | | | |
| Nitrate | mg/L | 1.71 | 1.02 | 3.74 |
| Total Kjeldahl Nitrogen | mg/L | 0.33 | 0.2 | 1.22 |
| Dissolved Iron | mg/L | <0.1 | <0.1 | 0.39 |
| Dissolved Manganese | mg/L | <0.01 | <0.01 | 0.042 |
| Boron | mg/L | 0.28 | 0.086 | 0.352 |
| Ammonia Nitrogen | mg/L | 0.176 | 0.245 | 1.13 |
| Chloride | mg/L | <0.05 | <0.05 | <0.05 |
| Dissolved Organic Carbon | mg/L | 31.7 | 48 | 89.8 |
| Nitrite | mg/L | <0.5 | 0.585 | 0.563 |
| Sulfate | mg/L | 11.3 | 14.5 | 14 |
| Total Phosphorus | mg/L | <0.1 | 0.12 | 0.17 |

Notes:

1. ESMW-11I and ESMW-12S are located at the same screen interval.

Table 1 - Well Screen Locations and Elevations (feet bgs)

| Well ID | Well Depth | Well Screen | Water Level |
|----------|------------|-------------|-------------|
| ESMW-11I | 55 | 45 - 55 | 18.90 |
| ESMW-11S | 38 | 28 - 38 | 18.05 |
| ESMW-12S | 55 | 45 - 55 | 21.90 |



View from the Cape Cod National Seashore Salt Pond Visitor Center

Photo from Friends of the Cape Cod National Seashore Website <http://www.fccns.org/gallery7.html>

ATTACHMENT B Cape Cod Water Quality Monitoring Data Base

| FIELD | EXPLANATION |
|-------------------|---|
| Stn_OLD | Station name in earlier versions of the database. |
| Stn_NEW | Station name as adopted or revised in spring 2014. |
| Stn_EQUIV | Equivalent station name for temporary station variants (sampled at other end of dock, other side of road bridge, etc.). |
| SAMP_DATE | Date sample collected. |
| YEAR | Year sample collected. |
| UniqueID | A unique ID generated by the formula =[@[Stat_NEW]]&"-"&[@Dataset]&"-"&YEAR([@[SAMP_DATE]])&"-"&MONTH([@[SAMP_DATE]])&"-"&DAY([@[SAMP_DATE]])&"-"&HOUR([@[TIME_FIX]])&"-"&MINUTE([@[TIME_FIX]])&"-"&[@[S_D1]]&"-"&[@[SamDep_m2]]&"-"&[@Dup]. Note that because some depths and times may be added to the database, this field may change, so it is advised not to use until these corrections are made. |
| Embayment | Principal embayment name. |
| Sub_Embay | Subembayment name |
| WQI_AREA | Water Quality Index Embayment Area under which the station was typically aggregated by the Coalition, usually the same as subembayment. |
| Dataset | Data origins: X= Oxygen data set, N= Nutrient data set |
| Source | Program Source (BBC= Coalition program, Pondwatchers=Falmouth Pond watchers, or other specific study |
| GEN_QC | Gen_QC=9 will kill the entire line of data in the "Final" column fields. This is justified if for example there is doubt as to whether the sample was properly labeled. See the rules tab for all QC codes. |
| TIME | Time (repaired from original entries) |
| Time_QC | If there is doubt about the time entry, a value of 2 will be indicated. See the rules tab for all QC codes. |
| Dup | 0=no replicates, 1= there is another sample taken at approximately the same depth and location, but a few minutes different (these values should be filtered out if there are corresponding "2" records), 2= the value for the record represent the mean of two values in the database (respective O2 or Nutrient data). |
| S_D | "S" for Shallow or "D" for "Deep." Generally, S samples are taken 15 cm from the surface and D samples taken 30 cm from the bottom. |
| SamDep_m | Sample depth as reported |
| SamDep_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| SECCHI_M | Secchi depth in meters. |
| Secc_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. Flagged for review include 2's were greater than total depths and 8's for likely data entry errors. |
| Tot_Dep_m | Total depth of station on that particular sampling date and time. |
| TotDep_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| TEMP_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. Flagged for review include 2's outside of norms for time of year and 8's for likely data entry errors for impossible summer temps (e.g. 2.3 C in July). |
| DO_Meth | DO method (see Methods tab) |
| DO_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| Sal_meth | salinity method |
| Sal_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. Flagged for review; including 2's were outside of norms, and 8's for likely data entry errors. |
| PO4_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| TP_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| NH4_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| NOX_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| TDN_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| PON_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| POC_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| CHLa_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| CHLa_METH | Chlorophyll a method |
| Phae_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| Lab_sal_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| lab_cond | Laboratory conductivity measurement |
| DOC_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| QA_Comm | Comments entered during QA review |
| Lab_Comm | Comments added by laboratory |
| BWV_Comm | Baywatcher Comments from data sheet. |
| H2O_surf | Observation about the surface of the water. |

