**Purpose of the Checklist:**
The State Environmental Policy Act (SEPA), Chapter 43.21 RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

**Instructions for Applicants:**
This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write “do not know” or “does not apply.” Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be a significant adverse impact.

**Use of Checklist for Nonproject Proposals:**
Complete this checklist for nonproject proposals, even though questions may be answered “does not apply.” In addition, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (PART D).

For nonproject actions, the references in the checklist to the words “project,” “applicant,” and “property or site” should be read as “proposal,” “proposer,” and “affected geographic area,” respectively.
A. BACKGROUND

1. Name of the proposed project, if applicable:
   Maury Island Aquatic Reserve Armoring Removal Project

2. Name of Applicant:
   King County Department of Natural Resources and Parks
   Water and Land Resources Division

3. Address and phone number of applicant and contact person:
   Cindy Young (contact person)
   King County Water and Land Resources Division
   201 South Jackson Street, Suite 600
   Seattle, WA  98104-3855
   Phone:  206-477-4859; Fax:  206-296-0192

4. Date checklist prepared:
   December, 2016

5. Agency requesting checklist:
   King County Department of Natural Resources and Parks
   Water and Land Resources Division

6. Proposed timing or schedule (include phasing, if applicable):
   The work will take place between August 1 and September 30, 2017.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.
   No.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.
   King County Department of Natural Resources and Parks. May 2010. Piner Point Geologic Reconnaissance.

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.
   None are known.

10. List any government approvals or permits that will be needed for your proposal, if known.
    - Washington Department of Fish and Wildlife Hydraulic Project Approval;
11. Give a brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on the project description.)

The King County Water and Land Resources Division plans to restore shoreline habitat and natural beach-forming processes at 4 sites (see Figure 1) within the Maury Island Aquatic Reserve by:

- Removing approximately 700 feet of shoreline bulkhead and retaining walls;
- Removing two septic tanks;
- Removing up to eleven structures; and
- Removing non-native plants and restoring native shoreline vegetation.

The bulkheads were constructed with a variety of materials and building methods, including vertically and horizontally placed creosote pilings, treated and untreated board lagging, large rocks, “Geocell” plastic and concrete (Figures 2-4). The creosote and pressure treated materials will be transported to an appropriate waste disposal site. The bulkheads are all located below the high tide line and three are located below the ordinary high water line (OHWL) and mean higher high water line (MHHW).

Some rocks will be reused to protect neighboring bulkheads and the remainder will be reused for other purposes. Any fill material found landward of the bulkhead will be spoiled on-site to re-establish a natural grade upslope of the shoreline or left in place if determined to be suitable beach material. Spoils left in place will be allowed to erode naturally and supply sediment to the beach.
The bulkheads will be removed from the beach via an excavator delivered to the site on a barge. At some locations, the ends of the bulkheads may be left in place or set back to provide a transition to adjacent privately-owned bulkheads. Best Management Practices will be used to prevent unsuitable material from entering the adjacent marine waters.

After the bulkheads are removed, non-native plants such as English ivy and Himalayan blackberry will be removed from the area and the site will be planted with native species.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity plan, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

The four project sites are located in the Maury Island Aquatic Reserve on Maury and Vashon Islands, Washington in Central Puget Sound. The sites are all in outer Quartermaster Harbor and are owned by King County. The locations include:

- Lost Lake 1: 11929 SW 266th Lane in the southeast quarter of Section 25, Township 22 North, Range 2 East, Willamette Meridian (Thomas Brothers Map page 713, C5) (Figure 2).
- Forest Glen 1: 28728 125th Place SW in the southeast quarter of Section 36, Township 22 North, Range 2 East, Willamette Meridian (Thomas Brothers Map page 713, C5) (Figure 3).
- Northilla1: No address (SW Northilla Trail) in the northeast quarter of Section 6, Township 21 North, Range 3 East, Willamette Meridian (Thomas Brothers Map page 713, F7) (Figure 4).
- Piner Point 2: 9805 SW Northilla Trail in the northwest quarter of Section 5, Township 21 North, Range 3 East, Willamette Meridian (Thomas Brothers Map page 713, F7) (Figure 4).

