Weymouth, Massachusetts

Smelt Brook Culvert Daylighting

Discharge of Construction Dewatering

October 2018

NOTICE OF INTENT

315 Norwood Park South
2nd Floor
Norwood, Massachusetts 02062
781.255.1982
www.BETA-Inc.com

Smelt Brook Culvert Daylighting

3 Commercial Street
Weymouth, Massachusetts

NOTICE OF INTENT

Prepared by: BETA Group, Inc.
315 Norwood Park South
2nd Floor
Norwood, MA 02062

Prepared for: US Environmental Protection Agency
Dewatering GP Processing
Industrial Permit Unit (OEP 06-4)
5 Post Office Square – Suite 100
Boston, MA 02109-3912

October 2018

BETA
IMPROVING COMMUNITIES TOGETHER

October 23, 2018

US Environmental Protection Agency
Dewatering GP Processing
Industrial Permit Unit (OEP 06-4)
5 Post Office Square – Suite 100
Boston, MA 02109-3912

Re: Notice of Intent for Discharge of Temporary Construction Dewatering
Smelt Brook Culvert Daylighting Project
3 Commercial Street
Weymouth, Massachusetts 02184

To Whom It May Concern:

On behalf of the Town of Weymouth, BETA submitted a Notice of Intent for Discharge of Temporary Construction Dewatering for the project referenced above on August 29, 2018. On or about September 20, 2018, EPA issued NPDES Dewatering General Permit No. MAG070458 for dewatering as part of the Smelt Brook Culvert Daylighting Project. Since that time, the Town has been awarded the construction contract for the project to Maverick Construction Management Services, Inc. of Oxford, MA.

This NOI has been updated to increase the maximum and average monthly discharge rates and to change the Operator from The Town of Weymouth to Maverick Construction Management Services, Inc. A Notice of Termination will be prepared and submitted by BETA for Permit No. MAG 070458.

In accordance with the Dewatering General Permit (DGP) NOI instructions, a copy of this completed application was submitted to the MassDEP.

If we can be of any further assistance regarding this matter, please contact us at our office.

Very truly yours,
BETA Group, Inc.

Alan D. Hanscom, LSP
Vice President

cc: John Fiore, Maverick Construction Management Services, Inc.
MassDEP Division of Watershed Management

Job No: 5991

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Notice of Intent Narrative

1.0 PROJECT NARRATIVE

On behalf of BETA Group, Inc. (BETA), the Town of Weymouth and Maverick Construction Management, Inc., the following contains supporting documentation for the Notice of Intent (NOI) in accordance with the Dewatering General Permit MAG070000 (DGP) issued for the Commonwealth of Massachusetts by the US EPA. This NOI is being submitted in order to obtain coverage under the DGP for the proposed temporary discharge of groundwater via the operation of a construction dewatering system. The construction dewatering activities are required to support the daylighting and other enhancements of the Smelt Brook, located at 3 Commercial Street in Weymouth, Massachusetts. The Smelt Brook is currently flows beneath a commercial building and lot on the Weymouth/Braintree town line.

A Site Locus is provided as Figure 1, and a Site Plan are provided as Figure 2. A copy of the NOI Form for the DGP is provided as Appendix A.

1.1 SITE DESCRIPTION

The project site is located at 3 Commercial Street in Weymouth, Massachusetts within a developed, commercial area and adjacent to the boundary of the Town of Braintree. A portion of the work will be conducted within the boundary of the Town of Braintree.

1.2 PROPOSED WORK

A portion of Smelt Brook is currently located within several parcels of land. The Brook is partially located within a reinforced concrete culvert, and flows beneath a developed commercial lot and buildings before continuing and eventually discharging to the Weymouth Fore River.

A portion of the Brook located within the Weymouth Landing area will be re-aligned and enhanced. The re-aligning will be accomplished by demolishing the existing channel and replacing it with a new culvert consisting of both open and closed channel segments. The new culvert will bend slightly to the east before re-connecting to the existing Brook alignment.

Approximately 150 feet of the Brook will consist of an open channel with grate work over the channel and ornamental fencing installed at the top of the channel wall. Other enhancements to the Brook will include adjacent public open space, including pedestrian paths and landscaping. The project will include the removal and disposal of select surface and subsurface features, including a portion of the existing culvert, stone walls, wood decking and concrete slabs.

A temporary gravity based bypass system will also be installed to allow the Brook to continue to flow unimpeded into the Fore River while isolating the section to be day lighted. Refer to Figure 2 for details regarding the daylighting project and the temporary bypass system.

1.3 CONSTRUCTION DEWATERING

The proposed final depth of the open channel for the Smelt Brook will be approximately 11.5 feet below ground surface (bgs). Temporary dewatering during construction activities will be required to facilitate construction activities, as the depth to water at the Site (as gauged in existing groundwater monitoring wells) is approximately 6.5 feet bgs.

Dewatering will be accomplished by installing a temporary sump within the localized excavation area below the anticipated depth of the excavation. It is anticipated that the excavation will be completed in segments. The sump will be constructed using crushed stone and a length of perforated PVC pipe to minimize the volume of suspended solids. A submersible pump will be placed in the temporary sump to

lower the water table in the construction area. The recovered groundwater will be pumped to a fractionation (frac) tank to allow sediment to settle, and will then be filtered using 50 micron dual bag filters prior to discharge.

Recovered groundwater will be discharged to an existing drain manhole that discharges back into Smelt Brook. The average discharge flow rate is estimated to be between 100 and 200 gallons per minute (gpm). A schematic of the construction dewatering system is included as Figure 3.

2.0 RESOURCE INFORMATION

2.1 EFFLUENT SAMPLE ANALYSIS

The construction dewatering will involve the pumping and discharge of groundwater to facilitate the daylighting of Smelt Brook. At this time, no chemical or physical treatment of the groundwater is anticipated. Consequently, groundwater in the vicinity of construction activities was determined to be representative of the dewatering effluent.

On June 11, 2018, groundwater monitoring well B-102 (located adjacent to Smelt Brook) was sampled via EPA low flow methodology and analyzed for:

- Total petroleum hydrocarbons (TPH);
- Total suspended solids (TSS);
- Hardness; and,
- Various total metals.

A copy of the laboratory analytical report is included as Appendix B. As indicated in Appendix B, concentrations of the following analytes were below laboratory reporting limits:

- TPH;
- Hexavalent chromium; and,
- Various total metals (antimony, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium and silver).

The reported concentration of TSS (3 milligrams per liter) is less than 10% of the DGP's maximum daily discharge limit of 100 milligrams per liter.

2.2 NATIONAL HISTORIC PRESERVATION ACT REQUIREMENTS

A list of historic sites in both Weymouth and Braintree was reviewed using the Massachusetts Cultural Resources Information System (MACRIS) online database. While the Site is not listed on the MACRIS online database, it is located within the Weymouth Landing District. The District is identified as a Massachusetts Historical Commission (MHC) Inventory Area. Weymouth Landing is also designated by the Town of Weymouth as a Village Center Overlay District. The proposed day lighting of Smelt Brook will not affect any existing building structures located within Weymouth Landing. A copy of the MACRIS database search is attached as Appendix C.