| | |
|---------------------|---|
| Birds | Observation about birds. |
| Fish | Observations about fish. |
| Chla_ugl_DO | Additional chlorophyll a data collected during O2 monitoring. This data may not have been added to the regular chlorophyll column |
| pH | pH as measured using YSI Sondes. |
| BEAU | Beaufort scale to estimate wind speed. |
| BEAU_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| EBB | E = Ebbing (outgoing) tide of low slack, F = Flooding (incoming) tide of high slack. |
| WTHR | 1: Cloudless, 2: Pt. Cloudy, 3: Overcast, 4: Fog/Haze, 5: Drizzle, 6: Intermit. Rain, 7: Rain, 8: Snow. |
| Prec_FIN | 24 Hour Precipitation 1:None, 2:Light, 3:Heavy. |
| WIND | Wind direction, generally 8 compass points, sometimes more. |
| O2_WQI_range | DO data collected during month and hours valid for DO percent calculation. |
| TempC_FIN | Temperature in degrees C after removal of bad data by filters. |
| SAL_FIN | Salinity after removal of bad data by filters. |
| DOmg_FIN | Dissolved oxygen in mg/L after removal of bad data by filters. |
| DO_Per_FIN | DO percent calculation |
| NH4uM_FIN | Ammonia in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns) |
| NOxuM_FIN | Nitrate+ Nitrite in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DINuM_FIN | Dissolved inorganic nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DINppm_FIN | Dissolved inorganic nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TDNuM_FIN | Total Dissolved nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DONuM_FIN | Dissolved organic nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DONppm_FIN | Dissolved organic nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| PONppm_FIN | Particulate organic nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| PONuM_FIN | Particulate organic nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TONppm_FIN | Total organic nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TONuM_FIN | Total organic nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TNppm_FIN | Total nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns) |
| TNuM_FIN | Total nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| PO4uM_FIN | Orthophosphate (inorganic) in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TPuM_FIN | Total Phosphorus in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| POCuM_FIN | Particulate organic carbon in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DOCuM_FIN | Dissolved organic carbon in μ M after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| Chla_ugL_FIN | Chl a in μ g/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| Pheo_ugL_FIN | Phaeophytin in μ g/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| CHL_PHA_FIN | Chlorophyll + Phaeophytin in μ g/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns)., not yet validated for limits of detection, etc. |

MEMORANDUM OF AGREEMENT
BETWEEN

Barnstable County acting through the
Cape Cod Water Protection Collaborative
3225 Main Street
P. O. Box 226
Barnstable, MA 02630

and

Town Manager on behalf of
Town of Falmouth
59 Town Hall Square
Falmouth, MA 02540

This Memorandum of Agreement (Agreement) is entered into this _____ day of _____ by and between Barnstable County, acting by and through the Cape Cod Collaborative (hereafter referred to as the "Collaborative") and the Town Manager on behalf of the Town of Falmouth (hereafter referred to as the "Town.")

WHEREAS, Barnstable County, through the Collaborative, seeks to enhance the water and wastewater management efforts of towns, and

WHEREAS, the Collaborative wishes to contribute accurate, unbiased science that can be used to guide decision-makers in cleaning up coastal waters, and

WHEREAS, the Town is interested in utilizing Collaborative funds for this purpose.

NOW THEREFORE, the Town enters into this Memorandum of Agreement with the Collaborative.

1. RESPONSIBILITIES OF THE TOWN

- a) The Town agrees to use these funds for expenses related to the Water Quality Monitoring project per Attachment A. The Town also agrees to provide all data collected to the Collaborative for integration into the Cape Cod Water Quality Monitoring Data Base in a format compatible with the fields detailed in Attachment B. A blank database template may be downloaded at www.watershedmvp.org/waterqualitymonitoring.
- b) The Town shall maintain books, records, and other compilations of data pertaining to this work and/or services performed and the funds received and paid out under this Agreement to the extent and in such detail as shall properly substantiate claims for payment under the Agreement. All such records shall be kept for a period of six (6) years or for such longer period as is specified herein. All retention periods start on the first day after final payment under this Agreement. If any litigation, claim, negotiation, audit or other action involving the records is commenced prior to the expiration of the applicable retention period, all records shall be retained until completion of the action and resolution of all issues resulting therefrom, or until the end of the applicable retention period, whichever is later.
- c) The Town shall maintain financial records of the application and expenditure of the funds received hereunder in at least as much detail as may be contemporaneously required to comply with the financial reporting and record keeping requirements mandated by the Bureau of Accounts of the Department of Revenue, or any successor thereto, with respect to the Town's ordinary custody and expenditure of funds.

