



May 5, 2021

Michael Parker, Chair  
Boston Conservation Commission  
1 City Hall Square, Room 709  
Boston, MA 02201

**Re: Notice of Intent – Castle Island Playground Renovation  
2010 William J Day Boulevard, Boston, MA**

Dear Mr. Parker and Commissioners:

On behalf of the Massachusetts Department of Conservation and Recreation (DCR), BETA Group, Inc. (BETA) is submitting a Notice of Intent (NOI) for proposed improvements to the Castle Island playground. Improvements include resurfacing the playground area, installation of new play equipment, construction of new cement walkways, minor grading, and planting of native vegetation. The proposed improvements will provide improved accessibility pursuant to the Americans With Disabilities Act and are also anticipated to maintain and improve the functions of Coastal Dune.

Work associated with the Project will take place within Areas Subject to Jurisdiction and Protection under the Massachusetts Wetlands Protection Act (M.G.L. ch.131 s.40) and its Regulations at 310 CMR 10.00 (the Act), as well as the City of Boston Wetlands Protection and Climate Adaptation Ordinance (Chapter 7-1.3) (the Ordinance). The Project has been designed to comply with the Ordinance to the maximum extent practicable. The Department has traditionally made every attempt to comply with the local bylaw/ordinance where practicable and economically feasible.

This NOI has been concurrently submitted to the Massachusetts Department of Environmental Protection (MassDEP) Northeast Regional Office, along with a check in the amount of \$237.50 for the State's portion of the \$500 Act fee. A check to cover the City's portion of the Act fee in accordance with the Ordinance provisions (\$606.75) has been included in this filing. The local filing fee has not been included with the Application, however, DCR will comply with all other local filing requirements. In accordance with Section 7-1.4(b) of the Ordinance, only abutters within 300 feet of the Project Locus must be notified due to the total site area exceeding 50 acres. The Commonwealth of Massachusetts owns all land within 300 feet of the Project Locus; therefore, abutter notification was not conducted for this filing.

We trust that the following application provides adequate information to facilitate the issuance of an Order of Conditions. Should you have any additional questions, please do not hesitate to contact us.

Very truly yours,  
**BETA Group, Inc.**



Jonathan Niro  
Environmental Scientist



Laura Krause  
Senior Environmental Scientist

Michael Parker, Chair

May 5, 2021

Page 2 of 2

cc: Sandra P. Libby, M.Ed., CPSI  
Scott Ridder, RLA  
MassDEP NERO, Division of Wetlands

Job No: 20.07341.00

Boston, Massachusetts

# Castle Island Playground Renovation

*Massachusetts Department of Conservation and Recreation*

*May 2021*

## NOTICE OF INTENT

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**BETA**

89 Shrewsbury Street  
Suite 300  
Worcester, MA 01604  
508.756.1600  
[www.BETA-Inc.com](http://www.BETA-Inc.com)

# Castle Island

## Proposed Playground Improvements

Boston, Massachusetts

*Massachusetts Department of Conservation and Recreation*

### **NOTICE OF INTENT**

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Prepared by: **BETA GROUP, INC.**

Prepared for: Massachusetts Department of Conservation and Recreation

May 2021

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Boston, Massachusetts

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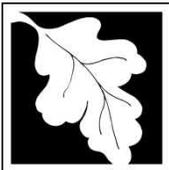
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**WPA FORM 3 – NOTICE OF INTENT**



**Massachusetts Department of Environmental Protection**  
Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Boston

City/Town

**Important:**

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note:  
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

**A. General Information**

1. Project Location (**Note:** electronic filers will click on button to locate project site):

2010 William J Day Boulevard  
a. Street Address

Boston  
b. City/Town

02127  
c. Zip Code

Latitude and Longitude:  
43.336933  
d. Latitude

-71.011772  
e. Longitude

Parcel ID 0603419000 & 0603418001  
g. Parcel /Lot Number

f. Assessors Map/Plat Number

2. Applicant:

Sandra P.  
a. First Name

Libby, M.Ed., CPSI  
b. Last Name

Department of Conservation and Recreation  
c. Organization

251 Causeway Street, Suite 600  
d. Street Address

Boston  
e. City/Town

MA  
f. State

02114  
g. Zip Code

978-407-6307  
h. Phone Number

i. Fax Number

sandra.libby@mass.gov  
j. Email Address

3. Property owner (required if different from applicant):  Check if more than one owner

Priscilla  
a. First Name

Geigis  
b. Last Name

Commonwealth of Massachusetts  
c. Organization

251 Causeway Street, Suite 600  
d. Street Address

Boston  
e. City/Town

MA  
f. State

02114  
g. Zip Code

priscilla.geigis@mass.gov  
j. Email address

h. Phone Number

i. Fax Number

4. Representative (if any):

Laura  
a. First Name

Krause  
b. Last Name

BETA Group, Inc.  
c. Company

89 Shrewsbury Street  
d. Street Address

Worcester  
e. City/Town

MA  
f. State

01604  
g. Zip Code

774-258-1230  
h. Phone Number

i. Fax Number

lkrause@BETA-Inc.com  
j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

\$500  
a. Total Fee Paid

\$237.50  
b. State Fee Paid

\$606.75 (In accordance with Ordinance provisions)  
c. City/Town Fee Paid



Massachusetts Department of Environmental Protection  
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**A. General Information** (continued)

6. General Project Description:

The Massachusetts Department of Conservation and Recreation proposes to construct playground improvements at the Castle Island playground off of William J Day Boulevard in Boston (the Project). The Project will generally involve resurfacing the playground area, installation of new play equipment, construction of new cement walkways, minor grading, and planting of native vegetation. Work will take place within Land Subject to Coastal Storm Flowage and Coastal Dune, as well as the Buffer Zone to Coastal Dune and Coastal Beach.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

- 1.  Single Family Home
- 2.  Residential Subdivision
- 3.  Commercial/Industrial
- 4.  Dock/Pier
- 5.  Utilities
- 6.  Coastal engineering Structure
- 7.  Agriculture (e.g., cranberries, forestry)
- 8.  Transportation
- 9.  Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

- 1.  Yes  No      If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Suffolk	
a. County	b. Certificate # (if registered land)
8209	224
c. Book	d. Page Number

**B. Buffer Zone & Resource Area Impacts (temporary & permanent)**

- 1.  Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- 2.  Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.



Massachusetts Department of Environmental Protection  
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**B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)**

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet	2. square feet
	3. cubic yards dredged	

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if available) - <b>specify coastal or inland</b>	

2. Width of Riverfront Area (check one):

- 25 ft. - Designated Densely Developed Areas only
- 100 ft. - New agricultural projects only
- 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: \_\_\_\_\_ square feet

4. Proposed alteration of the Riverfront Area:

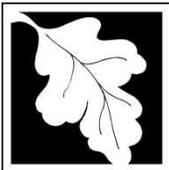
a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
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5. Has an alternatives analysis been done and is it attached to this NOI?  Yes  No

6. Was the lot where the activity is proposed created prior to August 1, 1996?  Yes  No

3.  Coastal Resource Areas: (See 310 CMR 10.25-10.35)

**Note:** for coastal riverfront areas, please complete **Section B.2.f.** above.



**Massachusetts Department of Environmental Protection**  
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**B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)**

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:  
 Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	_____	
	1. square feet	
	_____	
	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	_____	_____
	1. square feet	2. cubic yards beach nourishment
e. <input checked="" type="checkbox"/> Coastal Dunes	18 sf (permanent) 1,377 sf (restoration)	0 2. cubic yards dune nourishment

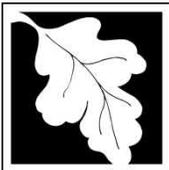
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	
	_____	
	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	_____	
	1. cubic yards dredged	
l. <input checked="" type="checkbox"/> Land Subject to Coastal Storm Flowage	14,016	
	1. square feet	

4.  Restoration/Enhancement  
 If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

\_\_\_\_\_ a. square feet of BVW \_\_\_\_\_ b. square feet of Salt Marsh

5.  Project Involves Stream Crossings

\_\_\_\_\_ a. number of new stream crossings \_\_\_\_\_ b. number of replacement stream crossings



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## C. Other Applicable Standards and Requirements

- This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Limited Project Checklists – Required Actions (310 CMR 10.11).

### Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

- Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to [http://maps.massgis.state.ma.us/PRI\\_EST\\_HAB/viewer.htm](http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm).

- a.  Yes  No **If yes, include proof of mailing or hand delivery of NOI to:**

**Natural Heritage and Endangered Species Program  
Division of Fisheries and Wildlife  
1 Rabbit Hill Road  
Westborough, MA 01581**

- August 2017  
b. Date of map

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.2.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review\*

- Percentage/acreage of property to be altered:
  - (a) within wetland Resource Area \_\_\_\_\_ percentage/acreage
  - (b) outside Resource Area \_\_\_\_\_ percentage/acreage
- Assessor's Map or right-of-way plan of site

- Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*
  - (a)  Project description (including description of impacts outside of wetland resource area & buffer zone)
  - (b)  Photographs representative of the site

\* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

\*\* MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



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### C. Other Applicable Standards and Requirements (cont'd)

- (c)  MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

*Projects altering 10 or more acres of land, also submit:*

- (d)  Vegetation cover type map of site

- (e)  Project plans showing Priority & Estimated Habitat boundaries

- (f) OR Check One of the Following

1.  Project is exempt from MESA review.  
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, <https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat>; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2.  Separate MESA review ongoing. a. NHESP Tracking # \_\_\_\_\_ b. Date submitted to NHESP \_\_\_\_\_

3.  Separate MESA review completed.  
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

- a.  Not applicable – project is in inland resource area only      b.  Yes     No

If yes, include proof of mailing, hand delivery, or electronic delivery of NOI to either:

South Shore - Cohasset to Rhode Island border, and  
the Cape & Islands:

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -  
Southeast Marine Fisheries Station  
Attn: Environmental Reviewer  
836 South Rodney French Blvd.  
New Bedford, MA 02744  
Email: [dmf.envreview-south@mass.gov](mailto:dmf.envreview-south@mass.gov)

Division of Marine Fisheries -  
North Shore Office  
Attn: Environmental Reviewer  
30 Emerson Avenue  
Gloucester, MA 01930  
Email: [dmf.envreview-north@mass.gov](mailto:dmf.envreview-north@mass.gov)

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

- c.  Is this an aquaculture project?      d.  Yes     No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).



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**C. Other Applicable Standards and Requirements (cont'd)**

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?  
a.  Yes  No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.  
b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?  
a.  Yes  No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?  
a.  Yes  No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?  
a.  Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:  
1.  Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)  
2.  A portion of the site constitutes redevelopment  
3.  Proprietary BMPs are included in the Stormwater Management System.  
b.  No. Check why the project is exempt:  
1.  Single-family house  
2.  Emergency road repair  
3.  Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

**D. Additional Information**

- This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

**Online Users:** Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1.  USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2.  Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.

**Online Users:**  
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

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**D. Additional Information (cont'd)**

3.  Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

4.  List the titles and dates for all plans and other materials submitted with this NOI.

Castle Island Playground Renovation Boston, Massachusetts Permit Set

a. Plan Title

BETA Group, Inc.

Scott T. Ridder

b. Prepared By

c. Signed and Stamped by

April 2021

As Noted

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5.  If there is more than one property owner, please attach a list of these property owners not listed on this form.

6.  Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7.  Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8.  Attach NOI Wetland Fee Transmittal Form

9.  Attach Stormwater Report, if needed.

**E. Fees**

1.  Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

103954

2. Municipal Check Number

4/15/2021

3. Check date

103956

4. State Check Number

4/15/2021

5. Check date

Frank

6. Payor name on check: First Name

Romeo

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

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## F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

<i>Sandra Libby</i>	Playground Planner DCR
1. Signature of Applicant	2. Date
<i>Brian Mays</i>	4-27-21
3. Signature of Property Owner (if different)	4. Date
BETA Group, Inc. <i>Kelly R. Lam</i>	4-27-2021
5. Signature of Representative (if any)	6. Date

### For Conservation Commission:

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

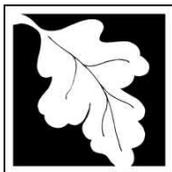
### For MassDEP:

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

### Other:

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**NOI Wetland Fee Transmittal Form**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



**A. Applicant Information**

1. Location of Project:

2010 William J Day Boulevard  
 a. Street Address  
 103956  
 c. Check number  
 Boston  
 b. City/Town  
 \$237.50  
 d. Fee amount

2. Applicant Mailing Address:

Sandra P.  
 a. First Name  
 Department of Conservation and Recreation  
 c. Organization  
 251 Causeway Street, Suite 600  
 d. Mailing Address  
 Boston  
 e. City/Town  
 MA  
 f. State  
 02114  
 g. Zip Code  
 978-407-6307  
 h. Phone Number  
 i. Fax Number  
 sandra.libby@mass.gov  
 j. Email Address

3. Property Owner (if different):

Priscilla  
 a. First Name  
 Commonwealth of Massachusetts  
 c. Organization  
 251 Causeway Street, Suite 600  
 d. Mailing Address  
 Boston  
 e. City/Town  
 MA  
 f. State  
 02114  
 g. Zip Code  
 priscilla.geigis@mass.gov  
 j. Email Address

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

**B. Fees**

Fee should be calculated using the following process & worksheet. **Please see Instructions before filling out worksheet.**

**Step 1/Type of Activity:** Describe each type of activity that will occur in wetland resource area and buffer zone.

**Step 2/Number of Activities:** Identify the number of each type of activity.

**Step 3/Individual Activity Fee:** Identify each activity fee from the six project categories listed in the instructions.