The Site is not listed on the National Parks Service's National Register of Historic Places online map. A copy of the National Parks Service map is provided in Appendix D.

2.3 ENDANGERED SPECIES ACT ELIGIBILITY

The United States Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) website was used to determine the current state of wildlife onsite. According to the IPaC website and report, none of the species of concern in Massachusetts that are related to the Endangered Species Act

have been identified at the Site. No critical habitats for endangered species were identified in the IPaC report.

According to the IPaC website and report, none of the species identified in Appendix IV of the NPDES Dewatering General Permit under USFWS Criterion have been identified at the Site.

According to the IPaC report, one Threatened Species, the Northern Long-eared Bat, was identified as, "…potentially affected by activities in this location." The proposed work will not include the removal of any existing live or dead trees that could serve as summer habitats for the Northern Long-eared Bat population.

With these findings, the site meets USFWS Criterion C of the Endangered Species Act Eligibility, meaning "Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitats have been evaluated. Based on those evaluations, a determination is made by EPA< or by the applicant and affirmed by EPA< that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the USFWS."

A copy of the IPaC report and resource list generated can be found in Appendix E.

2.4 Additional Site Information

According to the MassDEP's Waste Site and Reportable Release database, no reportable releases have been identified at the Site. As indicated on the Phase I Site Assessment map, included as Appendix F, the Site is not designated as an Area of Critical Environmental Concern (ACEC) in Massachusetts.

FIGURES

BETA
www.BETA-Inc.com

Smelt Brook Daylighting
3 Commercial Street
Weymouth, MA

Figure 1

Site Locus Map

KOR-N-SEAL 48" PVC TEMPORARY BYPASS OVERFLOW CONNECTION INTO EXISTING 72" RCP CULVERT TO BE REMOVED UPON INSTALLATION OF OPEN CHANNEL
INV EL = 3.18

CLEANOUT (TYP.)

8" PVC DRAIN PIPE WITH AREA DRAINS

CORE 48" TEMPORARY BYPASS CONNECTION TO BE PLUGGED FOR FUTURE USE
INV EL = 4.81

CORE 48" TEMPORARY BYPASS CONNECTION TO BE PLUGGED UPON COMPLETION OF THE OPEN CHANNEL
INV EL = 4.93

S = 0.01

48" HDPE TEMPORARY BYPASS PIPE

APPROXIMATE EXTENT OF DAYLIGHTING PROJECT

CAP 12" RCP DRAIN (2)

INSTALL RCP TO HDPE FITTING (2), HDPE BENDS (2), AND CONNECT TO EXIST. 12" RCP DRAIN PIPES (2)

4.5 'X 4.5' STAINLESS STEEL DRAINAGE VAULT

B-102

B18-1A B18-1B B18-1C B18-1D B18-1E B18-1F B18-1G B18-2 B18-3

SMELT BROOK

APPROXIMATE BUILDING LOCATION

EXISTING BUILDING 1 STORY #5

EXISTING BUILDING 1 STORY #1

APPROXIMATE BUILDING LOCATION

BRAINTREE WEYMOUTH

"DOWNSTREAM DEFENDER"

AREA DRAIN RIM=12.69

DMH RIM=10.66 INV OUT=3.16

DMH RIM=11.38 INV OUT=5.98

DMH RIM=13.47 INV OUT=6.45 INV IN=7.63

CB RIM=12.10 10=8.20

CB RIM=11.58 IN=10.73

8" CLAY PIPE

15" RCP

12" RCP

Prepared by:

BETA

www.BETA-Inc.com

Print Date: 8/27/2018 2:58 PM

N

Smelt Brook Daylighting

Weymouth, Massachusetts

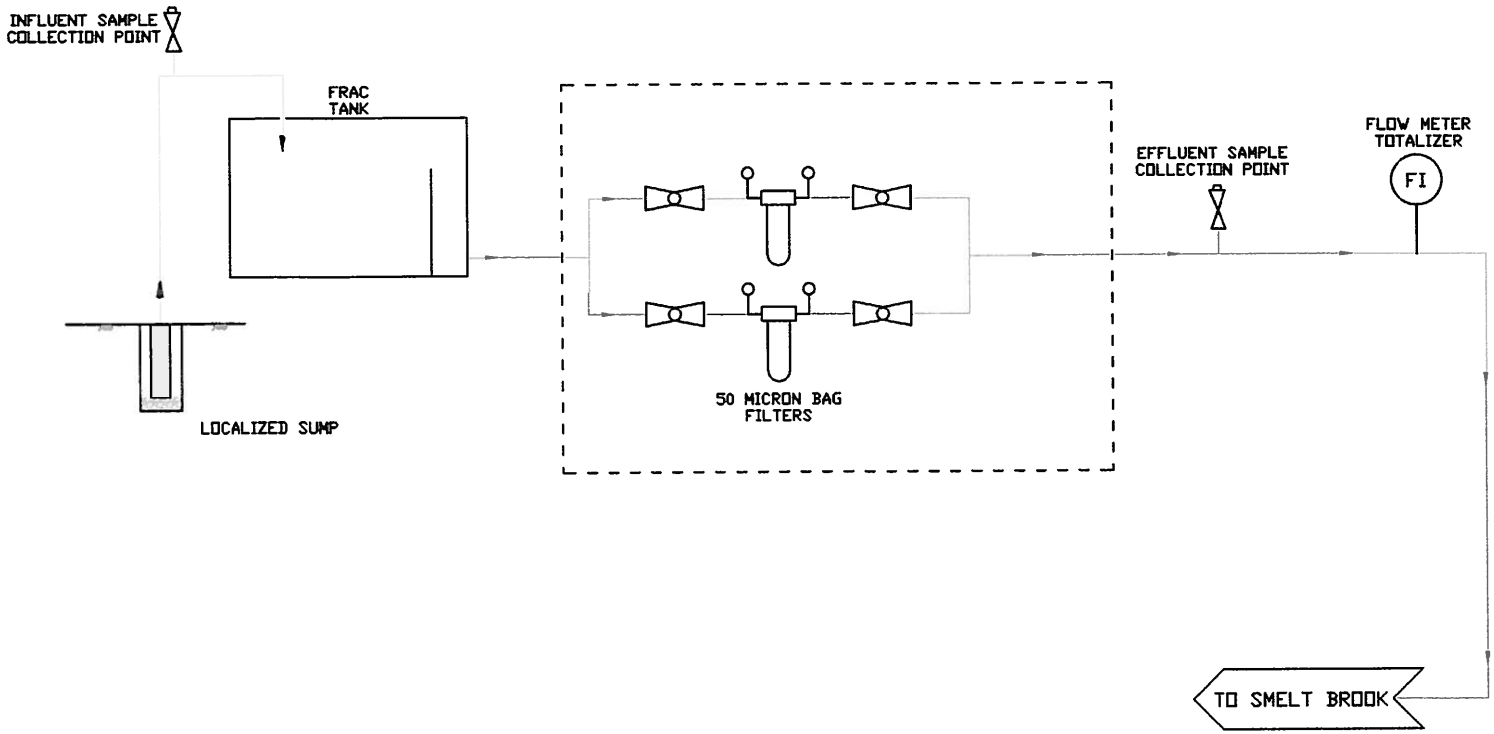
Scale: 1" = 20'