ATTACHMENT A SCOPE OF WORK

Water Quality Monitoring for Falmouth's South Coast and West Falmouth

Harbor Task 1: Water Quality Sample Analysis.

Consistent with water quality monitoring activities undertaken for the Town of Falmouth by the UMass Dartmouth School for Marine Science and Technology (SMAST)/Coastal Systems Program under the PondWatch Water Quality Monitoring Program (initiated in the mid-1980s), the Coastal Systems Analytical Facility will analyze estuarine water quality samples collected from historic PondWatch and MEP stations. The samples will be collected from the six estuaries listed below.

The samples will be collected during two dates in July and two dates in August, roughly corresponding to sampling every other week in the summer of 2016, 2017 and 2018. Samples will be collected from multiple depths as appropriate and consistent with sample depths from previous years and will be collected from the same station locations, depths and sampling dates (as practical) for enhanced cross comparability to data sets from previous years.

Stations to be sampled in each estuary include:

1. West Falmouth Harbor (WF-1,2,3,4,5,6,7 {surface and bottom}, WF-8 {surface, 2m, 4m, 6m, 8m}) 20 samples/event. MEP Sentinel Station WF-5.
2. Oyster Pond (OP Head {surface}, OP-1 {surface, 2m, 4m}, OP-2 {surface, 2m, 3.25m}, OP-3 {surface 2m, 4m 6m}), 11 samples/event. MEP Sentinel Station OP-3.
3. Little Pond (LP Head {surface}, LP-1,2,3, {surface and bottom}), 7 samples/event. MEP Sentinel Station LP-2.
4. Great Pond (GTP-1 {surface}, GTP-2,3,4,5,6 {surface and bottom}), 11 samples/event. MEP Sentinel Station GTP-5.
5. Green Pond (GP-1 {surface}, GP-2,2A,3,4,5 {surface and bottom}, VS-1 {surface, 1m, 2m}), 14 samples/event. MEP Sentinel Station GP-4.

6. Bournes Pond (BP-1 {surface}, BP-2;3,4,5,6 {surface and bottom}), 11 samples/event. MEP Sentinel Station BP-3

Table 1 shows the station number and number of samples to be collected per station. Table

1: Sampling Plan for Monitoring Stations

| Station Number | Embayment | Sample Station Depth | # of Samples |
|--|------------------|--|--------------|
| BOURNES POND | | | |
| BP 1,2,3 | Bournes P. | BP1 (surf) BP2 (surf & bott.) BP3 (surf & bott.) | 5 |
| BP 4,5,6 | Bournes P. | BP4 (surf & bott.) BP5 (surf & bott.) BP6 (surf & bott.) | 6 |
| GREAT POND | | | |
| GTP 1,2,3 | Great P. | GTP1 (surf) GTP2 (surf & bott.) GTP3 (surf & bott.) | 5 |
| GTP 4,5,6 | Great P. | GTP4 (surf & bott.) GTP5 (surf & bott.) GTP6 (surf & bott.) | 6 |
| GREEN POND | | | |
| GP1,2,2A,3 | Green P. | GP1 (surf) GP2 (surf & bott.) GP2A (surf & bott.) GP3 (surf & bott.) | 7 |
| GP4, 5, VS1 | Green P. | GP4 (surf & bott.) GP5 (surf & bott.) VS1 (surf. 1m, 2m) | 7 |
| LITTLE POND | | | |
| LP head, 1,2,3,4 | Little P. | LP-head (surf) LP1 (surf & bott.) LP2 (surf & bott.) LP3 (surf & bott.) | 7 |
| WEST FALMOUTH HARBOR | | | |
| WF 1,2 | W. Falmouth Hrb. | WF1 (surf & bott.) WF2 (surf & bott.) | 4 |
| WF 3,4,5 | W. Falmouth Hrb. | WF3 (surf & bott.) WF4 (surf & bott.) WF5 (surf & bott.) WF5s FD | 7 |
| WF 6,7 | W. Falmouth Hrb. | WF6 (surf & bott.) WF7 (surf & bott.) | 4 |
| WF 8 | W. Falmouth Hrb. | WF8 (surf, 2m, 4m, 6m, 8m) | 5 |
| OYSTER POND | | | |
| OP head, OP1 | Oyster P. | OP-head (surf) OP1 (surf, 2m, 4m) | 4 |
| OP 2, 3 | Oyster P. | OP2 (surf, 2m, 3.25m) OP3 (surf, 2m, 4m, 6m) | 7 |
| WQ Samples per Event | | | 74 |
| QA Samples per Event (~5%) | | | 4 |
| Total Samples per Event | | | 78 |
| Total Samples per Summer (4 events, 2 July 2 August) | | | |