**Step 4/Subtotal Activity Fee:** Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

**Step 5/Total Project Fee:** Determine the total project fee by adding the subtotal amounts from Step 4.

**Step 6/Fee Payments:** To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.



**CITY OF BOSTON FILING FORMS**





5. Is any portion of the proposed project jurisdictional under the Massachusetts Wetlands Protection Act M.G.L. c. 131 §40?

- Yes  No

If yes, please file the WPA Form 3 - Notice of Intent with this form

6. General Information

The Massachusetts Department of Conservation and Recreation proposes to construct playground improvements at the Castle Island playground off of William J Day Boulevard in Boston (the Project). The Project will generally involve resurfacing the playground area, installation of new play equipment, construction of new cement walkways, minor grading, and planting of native vegetation. Work will take place within Land Subject to Coastal Storm Flowage and Coastal Dune, as well as the Buffer Zone to Coastal Dune and Coastal Beach.

7. Project Type Checklist

- a.  Single Family Home
- b.  Residential Subdivision
- c.  Limited Project Driveway Crossing
- d.  Commercial/Industrial
- e.  Dock/Pier
- f.  Utilities
- g.  Coastal Engineering Structure
- h.  Agriculture – cranberries, forestry
- i.  Transportation
- j.  Other

8. Property recorded at the Registry of Deeds

Suffolk	224
a. County	b. Page Number
8209	
c. Book	d. Certificate # (if registered land)

9. Total Fee Paid

\$500 Act Fee (Actual Total = \$844.25)	\$237.50	\$606.75
a. Total Fee Paid	b. State Fee Paid	c. City Fee Paid

**B. BUFFER ZONE & RESOURCE AREA IMPACTS**

Buffer Zone Only - Is the project located only in the Buffer Zone of a resource area protected by the Boston Wetlands Ordinance?

- Yes  No

1. Coastal Resource Areas



<u>Resource Area</u>	<u>Resource Area Size</u>	<u>Proposed Alteration*</u>	<u>Proposed Mitigation</u>
<input type="checkbox"/> Coastal Flood Resilience Zone	Square feet	Square feet	Square feet
<input checked="" type="checkbox"/> 25-foot Waterfront Area	<b>8,240</b> Square feet	<b>2,200</b> Square feet	<b>385</b> Square feet
<input type="checkbox"/> 100-foot Salt Marsh Area	Square feet	Square feet	Square feet
<input type="checkbox"/> Riverfront Area	Square feet	Square feet	Square feet

2. Inland Resource Areas

<u>Resource Area</u>	<u>Resource Area Size</u>	<u>Proposed Alteration*</u>	<u>Proposed Mitigation</u>
<input type="checkbox"/> Inland Flood Resilience Zone	Square feet	Square feet	Square feet
<input type="checkbox"/> Isolated Wetlands	Square feet	Square feet	Square feet
<input type="checkbox"/> Vernal Pool	Square feet	Square feet	Square feet
<input type="checkbox"/> Vernal Pool Habitat (vernal pool + 100 ft. upland area)	Square feet	Square feet	Square feet
<input type="checkbox"/> 25-foot Waterfront Area	Square feet	Square feet	Square feet
<input type="checkbox"/> Riverfront Area	Square feet	Square feet	Square feet

**C. OTHER APPLICABLE STANDARDS & REQUIREMENTS**

1. What other permits, variances, or approvals are required for the proposed activity described herein and what is the status of such permits, variances, or approvals?

A Project Notification Form has been prepared and submitted to the Massachusetts  
 \_\_\_\_\_  
 Historic Commission due to the presence of historic resources at the Site.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



2. Is any portion of the proposed project located in Estimated Habitat of Rare Wildlife as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the Massachusetts Natural Heritage Atlas or go to <http://www.mass.gov/dfwele/dfw/nhosp/nhregmap.htm>.
- Yes  No

If yes, the project is subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18).

**A. Submit Supplemental Information for Endangered Species Review**

- Percentage/acreage of property to be altered:
- (1) within wetland Resource Area \_\_\_\_\_ percentage/acreage
- (2) outside Resource Area \_\_\_\_\_ percentage/acreage
- Assessor's Map or right-of-way plan of site

3. Is any portion of the proposed project within an Area of Critical Environmental Concern?
- Yes  No

If yes, provide the name of the ACEC: \_\_\_\_\_

4. Is the proposed project subject to provisions of the Massachusetts Stormwater Management Standards?

- Yes. Attach a copy of the Stormwater Checklist & Stormwater Report as required.
- Applying for a Low Impact Development (LID) site design credits
  - A portion of the site constitutes redevelopment
  - Proprietary BMPs are included in the Stormwater Management System
- No. Check below & include a narrative as to why the project is exempt
- Single-family house
  - Emergency road repair
  - Small Residential Subdivision (less than or equal to 4 single family houses or less than or equal to 4 units in a multifamily housing projects) with no discharge to Critical Areas

5. Is the proposed project subject to Boston Water and Sewer Commission Review?
- Yes  No



**D. SIGNATURES AND SUBMITTAL REQUIREMENTS**

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the Wetlands Protection Ordinance.

Sandra Libby Playground Planner DCR  
\_\_\_\_\_  
Signature of Applicant

4-27-21  
\_\_\_\_\_  
Date

Bill Deje  
\_\_\_\_\_  
Signature of Property Owner (if different)

4-28-21  
\_\_\_\_\_  
Date

BETA Group, Inc.

Kelly R. Carr  
\_\_\_\_\_

4-27-2021

Signature of Representative (if any)

\_\_\_\_\_  
Date

## **Checklist for Filing a Notice of Intent with Boston Conservation Commission**

In order for the Boston Conservation Commission to effectively process your Notice of Intent, BCC requests that you complete the checklist below and include it with your submission. If you should need assistance please contact Commission Staff: 617-635-3850 ([cc@boston.gov](mailto:cc@boston.gov)).

Please Submit the Following to the Conservation Commission:

- Two copies (a signed original and 1 copy) of a completed Notice of Intent (WPA Form 3)
- Two copies (a signed original and 1 copy) of a completed Boston Notice of Intent (Local Form)
- Two copies of plans (reduced to 11" X 17") in their final form with engineer's stamp affixed supporting calculations and other documentation necessary to completely describe the proposed work and mitigating measures. Plans must include existing conditions, the proposed project, erosion controls and mitigation measures, grading and spot elevations and all wetland resource areas and associated buffer zones. Some projects may require both an aerial view of the plans along with a profile view of plans depending on the scope of work.
- Two copies of an 8 ½" x 11" section of the [USGS quadrangle map](#) of the area, containing sufficient information for the Conservation Commission and the Department to locate the site of the work.
- (If applicable) Two copies the Federal Emergency Management Agency Flood Insurance Rate Map for the project site. FEMA Flood Maps: <https://msc.fema.gov/portal>.
- Two copies of the determination regarding the Natural Heritage and Endangered Species Program: Review Section C. Other Applicable Standards and Requirements of the Notice of Intent, page 4 of 8, pertaining to wildlife habitat. The Conservation Commission and the [Natural Heritage & Endangered Species Program](#) have the maps necessary to make this determination.
- (If applicable) Two hard copies of a Stormwater Report to document compliance with the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q), including associated drainage calculations for rooftops, parking lots, driveways, etc., for the required design storm events.
- (If applicable) A narrative detailing best management practices for stormwater management as set forth in the Stormwater Management Standards of the Massachusetts Department of Environmental Protection and any separate standards and guidelines prepared by the City and the Boston Water and Sewer Commission.
- (If applicable) Two hard copies of the Checklist for Stormwater Report
- Details of the stormwater management system, including: catch basins, oil separating tanks, detention basins, outfalls, sewer connections, etc.
- Any photographs related to the project representing the wetland resource areas.
- Two copies of a detailed project narrative describing the following: an overview of the entire project, the work proposed within wetland resource areas and/or buffer zones; how the performance standards specific to the wetland resource areas will be met (listing out each performance standard); a consideration of the effect that projected sea level rise, changes in storm intensity and frequency, and other consequences of climate change may have on the resource areas and proposed activities; construction equipment and material involved; and measures to protect wetland resource areas and mitigate impacts. The applicant shall also include narrative on how they plan to integrate climate change and adaptation planning considerations into their project to promote climate resilience to protect and promote Resource Area Values and functions into the future.
- Two copies of an Abutters List, Affidavit of Service and [Abutter Notification](#), filed concurrently with the Notice of Intent. Abutter notices shall be sent in both English and the second most commonly spoken language(s) in the neighborhood(s) where the project is proposed. Notices shall also include Babel notice cards for additional translation and language access services. [All abutters within 300' of the project](#)

## **Checklist for Filing a Notice of Intent with Boston Conservation Commission**

[property line](#) must be notified including those in a neighboring municipality. In such an instance, a copy of the filing must also be sent to the local Conservation Commission of the neighboring municipality.  
EXCEPTION: When work is in land under water bodies and waterways or on a tract of land greater than 50 acres, written notification must only be given to abutters within 300 feet of the “project site.”

- Two copies of the BPDA Climate Resiliency Checklist (for new buildings). This can be completed online at <http://www.bostonplans.org/planning/planning-initiatives/article-37-green-building-guidelines>. Please print the pdf that you will receive via email after completion and include it in your submission.
- Electronic copies.** Documents may be submitted via email, or via an email link to downloadable documents.



To minimize the use of non-recyclable materials ***please do not include vinyl or plastic binders, bindings, folders or covers with the filing.*** Staples and binder clips are good choices.



City of Boston  
Environment



City of Boston  
Mayor Martin J. Walsh

**EXTENSION FORM**

The undersigned hereby allows the **Boston Conservation Commission** an extension of time, beyond the statutory limit, to review an application or issue a final decision under the Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40, and the Boston Wetlands Ordinance, Boston City Code, Ordinances, Chapter 7-1.4d during the state of emergency declared by the Governor on March 10, 2020.

**Applicant:**

**Sandra P. Libby, M.Ed., CPSI** Department of Conservation and Recreation

a. First Name

b. Last Name

c. Company

**250 Causeway Street, Suite 600**

d. Mailing Address

**Boston**

**MA**

**02114**

e. City/Town

f. State

g. Zip Code

**978-407-6307**

**sandra.libby@mass.gov**

h. Phone Number

i. Fax Number

j. Email address

*Sandra Libby*

**5-4-21**

Signature of Applicant

Date

**Property Owner (if different):**

**Priscilla Geigis** Commonwealth of Massachusetts

a. First Name

b. Last Name

c. Company

**250 Causeway Street, Suite 600**

d. Mailing Address

**Boston**

**MA**

**02114**

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

*Priscilla Geigis*

**5-4-21**

Signature of Property Owner (if different)

Date

**Applications will only be accepted when submitted with a properly executed Extension Form.**

**NARRATIVE**

## 1.0 INTRODUCTION

The Massachusetts Department of Conservation and Recreation (DCR) proposes to construct playground improvements at the Castle Island Playground (the Playground) off William J Day Boulevard in Boston, Massachusetts. The purpose of the Project is to provide safe, upgraded amenities to users of the Playground while improving compliance with standards set forth by the Americans With Disabilities Act (ADA). The Project will also improve climate resiliency and stormwater management within the Project area. Specific improvements include:

- Resurfacing the play area with a pervious compound,
- Reconstructing existing concrete walkways to meet ADA requirements,
- Installing new play equipment within the footprint of the existing Playground;
- Relocation of water fountain and spray pole to increase accessibility,
- Formalizing existing worn dirt paths through the construction of cement concrete walkways, and;
- Minor grading, and,
- Restoration of an approximately 1,377-square foot area that functions as Coastal Dune, as well as restoration of approximately 735 square feet of Buffer Zone that is currently grass.
- (Collectively the “Project”).

Construction of the Project requires impacts to Areas Subject to Jurisdiction and Protection under the Massachusetts Wetlands Protection Act (M.G.L. ch.131 s.40) and its Regulations at 310 CMR 10.00 (the Act), as well as the City of Boston Wetlands Protection and Climate Adaptation Ordinance (Chapter 7-1.3) (the Ordinance). Areas Subject to Jurisdiction and Protection under the Act and Ordinance to be impacted include Land Subject to Coastal Storm Flowage (LSCSF), Coastal Dune, Waterfront Area, and Buffer Zone to Coastal Beach/Coastal Dune.

The Project will minimize Resource Area impacts by installing and maintaining erosion controls and adhering to a strict limit of work. In addition, the slope adjacent to the Playground, which functions as Coastal Dune, will be improved by replacing 1,377 square feet of maintained grass with native vegetation. The new concrete walkways will primarily be located within the informal, previously worn-in footpaths (“desire paths”). Construction of these paths result in a minor increase in impervious area totaling approximately 194 square feet.

