

**SEPA Environmental Checklist**  
**Harper Estuary Restoration Project, Phase 1**  
**October 2015**

**A. Background**

1. Name of proposed project: **Harper Estuary Restoration Phase 1**
2. Name of applicant: **Washington Department of Fish & Wildlife**
3. Address and phone number of applicant and contact person:

**Washington Department of Fish & Wildlife**  
**Attention: Doris Small, Habitat Restoration Coordinator**  
**600 Capitol Way North**  
**Olympia, WA 98501**  
**(360) 902-2258**

4. Date checklist prepared: October 15, 2015
5. Agency requesting checklist: Washington Department of Fish & Wildlife
6. Proposed timing or schedule (including phasing, if applicable):

The Harper Estuary Restoration Project will be constructed in two phases. This first phase (fill removal, boat landing construction & Southworth Drive culvert replacement) will be completed in summer 2016. The second phase (bridge construction) is delayed until summer 2017 or later. Kitsap County will be the project proponent for Phase 2.

This SEPA checklist is focused on Phase 1 of the project. Reference to elements of Phase 2 are included, although details are not as well developed. Additional environmental review (a separate SEPA process) and permitting will be necessary for Phase 2.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

Phase 2 of the project will be constructed at a later date. The second phase is replacement of the Olympiad Drive SE culvert with a large bridge, with Kitsap County as the lead project proponent. The bridge is currently in design as a 120' span bridge in the existing location of the culvert, with an intermediate pier. This bridge is in the early design phase.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

The Harper Estuary restoration project has been under consideration for over a decade. Harper Estuary has been the subject of three preliminary design efforts. In 2001, the US Army Corps of Engineers investigated restoration potential at Harper Estuary in partnership with Kitsap County through the Section 206 program. The project resulted in a 10% design with several alternatives and optional project components (*U.S. Army Corps of Engineers. 2003. Harper Estuary Section 206 Restoration Draft Fact Sheet. Prepared by Tetra-Tech*). The review included a feasibility

study, analysis of alternative restoration strategies, preliminary review of hydraulics, cultural resources & contaminants and selection of a preferred alternative. The preferred alternative was developed to a 10% conceptual design, but was not advanced due to funding issues.

The Mid-Sound Fisheries Enhancement Group received a Salmon Recovery Funding Board (SRFB) grant in 2006 to develop a lower cost alternative to the Corps project proposals and provide a 30% design. Mid-Sound developed a design using a 20' span bottomless culvert with a roughened channel to improve fish passage. The proposal provided better fish passage but did not address many of the other habitat concerns at the site. This proposal was not advanced beyond the final report to SRFB and the 30% design.

The Puget Sound Nearshore Ecosystem Restoration Project (PSNERP) design work in 2011 built on the original Corps Section 206 investigations. The PSNERP conceptual design report included a feasibility study, a conceptual design of both a full restoration and partial restoration alternatives, preliminary investigation of cultural resources, wetland impacts, contaminants and identification of potential constraints and further need for study.

*ESA (Environmental Science Associates). 2011. Puget Sound Nearshore Ecosystem Restoration Project: Strategic Restoration Conceptual Engineering – Final Design Report. March 2011. Prepared by ESA, ESA PWA, Anchor QEA, Coastal Geologic Services, KPFF, and Pacific Survey & Engineering for Washington Department of Fish and Wildlife, Olympia, WA. Available: [www.pugetsoundnearshore.org/cdr.html](http://www.pugetsoundnearshore.org/cdr.html)*

In 2013, the Harper estuary restoration project was selected by the Washington Department of Ecology (DOE) in collaboration with PSNERP for funding through the Natural Resource Damage (NRD) funds associated with the Cleanup Settlement Account for the ASARCO smelter site in Tacoma. This funding was intended to restore tidal inundation to the estuary. The components of the project included restoration of tidal influence by either removing the SE Olympiad Road completely or constructing a new bridge to span the estuary, removing bulkheads, debris and fill associated with the boat ramp and former brick factory and planting native vegetation to re-establish estuarine salt marsh.