Task 2: Project Management, Data Synthesis and Reporting

Reporting of water quality data (considered "interim data reports") will be made directly to the Town in the fall-early winter following the last summer sampling at the end of August. The data that has gone through a quality assurance/quality control protocol will be submitted to the Town point of contact in spreadsheet format for use and review, prior to the formal Annual Water Quality Technical Memorandum. The Tech Memo will include data synthesis, summary graphics and analysis of progress toward meeting the TMDL, as well as an assessment of each systems nutrient related health and any changes that might be considered for on-going monitoring. The data synthesis will also include a presentation to the appropriate Town department. The technical memo also includes tabulated field and chemical data. The technical memo will be submitted by January 31 following the summer sampling season.

Data Sets beginning in 2017 will be annotated and aggregated as follows:

- A notes page with the following documentation:
 - GPS coordinates for all sampling stations;
 - Definitions for all terms; and
 - Conversion of micro-Moles (μM) to milligrams per liter (mg/L) for nitrogen species, particulate organic carbon (POC), and phosphate (PO_4 ; measured as Soluble Reactive Phosphorus- SRP).
- Confirmation that these are the standard conversion factors currently being used for the overall water quality monitoring programs:
 - $\mu\text{M N} (10^{-6} \text{ M/L}) \times 0.0140067 = \text{mg N/L}$
 - $\mu\text{M C} \times 0.012011 = \text{mg C/L}$
 - $\mu\text{M PO}_4 \times 0.03097376 = \text{mg P/L}$
- Description of methodology for dissolved oxygen (DO) columns and a discussion of which columns can be used to analyze trends continuously from 2003 through 2015. Specific explanation of how values are derived for these column headings should be provided:
 - Lab salinity;
 - Field corrected salinity;
 - DI salinity; and
 - Salinity-corrected DO.
- Summarize the source data in each column, including:
 - If the value is a direct measurement;
 - Where measurement is made (field/lab);
 - Field sampling equipment and technique (particularly for DO), laboratory used for analysis, laboratory method and instrumentation used, and the instrument's limit of detection;
 - Filter size and standard method used for particulates;

- If the value is calculated, what calculations are performed; and
- If applicable, comments as to why SOPs were not utilized and details concerning alternative methodology used.
- Aggregation of data from 2013 – forward into existing data sets provided under a previous contract (Synthesis of Baseline Water Quality Data from Pondwatch for Great Pond, Green Pond, Bournes Pond, Little Pond, Oyster Pond and West Falmouth Harbor). Starting dates for data sets are as follows:
 - Great Pond (post 2003)
 - Green Pond (post 2003)
 - Bournes Pond (post 2003)
 - Little Pond (post 2004)
 - Oyster Pond (post 2004)
 - W. Falmouth Harbor (post 2004)