## 2.0 SITE DESCRIPTION

### 2.1 PROJECT LOCUS

Boston Assessor Parcels 0603419000 & 0603418001 comprise the 39.3±-acre property associated with Fort Independence located at the terminus of William J Day Boulevard (Figure 1 – Site Locus). These properties are bounded to the north by the Conley Terminal, to the west by Pleasure Bay, to the south by Head Island, and to the east by Boston Harbor. The Project Locus is located to the south of Fort Independence and is maintained by the Commonwealth of Massachusetts through DCR. The Project Locus consists of the Playground, maintained landscaping, trees, concrete walkways, and informal desire paths.

## 3.0 EXISTING CONDITIONS

### 3.1 WETLAND RESOURCE AREAS

A Site inspection was conducted by BETA Group, Inc. (BETA) on October 27, 2020 to identify and delineate the boundary of existing Resource Areas on and in the immediate vicinity of the Site. Resource Area boundaries were identified and delineated in accordance with methods developed by the Massachusetts Department of Environmental Protection and Office of Coastal Zone Management's *Applying the Massachusetts Coastal Wetlands Regulations*, dated 2017, as well as definitions set forth in the Wetland Regulations, 310 CMR 10.00. Several Areas Subject to Protection under the Act exist near the Project Locus, including LSCSF, Land Subject to Tidal Action (LSTA), Land Under the Ocean (LUO), Land Containing Shellfish (LCS), Coastal Beach, and Coastal Dune. LSTA, LUO, and LCS are not located on or within 100 feet on the Project Locus. Resource Areas are identified and depicted on the Project Plans in Appendix B.

The Project Locus is located entirely within LSCSF and partially within the local Waterfront Area as well as an area functioning as Coastal Dune. Additionally, portions of the Project Locus are located within the 100-foot Buffer Zone to Coastal Beach and Coastal Dune.

#### 3.1.1 LAND SUBJECT TO COASTAL STORM FLOWAGE (310 CMR 10.04)

The presence of Land Subject to Coastal Storm Flowage (LSCSF) was determined utilizing FEMA Flood Insurance Rate Map (FIRM) community panel number 25025C0084J, effective March 16, 2016 (Figure 3 – FEMA FIRMette). The entire Site lies within a Flood Hazard Zone AE, subject to a 1% yearly chance of tidally influenced inundation below the published Base Flood Elevation (BFE) of 14' (NAVD88). Accordingly, land below the BFE is defined as Land Subject to Coastal Storm Flowage (LSCSF) and is Subject to Protection under the Act.

Additionally, areas to the east and west of the Site are within a Flood Hazard VE associated with Pleasure Bay and Boston Harbor. Zone VE wave height elevations are determined as 16' (NAVD88) east and west of the Site, and 19' (NAVD88) to the northeast. The Zone VE near the Project Locus extends to the Limit of Moderate Wave Action (LiMWA) boundary (Figure 3 – FEMA FIRMette).

#### 3.1.2 COASTAL BEACH (310 CMR 10.27) & COASTAL DUNE (310 CMR 10.28)

According to CMR 10.27(2), the definition of Coastal Beach is unconsolidated sediment subject to wave, tidal and coastal storm action which forms a gently sloping shore of a body of saltwater and includes tidal flats. The area seaward of the grass/vegetated area (Photographic Documentation – Photo 8) on the Site consists of wave-deposited fine sand and meets the definition of Coastal Beach.

Coastal Beach extends from the MLW elevation to the filled area vegetated with grasses (which functions as a Coastal Dune).

The Wetland Regulations at 310 CMR 10.28(2) defines coastal dune as any natural hill, mound or ridge of sediment landward of a coastal beach deposited by wind action or storm over wash. Coastal dune also means sediment deposited by artificial means and serving the purpose of storm damage prevention or flood control.

Based on review of publicly available maps and a site inspection, a portion of the historically altered area upgradient of the Coastal Beach is functioning as a Coastal Dune by providing the storm damage prevention and flood control functions, confirmed through the presence of slope erosion and sand deposition. These functions at the Site are limited due to the existing improvements and infrastructure.

The dune line (the line between the Coastal Dune and Coastal Beach) is located at the limit of grass/vegetation between the sand area and the concrete walkway. The area functioning as a Coastal Dune extends landward from the dune line, over the walkway to the westerly boundary of the granite wall (Photographic Documentation – Photos 7 & 9) where sand deposition and erosion are apparent.

**3.1.3 WATERFRONT AREA (SECTION 7-1.4)**

According to the Ordinance, Waterfront Area exists on the Site and consists of land within 25 feet of Coastal Beach and Coastal Dune. Waterfront Area near the Project is entirely disturbed by existing improvements including the play areas, maintained grass, and concrete walkways.

**3.2 BUFFER ZONES**

Portions of the Project Locus are located within the 100-foot Buffer Zone to Coastal Beach and Coastal Dune. Buffer Zone generally consists of previously developed areas including the Playground, maintained grass areas, and concrete walkways.

**3.3 NHESP-MAPPED HABITAT AND OTHER SENSITIVE AREAS**

According to the latest MassGIS data, the Project is not located within NHESP mapped Priority Habitat of Rare Species, Estimated Habitat of Rare Wildlife, or Areas of Critical Environmental Concern (ACEC). No mapped Certified or Potential Vernal Pools exist within 200 feet of the Project.

The Project is located upgradient of an area mapped as suitable habitat for soft shelled clams (*Mya arenaria*); however, no work is proposed below the LCS boundary (Figure 2 – Environmental Resources) and no direct drainage discharges are proposed to this area.

The Project is also located upgradient of filled and flowed tidelands, which are subject to Chapter 91 jurisdiction. All work is proposed above the Mean High Water (MHW) elevation of 4.27 feet (NAVD88) and the Historic High Water boundary (Figure 2 – Environmental Resources).

**4.0 WORK DESCRIPTION**

**4.1 WORK WITHIN PROTECTED RESOURCE AREAS**

The Project proposes improvements to the Playground and surrounding amenities, resulting in impact to LSCSF and an area which is also defined as Coastal Dune. All impacts are proposed within previously disturbed and/or degraded areas.

The Project design has prioritized minimizing additional impervious areas at the Site. The following table summarizes the Project’s impacts in terms of impervious areas:

**Table 1: Impervious Areas Summary**

IMPACT	LOCATION	CHANGE IN IMPERVIOUS AREA
Removal of bench and concrete pad	Western portion of Project Locus (Coastal Dune, LSCSF, Waterfront Area)	-40 square feet
Removal of concrete walkway	Western portion of Project Locus (Coastal Dune, LSCSF, Waterfront Area)	-142 square feet
Removal of concrete curb and wall	Western portion of Project Locus	-37 square feet

	(Coastal Dune, LSCSF, Waterfront Area)	
Minor expansion concrete pad at spray pole and water filling station	Western portion of Project Locus (Coastal Dune, LSCSF, Waterfront Area)	+31 square feet
Construction of concrete walkways	Eastern portion of Project Locus (LSCSF)	+382 square feet
		<b>NET CHANGE: +194 square feet</b>

4.1.1 WORK WITHIN WETLANDS PROTECTION ACT RESOURCE AREAS

4.1.1.1 LAND SUBJECT TO COASTAL STORM FLOWAGE (310 CMR 10.04)

The Project Locus is entirely within LSCSF and will result in the alteration of 14,016 square feet of LSCSF. Erosion controls will be installed along the western and southern extents of the Project to protect downgradient Resource Areas and provide a visual limit of work. It is anticipated that as a result of the proposed grading, there will be an increase in flood storage volume of approximately 56 cubic feet below the BFE of 14’ (NAVD88).

The existing engineered wood fiber play surface will be removed from the Playground areas and stockpiled on fabric surrounded by erosion controls. The play areas will be resurfaced with a porous surface that complies with ADA standards. The new play equipment will be installed prior to Project completion. Over half of LSCSF impacts (7,937 square feet) are associated with the rehabilitation of the existing play areas and will not entail any grade changes or expansion of the play area footprints. Work around the Playground will result in a minor (194-square foot) net increase of impervious area within the Project Locus.

In addition to the Coastal Dune restoration proposed within LSCSF, restoration is proposed within LSCSF at the eastern portion of the Project Locus. See Section 5.3 – Coastal Dune and Land Subject to Coastal Storm Flowage Restoration for more details.

4.1.1.2 COASTAL DUNE (310 CMR 10.28)

Work within areas functioning as Coastal Dune will result in a net reduction of 188 square feet of impervious area as detailed in Table 1. The work proposed within Coastal Dune will increase accessibility to the water filling station and spray pole. The Project will also establish a 1,377-square foot area of native vegetation, which will increase the Coastal Dune’s capacity to function as a Coastal Dune. See Section 5.3 – Coastal Dune and Land Subject to Coastal Storm Flowage Restoration for more details.

4.1.2 WORK WITHIN BOSTON WETLANDS PROTECTION AND CLIMATE ADAPTATION ORDINANCE

4.1.2.1 WATERFRONT AREA (SECTION 7-1.4)

Work within Waterfront Area will result in a net decrease of approximately 288 square feet of impervious area. Establishment of native plantings will restore approximately 385 square feet of Waterfront Area. Proposed work within Waterfront Areas encompasses portions of the work proposed within Coastal Dune, as well as the work associated with resurfacing the play area.

## 4.2 WORK IN BUFFER ZONES

Due to the nature of the Project, Buffer Zone impacts are unavoidable. All work proposed within the Buffer Zone is also within LSCSF as described above. The Project was designed to minimize impacts to Buffer Zone and Resource Areas while still accomplishing the Project goals. Impacts will be limited by installing and maintaining erosion controls, as well as restoring grass areas with native vegetation. The restoration of areas that are currently grass will provide Buffer Zone improvements that are expected to protect the adjacent Resource Areas, such as by improving its abilities to attenuate flood waters and filter pollutants.

## 5.0 MITIGATION MEASURES

### 5.1 EROSION AND SEDIMENTATION CONTROLS

Best Management Practices for erosion and sedimentation control will be adhered to for all phases of the Project to minimize erosion, sedimentation, and impacts on resource areas. Appendix B – Project Plans depicts erosion control details and locations.

Erosion control measures will be implemented along the limit of work, downgradient of the disturbed areas during construction to minimize impacts to adjoining resource areas. Erosion and sedimentation barriers, consisting of compost-filled silt socks, will be installed to reduce the chance of soil or sediment migration under and beyond the sedimentation barrier.

Temporarily impacted areas will be restored to existing conditions upon completion of the Project, and four (4) areas will be improved by permanent restoration with native vegetation. Erosion controls will remain in place and in proper working order until the Site is completely stabilized. A stockpile of erosion control materials will be kept on-site for emergency and routine replacement.

Soil stockpiles established throughout the Project will be placed on a poly sheeting and surrounded with compost filter tubes to prevent sediment migration.

The construction staging area will be located south of the playground, west of the existing Maintenance Building, as depicted on Sheet 3 of Appendix B.

### 5.2 WATER CONTROLS AND DEWATERING

It is anticipated that Project activities will not require dewatering. However, if dewatering is required during construction, standard measures will be employed when necessary to keep work areas dry. For example, if groundwater is encountered it shall be discharged overland in upland areas after infiltrating through a filtration system such as a filter sock or conveyed to a settling tank. A potential dewatering discharge location is identified in Appendix B – Project Plans, if needed.

### 5.3 COASTAL DUNE AND LAND SUBJECT TO COASTAL STORM FLOWAGE RESTORATION

The Project proposes to restore approximately 1,377 square feet of an area functioning as Coastal Dune, which is also located within LSCSF. Restoration will occur in the following sequence:

- Removal of existing grass and impervious areas within the restoration area footprint;
- Minor grading of the slope;
- Placement of sand, and;
- Installation of native plantings including beach grasses and perennial groundcover.

Jute netting will be installed on the slope to provide interim stabilization. In addition, erosion controls consisting of compost filter tubes will be installed along the toe of slope, adjacent to the existing concrete

walkway. Minor grading of the slope aims to improve the function of Coastal Dune as further described in Section 6.1.2.

The Project also proposes 785 square feet of restoration within the eastern portion of the Project Locus. This area is currently a flat, grassed area that will be stripped of grass, topped with loam, and planted with native groundcover species. Proposed grading and the species list can be found in Appendix B – Project Plans.

#### **5.4 STORMWATER MANAGEMENT**

According to the Stormwater Management Standards (310 CMR 10.05(6)(k-q)), the proposed work constitutes a Redevelopment Project because the work will occur within existing developed and degraded areas. Redevelopment projects are required to meet Standards 1 and 7 through 10 fully; and, Standards 2 through 6 only to the maximum extent practicable. See Appendix C – Stormwater Management Report for further details on compliance with the Massachusetts Stormwater Management Standards.

The Project will maintain erosion control BMPs for the duration of construction, protect existing trees, minimize new areas of impervious surfaces, and restore portions of Coastal Dune of LSCSF.