Figure No. 2

Site Plan

O:\5900\5991 - WEYMOUTH - SMELT BROOK\DRAWING FILES\PLANSET\DEWATERING PLANS\SITE PLANS.DWG

PROPOSED CONSTRUCTION DEWATERING SYSTEM



PREPARED BY

BETA
www.BETA Inc.com

REGISTERED PROFESSIONAL

SUBCONSULTANT

PROJECT

Smelt Brook

Daylighting

Weymouth, Massachusetts

TITLE

Proposed Construction Dewatering System

NO.	REVISIONS	DATE

DRAWN BY

DESIGNED BY

CHECKED BY

ISSUE DATE

BETA JOB NO. 5991

SCALE

NONE

FIGURE NO.

3

APPENDIX A – NOI FOR THE DGP

II. Suggested Notice of Intent (NOI) Format

1. General facility information. Please provide the following information about the facility.

a) Name of facility: Smelt Brook Culvert	**Mailing Address for the Facility:** Weymouth Department of Procurement 75 Middle Street Weymouth, MA 02189	
b) Location Address of the Facility (if different from mailing address): 3 Commercial Street Weymouth, MA 02184	**Facility Location** **longitude:** 42-13-13 **latitude:** -70-58-6	**Type of Business:** **Facility SIC codes:**

c) Name of facility owner: Town of Weymouth **Owner's email:** jmacleod@weymouth.ma.us

Owner's Tel #: (781) 642-3843 **Owner's Fax #:** _____

Address of owner (if different from facility address)

75 Middle Street Weymouth, MA 02189

Owner is (check one): 1. Federal____2. State _____ 3. Private_____ 4. Other __✔__(Describe) Town

Legal name of Operator, if not owner: Maverick Construction Management Services, Inc.

Operator Contact Name: John Fiore, President

Operator Tel Number: (508) 721-2227 **Fax Number:** _____

Operator's email: jfiore@maverick-cm.com

Operator Address (if different from owner)

PO Box 393, Auburn, MA 01501

d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? __✔__

e) Check Yes or No for the following:

1. **Has a prior NPDES permit been granted for the discharge? Yes ____ No_✔_ If Yes, Permit Number: _____**
2. **Is the discharge a "new discharger" as defined by 40 CFR Section 122.2? Yes_✔_ No_____**
3. **Is the facility covered by an individual NPDES permit? Yes_____ No_✔_ If Yes, Permit Number ____**
4. **Is there a pending application on file with EPA for this discharge? Yes _____ No _✔_ If Yes, date of submittal:**

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)

a) Name of receiving water into which discharge will occur: Smelt Brook

State Water Quality Classification: Class SB **Freshwater:** x **Marine Water:** ___

b) Describe the discharge activities for which the owner/applicant is seeking coverage:

1. **Construction dewatering of groundwater intrusion and/or storm water accumulation.**
2. **Short-term or long-term dewatering of foundation sumps.**
3. **Other.**

c) Number of outfalls 1

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow 250,000 **GPD**
Average Monthly Flow 125,000 **GPD**

e.) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 8.5 **Min pH** 6.5

f.) Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit. **Groundwater and Surface Water Runoff**

g.) What treatment does the wastewater receive prior to discharge? Frac tank settling and filtration (50-micron bag filters).

h.) Is the discharge continuous? Yes _____ **No** ✔ **If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B)** i
If (P), number of days or months per year of the discharge 3 months **and the specific months of discharge** October 2018-December 2018 ;
If (I), number of days/year there is a discharge 60
Is the discharge temporary? Yes ✔ **No** _____
If yes, approximate start date of dewatering October 1, 2018 **approximate end date of dewatering** December 21, 2018

i.) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long. -70-58-6 **lat.** 42-13-13 **; Outfall 2: long.**_____ **lat.**_____**; Outfall 3: long.**_____ **lat.**_____**.**

j.) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations_____ **cfs**
(See Appendix VII for equations and additional information)

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC):

k.) Does the discharge occur in an ACEC? Yes _____ No __✔___
If yes, provide the name of the ACEC: _____

3. Contaminant Information

a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC_{50} in percent for aquatic organism(s)). No

b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge.

4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendix IV. In addition, respond to the following questions.

a) Which of the three eligibility criteria listed in Appendix IV, Criterion (A, B, or C) have you met? C
b) Please attach documentation with your NOI supporting your response. Please see Appendix IV for acceptable documentation

5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

a) See Screening Process in Appendix III and respond to questions regarding your site and any historic properties listed or eligible for listing on the National Register of Historic Places. Question 1: Yes _____ No __✔__ ; Question 2: No __✔___ Yes _____

b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No __✔___ If yes, attach the results of the consultation(s).

c) Which of the three National Historic Preservation Act eligibility criterion listed in Appendix III, Criterion (A, B, or C) have you met? A

d) Is the project located on property of religious or cultural significance to an Indian Tribe? Yes _____ or No __✔__ If yes, provide that name of the Indian Tribe associated with the property. _____

6. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit

7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: Smelt Brook, 3 Commercial St., Weymouth, MA

Operator signature:

Print Full Name and Title: John Fiore President

Date: 10/24/2018

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

APPENDIX B – LABORATORY ANALYTICAL RESULTS

New England Testing Laboratory, Inc.
(401) 353-3420

REPORT OF ANALYTICAL RESULTS

NETLAB Work Order Number: 8F11030
Client Project: 5991 - Weymouth

Report Date: 18-June-2018

Prepared for:

Craig Ellis
BETA Group
315 Norwood Park South
Norwood, MA 02062

Richard Warila, Laboratory Director
New England Testing Laboratory, Inc.
59 Greenhill Street
West Warwick, RI 02893
rich.warila@newenglandtesting.com

Samples Submitted :

The samples listed below were submitted to New England Testing Laboratory on 06/11/18. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. This report of analytical results pertains only to the sample(s) provided to us by the client which are indicated on the custody record. The case number for this sample submission is 8F11030. Custody records are included in this report.

Lab ID	Sample	Matrix	Date Sampled	Date Received
8F11030-01	B-102	Water	06/11/2018	06/11/2018

Request for Analysis

At the client's request, the analyses presented in the following table were performed on the samples submitted.