B. ENVIRONMENTAL ELEMENTS

1. Earth

   a. General description of the site (underline one): flat, rolling, hilly, steep slopes, mountainous, other.

      The shoreline bulkheads to be removed are all located at the foot of steep slopes that descend from the tops of shoreline bluffs. The slopes on three of the sites are interrupted by benches where a structure or several structures (residences and/or
cabins) are currently located. A relatively flat beach is located waterward of the shoreline bulkheads.

b. **What is the steepest slope on the site (approximate percent slope)?**

The steepest slope on the site exceeds 50%.

c. **What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**

Soils in the project area are mostly sand and glacial outwash. None are agricultural soils. Sand and cobble beaches lay waterward of the shoreline on all of the parcels.

d. **Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**

Yes. Some of the slopes landward of the bulkheads are unstable and show signs of frequent erosion and small mass-wasting events. These events are a natural occurrence on such steep bluffs and serve to nourish beaches along Puget Sound. Other areas directly upslope of the bulkheads are less steep and show no signs of recent erosion or mass-wasting. Steeper slopes are expected to erode more actively and this will help restore natural beach-forming processes.

e. **Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate the source of fill.**

The project will remove approximately 700 feet of bulkhead armoring and retaining walls, including creosote-coated pilings and pressure treated lumber (of undetermined length) from the shoreline of Puget Sound. If material found landward and adjacent to the pilings is found to be unsuitable for beach material it will be removed and disposed of in an appropriate location.

Cabins and/or residential structures exist on all sites except Northilla 1. Removal of structures will leave depressions in the slope above the bulkhead. These areas may be regraded to form a more natural grade. The total quantity of earth to be moved is expected to be less than 30 cubic yards. Some rock (less than 100 cubic yards) may be reused on the site in order to protect the newly-exposed ends of the neighboring bulkheads. This rock would be placed landward of the existing bulkheads, but both landward and waterward of the Ordinary High Water Line (OHWL).

f. **Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**

Erosion is anticipated after removal of the bulkheads and retaining walls. However, erosion of steep slopes on the shoreline and transport of sediments to the beach below is a natural and ecologically desirable process. At some locations, the ends of the bulkheads may be left in place or set back to provide a transition to adjacent privately-owned bulkheads.
Best Management Practices will be used to prevent unsuitable material from entering the adjacent marine waters.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?
None.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:
The following specific erosion control measures will be used:

- Prior to construction, excavation limits will be marked in a highly visible manner and remain marked until construction is complete.
- Silt fencing will be installed as necessary and where appropriate along the waterward side of the bulkhead to prevent undesirable soil from entering Puget Sound.
- The bulkhead pilings will be removed during August or September when the chance of precipitation or high storm tides is low. The piles will be pulled out when the tide is low enough to create dry conditions at the bulkhead location.
- The newly-exposed ends of the neighboring bulkheads will be tied back into the slope to prevent erosion of the neighboring properties.

2. Air

a. What types of emissions to the air would result from the proposal (for example, dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities, if known.

Construction activities may generate airborne dust in the work area. The proposed project, once construction is complete, will emit no gasses or other emissions with the potential to negatively affect health or climate change.

Construction of the proposed project will use various vehicles and pieces of equipment that emit gasses with the potential to affect climate. These gasses include carbon dioxide (CO₂), methane and nitrous oxide, as well as others in much smaller amounts. The global warming potential (GWP) of these compounds is measured in “carbon dioxide equivalents,” or CO₂e, which converts the GWP of various gasses into their equivalent in CO₂. The amount of CO₂e that may be emitted as a result of constructing the proposed project has been estimated by computing the amount of fuel to be consumed by equipment used to construct the project during construction, in transit from off-island locations where the crew and equipment will likely originate and in transporting removed pilings to their destination in the Roosevelt Landfill in Klickitat County. Fuel consumed is then converted into CO₂e emitted using formulae developed by the Energy Information Administration (EIA) of the U.S. Department of Energy.
Using these formulae and estimates, we estimate that construction of the proposed project will likely result in the discharge of approximately 24.6 tons of CO$_2$ to the atmosphere. See the Greenhouse Gas Worksheet appended to this checklist.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

No.

c. Proposed measures to reduce or control emissions or other impacts to the air, if any:

Use of heavy and motorized equipment will be kept to a minimum to conserve fuel and minimize emissions. The site will be planted with native plant species, including trees which will sequester sufficient CO$_2$ to offset emissions from project construction within about 14 years.