#### **5.5 SPILL CONTAINMENT**

A spill containment kit will be kept onsite at all times and shall consist of absorbent pads and compounds, fuel pans, and any other materials deemed necessary by the contractor. The Conservation Commission will be notified immediately in the event of any fuel spills. Fueling shall take place at least 100 feet from Coastal Beach and will be carried out in a way that minimizes the risk of any spills, such as placing fuel pans under the equipment during refueling.

### **6.0 REGULATORY COMPLIANCE**

The Project, as proposed, will comply with the Performance Standards for LSCSF and Coastal Dune under the Act.

#### **6.1 MASSACHUSETTS WETLANDS PROTECTION ACT REGULATIONS – 310 CMR 10.00**

##### *6.1.1 LAND SUBJECT TO COASTAL STORM FLOWAGE – GENERAL PERFORMANCE STANDARDS*

There are no Performance Standards under the Act for LSCSF. However, pursuant to the Introduction found at 310 CMR 10.21<sup>1</sup>, the Project has been designed so work within LSCSF will protect to the applicable interests of the Act.

Although the Project will result in a minor increase in impervious area at the Site, all rehabilitated play areas will remain pervious, supporting the groundwater supply and flood control interests of the Act. In addition, converting maintained lawn to native vegetation will provide an improved level of storm damage prevention and pollution prevention by attenuating and filtering flood waters from the Site. Wildlife habitat value will also be improved by replacing maintained grass with vegetation that can serve as cover. Grading will also be kept to a minimum to avoid deflection of flood waters that would diminish the function of LSCSF.

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<sup>1</sup> 310 CMR 10.21: "...310 CMR 10.21 through 10.37 are intended to ensure that development along the coastline is located, designed, built and maintained in a manner that protects the public interests in the coastal resources listed in M.G.L. c. 131, § 40. The proponent of the work must submit sufficient information to enable the issuing authority to determine whether the proposed work will comply with 310 CMR 10.21 through 10.37."

LSCSF will be improved under the Project's proposed conditions.

#### 6.1.2 COASTAL DUNE – GENERAL PERFORMANCE STANDARDS

The Project will comply with the General Performance Standards for Coastal Dune found at 310 CMR 10.28(3). The Performance Standards state that any alteration of, or structure on, a Coastal Dune or within 100 feet of a Coastal Dune shall not have an adverse effect on the Coastal Dune by:

*(a) affecting the ability of waves to remove sand from the dune;*

While erosion controls will result in a temporary impact to sand migration, sand deposition and removal from the Dune through wave action will continue to occur following completion of the Project. The Project does not propose any obstructions to sand migration associated with the Coastal Dune.

*(b) disturbing the vegetative cover so as to destabilize the dune;*

The proposed restoration will provide more robust vegetative cover that does not exist under existing conditions, thereby improving the Dune's stability. The Dune is currently solely vegetated with maintained grass.

*(c) causing any modification of the dune form that would increase the potential for storm or flood damage;*

Minimizing grading of the Dune will protect its capacity to provide storm and flood damage protection. Providing a more robust vegetative cover will result in improved floodwater attenuation, thereby improving the flood control and storm damage prevention interests of the Dune.

*(d) interfering with the landward or lateral movement of the dune;*

The Project does not propose any new obstructions that would interfere with the landward or lateral movement of the dune. Landward movement of the Dune landform is currently impeded by the presence of the play area.

*(e) causing removal of sand from the dune artificially;*

Sand deposits will be temporary relocated while the area is restored with native vegetation; however, sand will be replaced within the area functioning as Coastal Dune. Sand migration/deposition will continue to occur following Project completion.

*(f) interfering with mapped or otherwise identified bird nesting habitat.*

There are no mapped or otherwise identified bird nesting habitat at the Site.

310 CMR 10.28(5)(c) states that plantings compatible with the natural vegetative cover are permitted on Coastal Dune, so long as the work complies with the provisions of 310 CMR 10.28(3). The proposed restoration will provide a number of native species suitable for dune habitat, which will enhance the function of the landform.

### 6.1.3 100' BUFFER ZONE

The Act does not list Performance Standards for the 100' Buffer Zone. However, the Project has been designed in compliance with the General Provision set forth in 310 CMR 10.53(1)<sup>2</sup>. Erosion controls will be installed downgradient of the proposed work to prevent excessive sediment migration towards Coastal Beach and Coastal Dune during construction. In addition, the work will result in a significant increase of native vegetative cover, which will improve the function of the Buffer Zone in protecting the downgradient Coastal Beach.

## 6.2 CITY OF BOSTON WETLANDS PROTECTION AND CLIMATE ADAPTATION ORDINANCE

The Project fully complies with the Act and is thereby anticipated to fully comply with the Ordinance, including the locally jurisdictional Waterfront Area.

### 6.2.1 WATERFRONT AREA

The regulations promulgated under the Ordinance dated August 19, 2021 do not contain Performance Standards for Resource Areas, including the Waterfront Area. Proposed work will occur within the Waterfront Area to both Coastal Beach and Coastal Dune. While work will result in a slight increase in impervious area, a substantial area of maintained lawn will be restored with native vegetation and a natural substrate, which will improve the function of the Coastal Dune. Interim stabilization measures, such as jute netting and compost filter tubes, will be used at the restoration areas to ensure that work within the Waterfront Area does not result in excessive sedimentation towards Coastal Beach during construction. In addition, the play area surface proposed within the Waterfront Area to Coastal Dune.

## 7.0 CLIMATE STATEMENT

As noted in the Coastal Resiliency Solutions for South Boston Final Report dated October 2018 (the Report), the Castle Island Playground area would be underwater in a 1% chance storm, with flood damage only getting worse into the 2070's due to 40 inches of anticipated sea level rise. Though DCR understands the risks of having public amenities sited within area subject to flooding, efforts have been made through the design of the Project to improve resiliency.

DCR plans to implement the following components to enhance the climate resiliency of the Project:

- Use of non-powder coated, straight, galvanized steel for large support posts;
- Replacement of maintained grass with native beach grasses and other plantings;
- Planting trees and maintaining existing trees;
- Use of cement concrete in lieu of bituminous concrete to reduce the heat island effect;
- Maintaining and improving the functions of an area acting as Coastal Dune, and;
- Installing a pervious surface within the play areas.

Though the Castle Island area is not explicitly discussed by the Report in terms of potential mitigation concepts for the South Boston neighborhood, the importance of maintaining beaches is discussed. Thoughtful and sustainable design of Projects within beachfront areas, such as the Castle Island Playground, will contribute to decreased storm damage and erosion. In addition, should current climate trends continue, the above referenced Project components will contribute to improved resiliency from storm surges and increased flooding. Given the relatively small scale of the Project, DCR feels that these

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<sup>2</sup> 310 CMR 10.53(1): For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area.

Boston, Massachusetts

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climate resiliency measures adequately address climate change and will integrate with plans for rehabilitation at other DCR properties in Boston.

In addition, access to the Site will be improved through constructing ADA-compliant Project components, including the play equipment selection, the play surface selection, and the configuration of amenities.

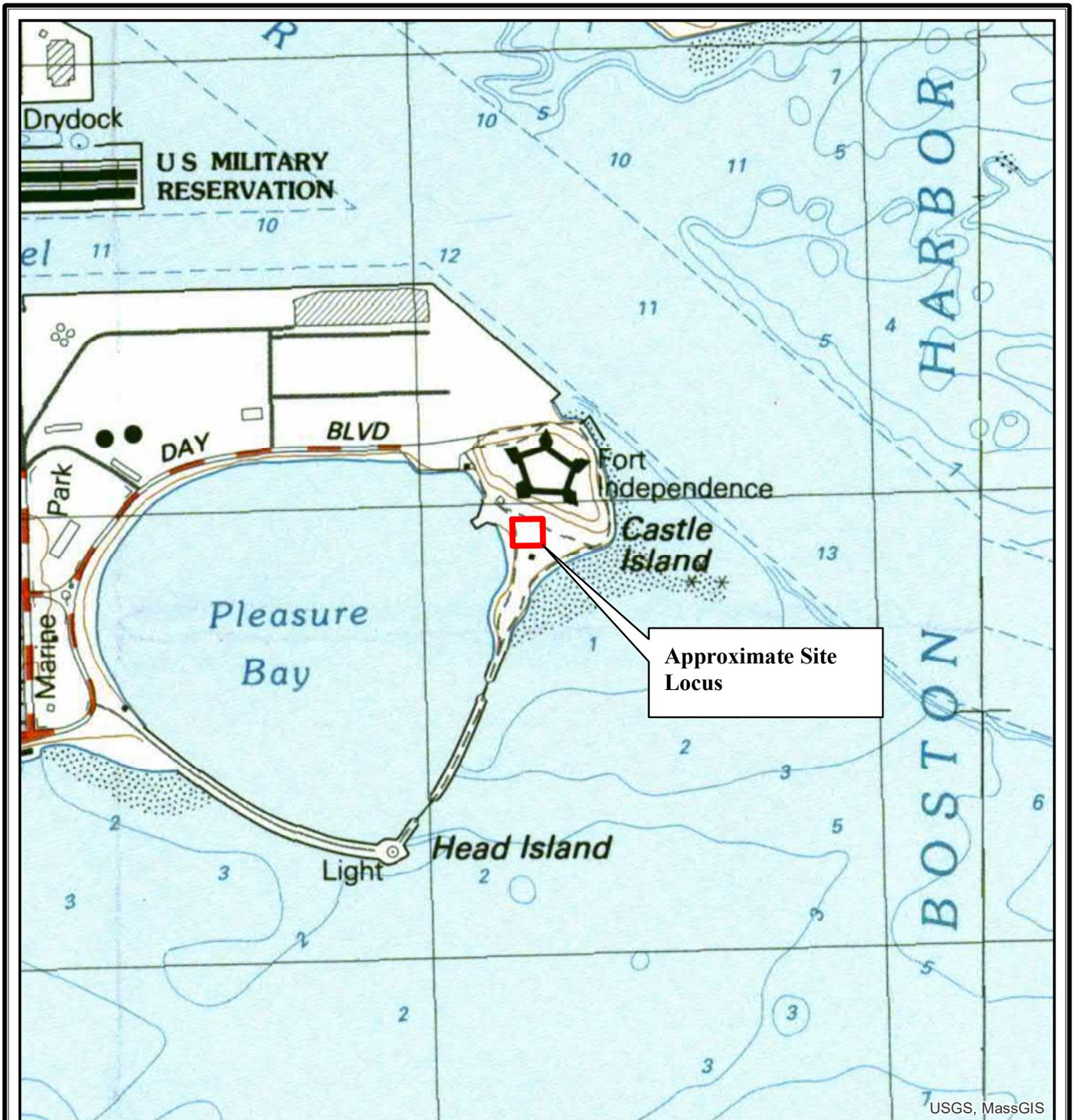
## 8.0 SUMMARY

The Project aims to improve ADA accessibility and safety, climate resiliency, and stormwater management at the Castle Island Playground, and has been designed to minimize and mitigate Resource Area impacts. It is anticipated that proposed restoration of LSCSF and Coastal Dune will enhance the functions of these Resource Areas and will provide mitigation for the proposed increase in impervious area. The Project has been designed to meet all local and state standards where feasible, has incorporated coastal restoration and resiliency components, and has minimized impacts to the greatest extent practical and feasible.

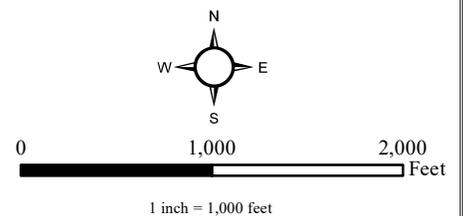
The Massachusetts Department of Conservation and Recreation respectfully requests that the Boston Conservation Commission find these measures adequately protective of the interests of the Act in the Order of Conditions approving the work as described herein and on the accompanying plans.

# FIGURES

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**Figure 1**  
**Site Locus**  
**DCR Castle Island Improvements**  
**Boston, MA**



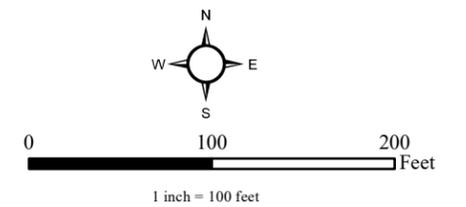
**Figure 2**  
**Environmental Resources Map**  
**DCR Castle Island Improvements**  
**Boston, MA**



- Wetland Resources Legend**
- NFHL 100 Year Flood Zone
  - Coastal Bank Bluff or Sea Cliff
  - Coastal Beach
  - Open Water
  - Tidal Flat
  - Dune Line
  - Landward Extent of Coastal Dune
  - 25' Waterfront Area (From Coastal Beach/Dune)

- Protected Coastal Areas Legend**
- Chapter 91 Jurisdiction
  - CZM Coastal Zone
- Shellfish Suitability Areas  
Habitat
- Soft-shelled Clam

NOTE: Entirety of Project Locus is within the 100-year floodplain per surveyed elevations.