B-102 (Lab Number: 8F11030-01)

Analysis	Method
Antimony	EPA 6010C
Arsenic	EPA 6010C
Cadmium	EPA 6010C
Calcium	SM3120-B
Chromium	EPA 6010C
Copper	EPA 6010C
Hexavalent Chromium	SM3500-Cr-B
Iron	EPA 6010C
Lead	EPA 6010C
Magnesium	SM3120-B
Mercury	EPA 7470A
Nickel	EPA 6010C
Selenium	EPA 6010C
Silver	EPA 6010C
Total Petroleum Hydrocarbons	EPA-8100-mod
Total Suspended Solids	SM2540-D
Zinc	EPA 6010C

Method References

Methods for the Determination of Metals in Environmental Samples EPA-600/R-94/111, USEPA, 1994

Standard Methods for the Examination of Water and Wastewater, 20th Edition, APHA/ AWWA-WPCF, 1998

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW846, USEPA

Case Narrative

Sample Receipt

The samples were all appropriately cooled and preserved upon receipt. The samples were received in the appropriate containers. The chain of custody was adequately completed and corresponded to the samples submitted.

Metals

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

Total Petroleum Hydrocarbons

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

Wet Chemistry

All samples were analyzed within method specified holding times and according to NETLAB's documented standard operating procedures.

Results: General Chemistry

Sample: B-102

Lab Number: 8F11030-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Hexavalent chromium	ND		0.01	mg/L	06/12/18 8:00	06/12/18 8:00
Total Suspended Solids	**3**		2	mg/L	06/14/18	06/14/18

Results: Total Metals

Sample: B-102

Lab Number: 8F11030-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Total Hardness	**1210**		0.125	mg/L	06/13/18	06/13/18
Antimony	ND		0.005	mg/L	06/13/18	06/13/18
Arsenic	ND		0.01	mg/L	06/13/18	06/13/18
Cadmium	ND		0.005	mg/L	06/13/18	06/13/18
Calcium	**140**		0.05	mg/L	06/13/18	06/13/18
Chromium	ND		0.005	mg/L	06/13/18	06/13/18
Copper	ND		0.02	mg/L	06/13/18	06/13/18
Iron	**3.30**		0.05	mg/L	06/13/18	06/13/18
Lead	ND		0.005	mg/L	06/13/18	06/13/18
Magnesium	**210**		0.05	mg/L	06/13/18	06/13/18
Mercury	ND		0.0002	mg/L	06/12/18	06/12/18
Nickel	ND		0.005	mg/L	06/13/18	06/13/18
Selenium	ND		0.01	mg/L	06/13/18	06/13/18
Silver	ND		0.005	mg/L	06/13/18	06/13/18
Zinc	**0.028**		0.020	mg/L	06/13/18	06/13/18

Results: Total Petroleum Hydrocarbons

Sample: B-102

Lab Number: 8F11030-01 (Water)

Analyte	Result	Qual	Reporting Limit	Units	Date Prepared	Date Analyzed
Total Petroleum Hydrocarbons	ND		200	ug/l	06/13/18	06/14/18
Surrogate(s)	Recovery%		Limits			
Chlorooctadecane	*63.0%*		*51-134*		06/13/18	06/14/18

Quality Control

General Chemistry

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8F0423 - Hexavalent Chrome										
Blank (B8F0423-BLK1)					Prepared & Analyzed: 06/12/18					
Hexavalent chromium	ND		0.01	mg/L						
Blank (B8F0423-BLK2)					Prepared & Analyzed: 06/12/18					
Hexavalent chromium	ND		0.01	mg/L						
LCS (B8F0423-BS1)					Prepared & Analyzed: 06/12/18					
Hexavalent chromium	0.50		0.01	mg/L	0.500		99.0	90-110		
LCS (B8F0423-BS2)					Prepared & Analyzed: 06/12/18					
Hexavalent chromium	0.10		0.01	mg/L	0.100		95.0	90-110		
LCS (B8F0423-BS3)					Prepared & Analyzed: 06/12/18					
Hexavalent chromium	0.45		0.01	mg/L	0.500		90.4	90-110		
Duplicate (B8F0423-DUP1)		**Source: 8F11030-01**			Prepared & Analyzed: 06/12/18					
Hexavalent chromium	ND		0.01	mg/L		ND				20
Matrix Spike (B8F0423-MS1)		**Source: 8F11030-01**			Prepared & Analyzed: 06/12/18					
Hexavalent chromium	0.41		0.01	mg/L	0.500	ND	82.2	80-120		
Batch: B8F0550 - TSS										
Blank (B8F0550-BLK1)					Prepared & Analyzed: 06/14/18					
Total Suspended Solids	ND		2	mg/L						
LCS (B8F0550-BS1)					Prepared & Analyzed: 06/14/18					
Total Suspended Solids	990		10	mg/L	1000		99.0	90-110		

Quality Control
(Continued)

General Chemistry (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8F0550 - TSS (Continued)										
Duplicate (B8F0550-DUP1)		**Source: 8F11019-01**			Prepared & Analyzed: 06/14/18					
Total Suspended Solids	256		10	mg/L		258			0.778	20

Quality Control
(Continued)

Total Metals

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8F0441 - Hot plate acid digestion waters										
Blank (B8F0441-BLK1)					Prepared & Analyzed: 06/12/18					
Mercury	ND		0.0002	mg/L						
LCS (B8F0441-BS1)					Prepared & Analyzed: 06/12/18					
Mercury	1.01			ug/l	1.00		101	85-115		
Batch: B8F0454 - Hot plate acid digestion waters										
Blank (B8F0454-BLK1)					Prepared & Analyzed: 06/13/18					
Magnesium	ND		0.05	mg/L						
Zinc	ND		0.020	mg/L						
Silver	ND		0.005	mg/L						
Selenium	ND		0.01	mg/L						
Calcium	ND		0.05	mg/L						
Iron	ND		0.05	mg/L						
Antimony	ND		0.005	mg/L						
Lead	ND		0.005	mg/L						
Nickel	ND		0.005	mg/L						
Copper	ND		0.02	mg/L						
Chromium	ND		0.005	mg/L						
Cadmium	ND		0.005	mg/L						
Arsenic	ND		0.01	mg/L						
LCS (B8F0454-BS1)					Prepared & Analyzed: 06/13/18					
Nickel	0.989		0.005	mg/L	1.00		98.9	85-112		
Selenium	0.20		0.01	mg/L	0.200		98.3	85-115		
Zinc	1.03		0.020	mg/L	1.00		103	85-115		
Iron	10.1		0.05	mg/L	10.0		101	85-115		
Magnesium	9.89		0.05	mg/L	10.0		98.9	85-115		
Cadmium	1.01		0.005	mg/L	1.00		101	85-114		
Calcium	9.81		0.05	mg/L	10.0		98.1	85-115		
Antimony	1.08		0.005	mg/L	1.00		108	85-115		
Silver	0.425		0.005	mg/L	0.400		106	85-115		
Copper	0.98		0.02	mg/L	1.00		97.9	85-115		
Arsenic	0.21		0.01	mg/L	0.200		103	85-115		
Chromium	1.00		0.005	mg/L	1.00		100	85-115		
Lead	0.979		0.005	mg/L	1.00		97.9	85-115		

Quality Control
(Continued)