3. Water

a. Surface:

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe the type and provide names. If appropriate, state what stream or river it flows into.

Yes. The project sites are located on the shoreline of Puget Sound. Lost Lake Creek, a perennial stream, flows through the Lost Lake 1 parcel and onto the beach. The King County Critical Areas Ordinance (CAO) defines Lost Lake Creek as a Type N Aquatic Area. Groundwater sometimes flows through the bulkhead onto the beach at the Forest Glen 1 site.

2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

Yes. All of the proposed work will occur within 200 feet of Puget Sound. The Ordinary High Water Line (OHWL), which for regulatory purposes is interpreted to be the same as the Median Higher High Water line, is at approximately elevation 8.23 feet (NAVD 88). Three of the bulkheads are at or below the OHWL of Puget Sound, while the fourth, at the Lost Lake site, is slightly above the OHWL. All the bulkheads are below the High Tide Line. Heavy equipment work will occur landward and waterward of the bulkheads; however, equipment will not enter or work within the water. Work will be timed around low tides to prevent equipment from working in the water.
3) **Estimate the amount of fill and dredge material that could be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

   No fill will be placed in or removed from surface water or wetlands. Concrete and plastic debris from the bulkhead at the Northilla 1 site will be removed from the beach.

4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities, if known.**

   No surface water will be diverted or withdrawn as a result of this project.

5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**

   Yes, the bulkheads are located within the 100-year floodplain associated with Puget Sound.

6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.**

   No discharges of waste materials are anticipated. It is possible, however, that minor amounts of fine sediments could be mobilized by tidal flows during or shortly after construction. Erosion and transport of sediment from steep bluff faces to Puget Sound is a natural process that nourishes beaches and will be an intended outcome of this project. Silt fences and best management practices (described above under Question B1h) will be used, as necessary, to prevent any sediment that is unsuitable for beach nourishment from entering Puget Sound.

   b. **Ground:**

   1) **Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities, if known.**

      No.

   2) **Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial containing the following chemicals...; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

      None.
c. **Water Runoff (including storm water):**

1) *Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.*

The project will not create any impervious surfaces or otherwise affect stormwater runoff. Therefore, no collection or treatment facilities are proposed.

2) *Could waste materials enter ground or surface waters? If so, generally describe.*

No waste materials are expected to enter ground or surface waters. Silt fences and best management practices will be used to prevent any contaminated or otherwise unsuitable sediment from entering Puget Sound during construction.

d. **Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:**

Temporary construction impacts will be controlled using the measures described above under Question B1h. After construction, planted vegetation will reduce runoff to Puget Sound. However, erosion and transport of sediments to Puget Sound from steep bluff slopes such as those on these sites is a natural and essential part of beach-forming processes. One goal of this project is to remove impediments to those processes and allow eroding materials from the slope to nourish beaches.

4. **Plants**

a. *Check or underline types of vegetation found on the site:*

- Deciduous trees: alder, madrone, big leaf maple
- Evergreen trees: Douglas fir
- Shrubs: Himalayan blackberry, holly, evergreen huckleberry, thimbleberry, red elderberry, hazelnut, salal
- Grass: non-native grass
- Pasture
- Crop or grain
- Wet soil plants:
- Water plants: eelgrass, milfoil, other
- Other types of vegetation: English Ivy, native blackberry

Non-native plants will be removed during construction and replaced with native species appropriate to the site.

b. *What kind and amount of vegetation will be removed or altered?*

The only plants that will be removed during construction are non-native grasses and invasive species including Himalayan blackberry and English ivy.

c. *List threatened or endangered species known to be on or near the site.*

No threatened or endangered plant species are known to be on or near the site.
4. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Once the bulkhead and invasive plants are removed, the parcel will be replanted with native plant species appropriate for the sites, such as madrone, Douglas fir, thimbleberry, red elderberry, hazelnut, red alder and big leaf maple.