Data Source: MassGIS USGS Color Ortho Imagery (2014), MassDEP Wetlands (1:12000) (2009), NHESP Potential Vernal Pools (2000), NHESP Certified Vernal Pools, NHESP Priority Habitats of Rare Species (2008), NHESP Estimated Habitats of Rare Species (2008), Areas of Critical Environmental Concern (2009), FEMA National Flood Hazard Layer (2014).



# National Flood Hazard Layer FIRMMette



71°1'4"W 42°20'27"N



## Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>

OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
		Area of Undetermined Flood Hazard <i>Zone D</i>
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall

OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
OTHER FEATURES		Profile Baseline
		Hydrographic Feature

MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/9/2020 at 2:22 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

# Photographic Documentation

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**Photo 1**



View of the play structures at the Castle Island playground—facing north.

**Photo 2**



View of the playground & picnic area marker—facing northeast.

**PHOTOGRAPHIC DOCUMENTATION**  
Castle Island Coastal Resource Area Assessment  
Boston, Massachusetts  
Photographs Documented 10.27.2020

**Photo 3**



Accessible surface and play equipment within the playground area—facing southeast.

**Photo 4**



A water fountain, utility manhole, and light pole at the southwestern portion of the play area adjacent to the walkway—facing south.

**PHOTOGRAPHIC DOCUMENTATION**  
Castle Island Coastal Resource Area Assessment  
Boston, Massachusetts  
Photographs Documented 10.27.2020

**Photo 5**



A view of the concrete walkway bisecting the beach and the playground area—facing south.

**Photo 6**



A view of Coastal Beach. Note the most recent wrack line in the center of the photo, with evidence of higher wave action to the left—facing south.

**PHOTOGRAPHIC DOCUMENTATION**  
Castle Island Coastal Resource Area Assessment  
Boston, Massachusetts  
Photographs Documented 10.27.2020

**Photo 7**



Looking south within the area that receives sediment/sand from the Coastal Beach with the landward limit of the area providing functions of the Coastal Dune in red—facing south.

**Photo 8**



View of sand deposits adjacent to and within the walkway—facing south.

**PHOTOGRAPHIC DOCUMENTATION**  
Castle Island Coastal Resource Area Assessment  
Boston, Massachusetts  
Photographs Documented 10.27.2020

**Photo 9**



View of sand deposits at a bench adjacent to the playground area. Note the scoured slope—facing southeast.

**Photo 10**



Additional sand deposits adjacent to Coastal Beach and the walkway—facing north.

**PHOTOGRAPHIC DOCUMENTATION**  
Castle Island Coastal Resource Area Assessment  
Boston, Massachusetts  
Photographs Documented 10.27.2020

**Photo 11**



A closer look at sand deposits at the southwestern portion of the playground area, adjacent to the walkway.

**Photo 12**



View of sand deposits within the southwestern portion of the play area itself—facing south.

**PHOTOGRAPHIC DOCUMENTATION**  
Castle Island Coastal Resource Area Assessment  
Boston, Massachusetts  
Photographs Documented 10.27.2020

**Photo 13**



A soil profile consisting of fill material observed adjacent to the northwestern corner of the playground area.

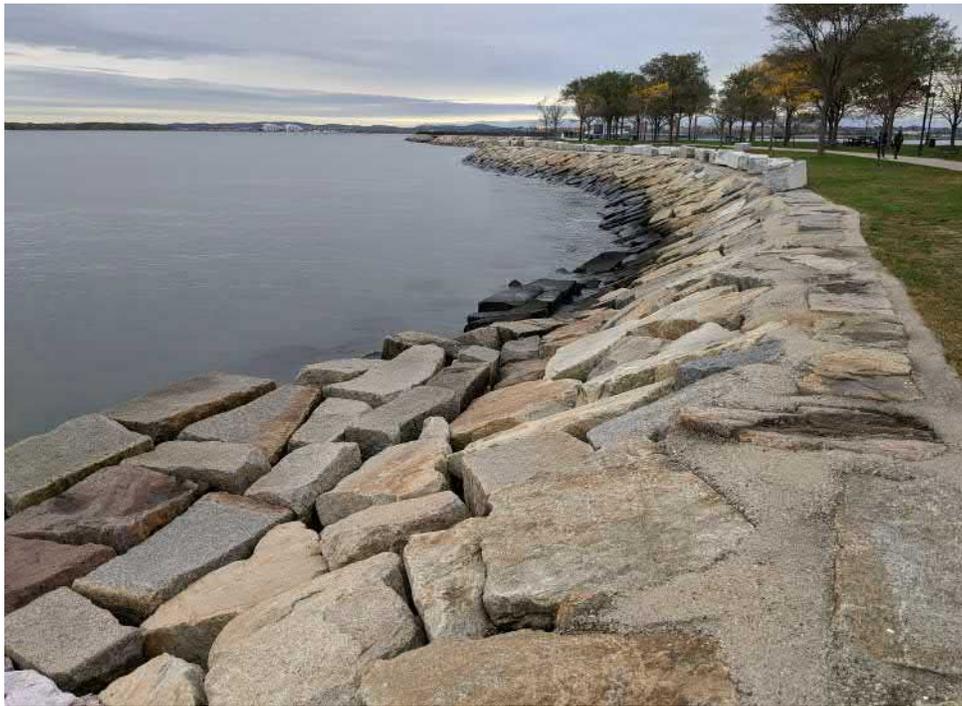
**Photo 14**



View of evidence of scour adjacent to Coastal Beach.

**PHOTOGRAPHIC DOCUMENTATION**  
Castle Island Coastal Resource Area Assessment  
Boston, Massachusetts  
Photographs Documented 10.27.2020

**Photo 15**



A view of the armored shore to the far east of the Site—facing southeast.

# APPENDIX A – Resource Area Delineation Report

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**Coastal Resource Area Assessment  
DCR – Castle Island Playground  
Boston, Massachusetts**

**January 18, 2021**

***Revised through March 19, 2021***

On October 27, 2020, BETA Group, Inc. (BETA) conducted coastal resource area identification/assessment delineations at 2010 William J Day Boulevard (Castle Island Playground) in Boston Massachusetts (the Site). This report describes resource areas Subject to Protection under the Massachusetts Wetlands Protection Act (M.G.L. Chapter 131 Section 40 - the Act), City of Boston Wetlands Protection and Climate Change Adaptation Ordinance (Chapter 7-1.4), the federal Clean Water Act CFR (33 U.S.C. §1251 et seq (1972)), the federal Rivers and Harbors Act (33 U.S.C. 403 (1899)), and the Massachusetts Clean Waters Act (MGL Chapter 21 Section 26-53), that exist on the Site and methodology used to delineate their boundaries.

**Site Description**

The subject property is Department of Conservation and Recreation (DCR)-owned land situated in South Boston (Figure 1 – Site Locus), primarily visited by walkers, runners, beachgoers, and tourists. The Site is bounded to the north by the Conley Terminal Port of Boston, to the west by Pleasure Bay and its associated tidelands, and to the east and south by Boston Harbor and its associated tidelands (Figure 2 – Environmental Resources). Improvements at the Site generally consist of the historic Fort Independence, bituminous concrete walking paths, the Castle Island Playground, user amenities such as water fountains and restrooms, and maintained landscaping.

The focus of this site visit was to identify and assess resource areas that may be relevant to potential improvements at the Castle Island Playground (the Site).

According to the USDA Natural Resources Conservation Service – Soil Survey, mapped soils on the Site and in the vicinity of the Site are classified as Newport silt loam; Urban land, wet substratum; Udorthents, loamy; and Udorthents, wet substratum. Our field work confirmed the soil types on the Site. The Custom Soil Resource Report for Norfolk and Suffolk Counties, Massachusetts is attached.

State jurisdictional resource areas identified within or adjacent to the Site include Land Subject to Coastal Storm Flowage, Land Subject to Tidal Actions, Land Under the Ocean, Coastal Beach, Coastal Dune, and Land Containing Shellfish. The MassGIS database was used as the initial step in identifying critical areas on or within proximity of the site that would be examined more closely if construction activities are proposed. The table below describes selected environmentally critical categories as determined through MassGIS.

**Table 1. Selected MassGIS Environmental Data Layers**

<b>Mapped Resource on or Within Proximity to Site</b>	<b>Yes</b>	<b>No</b>
Area of Critical Environmental Concern		✓
NHESP Certified Vernal Pool		✓
NHESP Potential Vernal Pool		✓
Coldwater Fisheries Resource		✓
NHESP Established Habitat of Rare Wildlife		✓

Mapped Resource on or Within Proximity to Site	Yes	No
NHESP Priority Habitat of Rare Species		✓
Outstanding Resource Waters		✓
FEMA Flood Zones	✓	
Surface Water Protection Area (Zones A and B)		✓
Interim Wellhead Protection Area		✓
Zone II Wellhead Protection Area		✓
Tidelands – Chapter 91 Jurisdiction	✓	
Designated Port Area		✓
CZM Coastal Zone	✓	
Anadromous Fish Presence		✓
Land Containing Shellfish	✓	

Source: MassGIS

### Jurisdictional Wetland Resource Areas – Massachusetts Wetlands Protection Act

A Site inspection was conducted by BETA’s Wetland Scientists on October 27, 2020 to identify and assess existing coastal resource areas on the Site and in the immediate vicinity of the Site. Resource areas were identified/delineated in accordance with methods developed by the Massachusetts Department of Environmental Protection and Office of Coastal Zone Management’s *Applying the Massachusetts Coastal Wetlands Regulations*, dated 2017, as well as definitions set forth in the Wetland Regulations, 310 CMR 10.00. Several Areas Subject to Protection under the Act exist on the Site and are described below.

#### Land Subject to Coastal Storm Flowage – FEMA AE and VE Zones – 310 CMR 10.04

According to the FEMA Flood Insurance Rate Map (FIRM) community panel number 25025C0084J dated effective March 16, 2016 (Figure 3), the entire Site lies within a Flood Hazard Zone AE, subject to a 1% yearly chance of tidally influenced inundation below the published Base Flood Elevation (BFE) of 14’ (NAVD88). Land below the BFE is defined as Land Subject to Coastal Storm Flowage (LSCSF) and is Subject to Jurisdiction under the Act.

Additionally, areas to the east and west of the Site are within a Flood Hazard VE associated with Pleasure Bay. Zone VE elevations are depicted as 16’ (NAVD88) east and west of the Site, and 19’ (NAVD88) to the northeast.

#### Land Subject to Tidal Action– 310 CMR 10.04

According to the Statement of Jurisdiction at 310 CMR 10.02 and definition at 310 CMR 10.04, Land Subject to Tidal Action is defined as land subject to the periodic rise and fall of a coastal water body, including spring tides. The limit of this resource area is the extreme high tide elevation (HTL).

Through review of tide charts and the Buzzards Bay National Estuary Program’s Tidal Datum Viewer, the modeled the MLW elevation is -5.14 feet (NAVD88) as determined by NOAA’s VDatum software, and the HTL is 6.81 feet (NAVD88).

#### Land Under the Ocean – 310 CMR 10.26

According to 310 CMR 10.25(2), Land Under the Ocean is defined as the “land extending from the mean low water (MLW) line seaward to the municipality’s jurisdiction and includes estuaries”. Because Pleasure Bay and Boston Harbor are tidal waters, land under this waterbody is, by definition,

Land Under the Ocean. According to the Buzzards Bay National Estuary Program's Tidal Datum Viewer, the modeled the MLW elevation is -5.14 feet (NAVD88) as determined by NOAA's VDatum software.

#### Coastal Beach – 310 CMR 10.27

According to CMR 10.27(2), the definition of Coastal Beach is unconsolidated sediment subject to wave, tidal and coastal storm action which forms a gently sloping shore of a body of saltwater and includes tidal flats. The area seaward of the grass/vegetated area (See Photo 8) on the Site consists of wave-deposited fine sand and meets the definition of Coastal Beach.

The Coastal Beach extends from the MLW elevation to the filled area vegetated with grasses (which functions as a Coastal Dune).

#### Coastal Dune – 310 CMR 10.28

The Wetland Regulations at 310 CMR 10.28(2) defines coastal dune as any natural hill, mound or ridge of sediment landward of a coastal beach deposited by wind action or storm over wash. Coastal dune also means sediment deposited by artificial means and serving the purpose of storm damage prevention or flood control.

Based on review of publicly available maps and our site inspection, a portion of the historically filled area upgradient of the Coastal Beach is functioning as a Coastal Dune by providing the storm damage prevention and flood control functions. These functions at the Site are limited, however, due to the existing improvements and infrastructure.

The dune line (the line between the Coastal Dune and Coastal Beach) is located at the limit of grass/vegetation between the sand area and the concrete driveway. The area functioning as a Coastal Dune extends landward from the dune line, over the walkway to the westerly boundary of the granite wall (Photographic Documentation – Photos 7 & 9) where sand deposition and erosion are apparent.