As part of our work toward preparing this proposal, we've completed the following environmental studies and reports:

*"Harper Estuary Traffic Study", April 2014, prepared by Kitsap County Traffic Division, Kitsap County Public Works, Bothell, Washington. 213 pp [Kitsap County Traffic Study](#)*

*"Harper Estuary Restoration Project Phase II Sampling and Analysis Plan/Quality Assurance Project Plan", February 2014, prepared for WDOE by Leidos, Bothell, Washington. 40 pp.*

*"Harper Estuary Restoration Project Phase II Data Report", April 2014, prepared for WDOE by Leidos, Bothell, Washington. 94 pp.*

*"Cultural Resource Assessment of the Harper Estuary Restoration Project, Kitsap County, Washington", July 2015, prepared for WDFW by SWCA Environmental Consultants, Seattle, Washington. 164 pp.*

*"Wetland and Stream Delineation Report, Harper Estuary Restoration Project, Kitsap County", June 2015, prepared for WDFW by GeoEngineers, Tacoma, Washington. 106 pp.*

*"Conceptual Restoration Plan Report, Harper Estuary Restoration Project, Kitsap County", September 2015, prepared for WDFW by GeoEngineers, Tacoma, Washington. 40 pp.*

In addition to the reports, we've completed topographic survey work related to project plans (see attached). Kitsap County has partially completed a Type, Size and Location report for development of alternatives for bridge construction ("Harper Estuary – Draft Bridge Alternatives Analysis, Technical Memorandum from Otak to Kitsap County Public Works, June 2015).

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.

We will be applying for permits for the project but have not yet submitted these applications.

10. List any government approvals or permits that will be needed for your proposal, if known.

Local Permits

- Grading
- Shoreline
- Critical Area review

State Permits

- Hydraulic Project Approval (WDFW)
- Right of Entry (DNR)

Likely to be required:

- National Pollutant Discharge Elimination System - NPDES (DOE)
- Water quality certification (DOE)

Federal Permits

- Section 404 - fill in waters (U.S. Army Corps of Engineers)
- Proposal may need Endangered Species Act consultation (NOAA Fisheries)

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site.

The Harper Estuary restoration project will restore unimpeded tidal influence and habitat processes to a pocket estuary currently impacted by an undersized culvert and historic fill. The project builds on past nearshore habitat restoration feasibility studies and conceptual design work over the past decade. The most recent of these efforts was a conceptual design developed by the Puget Sound Nearshore Ecosystem Restoration Program (PSNERP) in 2011 ([www.pugetsoundnearshore.org/cdr.html](http://www.pugetsoundnearshore.org/cdr.html)) which included conceptual designs which were vetted through stakeholder and community outreach and collaboration with Kitsap County.

The project area is located approximately 0.5 miles east of Port Orchard on the Kitsap Peninsula near the community of Southworth. Harper Estuary is located in Section 02 of Township 23N, Range 02E in southern Kitsap County. The current estuary is bounded to the west by SE Southworth Drive (State Route 160) and is divided by SE Olympiad Drive which includes a 36 inch culvert crossing, constricting tidal exchange. The total project site is approximately 11 acres.

The restoration project design is based on reestablishment of estuarine natural processes. Surveys from the late 1800's conducted by the federal government (known as T-sheets) as often used as a template for estuarine habitat conditions before intense development of the area. The site was also developed in the early 1900's for a brick and tile manufacturing factory near the Harper Park ball field. The bricks from this operation are throughout the project site and form the majority of the industrial fill in the estuary. The

PSNERP report (2011) describes the historical context of the Harper estuary as follows:

*“A T-sheet dating from 1876-7 indicates a barrier beach and estuary with a salt marsh. Two creeks drain to the estuary from the south forming into relatively wide channels in the tidally influenced areas, joining behind the barrier beach with a single outlet channel to the Sound. The historic sheets predate the roadways, bridges and the brick manufacturing plant that were constructed in the early 1900s. The T-Sheet identifies a wooded marsh within the estuary and sand above shoreline in the northern portion of the action area.*

*The Harper Brick & Tile Co. had a mining and manufacturing facility located in the southwest of the estuary in the general area of the existing ball field. A wooden drawbridge that existed at this time was located at the northern shoreline of the barrier beach providing access to the west side of the estuary. Remnants of the concrete abutment and walls associated with the bridge still exist today along the beach. When this bridge was removed, a roadway embankment was built along the western shore of the beach, but this too was abandoned and eventually replaced with SE Olympiad Drive. The abandoned roadway embankment and that of SE Olympiad Drive have created an isolated freshwater wetland over the historic beach. Based on the T-Sheets it appears as though SE Southworth Drive was constructed through the estuary and isolated a portion of the estuary where the ball field is today. The creek draining from the southwest, as shown on the T-sheet, now enters the estuary through a 24-inch culvert beneath the roadway. Flow from this tributary has been captured within a linear drainage ditch and directed east to the tidal mudflat.*