5. Animals

a. Check or underline any birds or animals that have been observed on or near the site, or are known to be on or near the site:

- Birds: hawk, heron, eagle, songbirds, other
- Mammals: deer, beaver, otter
- Fish: bass, coho salmon, cutthroat trout, herring, surf smelt, shellfish, staghorn sculpin, starry flounder, sand lance (?)

The project site provides a mix of habitats that are likely used by many species of birds, small mammals, and aquatic organisms. The uplands behind the bulkheads and yards are heavily wooded and lie adjacent to several other properties that support mature woody vegetation. The footprint of the structures and adjacent yards are disturbed ground and support some lawn grasses. Stands of alder, maple, and madrone trees provide cover and nesting opportunities for birds. Small mammals drawn to the combination of the upland and nearby aquatic habitats are also likely abundant. The beach is frequented by many gulls and other shorebirds drawn to the beach area to forage for fish, shellfish, and invertebrates that live along the water’s edge.

Puget Sound, bordering the project sites to the north, south and east, is used by many species. Resident and wintering bald eagles, great blue heron, Chinook salmon, steelhead trout, Dungeness crab, and geoduck are known to utilize the shoreline and nearshore habitat along Maury and Vashon Islands.

The Piner Point Natural Area is located directly adjacent to documented surf smelt and Pacific herring spawning areas. Sand lance spawning areas have been documented on the beach to the north. Holding waters for herring are found about 900 feet off shore (Washington Department of Fish and Wildlife Priority Habitat and Species database, April 2010). These beach-spawning fish likely utilize other beaches and nearshore areas within and near the project areas as well.

b. List any threatened or endangered species known to be on or near the site.

Several species listed as threatened under the Endangered Species Act (ESA) may utilize habitat found along the shoreline environments near the project sites. Chinook salmon spend portions of their life histories in nearshore environments and may forage in the vicinity of the properties. Surf smelt and sand lance are forage species for Chinook salmon and are known to spawn on and near the sites. There is a bald eagle nest about 4,500 feet from one of the sites and eagles may forage along the shoreline near the project site, but construction, which will occur during the summer months, is not expected to disturb feeding or breeding behavior.
Bocaccio (*Sebastes paucispinis*, listed as “endangered”), Canary Rockfish (*Sebastes pinniger*, listed as “threatened”), and Yelloweye Rockfish (*Sebastes ruberrimus*, listed as “threatened) are known to utilize deeper waters near the project area, but are unlikely to be affected by the project actions.

Stellar sea lions, orca whales, and other marine mammals inhabit and use the waters of Puget Sound and may occasionally visit waters in the vicinity of the Maury Island Aquatic Reserve, though there are no known haul-outs in the immediate vicinity.

None of the work proposed should have any adverse effects upon these ESA-listed species, but should improve habitat conditions for fish and wildlife.

c. *Is the site part of a migration route? If so, explain.*

Chinook salmon and other aquatic species are likely to migrate along the adjacent shorelines at various life history stages. The project site lies within the Pacific Flyway, which is a major migratory route for birds.

d. *Proposed measures to preserve or enhance wildlife, if any:*

The four Natural Areas contain over 40 acres of nearshore habitat with feeder bluffs and mature riparian vegetation. The purchase of these properties protected over 2,500 lineal feet of ecologically valuable shoreline. The feeder bluffs that back the Natural Area shorelines provide sediment supplies that nourish beaches both adjacent to those bluffs and far downshore. The primary goal of this project is to remove the bulkheads and structures within the Natural Areas to re-establish those natural processes. The project will restore nearshore habitats used by salmon and other fish and wildlife species. Removing invasive non-native species and revegetating with appropriate native plant species will also have a positive effect on fish and wildlife.