#### Land Containing Shellfish – 310 CMR 10.34

Land Containing Shellfish is defined as land under the ocean, tidal flats, rocky intertidal shores, salt marshes and land under salt ponds when any such land contains shellfish. The intertidal area (between the MLW and MHW elevation) is mapped as suitable for soft-shell clams (*Mya arenaria*).

### **Jurisdictional Wetland Resource Areas – City of Boston Wetlands Protection and Climate Change Adaptation Ordinance**

As a state agency, DCR is not subject to local bylaws, however, the department has traditionally made every attempt to comply with local bylaws where reasonably practicable and economically feasible. Accordingly, Areas Subject to local Protection and Jurisdiction are included in this report.

City of Boston Wetlands Protection and Climate Change Adaptation Ordinance (Chapter 7-1.4) (the Ordinance) maintains the same coastal resource area definitions as provided in the Act except for Coastal Bank and the Coastal Flood Resiliency Zone (CFRZ), although it was observed that Coastal Bank does not exist within 100 feet of the Site. The Bylaw also extends Protections to Isolated Vegetated Wetlands (IVWs), however, no IVWs were identified on or within 100 feet of the Site.

*Coastal Bank (7-1.4b): In addition to the definition found in the regulations under the Wetlands Protection Act, 310 C.M.R. 10.30, "Coastal Bank" shall include seawalls and bulkheads existing on the effective date of this Ordinance unless the seawall supplies sediment to coastal beaches, coastal dunes, and barrier*

*beaches. Existing seawalls and bulkheads are presumed significant to the purpose of the Act and Regulations as a Coastal Bank because they are designed to serve as vertical buffers to storm damage.*

*Coastal Flood Resilience Zone or CFRZ (7-1.4b): The area of land beyond the current boundary of land subject to coastal storm flowage or land subject to tidal action that the Commission determines has a reasonable probability of becoming subject to future coastal storm flowage or tidal action due to sea level rise (SLR) within approximately the next 50 years. The "coastal flood resilience zone" as delineated on maps adopted by the Commission may be periodically reviewed and revised by the Commission, and may be divided into sub-zones with different regulatory requirements.*

In addition, the Bylaw affords protection to land within 100 feet of the resource areas outlined in the Ordinance, with the exception of LSCSF and the CFRZ.

#### **Jurisdictional Wetland Resource Areas – Federal Clean Water Act (Sections 10 and 404)**

Pleasure Bay and Boston Harbor are "Tidal Waters of the United States" and therefore subject to the federal Rivers and Harbors Act, 33 U.S.C. 403 (1899) and the federal Clean Water Act, 33 U.S.C. 1251 et seq (1972). According to 33 CFR §328.3(d), Tidal Waters are defined as "waters that rise and fall in a predictable and measurable rhythm or cycle due to the gravitational pulls of the moon and sun. Tidal waters end where the rise and fall of the water surface can no longer be practically measured in a predictable rhythm due to masking by hydrologic, wind, or other effects."

The boundary to "Tidal Waters of the United States" is the High Tide Line (HTL), which is defined at 33 CFR §328.3(c)(7). The boundary of the HTL can be approximated using the "King Tide" elevation, which is approximately 6.81 feet (NAVD88). No portion of the Project Site is below this elevation. Construction of any structure in, over, or under tidal waters, or work affecting the course, location, condition, or capacity of tidal waters is Subject to Jurisdiction under Section 10 of the Rivers and Harbors Act. Work that requires filling below the boundary of the HTL onsite is Subject to Jurisdiction under Sections 10 and 404 of the Clean Water Act.

#### **Jurisdictional Wetland Resource Areas – Massachusetts Clean Waters Act (Section 401)**

The limit of jurisdiction under Massachusetts Clean Waters Act (Section 401), as specified in 314 CMR 9.00, is the boundary of federally regulated waters. Exceedances of the jurisdictional threshold under 314 CMR 9.00 require filing for a Water Quality Certification under Section 401.

#### **Jurisdictional Resource Areas – The Massachusetts Public Waterfront Act (Chapter 91)**

Most activities that take place within Flowed Tidelands or Filled Tidelands require Chapter 91 authorization. Chapter 91 Jurisdiction exists near the Site where Filled Tidelands are present at the limit of the "Historic High Water" (Figure 2). Where Flowed Tidelands exist (Figure 2 – "Contemporary High Water"), the limit of Chapter 91 jurisdiction is the MHW elevation which is estimated to be 4.27 feet (NAVD88).

#### **Findings and Recommendations**

BETA has identified areas Subject to Protection and/or Jurisdiction under the Massachusetts Wetlands Protection Act, City of Boston Wetlands Protection and Climate Change Adaptation Ordinance, the federal Clean Water Act, and the Massachusetts Clean Waters Act, on or within 100 feet of the Site.

We appreciate the opportunity to provide you with expert wetland services. If you have any questions or need further assistance, please do not hesitate to call us.

January 18, 2021

*Revised through March 19, 2021*

Page 5 of 5

Attachments: Figure 1 – Site Locus  
Figure 2 – Environmental Resources Map  
Figure 3 – FEMA FIRMette  
Photographic Documentation  
Custom Soil Report for Suffolk and Norfolk County, and Plymouth County, Massachusetts

Job No: 20.07341.00



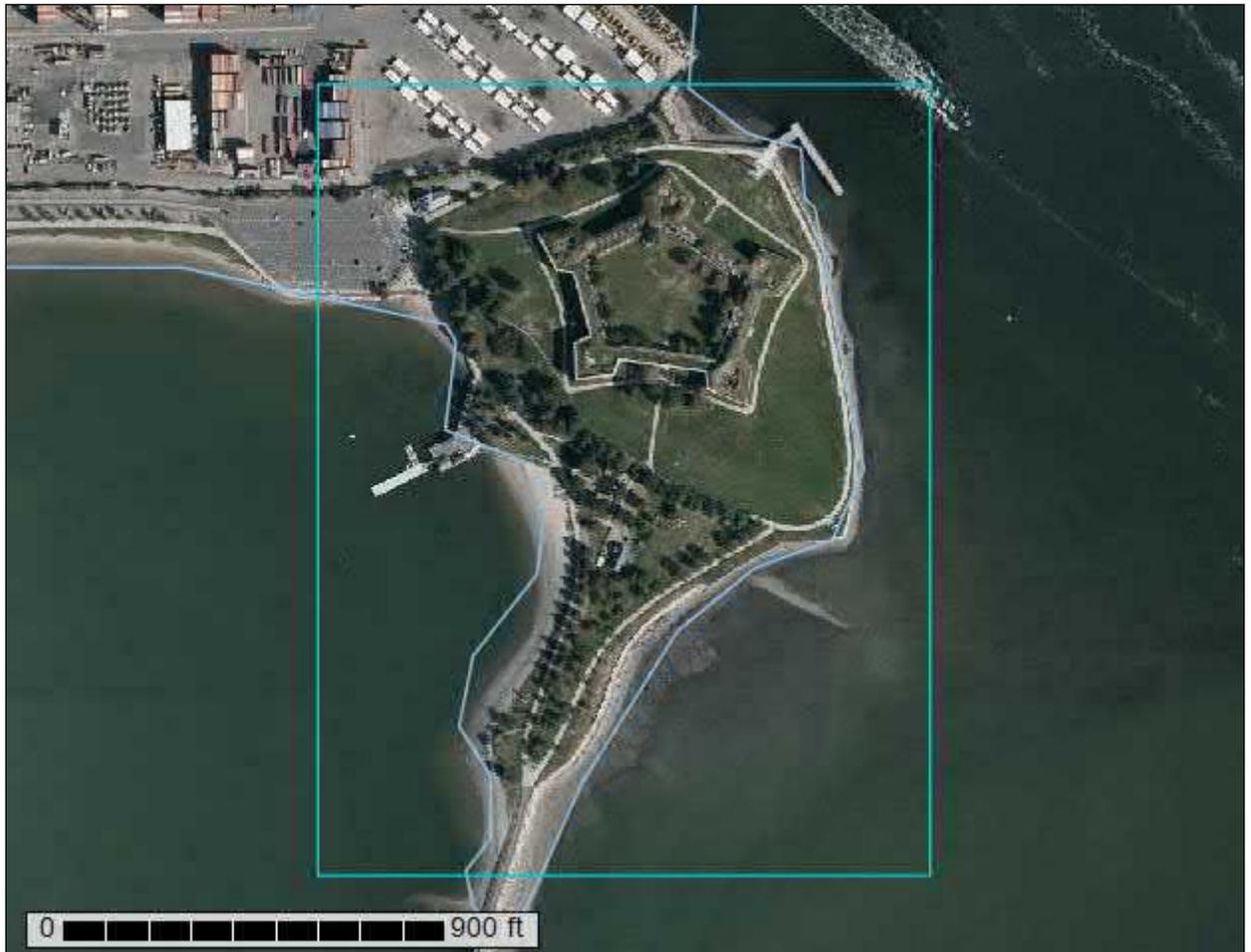
United States  
Department of  
Agriculture

**NRCS**

Natural  
Resources  
Conservation  
Service

A product of the National  
Cooperative Soil Survey,  
a joint effort of the United  
States Department of  
Agriculture and other  
Federal agencies, State  
agencies including the  
Agricultural Experiment  
Stations, and local  
participants

# Custom Soil Resource Report for Norfolk and Suffolk Counties, Massachusetts



# Preface

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Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (<http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/>) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (<https://offices.sc.egov.usda.gov/locator/app?agency=nrcs>) or your NRCS State Soil Scientist ([http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2\\_053951](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951)).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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# How Soil Surveys Are Made

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Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

## Custom Soil Resource Report

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

## Custom Soil Resource Report

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

# Soil Map

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The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

# Custom Soil Resource Report Soil Map



Map Scale: 1:3,420 if printed on A portrait (8.5" x 11") sheet.



### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)

**Soils**

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

**Special Point Features**

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Norfolk and Suffolk Counties, Massachusetts  
 Survey Area Data: Version 16, Jun 11, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 11, 2019—Oct 5, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
1	Water	31.2	50.1%
325B	Newport silt loam, 3 to 8 percent slopes	13.8	22.1%
603	Urban land, wet substratum, 0 to 3 percent slopes	4.0	6.4%
654	Udorthents, loamy	5.5	8.9%
655	Udorthents, wet substratum	7.8	12.5%
<b>Totals for Area of Interest</b>		<b>62.3</b>	<b>100.0%</b>

## Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate

## Custom Soil Resource Report

pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

## Norfolk and Suffolk Counties, Massachusetts

### 1—Water

#### Map Unit Setting

*National map unit symbol:* vkyp  
*Mean annual precipitation:* 32 to 50 inches  
*Mean annual air temperature:* 45 to 50 degrees F  
*Frost-free period:* 120 to 200 days  
*Farmland classification:* Not prime farmland

#### Map Unit Composition

*Water:* 100 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

### 325B—Newport silt loam, 3 to 8 percent slopes

#### Map Unit Setting

*National map unit symbol:* vkwl  
*Elevation:* 0 to 340 feet  
*Mean annual precipitation:* 45 to 54 inches  
*Mean annual air temperature:* 43 to 54 degrees F  
*Frost-free period:* 145 to 240 days  
*Farmland classification:* All areas are prime farmland

#### Map Unit Composition

*Newport and similar soils:* 90 percent  
*Minor components:* 10 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

#### Description of Newport

##### Setting

*Landform:* Drumlins  
*Landform position (two-dimensional):* Shoulder  
*Landform position (three-dimensional):* Side slope  
*Down-slope shape:* Convex  
*Across-slope shape:* Convex  
*Parent material:* Friable coarse-loamy eolian deposits over dense coarse-loamy lodgment till derived from metamorphic rock

##### Typical profile

*H1 - 0 to 9 inches:* silt loam  
*H2 - 9 to 26 inches:* channery silt loam  
*H3 - 26 to 60 inches:* channery silt loam

##### Properties and qualities

*Slope:* 3 to 8 percent  
*Depth to restrictive feature:* 20 to 40 inches to densic material  
*Drainage class:* Well drained  
*Runoff class:* High

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*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)

*Depth to water table:* About 18 to 30 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Low (about 4.4 inches)

### Interpretive groups

*Land capability classification (irrigated):* None specified

*Land capability classification (nonirrigated):* 2e

*Hydrologic Soil Group:* B

*Ecological site:* F144AY007CT - Well Drained Dense Till Uplands

*Hydric soil rating:* No

### Minor Components

#### Paxton

*Percent of map unit:* 4 percent

*Hydric soil rating:* No

#### Pittstown

*Percent of map unit:* 4 percent

*Hydric soil rating:* No

#### Udorthents

*Percent of map unit:* 1 percent

*Hydric soil rating:* Unranked

#### Urban land

*Percent of map unit:* 1 percent

*Hydric soil rating:* Unranked

## 603—Urban land, wet substratum, 0 to 3 percent slopes

### Map Unit Setting

*National map unit symbol:* vkyl

*Mean annual precipitation:* 32 to 50 inches

*Mean annual air temperature:* 45 to 50 degrees F

*Frost-free period:* 120 to 200 days

*Farmland classification:* Not prime farmland

### Map Unit Composition

*Urban land:* 85 percent

*Minor components:* 15 percent

*Estimates are based on observations, descriptions, and transects of the mapunit.*