Total Petroleum Hydrocarbons

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B8F0478 - Sep-Funnel-extraction										
Blank (B8F0478-BLK1)					Prepared: 06/13/18 Analyzed: 06/14/18					
Total Petroleum Hydrocarbons	ND		200	ug/l						
Surrogate: Chlorooctadecane			*86.9*	ug/l	*125*		*69.5*	*51-134*		
LCS (B8F0478-BS1)					Prepared: 06/13/18 Analyzed: 06/14/18					
Total Petroleum Hydrocarbons	6100		200	ug/l	10000		61.0	40-140		
Surrogate: Chlorooctadecane			*102*	ug/l	*125*		*81.7*	*51-134*		

Notes and Definitions

Item	Definition
Wet	Sample results reported on a wet weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904
1-888-863-8522

8 F 1 1030 Y

CHAIN OF CUSTODY RECORD

PROJ. NO.	PROJECT NAME/LOCATION
5991	Weymouth, smelt brook

CLIENT: BETA
REPORT TO: Cellis@BETA-inc.com
INVOICE TO:

DATE	TIME	COMP	GRAB	SAMPLE I.D.	AQUEOUS	SOIL	OTHER	NO. OF CONTAINERS	PRESERVATIVE	TESTS**	T.T.-Lmetals *	TPH	Hardness	TSS			REMARKS
6/11/18	12:30			B102	X			1	HCl		X						* metals - antimony, arsenic,
6/11/18	12:30			B102	X			2	none			X	X				cadmium, chromium,
6/11/18	12:30			B102	X			1	HNO_3	X							hex chrome, copper,
																	lead, mercury, nickel,
																	selenium, silver, zinc,
																	iron

Sampled by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	6/11/18 1:45	Bruce Noodon	6/11/18 13:54
Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Bruce Noodon	6-11-18 14:57		
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)	Date/Time
		Alexa Stone	6/11/18 1457

Laboratory Remarks:
Temp. received: 3.
Cooled ☐

Special Instructions:
List Specific Detection Limit Requirements:

Turnaround (Business Days) 5

**Netlab subcontracts the following tests: Radiologicals, Radon, Asbestos, UCMRs, Perchlorate, Bromate, Bromide, Sieve, Salmonella, Carbamates

15

MassDEP Analytical Protocol Certification Form

Laboratory Name: New England Testing Laboratory, Inc. Project #: 5991

Project Location: Weymouth, MA RTN:

This Form provides certifications for the following data set: list Laboratory Sample ID Number(s): 8F11030

Matrices: ☒ Groundwater/Surface Water ☐ Soil/Sediment ☐ Drinking Water ☐ Air ☐ Other:

CAM Protocol (check all that apply below):

8260 VOC CAM II A ☐	7470/7471 Hg CAM III B ☒	MassDEP VPH (GC/PID/FID) CAM IV A ☐	8082 PCB CAM V A ☐	9014 Total Cyanide/PAC CAM VI A ☐	6860 Perchlorate CAM VIII B ☐
8270 SVOC CAM II B ☐	7010 Metals CAM III C ☐	MassDEP VPH (GC/MS) CAM IV C ☐	8081 Pesticides CAM V B ☐	7196 Hex Cr CAM VI B ☐	MassDEP APH CAM IX A ☐
6010 Metals CAM III A ☒	6020 Metals CAM III D ☐	MassDEP EPH CAM IV B ☐	8151 Herbicides CAM V C ☐	8330 Explosives CAM VIII A ☐	TO-15 VOC CAM IX B ☐

Affirmative Responses to Questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☒ Yes ☐ No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☒ Yes ☐ No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒ Yes ☐ No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☒ Yes ☐ No
E	VPH, EPH, APH, and TO-15 only a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications). b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ☐ Yes ☐ No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	☒ Yes ☐ No

Responses to Questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☒ Yes ☐ No[1]

***Data User Note:** Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.*

H	Were **all** QC performance standards specified in the CAM protocol(s) achieved?	☒ Yes ☐ No[1]
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☒ Yes ☐ No[1]

[1] *All negative responses must be addressed in an attached laboratory narrative.*

I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, is accurate and complete.

Signature: _____ **Position:** Laboratory Director

Printed Name: Richard Warila **Date**: 6/18/2018

APPENDIX C – MACRIS DATABASE SEARCH RESULTS

Massachusetts Cultural Resource Information System
MACRIS

MACRIS Search Results

Search Criteria: Town(s): Braintree; Street No: 1; Street Name: commercial St;

Inv. No.	Property Name	Street	Town	Year

Massachusetts Cultural Resource Information System
MACRIS

MACRIS Search Results

Search Criteria: Town(s): Weymouth; Street No: 3; Street Name: commercial St; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