6. **Energy and Natural Resources**

   a. *What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project’s energy needs? Describe whether it will be used for heating, manufacturing, etc.*

      No energy will be needed or used by the finished project.

   b. *Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.*

      There are existing mature conifers on the properties that may already block some of the summer sun. Trees that are planted as part of this project will not increase shade to adjacent properties.

   c. *What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:*

      The completed project will use no energy, so no conservation measures will be needed.
7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

Although the finished project will not generate any hazardous materials, there is a potential for a fuel spill or leak during construction. To limit the potential for impacts resulting from a spill, spill containment supplies will be present on-site during construction.

Piles to be removed have been coated with creosote and will be disposed of in an appropriately certified landfill.

1) Describe special emergency services that might be required.

None related to the project.

2) Proposed measures to reduce or control environmental health hazards, if any:

Creosote-coated materials that are removed from the bulkheads will be transported to and disposed of in an appropriately certified landfill.

b. Noise:

1) What types of noise exist in the area that may affect your project (for example, traffic, equipment, operation, other)?

None.

2) What types and levels of noise would be created by or associated with the project on a short-term or long-term basis (for example, traffic construction, equipment operation, other)? Indicate what hours noise would come from the site.

There will be short-term construction noise from heavy machinery and metal containers during daylight working hours (7 a.m. to 7 p.m., Monday through Friday, 9 a.m. to 5 p.m. on Saturday) while the project is being constructed. Construction should last about fifteen days, or an average of 3 to 4 days per site. Noise levels in the immediate vicinity of heavy equipment operation may be as high as 90 decibels, but should dissipate rapidly with distance from the equipment. No additional noise will be generated by the finished project.

3) Proposed measures to reduce or control noise impacts, if any:

Construction noise will comply with the provisions of applicable noise ordinances. Equipment operation will be limited to the hours from 7 a.m. to 7 p.m., Monday through Friday. Work on Saturday will be limited to the hours from 9 a.m. to 5 p.m.
8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties?

The current use of the sites are King County Natural Areas and Rural Residential. Adjacent properties are Rural Residential as well.

b. Has the site been used for agriculture? If so, describe.

No past agricultural history is known.

c. Describe any structures on the site.

Lost Lake 1: The bulkhead to be removed is approximately 150 feet long and constructed with creosote pilings and treated wood. The 500 square foot cabin, a septic tank and other structures will also be removed. (Figure 2).

Forest Glen 1: The bulkhead and retaining walls to be removed are approximately 300 feet in length and constructed of creosote wood piles and 5-7 man rock. Several cabins and a septic tank will also be removed. (Figure 3).

Northilla 1: The existing bulkhead has failed and is lying on the beach. It is approximately 100 feet long and is constructed of concrete and plastic material called Geocell (Figure 4).

Piner Point 2: One of the bulkheads is approximately 100 feet long and constructed of vertical creosote piles and treated wood lagging adjacent to the beach. The retaining wall is located on the hillside, just downhill of the cabin. About the wall is approximately 25 feet long and consists of treated lumber creosote-treated pilings. The 340 square foot cabin located on the hillside above the beach will also be removed. (Figure 4).

d. Will any structures be demolished? If so, what?

Yes. All of the bulkheads and structures described above will be demolished and removed.

e. What is the current zoning classification of the site?

RA-2.5: Rural Area (one dwelling unit per 2.5 acres). The proposed project is consistent with all relevant zoning regulations.

f. What is the current comprehensive plan designation of the site?

RR, Rural Residential

g. If applicable, what is the current shoreline master program designation of the site?

The shorelines in these areas are designated as “Natural Shoreline”.

h. Has any part of the site been classified as an “environmentally sensitive” area? If so, specify.

Puget Sound is regulated as an environmentally sensitive area and borders all of the project sites. All of the sites are classified as “erosion hazard and landslide hazard areas” under the King County Critical Areas Ordinance. Lost Lake Creek (described above under 3.a.1) is not described in the 1990 King County Sensitive Areas Map Folio; however it appears in the 1975 WDFW Stream Catalog. It is classified as a Type N Aquatic Area.

i. Approximately how many people would reside or work in the completed project?

None.

j. Approximately how many people would the completed project displace?

None. None of the structures to be demolished are habitable.

k. Proposed measures to avoid or reduce displacement impacts, if any:

None of the structures to be removed are inhabited.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

King County manages Natural Areas for their ecological values and benefits. Removing the bulkheads and structures will allow natural beach-forming processes to re-establish and replacing invasive plant species with appropriate native species will improve the sites’ value as Natural Areas.