*Evidence of past fill and other land use modifications is abundant throughout the action area with piles of abandoned brick throughout, including beneath the roadway embankment, and dispersed in areas of the salt marsh as evidenced by hummocks.*

*The estuary encompasses an area of approximately 5 acres. The upland areas immediately surrounding the site are well forested with limited development in the surrounding watershed, which is low-density residential in use and includes significant forest cover. Existing vegetation in the area south of the roadway embankment is typical of low salt marsh with pickleweed, salt grass, pacific silverweed and a mix of brackish grasses. Historically, there existed two distinct channels that appear as separate in the 1876-7 mapping. Today only one exists and is connected to the source of the former channel by a ditch that has been excavated from the aforementioned 24-inch culvert. The remaining channel near the east edge of the estuary is wide and shallow, likely due to the tidal barrier which has reduced the velocities in the channel resulting in aggradation of sediments.*

*The freshwater wetland bounded by the abandoned roadway embankment and SE Olympiad Drive is dominated by cattails. Hillside runoff from the east is impounded by the embankments over what was likely a sand spit with no apparent connection to the bay or the saltwater marsh.*

*The barrier beach is largely where it was mapped originally with other areas of sediment deposits along the west shoreline and the boat launch, except that much of it has been converted to freshwater wetland due to the impoundment of surface runoff behind the roadway embankments, and it is now bisected by an engineered channel from the 36-inch-diameter outfall.”*

The Harper estuary restoration project was selected by the Washington Department of Ecology (DOE) for funding through the Natural Resource Damage (NRD) funds associated with the Cleanup Settlement Account for the ASARCO smelter site in Tacoma. The restoration project was designed to build on the PSNERP project concepts, resulting in this proposal. During collaboration with Kitsap County and community outreach, the road removal option identified in the PSNERP full restoration conceptual design was removed from further consideration due to emergency response concerns and a bridge will be used to replace the undersized culvert on Olympiad Drive. In addition, the informal boat landing was an important feature as identified in community meetings. The boat landing will be relocated within the project area and designed to replace the function of the existing boat landing without expanding availability for boat launch beyond an informal site primarily used by the local community. A summary of

community meetings and meeting materials is available on the Kitsap County website [Harper Estuary Community Website](#).

The current design for the estuary restoration, to be implemented in two phases, includes:

Phase 1:            Removal of industrial fill (bricks, gravels & fill placement)  
                         Relocation of the informal boat landing  
                         Removal of relict road fill and bulkhead  
                         Estuary restoration including channel work and planting of upland areas  
                         Replacement of the undersized culvert on Southworth Drive with a larger culvert

Phase 2:            Replacement of the undersized culvert on Olympiad Drive with a 120' bridge

Phase 1 work is the subject of this SEPA review. This part of the project is fully funded and ready for construction in summer 2016. The bridge construction will take longer to design, obtain full funding and construct (Phase 2). Therefore, the SEPA review of Phase 2 will take place independently.

**Phase 1 elements include:**

**Fill Removal:** Phase 1 will remove approximately 25,000 cy of material from the estuary. In some locations, we will use clean backfill to restore appropriate elevations in areas of deep excavation for industrial fill (bricks, etc.) materials. We will remove fill in the following locations: 1) material associated with the former brick & tile manufacturing operation, 2) the existing boat landing (gravel fill extending into the estuary), 3) fill placed on marsh areas associated with Harper Creek channelization, 4) fill placed on top of a sand spit habitat feature to build a road, 5) fill landward of a relict bulkhead (along with the relict bulkhead) and 6) fill associated with partial filling of the impounded freshwater wetland.

**Estuarine Channel Reestablishment:** The estuarine channel will be widened to accommodate an increased tidal exchange with the bridge construction and establish a more natural channel geometry. While it is preferred to construct both the bridge and channel at the same time, the project phasing is necessary to match project funding and timing. Harper Creek to the east of Southworth Drive has been channelized and dredge material sidecast and spread on the marsh. The stream channel will be reestablished in a more natural configuration in the channelized section and the sidecast material removed to reestablish marsh elevations similar to surrounding area.