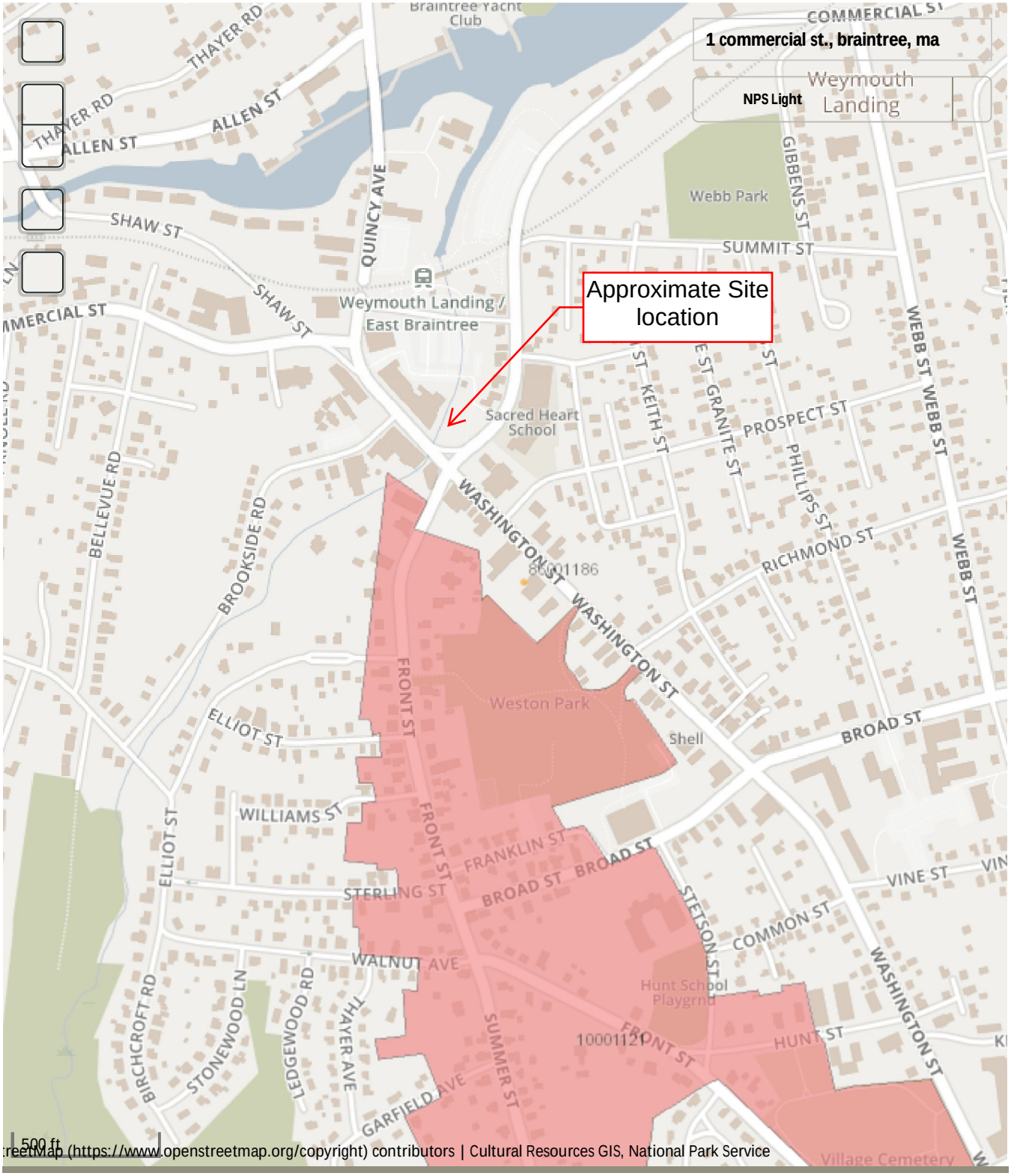
Inv. No.	Property Name	Street	Town	Year

APPENDIX D – NATIONAL REGISTER OF HISTORICAL PLACES SEARCH RESULTS

National Register of Hi...

National Park Service
U.S. Department of the Interior

Public, non-restricted data depicting National Register spatia...



APPENDIX E – IPaC REPORT

IPaC Information for Planning and Consultation **U.S. Fish & Wildlife Service**

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

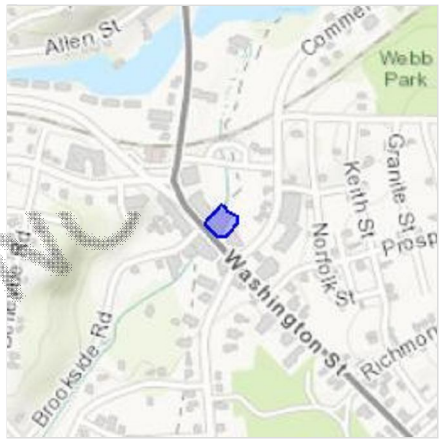
Project information

NAME

Smelt Brook Culvert Daylighting

LOCATION

Norfolk County, Massachusetts



Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300
Concord, NH 03301-5094

http://www.fws.gov/newengland

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Log in to IPaC.
2. Go to your My Projects list.
3. Click PROJECT HOME for this project.
4. Click REQUEST SPECIES LIST.

Listed species

[1] and their critical habitats are managed by the Ecological Services Program of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries[2]).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact NOAA Fisheries for species under their jurisdiction.

---

1. Species listed under the Endangered Species Act are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the listing status page for more information.
2. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Northern Long-eared Bat Myotis septentrionalis No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act [1] and the Bald and Golden Eagle Protection Act[2].

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described below.

1. The Migratory Birds Treaty Act of 1918.
2. The Bald and Golden Eagle Protection Act of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the USFWS Birds of Conservation Concern (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ below. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the E-bird data mapping tool (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are

available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found below.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME	BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. https://ecos.fws.gov/ecp/species/9399	Breeds May 15 to Oct 10
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Dunlin Calidris alpina arcticola This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere

Eastern Whip-poor-will Antrostomus vociferus — Breeds May 1 to Aug 20
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Evening Grosbeak Coccothraustes vespertinus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Lesser Yellowlegs Tringa flavipes — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9679

Long-eared Owl asio otus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/3631

Prairie Warbler Dendroica discolor — Breeds May 1 to Jul 31
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Purple Sandpiper Calidris maritima — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Red-throated Loon Gavia stellata — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Rusty Blackbird Euphagus carolinus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Semipalmated Sandpiper Calidris pusilla — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Short-billed Dowitcher Limnodromus griseus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.
https://ecos.fws.gov/ecp/species/9480

Snowy Owl Bubo scandiacus — Breeds elsewhere
This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Wood Thrush Hylocichla mustelina Breeds May 10 to Aug 31

This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (■)

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (■)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (|)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

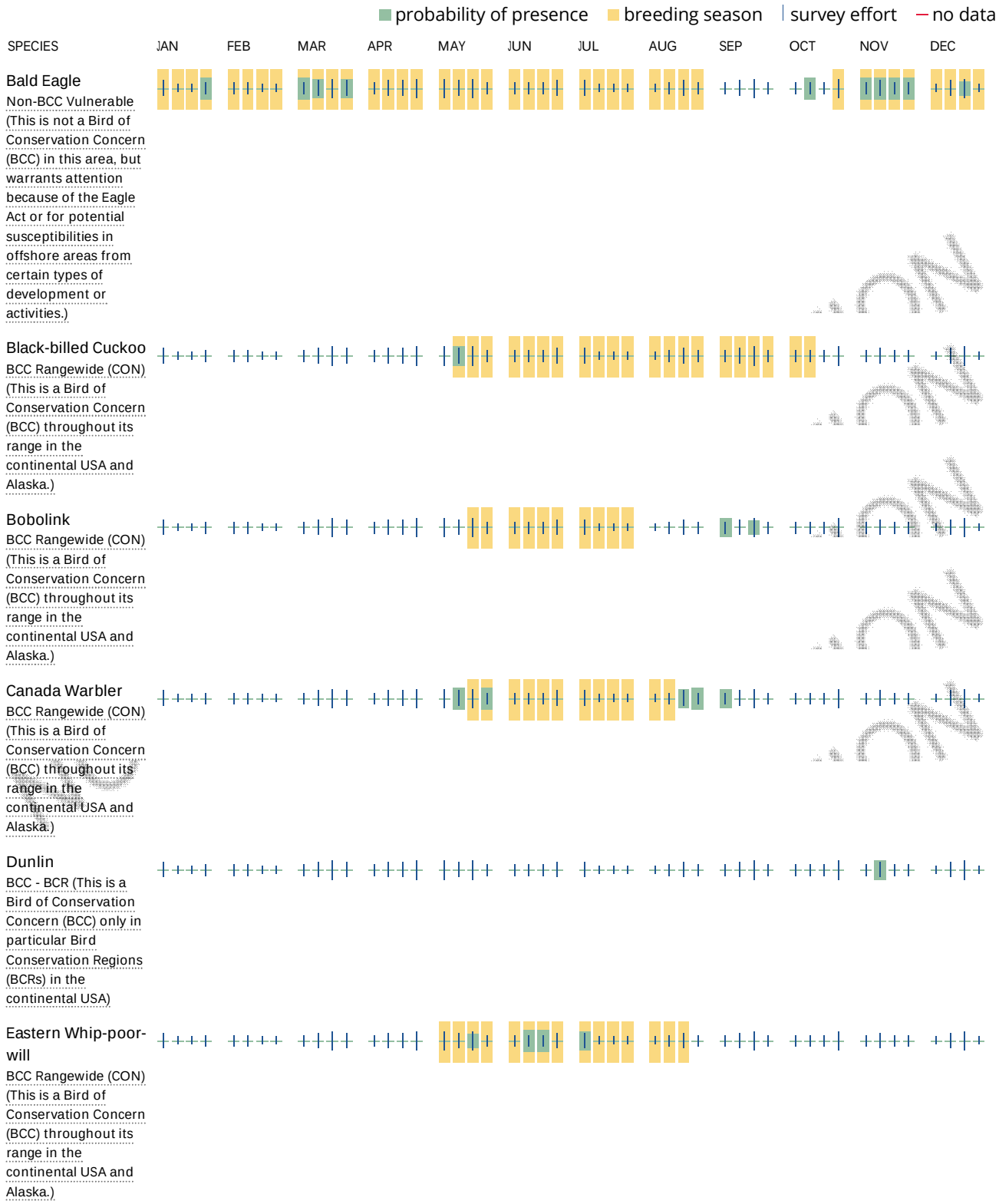
To see a bar's survey effort range, simply hover your mouse cursor over the bar.