ATTACHMENT B Cape Cod Water Quality Monitoring Data Base

| FIELD | EXPLANATION |
|-------------------|---|
| Stn_OLD | Station name in earlier versions of the database. |
| Stn_NEW | Station name as adopted or revised in spring 2014. |
| Stn_EQUIV | Equivalent station name for temporary station variants (sampled at other end of dock, other side of road bridge, etc.). |
| SAMP_DATE | Date sample collected. |
| YEAR | Year sample collected. |
| UniqueID | A unique ID generated by the formula =[@[Stat_NEW]]&"-"&[@[Dataset]]&"-"&YEAR([@[SAMP_DATE]])&"-"&MONTH([@[SAMP_DATE]])&"-"&DAY([@[SAMP_DATE]])&"-"&HOUR([@[TIME_FIX]])&MINUTE([@[TIME_FIX]])&"-"&[@[S_D1]]&"-"&[@[SamDep_m2]]&"-"&[@[Dup]]. Note that because some depths and times may be added to the database, this field may change, so it is advised not to use until these corrections are made. |
| Embayment | Principal embayment name. |
| Sub_Embay | Subembayment name |
| WQI_AREA | Water Quality Index Embayment Area under which the station was typically aggregated by the Coalition, usually the same as subembayment. |
| Dataset | Data origins: X= Oxygen data set, N= Nutrient data set |
| Source | Program Source (BBC= Coalition program, Pondwatchers=Falmouth Pond watchers, or other specific study |
| GEN_QC | Gen_QC=9 will kill the entire line of data in the "Final" column fields. This is justified if for example there is doubt as to whether the sample was properly labeled. See the rules tab for all QC codes. |
| TIME | Time (repaired from original entries) |
| Time_QC | If there is doubt about the time entry, a value of 2 will be indicated. See the rules tab for all QC codes. |
| Dup | 0=no replicates, 1= there is another sample taken at approximately the same depth and location, but a few minutes different (these values should be filtered out if there are corresponding "2" records), 2= the value for the record represent the mean of two values in the database (respective O2 or Nutrient data). |
| S_D | "S" for Shallow or "D" for "Deep." Generally, S samples are taken 15 cm from the surface and D samples taken 30 cm from the bottom. |
| SamDep_m | Sample depth as reported |
| SamDep_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| SECCHI_M | Secchi depth in meters. |
| Secc_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. Flagged for review include 2's were greater than total depths and 8's for likely data entry errors. |
| Tot_Dep_m | Total depth of station on that particular sampling date and time. |
| TotDep_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| TEMP_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. Flagged for review include 2's outside of norms for time of year and 8's for likely data entry errors for impossible summer temps (e.g. 2.3 C in July). |
| DO_Meth | DO method (see Methods tab) |
| DO_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| Sal_meth | salinity method |
| Sal_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. Flagged for review; including 2's were outside of norms, and 8's for likely data entry errors. |
| PO4_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| TP_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| NH4_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| NOX_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| TDN_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| PON_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| POC_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| CHLa_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| CHLa_METH | Chlorophyll a method |
| Phae_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| Lab_sal_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| lab_cond | Laboratory conductivity measurement |
| DOC_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| QA_Comm | Comments entered during QA review |
| Lab_Comm | Comments added by laboratory |
| BWV_Comm | Baywatcher Comments from data sheet. |
| H2O_surf | Observation about the surface of the water. |

| | |
|---------------------|--|
| Birds | Observation about birds. |
| Fish | Observations about fish. |
| Chla_ugl_DO | Additional chlorophyll a data collected during O2 monitoring. This data may not have been added to the regular chlorophyll column |
| pH | pH as measured using YSI Sondes. |
| BEAU | Beaufort scale to estimate wind speed. |
| BEAU_QC | Flags for sites that need to be investigated, etc. See the rules tab for all QC codes. |
| EBB | E = Ebbing (outgoing) tide of low slack, F = Flooding (incoming) tide of high slack. |
| WTHR | 1: Cloudless, 2: Pt. Cloudy, 3: Overcast, 4: Fog/Haze, 5: Drizzle, 6: Intermit. Rain, 7: Rain, 8: Snow. |
| Prec_FIN | 24 Hour Precipitation 1:None, 2:Light, 3:Heavy. |
| WIND | Wind direction, generally 8 compass points, sometimes more. |
| O2_WQI_range | DO data collected during month and hours valid for DO percent calculation. |
| TempC_FIN | Temperature in degrees C after removal of bad data by filters. |
| SAL_FIN | Salinity after removal of bad data by filters. |
| DOmg_FIN | Dissolved oxygen in mg/L after removal of bad data by filters. |
| DO_Per_FIN | DO percent calculation |
| NH4uM_FIN | Ammonia in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns) |
| NOxuM_FIN | Nitrate+ Nitrite in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DINuM_FIN | Dissolved inorganic nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DINppm_FIN | Dissolved inorganic nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TDNuM_FIN | Total Dissolved nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DONuM_FIN | Dissolved organic nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DONppm_FIN | Dissolved organic nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| PONppm_FIN | Particulate organic nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| PONuM_FIN | Particulate organic nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TONppm_FIN | Total organic nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TONuM_FIN | Total organic nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TNppm_FIN | Total nitrogen in mg/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns) |
| TNuM_FIN | Total nitrogen in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| PO4uM_FIN | Orthophosphate (inorganic) in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| TPuM_FIN | Total Phosphorus in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| POCuM_FIN | Particulate organic carbon in micromolar after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| DOCuM_FIN | Dissolved organic carbon in μ M after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| Chla_ugL_FIN | Chl a in μ g/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| Pheo_ugL_FIN | Phaeophytin in μ g/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns). |
| CHL_PHA_FIN | Chlorophyll + Phaeophytin in μ g/l after removal of bad data by filters and corrections of non-detects to one half of detection limit (see QC values=7 in original columns), not yet validated for limits of detection, etc. |