**Reestablishment of Salt Marsh at Freshwater Wetland and Setback Dike:** The sand spit feature depicted in the T-sheet extends historically south of the Olympiad Drive crossing to allow tidal exchange to the east of the sand spit. With Olympiad Drive in place, this feature cannot be reestablished as in the T-sheet. However, as part of the restoration project, we will reestablish the sand spit in its former location except to terminate the spit north of the road to allow tidal exchange in the former salt marsh area. The former salt marsh is currently an impounded freshwater wetland vegetated with cattails and willows. The vegetation will change with reestablishment of tidal influence. With tidal influence to this area, the design also includes construction of a setback dike along the neighboring property, which has been designed in consultation with the neighbor. This setback dike is designed to be as natural as possible and will have habitat features (logs, etc.) and vegetation.

**Southworth Drive Culvert Replacement:** The existing culvert under Southworth Drive at Harper Creek is undersized and is documented as a fish passage barrier. The culvert will be replaced in this phase with a 16' wide box culvert designed to allow fish access to Harper Creek upstream of the road crossing. During construction, traffic will be temporarily detoured to a single lane with flaggers as the culvert is

replaced. Construction of the culvert replacement is likely to take about 2 weeks with the single land diversion.

**Boat Landing Relocation:** Fill associated with the existing boat landing will be removed and the boat landing relocated. The existing informal boat landing is available for use at tides higher than approximately +5' MLLW and is not functional at lower tides. As vetted in community meetings, the primary use is hand launched kayaks, canoes and small craft, along with small boats (less than 16' length) on trailers. A replacement boat landing will be constructed to the west of the current location near the intersection of Southworth and Olympiad Drive. The community requested that the functions of the existing boat landing be retained, but that the new site not improve functionality or attract new users to the site. The new boat landing will be a smaller footprint than the existing site and parking will be limited to the Harper Park parking lot across Southworth Drive. During construction, boat launching will be unavailable due to safety concerns.

**Phase 2:** The culvert replacement on Olympiad Drive will be delayed as Phase 2 of the project. The undersized culvert restricts tidal exchange to the estuary and is documented as a fish passage barrier. A replacement bridge is currently in design by Kitsap County (approximately 120' span), with final design expected in 2017. Bridge construction could take place as early as summer 2017, if full funding is available. Additional information about Phase 2 is available at [Phase 2 design](#).

Phase 1 project plans are attached to this checklist.

## 12. Location of the proposal.

The project worksite is the Harper Estuary in the community of Southworth, Washington located in Section 02 of Township 23N, Range 02E in southern Kitsap County. A vicinity map is provided in project plans attached to this checklist.

## B. Environmental Elements

### 1. Earth

#### a. General description of the site:

**Flat**, rolling, hilly, steep slopes, mountainous, other

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

Most of the site is flat (estuary) but nearby roadway and surrounding uplands are up to 28%.

#### c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)?

Most of the soils associated with this project are estuarine mud or are fill material. The fill material is composed of bricks, sand and gravels.

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

Project site does not have unstable soils. However, some of the surrounding roadway shoulder banks are eroding in places.

- e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The project will remove man-made fill and restore estuarine function. The project “areas” are overlapping in scope, such that the quantities in the table below will not add independently. Fill is needed to replace excavated industrial fill in some locations to reestablish appropriate elevations for the restoration design. Wherever possible, clean materials excavated onsite will be used as backfill in these locations. Imported fill material may be needed to bring excavated areas back to marsh habitat elevations. Imported fill will be clean and if possible, from a DOT certified gravel pit. The maximum area of disturbance is 8.3 acres. See drawings for more information. These totals are applicable to Phase 1 of this project.

Area	Cut	Fill	Purpose
Industrial Fill Removal (includes removal of existing boat landing, relict roadway & bulkhead)	18,204 cy	14, 214 cy	Removal of man-made fill materials to restore estuarine habitat
Marsh Restoration Fill Removal	6,439 cy		Remove fill material placed in marsh area south of Olympiad Drive not related to industrial fill to restore elevations to promote estuarine marsh communities. This area partially overlaps with fill removal area above.
Southworth Culvert Replacement	1,509 cy	910 cy	Removal and replacement of undersized culvert on Southworth Drive to improve fish passage and tidal function
Boat Landing Relocation	315 cy	1,740 cy	Relocation of existing boat landing used by local community for hand & small boat launch to new location with smaller footprint
Ballfield parking lot modification	197 cy	300 cy	Improvement of parking area for small boat trailers and trail users
<b>Subtotal</b>	<b>26,152 cy</b>	<b>17,164 cy</b>	

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

Some redistribution of estuarine soils within the project site may occur after the initial project construction. Some erosion intended in the development of the pilot channels within the currently freshwater wetland.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

Impervious surface will not be increased as part of the project. During culvert replacement on Southworth Drive, the existing impervious surface will be replaced in the same footprint. The Harper Park parking lot and relocated boat ramp will have a gravel surface and will not be paved.