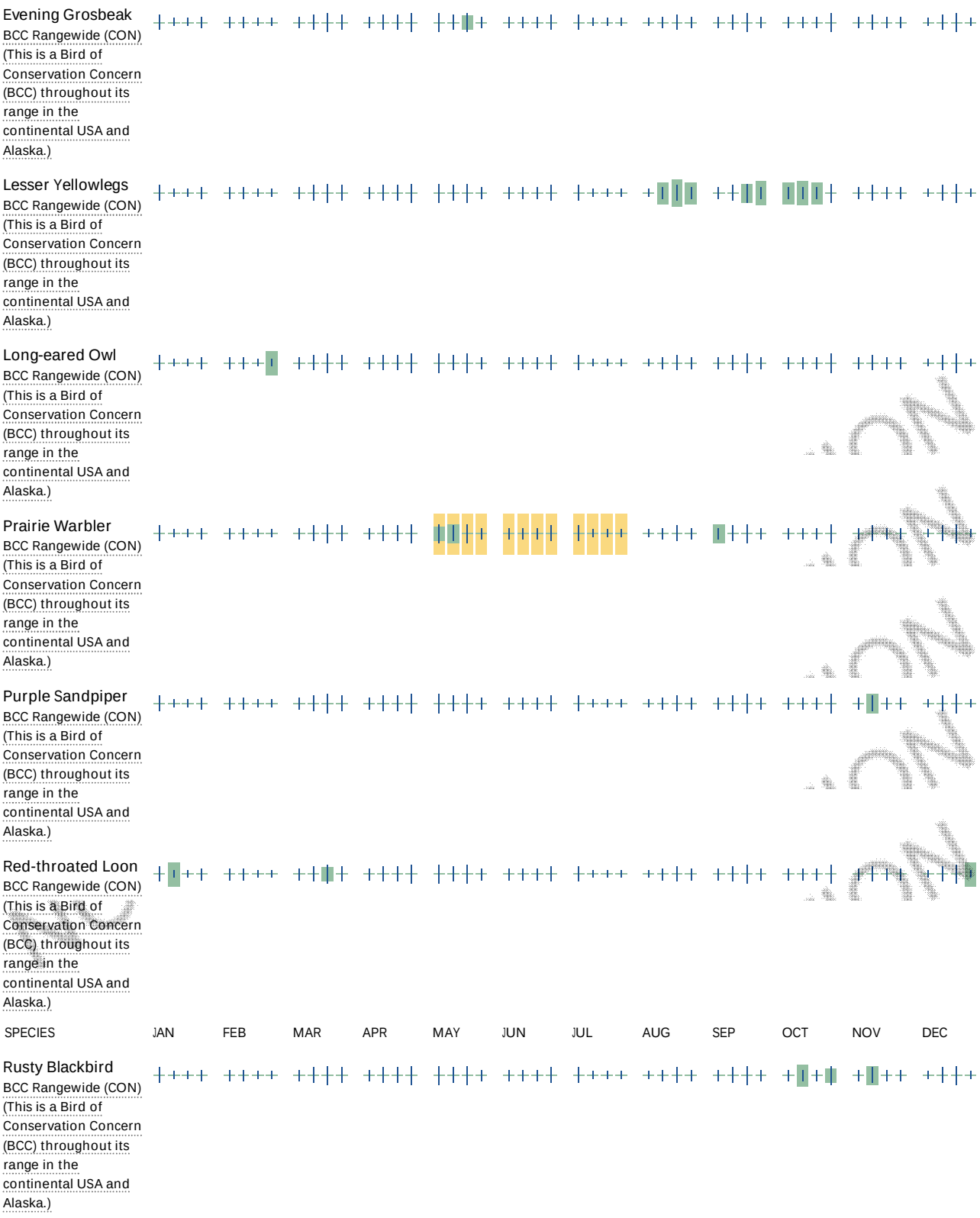
No Data (–)

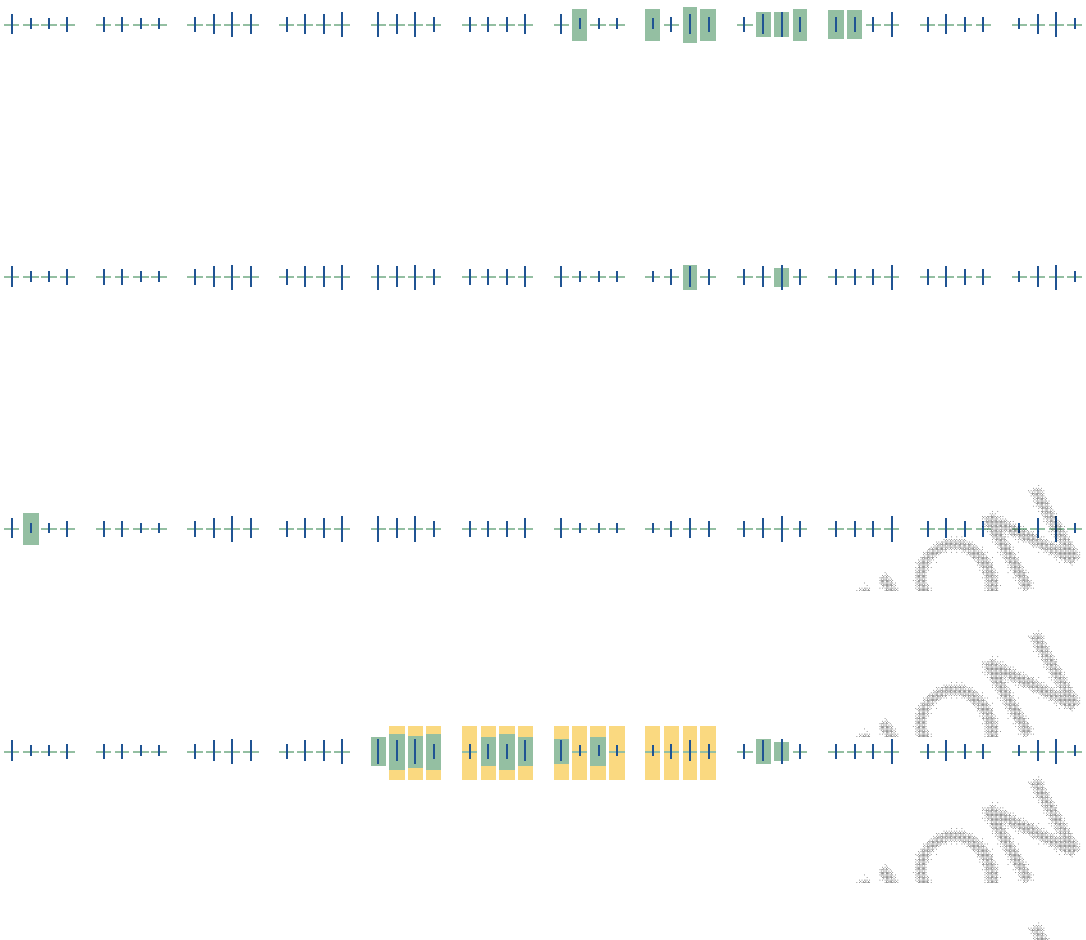
A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.