### Description of Urban Land

#### Setting

*Parent material:* Excavated and filled land over herbaceous organic material and/or alluvium and/or marine deposits

**Minor Components**

**Udorthents**

*Percent of map unit:* 13 percent  
*Hydric soil rating:* Unranked

**Beaches**

*Percent of map unit:* 2 percent  
*Hydric soil rating:* Unranked

**654—Udorthents, loamy**

**Map Unit Setting**

*National map unit symbol:* vkyb  
*Elevation:* 0 to 3,000 feet  
*Mean annual precipitation:* 45 to 54 inches  
*Mean annual air temperature:* 43 to 54 degrees F  
*Frost-free period:* 145 to 240 days  
*Farmland classification:* Not prime farmland

**Map Unit Composition**

*Udorthents and similar soils:* 80 percent  
*Minor components:* 20 percent  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Udorthents**

**Setting**

*Landform position (two-dimensional):* Summit, shoulder  
*Landform position (three-dimensional):* Tread, riser  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Linear, convex  
*Parent material:* Excavated and filled coarse-loamy human transported material

**Typical profile**

*H1 - 0 to 6 inches:* variable  
*H2 - 6 to 60 inches:* variable

**Properties and qualities**

*Slope:* 0 to 25 percent  
*Depth to restrictive feature:* More than 80 inches  
*Runoff class:* Low  
*Capacity of the most limiting layer to transmit water (Ksat):* Moderately low to very high (0.06 to 20.00 in/hr)  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None

**Interpretive groups**

*Land capability classification (irrigated):* None specified  
*Land capability classification (nonirrigated):* 6s

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*Hydrologic Soil Group: A*  
*Hydric soil rating: Unranked*

**Minor Components**

**Udorthents,sandy**

*Percent of map unit: 8 percent*  
*Hydric soil rating: Unranked*

**Udorthents,wet substr.**

*Percent of map unit: 8 percent*  
*Hydric soil rating: Unranked*

**Urban land**

*Percent of map unit: 4 percent*  
*Hydric soil rating: Unranked*

**655—Udorthents, wet substratum**

**Map Unit Setting**

*National map unit symbol: vkyd*  
*Elevation: -30 to 310 feet*  
*Mean annual precipitation: 45 to 54 inches*  
*Mean annual air temperature: 43 to 54 degrees F*  
*Frost-free period: 145 to 240 days*  
*Farmland classification: Not prime farmland*

**Map Unit Composition**

*Udorthents and similar soils: 95 percent*  
*Minor components: 5 percent*  
*Estimates are based on observations, descriptions, and transects of the mapunit.*

**Description of Udorthents**

**Setting**

*Landform position (two-dimensional):* Footslope, shoulder  
*Landform position (three-dimensional):* Tread, riser  
*Down-slope shape:* Linear, convex  
*Across-slope shape:* Linear, convex  
*Parent material:* Excavated and filled sandy and gravelly human transported material over highly-decomposed herbaceous organic material

**Properties and qualities**

*Slope:* 0 to 3 percent  
*Depth to restrictive feature:* More than 80 inches  
*Depth to water table:* More than 80 inches  
*Frequency of flooding:* None  
*Frequency of ponding:* None

**Minor Components**

**Urban land**

*Percent of map unit: 3 percent*

*Hydric soil rating: Unranked*

**Ipswich**

*Percent of map unit: 2 percent*

*Landform: Marshes*

*Hydric soil rating: Yes*

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## APPENDIX B – Project Plans

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COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF CONSERVATION AND RECREATION  
DIVISION OF PLANNING AND ENGINEERING

# Castle Island Playground Renovation

Boston, Massachusetts

## PERMIT SET

CONTRACT NO. P21-3428-C4A

April 2021



DEPARTMENT OF CONSERVATION & RECREATION  
251 Causeway Street, Suite 600  
Boston, Massachusetts 02114



PROJECT LOCATION  
**LOCATION MAP**  
1"=400'

ROBERT LOWELL, DEPUTY CHIEF ENGINEER, DCR

### PLAN INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	GENERAL NOTES
3	EXISTING CONDITIONS & SITE PREPARATION PLAN
4	RESOURCE AREA IMPACTS
5	LAYOUT & MATERIALS PLAN
6	GRADING & UTILITY PLAN
7	PLANTING PLAN
8	SITE DETAILS 1
9	SITE DETAILS 2

GOVERNOR  
CHARLES D. BAKER

LIEUTENANT GOVERNOR  
KARYN E. POLITO

DCR COMMISSIONER  
JIM MONTGOMERY

PREPARED BY:



GENERAL NOTES:

- 1. THE LOCATION OF SUBSURFACE UTILITIES SHOWN IS APPROXIMATE AND NOT GUARANTEED TO BE COMPLETE OR ACCURATE. THE CONTRACTOR SHALL VERIFY THE LOCATIONS AND ELEVATIONS OF EXISTING UTILITY LINES AND STRUCTURES PRIOR TO COMMENCEMENT OF WORK. THE CONTRACTOR MUST NOTIFY DIG SAFE 72 HOURS PRIOR TO ANY EXCAVATION, DEMOLITION OR EXPLOSIVE WORK IN PUBLIC OR PRIVATE WAYS OR UTILITY COMPANY RIGHT-OF-WAY OR EASEMENT.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR THE RESOLUTION OF THE CONFLICT.
3. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, CABLE TV, FIRE ALARM AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES. ALL UTILITY CASTING SHALL BE ADJUSTED TO FINISH GRADE BY THEIR RESPECTIVE OWNERS.
4. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
5. THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET" (R&R).
6. ALL WALKWAYS WHEELCHAIR RAMPS SHALL CONFORM TO THE REQUIREMENTS OF THE ARCHITECTURAL ACCESS BOARD (A.A.B.) AND THE AMERICANS WITH DISABILITIES ACT (A.D.A.), AND THE LATEST MASSDOT STANDARDS.
7. JOINTS BETWEEN NEW BITUMINOUS CONCRETE PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDED.
8. ALL CURB DIMENSIONS ARE TO THE FACE OF THE CURB.
9. CONTRACTOR SHALL VERIFY EXISTING GRADES. IF ANY ADJUSTMENT IS REQUIRED DUE TO DIFFERENT EXISTING GRADES FOUND IN THE FIELD, THE CONTRACTOR SHALL NOTIFY AND SEEK THE APPROVAL OF THE ENGINEER PRIOR TO PERFORMING THE WORK.
10. IN FILL AREAS, TOP SOIL SHALL BE REMOVED FOR A DEPTH OF 12" (MIN.) OR AS DIRECTED BY THE ENGINEER. SUBGRADE AREAS WILL BE COMPACTED PRIOR TO THE PLACEMENT OF FILL MATERIAL.
11. SAFETY CONTROLS FOR CONSTRUCTION OPERATIONS SHALL BE IN ACCORDANCE WITH MASSDOT REQUIREMENTS AND THE LATEST VERSION OF THE MUTCD.
12. CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE ORDER OF CONDITIONS ISSUED BY THE CITY OF BOSTON CONSERVATION COMMISSION.
13. CONTRACTOR SHALL COMPLY THE THE RELEVANT REQUIREMENTS OF THE RELEASE ABATEMENT MEASURE (RAM) PLAN, AMENDMENT No. 3, DATED MARCH 29, 2019, AS DEVELOPED BY COMPREHENSIVE ENVIRONMENTAL, INC.
14. CONTRACTOR SHALL COORDINATE LOCATION OF PLAYGROUND EQUIPMENT FOUNDATIONS AND URETHANE SAFETY SURFACING WITH THE APPROPRIATE SUPPLIER OR REPRESENTATIVE.
15. ENTIRETY OF THE PROJECT LOCUS LIES WITHIN THE LAND SUBJECT TO COASTAL STORM FLOWAGE.

PAVEMENT NOTES

POLYURETHANE SAFETY SURFACING

CONTRACTOR TO COORDINATE LAYOUT AND DEPTHS OF POLYURETHANE SAFETY SURFACING WITH PLAYGROUND MANUFACTURER'S REPRESENTATIVE AND INSTALLER.

CEMENT CONCRETE SIDEWALK / PAD

SURFACE COURSE: 4" CEMENT CONCRETE (AIR ENTRAINED 4000 PSI, 3/4", 610) w/ WELDED WIRE MESH (10-GAUGE, 6"X6") OVER
SUB BASE: 8" GRAVEL BORROW TYPE b OR COMBINATION OF EXISTING SUITABLE SUB BASE AS APPROVED BY THE ENGINEER

HOT MIX ASPHALT WALK

SURFACE COURSE: 4" HMA WALK SURFACE PLACED IN TWO LAYERS, 1-1/2" TOP COURSE MATERIAL OVER 2-1/2" BOTTOM COURSE MATERIAL
SUB BASE: 8" GRAVEL BORROW TYPE b OR COMBINATION OF EXISTING SUITABLE SUB BASE AS APPROVED BY THE ENGINEER

GRAVEL BASE

GRAVEL BASE: ALL 8" GRAVEL BORROW LAYERS TO BE COMPACTED IN 2-4" LIFTS.

LAYOUT NOTES:

- 1. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES THAT AFFECT THE LAYOUT OF PROPOSED WORK TO DCR.
2. CONTRACTOR SHALL COORDINATE WITH DCR TO VERIFY LAYOUT OF PLAY STRUCTURES, SAFETY ZONES, PANELS, AND CONCRETE PADS FOR BENCHES WITHIN THE NEW CONCRETE EDGE PRIOR TO FINAL INSTALLATION OF THE CONCRETE EDGE.
3. LAYOUT OF PATHWAYS AND CONCRETE EDGE SHALL BE STAKED OUT BY THE CONTRACTOR AND APPROVED BY DCR PRIOR TO EXECUTION OF THE WORK.
4. CONTRACTOR MAY BE DIRECTED BY DCR OR EQUIPMENT MANUFACTURER OR REPRESENTATIVE TO INCREASE THE THICKNESS OF THE SAFETY WEARING COURSE UNDER INDIVIDUAL PIECES OF EQUIPMENT.

UTILITY NOTE:

ALL UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE ONLY AND WERE COMPILED ACCORDING TO RECORD PLANS PROVIDED BY THE CLIENT. ACTUAL LOCATIONS MUST BE DETERMINED IN THE FIELD. BEFORE DESIGNING, EXCAVATING, BLASTING, INSTALLING, BACK FILLING, GRADING, PAVEMENT RESTORATION OR REPAIRING, ALL UTILITY COMPANIES, PUBLIC & PRIVATE, MUST BE NOTIFIED INCLUDING THOSE IN CONTROL OF UTILITIES NOT SHOWN ON THIS PLAN. SEE CHAPTER 370, ACTS OF 1963, MASSACHUSETTS. ALPHA SURVEY GROUP, LLC ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED OR INACCURATELY SHOWN. BEFORE FUTURE CONNECTIONS, THE APPROPRIATE UTILITY ENGINEERING DEPARTMENTS MUST BE CONSULTED. CALL "DIG SAFE" AT 811.

LANDSCAPE NOTES:

- 1. NO PLANT MATERIALS SHALL BE INSTALLED UNTIL ALL GRADING AND CONSTRUCTION HAS BEEN COMPLETED IN THE IMMEDIATE AREA.
2. ALL TREES SHALL BE BALLED AND BURLAPPED, UNLESS OTHERWISE NOTED, OR APPROVED BY THE ENGINEER.
3. 3" DEEP PINE BARK MULCH SHALL BE INSTALLED UNDER ALL NEW TREES, SHRUBS, AND VINES, AS SHOWN ON THE PLANS, OR AS REQUIRED BY ENGINEER.
4. FINAL QUANTITY FOR EACH PLANT TYPE SHALL BE AS SHOWN ON THE PLAN. THIS NUMBER SHALL TAKE PRECEDENCE IN CASE OF ANY DISCREPANCY BETWEEN QUANTITIES SHOWN ON THE PLANT LIST AND ON THE PLAN.
5. ANY PROPOSED PLANT SUBSTITUTIONS MUST BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO THE START OF WORK.
6. EXISTING TREES TO REMAIN SHALL BE PROTECTED WITH TEMPORARY SNOW FENCE AS DIRECTED BY THE ENGINEER. ERECT SNOW FENCE AT THE DRIP LINE OF THE TREE. CONTRACTOR SHALL NOT STORE VEHICLES OR MATERIALS WITHIN THE LANDSCAPE AREAS. ANY DAMAGE TO EXISTING TREES, SHRUBS, OR LAWNS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE DEPARTMENT.

SURVEY NOTES:

1) THE INFORMATION SHOWN HEREON IS BASED ON AN ON-GROUND SURVEY PERFORMED ON NOVEMBER 10, 2020, BY ALPHA SURVEY GROUP, LLC.

2) THE HORIZONTAL DATUM FOR THIS PROJECT IS THE MASSACHUSETTS STATE PLANE COORDINATE SYSTEM REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD83), CORS ADJUSTMENT (NA2011/GEOID 18) AS DETERMINED BY REDUNDANT GPS OBSERVATIONS MADE ON NOVEMBER 10, 2020 UTILIZING THE MASSACHUSETTS CONTINUOUSLY OPERATING REFERENCE STATION NETWORK (McCORS).