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

The new location of the boat landing will have cable concrete and rip rap to minimize the footprint and maximize reestablishment of estuarine habitat. In Phase 2, the bridge construction will include retaining walls along Olympiad Drive, although details are not yet available.

## 2. Air

- a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

During construction, equipment operation may generate emissions typical of construction activities.

- b. Are there any off-site sources of emissions or odor that may affect your proposal?

NA

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

Maintenance of construction equipment.

## 3. Water

- a. Surface Water:

- 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)?

The Harper Estuary is a tidally influenced waterbody. In addition, there are two small streams that drain into the estuary and then to the Puget Sound: Harper Creek and an unnamed creek. See map below from Corps report (2003) for watershed boundaries.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters?

The project will include excavation and filling within the waterbodies described above.

- 3) Estimate the amount of fill and dredge material that would 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.

The project will include excavation throughout the project (see project plans attached) and backfill of suitable material to match estuarine or beach substrate in some locations. The overall quantities are approximately 25,000 cy of excavation (including brick and industrial fill removal) and up to 18,000 cy of backfill or fill associated with the estuary restoration, the boat landing construction and parking lot. Impacts to wetlands are identified in the wetland reports by GeoEngineers. Fill material will be re-use from existing cut in the project as available or imported clean fill from a certified DOT gravel pit (if available) for additional fill. Quantities will be dependent on results of sediment testing as the project proceeds. Therefore, these estimates are likely higher than the gross cut and fill quantities.

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

The project will include water management during construction to isolate the stream and tidal waters. Plans include using coffer dams and stream isolation as needed to avoid water quality impacts or impacts to fish during construction.

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

Yes.

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 waste discharge.

b. Ground Water:

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known.

No groundwater withdrawal.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources.

NA

c. Water runoff (including stormwater):

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.

Additional stormwater will not be generated as a result of this project. Boat landing and parking lot will not be paved and will be surfaced with gravel.

2) Could waste materials enter ground or surface waters?

No.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site?

The proposal will not alter drainage patterns.

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

During construction, temporary erosion control and isolation of work areas will be implemented to reduce potential impacts to surface waters.

**4. Plants**

a. Check the types of vegetation found on the site:

- \_x\_deciduous tree: alder, maple, aspen, other
- \_x\_evergreen tree: fir, cedar, pine, other
- \_x\_shrubs
- \_x\_grass
- \_pasture
- \_crop or grain
- \_Orchards, vineyards or other permanent crops.
- \_x\_wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- \_water plants: water lily, eelgrass, milfoil, other
- \_x\_other types of vegetation

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

During construction, salt marsh vegetation, shrubs, wetland plants and small trees will be removed in disturbed areas. Native vegetation will remain wherever practical. Freshwater wetland plants (cattails, willows as indicated in the wetland report) will be altered by exposure to saltwater after construction is complete and be replaced by natural recruitment of brackish and salt marsh associated vegetation.

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

Puget Sound Chinook salmon, Steelhead trout

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Wherever possible, we will avoid disturbance of native plants and salt marsh plants in particular. We expect the disturbed portions of the site below OHWM to be colonized by native plants by natural recruitment (e.g. pickleweed, salt grass, high marsh plants). This type of colonization has proven more effective in estuarine restoration work in this vicinity than planting of native salt marsh vegetation due to the sediment redistribution following completion of construction. For disturbed upland sites, erosion control will be used along with planting of native plants (salt tolerant shrubs and small trees).

e. List all noxious weeds and invasive species known to be on or near the site.

The site has Japanese knotweed, scots broom, reed canarygrass. Other invasive species may be present in smaller coverage.

## 5. Animals

a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

This site includes typical species found in estuarine environment including:  
Birds such as herons, eagles, osprey, songbirds, etc.  
Mammals such as otter, deer, bear, coyote etc.  
Fish such as several species of salmon, forage fish, sculpin, etc. and shellfish species

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

Puget Sound Chinook salmon, Steelhead Trout

c. Is the site part of a migration route?