9. Housing

a. Approximately how many units would be provided, if any? Indicate whether high-, middle-, or low-income housing.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high-, middle-, or low-income housing.

No housing units will be eliminated. None of the structures to be removed are suitable for habitation.

c. Proposed measures to reduce or control housing impacts, if any:

Not applicable.
10. Aesthetics
   a. What is the tallest height of any proposed structure(s), not including antennas? What is the principal exterior building material(s) proposed?
      No structures will be constructed as part of this project.
   b. What views in the immediate vicinity would be altered or obstructed?
      None.
   c. Proposed measures to reduce or control aesthetic impacts, if any:
      Removing the bulkheads and dwellings and revegetating the sites with native species will improve the aesthetic values of the sites as natural areas.

11. Light and Glare
   a. What type of light or glare will the proposal produce? During what time of day would it mainly occur?
      None.
   b. Could light or glare from the finished project be a safety hazard or interfere with views?
      No.
   c. What existing off-site sources of light or glare may affect your proposal?
      None.
   d. Describe proposed measures to reduce or control light and glare impacts, if any.
      Not applicable.

12. Recreation
   a. What designated and informal recreational opportunities are in the immediate vicinity?
      All of the sites are King County Natural Resource Lands and provide passive recreational opportunities. The Puget Sound shoreline, adjacent to all of the project areas, offers passive recreation opportunities as well. Access to the public is allowed only by boat from Puget Sound or possibly by foot via the beach.
   b. Would the proposed project displace any existing recreational uses? If so, describe.
      Construction of the project may temporarily prohibit passive recreational use of the sites, but only during project construction.
13. Historical and Cultural Preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No historic register properties or cemeteries have been recorded within one mile of the four project locations. Three historic structures have been inventoried within one mile of the four project locations. These structures are all single-family residences dating to the early- to mid-20th century.

b. Generally describe any landmarks or evidence of historical, archaeological, scientific, or cultural importance known to be on or next to the site.

All of the structures on the Forest Glen #1 site were documented on Department of Archaeology and Historic Preservation (DAHP) Historic Property Inventory Forms by an archaeological consultant. They were evaluated and not considered eligible for listing on historic registers. A pre-contact site at the Forest Glen #1 location, consisting of fire-modified rock, whole and crushed shell, and some charcoal fragments and stained sediments that appeared to be partially disturbed was also identified and recorded by the consultant during field investigations. The consultant has recommended this site as “not eligible” for listing on historic registers.

The absence of significant stream confluences and sizeable low bank benches on the sites argues for limited pre-contact use of these locales. It is possible that one site, more topographically suited to pre-contact use, may contain culturally important materials.

Piner Point, at the south end of Maury Island has a Native American place name recorded by T.T. Waterman, “DuEilqs,” which he translates as, “trash washed up on a promontory” (Waterman ca. 1920:215).

c. Proposed measures to reduce or control impacts, if any:

If any significant disturbance of native soils is deemed necessary during construction, a trained archaeological observer will be present to identify any potential artifacts.

Removal of the structures and the septic tank at the Forest Glen #1 location will be monitored by a professional archaeologist to ensure that no significant (i.e., intact) archaeological materials or deposits are disturbed during the course of ground disturbing activities. No excavation, planting, use of heavy equipment or other ground disturbing work will occur within the site boundary. The necessity of an archaeological excavation permit will be discussed by DAHP, King County, and affected Tribes due to the proximity of the site to the proposed removal of the structures. The cultural resources consultant recommends that removal of the bulkhead at Forest Glen #1 (approximately 60 feet in elevation below and waterward of the
archaeological site) and all proposed ground disturbing activities at the three remaining locations proceed as planned as no evidence of archaeological materials or deposits were identified and the structures do not meet eligibility criteria for historic registers.

The bulkhead pilings will be removed by pulling them out of the ground. Therefore, no removal of native soil is expected. Cabins and houses will also be demolished and removed and should not require any excavation to do so. Excavation will be required to remove the two septic tanks and will be monitored by a professional archaeologist.