3) THE VERTICAL DATUM FOR THIS PROJECT IS REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88), CORS ADJUSTMENT (NA2011/GEOID 18) AS DETERMINED BY REDUNDANT GPS OBSERVATIONS MADE ON NOVEMBER 10, 2020 UTILIZING THE MASSACHUSETTS CONTINUOUSLY OPERATING REFERENCE STATION NETWORK (McCORS).

4) UTILITIES SHOWN HEREON ARE COMPILED FROM A PLAN SET PROVIDED BY THE CLIENT ENTITLED "PLAYGROUND AT FORT INDEPENDENCE CASTLE ISLAND, SOUTH BOSTON, SHEETS S-1 THRU S-3 DATED 7/24/94 PREPARED BY WALLACE FLOYD ASSOC. FOR MDC.

EXISTING CONDITIONS SURVEY PERFORMED BY ALPHA SURVEY GROUP, LLC ON NOVEMBER 2020.

Table with 2 columns: Description, Symbol. Includes items like WATER MANHOLE, DRAIN MANHOLE, SEWER MANHOLE, ELECTRIC MANHOLE, TELECOMM MANHOLE, HAND HOLE, LIGHT POLE, TREE (SIZE INCHES), GAS LINE, TELEPHONE LINE, DRAIN LINE, SEWER LINE, ELECTRIC LINE, WATER LINE, CHAIN LINK FENCE, RETAINING, CONCRETE, SPOT GRADE, DRILL HOLE, CHISELED SQUARE, BENCHMARK, TRAVERSE (CONTROL) POINT.

PREPARED BY



www.BETA-Inc.com

REGISTERED PROFESSIONAL



SUBCONSULTANT

PROJECT



COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

Castle Island Playground Renovation Boston, MA

TITLE

GENERAL NOTES

Table with 3 columns: NO., REVISIONS, DATE

Table with 2 columns: Field, Value. Includes DRAWN BY: CC / SR, DESIGNED BY: SR, CHECKED BY: KC, ISSUE DATE: APRIL 2021, BETA JOB NO.: 7341

SCALE NONE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

Permit Set

SHEET NO. 2 DCR ACCESSION NO. XXXXXXX















# APPENDIX C – Stormwater Management Report

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# Checklist for Stormwater Report

## A. Introduction

**Important:** When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the [Massachusetts Stormwater Handbook](#). The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.<sup>1</sup> This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8<sup>2</sup>
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

<sup>1</sup> The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

<sup>2</sup> For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.



# Checklist for Stormwater Report

## B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

*Note:* Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

### Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature



*Matthew Crowley* 4/29/21  
Signature and Date

## Checklist

**Project Type:** Is the application for new development, redevelopment, or a mix of new and redevelopment?

- New development
- Redevelopment
- Mix of New Development and Redevelopment



# Checklist for Stormwater Report

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## Checklist (continued)

**LID Measures:** Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- No disturbance to any Wetland Resource Areas
- Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- Reduced Impervious Area (Redevelopment Only)
- Minimizing disturbance to existing trees and shrubs
- LID Site Design Credit Requested:
  - Credit 1
  - Credit 2
  - Credit 3
- Use of “country drainage” versus curb and gutter conveyance and pipe
- Bioretention Cells (includes Rain Gardens)
- Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- Treebox Filter
- Water Quality Swale
- Grass Channel
- Green Roof
- Other (describe): Installation of native plantings

### Standard 1: No New Untreated Discharges

- No new untreated discharges
- Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.



# Checklist for Stormwater Report

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## Checklist (continued)

### Standard 2: Peak Rate Attenuation

- Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.
- Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.
- Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

### Standard 3: Recharge

- Soil Analysis provided.
- Required Recharge Volume calculation provided.
- Required Recharge volume reduced through use of the LID site Design Credits.
- Sizing the infiltration, BMPs is based on the following method: Check the method used.
  - Static
  - Simple Dynamic
  - Dynamic Field<sup>1</sup>
- Runoff from all impervious areas at the site discharging to the infiltration BMP.
- Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume.
- Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:
  - Site is comprised solely of C and D soils and/or bedrock at the land surface
  - M.G.L. c. 21E sites pursuant to 310 CMR 40.0000
  - Solid Waste Landfill pursuant to 310 CMR 19.000
  - Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.
- Calculations showing that the infiltration BMPs will drain in 72 hours are provided.
- Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

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<sup>1</sup> 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.



# Checklist for Stormwater Report

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## Checklist (continued)

### Standard 3: Recharge (continued)

- The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.
- Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

### Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
  - Provisions for storing materials and waste products inside or under cover;
  - Vehicle washing controls;
  - Requirements for routine inspections and maintenance of stormwater BMPs;
  - Spill prevention and response plans;
  - Provisions for maintenance of lawns, gardens, and other landscaped areas;
  - Requirements for storage and use of fertilizers, herbicides, and pesticides;
  - Pet waste management provisions;
  - Provisions for operation and management of septic systems;
  - Provisions for solid waste management;
  - Snow disposal and plowing plans relative to Wetland Resource Areas;
  - Winter Road Salt and/or Sand Use and Storage restrictions;
  - Street sweeping schedules;
  - Provisions for prevention of illicit discharges to the stormwater management system;
  - Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
  - Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
  - List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.
- A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.
  - Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:
    - is within the Zone II or Interim Wellhead Protection Area
    - is near or to other critical areas
    - is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
    - involves runoff from land uses with higher potential pollutant loads.
  - The Required Water Quality Volume is reduced through use of the LID site Design Credits.
  - Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.



# Checklist for Stormwater Report

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## Checklist (continued)

### Standard 4: Water Quality (continued)

- The BMP is sized (and calculations provided) based on:
  - The ½" or 1" Water Quality Volume or
  - The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.
- The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.
- A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

### Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

- The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.
- The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted **prior to** the discharge of stormwater to the post-construction stormwater BMPs.
- The NPDES Multi-Sector General Permit does **not** cover the land use.
- LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.
- All exposure has been eliminated.
- All exposure has **not** been eliminated and all BMPs selected are on MassDEP LUHPPL list.
- The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

### Standard 6: Critical Areas

- The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.
- Critical areas and BMPs are identified in the Stormwater Report.



# Checklist for Stormwater Report

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## Checklist (continued)

### Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

- The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:
  - Limited Project
  - Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
  - Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
  - Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
  - Bike Path and/or Foot Path
- Redevelopment Project
- Redevelopment portion of mix of new and redevelopment.
- Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.
- The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

### Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
  - Construction Period Operation and Maintenance Plan;
  - Names of Persons or Entity Responsible for Plan Compliance;
  - Construction Period Pollution Prevention Measures;
  - Erosion and Sedimentation Control Plan Drawings;
  - Detail drawings and specifications for erosion control BMPs, including sizing calculations;
  - Vegetation Planning;
  - Site Development Plan;
  - Construction Sequencing Plan;
  - Sequencing of Erosion and Sedimentation Controls;
  - Operation and Maintenance of Erosion and Sedimentation Controls;
  - Inspection Schedule;
  - Maintenance Schedule;
  - Inspection and Maintenance Log Form.
- A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.



# Checklist for Stormwater Report

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## Checklist (continued)

### Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

- The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has **not** been included in the Stormwater Report but will be submitted **before** land disturbance begins.
- The project is **not** covered by a NPDES Construction General Permit.
- The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.
- The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

### Standard 9: Operation and Maintenance Plan

- The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:
  - Name of the stormwater management system owners;
  - Party responsible for operation and maintenance;
  - Schedule for implementation of routine and non-routine maintenance tasks;
  - Plan showing the location of all stormwater BMPs maintenance access areas;
  - Description and delineation of public safety features;
  - Estimated operation and maintenance budget; and
  - Operation and Maintenance Log Form.
- The responsible party is **not** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:
  - A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
  - A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

### Standard 10: Prohibition of Illicit Discharges

- The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;
- An Illicit Discharge Compliance Statement is attached;
- NO Illicit Discharge Compliance Statement is attached but will be submitted **prior to** the discharge of any stormwater to post-construction BMPs.

# STORMWATER MANAGEMENT CHECKLIST NARRATIVE

## CASTLE ISLAND PLAYGROUND IMPROVEMENTS, BOSTON, MA

March 2021

The Massachusetts Department of Conservation and Recreation (DCR) is proposing improvements to the existing Castle Island Playground in Boston, MA. Proposed work includes resurfacing the play area, constructing new concrete walkways, minor grading, and restoration with native plantings (the Project). While the Project will result in a minor (194± square foot) increase in concrete walkways, the project will also restore approximately 480 square feet of compacted, unvegetated gravel pathways that have been rendered impervious.

The following is a narrative outlining the Stormwater Management Standards and their relation to the proposed Project. The Project is considered a Redevelopment Project under the Massachusetts Stormwater Management Standards per the definition at 310 CMR 10.04 under the following category: *“development, rehabilitation, expansion and phased projects on previously developed sites provided the redevelopment results in no net increase in impervious area”*.

### **LID Measures:**

The Project will minimize disturbances to existing trees and shrubs, will provide a substantial native planting plan, and will use “country drainage” versus curb and gutter conveyance and pipe.

### **Standard 1: No New Untreated Discharges**

No new discharges to Wetland Resource Areas will result from the Project and the restoration of unvegetated gravel areas will mitigate erosion potential – Project complies.

### **Standard 2: Peak Rate Attenuation**

While the Project will result in a minor (194± square foot) increase in concrete walkways, the project will also restore approximately 480 square feet of compacted, unvegetated gravel pathways to pervious vegetated areas. The composite runoff curve number for the Site will be lowered; therefore, a minor reduction in peak runoff rates is anticipated as a result of the Project– Project complies.

### **Standard 3: Recharge**

While the Project will result in a minor (180± square foot) increase in concrete walkways, the project will also restore approximately 480 square feet of compacted, unvegetated gravel pathways to pervious vegetated areas. The proposed planting beds consisting of clean loam and native vegetation will also promote groundwater recharge

**STORMWATER MANAGEMENT CHECKLIST NARRATIVE**  
**CASTLE ISLAND PLAYGROUND IMPROVEMENTS, BOSTON, MA**

and is anticipated to provide a minor increase compared to the existing conditions – Project complies to the maximum extent practicable.

**Standard 4: Water Quality**

The Site is located within the Pleasure Bay segment (MA70-11) of the Boston Harbor subwatershed. This subwatershed is subject to a TMDL for pathogens, with indicators including Enterococci and Fecal Coliform. Pathogen sources include combined sewer overflows, sanitary sewer overflows, and wastewater treatment plant discharges. The Project is not anticipated to be a measurable contributor of pathogens within the subwatershed.

The Project does not propose any impervious surfaces that would be subject vehicular traffic and their associated pollutant loads. Also, the restoration of unvegetated gravel areas is anticipated to improve water quality by stabilizing surfaces and providing greater natural filtration via country drainage. – Project complies to the maximum extent practicable.

**Standard 5: Land Uses with Higher Potential Pollutant Loads (LUHPPLs)**

The Project does not propose Land Uses with Higher Potential Pollutant Loads – Standard not applicable.

**Standard 6: Critical Areas**

The Project is located near a “Bathing Beach” as defined at 105 CMR 445.010, which is considered a critical area. Water quality treatment BMPs are not proposed, but the Project will improve water quality by stabilizing surfaces and providing greater natural filtration via country drainage – Project complies to the maximum extent practicable.

**Standard 7: Redevelopment**

As noted above, the Project is considered a Redevelopment Project as “*development, rehabilitation, expansion and phased projects on previously developed sites provided the redevelopment results in no net increase in impervious area.*” *The Project will fully comply with Standards 1, 2, and 8, will comply to the maximum extent practicable with Standards 3, 4, and 6 and will improve existing conditions. Standards 5, 9, and 10 are not applicable – Project complies.*

**STORMWATER MANAGEMENT CHECKLIST NARRATIVE**  
**CASTLE ISLAND PLAYGROUND IMPROVEMENTS, BOSTON, MA**

**Standard 8: Construction Period Pollution Prevention and Erosion and Sediment Control**

This Project will not disturb more than an acre of land; therefore, a Stormwater Pollution Prevention Plan (SWPPP) is not required to be completed and submitted as part of a Notice of Intent (NOI) to the Environmental Protection Agency (EPA). The Project will provide erosion and sedimentation controls as shown on the Project Plans and will include compost filter tubes, siltation fencing, and jute netting. All erosion controls will be maintained in good working order until stabilization at the Site is achieved. Erosion and sedimentation control measures are also summarized in the attached Notice of Intent – Project complies.

**Standard 9: Long Term Operation and Maintenance Plan**

The Project does not propose the construction of any stormwater management infrastructure that would require a Long-Term Operation and Maintenance Plan (O+M) – Standard not applicable.

**Standard 10: Prohibition of Illicit Discharges**

The Project does not propose to construct any new discharges, and no illicit discharges were observed in the field – Standard not applicable.