Semipalmated Sandpiper
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Short-billed Dowitcher
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Snowy Owl
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Wood Thrush
BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

Nationwide Conservation Measures describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. Additional measures and/or permits may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS Birds of Conservation Concern (BCC) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the Avian Knowledge Network (AKN). The AKN data is based on a growing collection of survey, banding, and citizen science datasets and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (Eagle Act requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the E-bird Explore Data Tool.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the Avian Knowledge Network (AKN). This data is derived from a growing collection of survey, banding, and citizen science datasets .

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: The Cornell Lab of Ornithology All About Birds Bird Guide, or (if you are unsuccessful in locating the bird of interest there), the Cornell Lab of Ornithology Neotropical Birds guide. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are Birds of Conservation Concern (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the Eagle Act requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the Northeast Ocean Data Portal. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the Diving Bird Study and the nanotag studies or contact Caleb Spiegel or Pam Loring.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to obtain a permit to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

RIVERINE

R4SBC

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tuberficid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

APPENDIX F – PHASE 1 SITE ASSESSMENT MAP

MassDEP - Bureau of Waste Site Cleanup

Site Information:

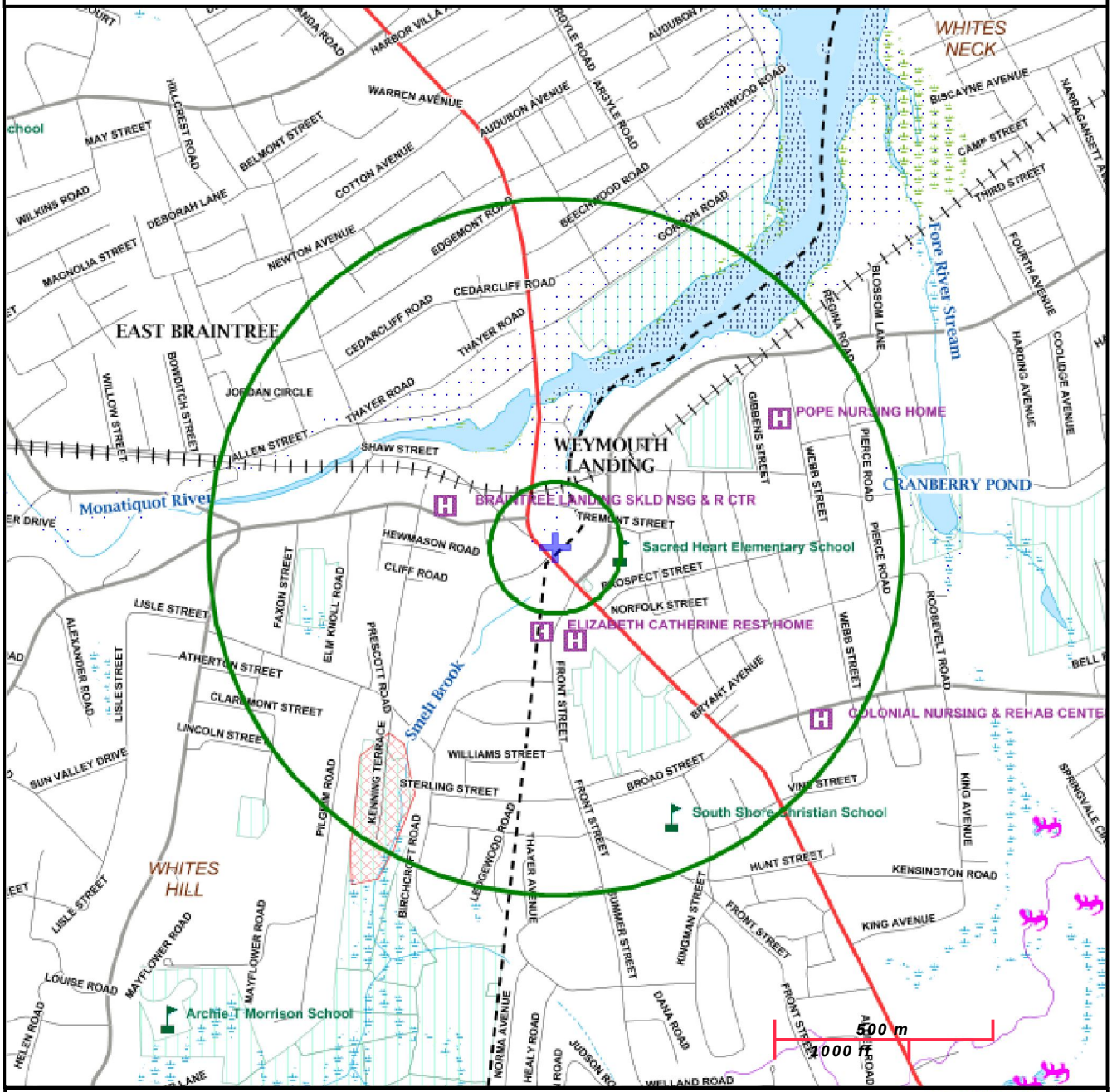
Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

1 COMMERCIAL STREET BRAINTREE, MA

NAD83 UTM Meters:
5194021mN , -7900170mE (Zone: 18)
June 22, 2018

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: http://www.mass.gov/mgis/.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major,PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam
Aquifers: Medium Yield, High Yield, EPA Sole Source
Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A
Hydrography: Open Water, PWS Reservoir, Tidal Flat
Wetlands: Freshwater, Saltwater, Cranberry Bog
FEMA 100yr Floodplain; Protected Open Space; ACEC
Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential
Solid Waste Landfill; PWS: Com.GW,SW, Emerg.,Non-Com.