If cultural or archaeological resources are uncovered or encountered during project construction, work will cease immediately, and appropriate steps necessary to protect those resources will be taken prior to resumption of construction. If resources are discovered, the Washington State Department of Archaeology and Historic Preservation, the King County Historic Preservation Program, and any affected tribal groups will be notified immediately, and an on-site inspection will be conducted by a state-certified archaeologist and other qualified resource professionals. A mitigation plan will be prepared prior to construction resuming at the site.

14. Transportation

a. Identify public streets and highways serving the site and describe proposed access to the existing street system. Show on-site plans, if any.

Lost Lake 1: SW 266th Lane.

Forest Glen 1: 125th Place SW.

Northilla 1: SW Northilla Trail.

Piner Point 2: SW Northilla Trail.

b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

No. The nearest transit stop is about three miles away in Dockton.

c. How many parking spaces would the completed project have? How many would the project eliminate?

None. The project will not create or eliminate any parking.

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

No. The roads into the Lost Lake 1 and Forest Glen Forest Glen 1 sites are driveways that serve numerous houses. It is possible that the driveways will need minor improvement to allow large vehicle access to the sites during construction or to repair
construction-related damages. A trail provides access to Northilla 1 and Piner Point 2. Heavy equipment will be transported to the sites by barge.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

No. While the sites are adjacent to Puget Sound and accessible by boat, there is no public or commercial water transportation system that serves them.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

No vehicular trips will be generated by the finished project.

g. Proposed measures to reduce or control transportation impacts, if any:

None.

15. Public Services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

No.

b. Proposed measures to reduce or control direct impacts on public services, if any:

Not applicable.

16. Utilities

a. Underline utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

None.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity that might be needed.

No utilities are proposed for this project.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: [Signature]

Title: [Title]

Date Submitted: [Date Submitted]
Maury Island Aquatic Reserve Armoring Removal

Vicinity Map

Lost Lake #1 Bulkhead & Structure Removal

Forest Glen #1 Bulkhead & Structure Removal

Piner Point #2 Bulkhead & Structure Removal

Northilla #1 Bulkhead Removal

Sources: Esri, HERE, DeLorme, USGS, intermap, increment P Corp., NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), MapmyIndia, © OpenStreetMap contributors, and the GIS User Community

March 28, 2016
Maury Island Aquatic Reserve Armoring Removal

Figure 2 - Lost Lake Vicinity Map

Lost Lake #1 Bulkhead & Structure Removal
Parcel 2522029137

Structure removal and Planting area

Bulkhead removal area
Maury Island Aquatic Reserve Armoring Removal

Figure 3 - Forest Glen Vicinity Map

Forest Glen #1 Bulkhead & Structure Removal
Parcels 3622029041 and 3622029034

 Bulkhead removal area

Structure removal and planting area

Note: Oblique photograph, not to scale
Maury Island Aquatic Reserve Armoring Removal

Figure 4 - Northilla and Piner Point Vicinity Map

Northilla #1 Bulkhead Removal
Parcels 6175800500 and 6175800510

Piner Point #2 Bulkhead & Structure Removal
Parcel 6175800300

Structure removal & planting area

Bulkhead removal area

Note: Oblique photograph, not to scale
Project Name: Maury Island Aquatic Reserve Armoring Removal

Project Manager: Alex Hallenius
Assessment Completed by: Alex Hallenius
Date of completion: 12/12/2016

Project Description: Remove bulkheads and structures from 4 parcels on Vashon and Maury Island

**Construction-related Greenhouse Gas Emissions**

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<tr>
<th>Description</th>
<th>Pounds</th>
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<td>Emissions from fuel-burning activities (in CO2e)</td>
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<td>Emissions from embedded materials (in CO2e)</td>
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<td>Emissions resulting from site impacts (in CO2e)</td>
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<td><strong>Total Emissions (in CO2e):</strong></td>
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**Project-Related Carbon Sequestration**

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<td>Total Carbon Sequestration 35 years after planting:</td>
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<td>Years Required for Carbon Sequestration to Equal Total CO2e Emissions:</td>
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