Adult and juvenile salmon migrate in the vicinity and in Harper Estuary. In addition, the estuary is used by waterfowl, shorebirds and other birds in migration.

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

The restoration project is intended to protect and restore habitat conditions to benefit fish and wildlife resources.

e. List any invasive animal species known to be on or near the site.

NA

**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?

NA

b. Would your project affect the potential use of solar energy by adjacent properties?

No.

c. What kinds of energy conservation features are included in the plans of this proposal?

NA

**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?

The site was evaluated for sediment contamination by Washington Department of Ecology as a Phase 2 assessment. A summary of the assessment is excerpted below:

*A Phase II Assessment involves testing for a wide range of chemicals. For this project, Ecology tested for over 150 chemicals including metals (13 priority pollutant metals), polycyclic aromatic hydrocarbons (PAHs; 20 including carcinogenic PAHs), phthalates (6), phenols (14), other semi-volatile organic compounds (SVOCs; 28), volatile organic compounds (VOCs; 55), TPHs (gasoline-range hydrocarbons, diesel- and oil-range hydrocarbons), and dioxins/furans (17).*

*The majority of the chemicals tested for were not detected in the soil samples. Other chemicals were detected but most were not detected above cleanup levels. A few chemicals were detected slightly above cleanup levels.*

*Sampling results revealed low level contamination (i.e., slightly above cleanup levels) in historic fill material for only two chemicals/compounds – arsenic (2 samples, 1 location) and cPAHs (1 sample, 1 location). These chemicals were found in areas where fill material will be removed as part of the proposed restoration.*

*These chemicals can be found at existing and historical industrial and commercial sites throughout Puget Sound.*

DOE is working with WDFW to develop a soil testing and handling protocol for use during the fill removal. As the chemicals were found in areas where fill material will be removed as part of the restoration project, the net result of this project will be a reduction in chemicals in Harper Estuary.

- 1) Describe any known or possible contamination at the site from present or past uses.

See summary of Phase 2 assessment (attached).

- 2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

Due to the presence of the chemicals listed above, special handling protocols will be used during sediment removal. The sediment handling and testing procedure is currently being developed in collaboration with the Washington Department of Ecology. We expect to test sediments for the identified chemicals prior to disposal to determine appropriate destination of spoils in accordance with the DOE protocol.

Other than identified in the Phase 2 work, no additional sources of hazardous chemicals are known.

- 3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Petroleum products may be present on site for construction purposes.

- 4) Describe special emergency services that might be required.

No special emergency services are required.

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

We are currently working with DOE to finalize sediment handling protocol.

b. Noise

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

NA

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

The project will create construction vehicle and equipment noise in the immediate vicinity of the project on a short term basis for the duration of the project. Work will take place during regular working hours (i.e. Monday – Friday 7am - 6pm). If work involving low tides at night becomes necessary, we will work with the neighbors to develop appropriate measures to reduce impacts.

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

We expect work to take place during daylight hours.

## 8. Land and Shoreline Use

- a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

The project site is an estuary and is used for passive recreation. The local community has been actively involved in project planning and development. A Kitsap County website is available to involve the public in the project [Harper Estuary Community Website](#). While some temporary disruption in passive recreation may occur during construction, the public has been supportive of the overall goals and potential for recreational use following the project completion. The loss of recreational access will be mitigated by the inclusion of a boat landing in the proposed design.

The two roads will remain after the project, although traffic on Olympiad Drive may be temporarily disrupted for construction activities on an irregular basis. We do not anticipate the need for a closure of the roads.

The informal boat landing is used by local residents to launch kayaks by hand and small trailerable boats up to 16' in length at high tides. The boat landing will be relocated as part of the project and will not be available for use during construction activities for safety reasons.

- b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

No, the project does not involve working farmlands or forest lands.

- c. Describe any structures on the site.

No structures are present on the site.

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

No structures are present on the site.

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

Most of the site is owned by Department of Natural Resources and Kitsap County. The zoning designation is "Park".

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

"Park"

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

Rural Conservancy

- h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

As an estuary, this site is a critical area. In addition, wetlands are present on the site.

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

NA

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

NA

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

NA

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

We continue working with the local community on project details. The project is considered a community enhancement.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

NA

## 9. Housing

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

NA

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

NA

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

NA

## 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?

NA

b. What views in the immediate vicinity would be altered or obstructed?

NA

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

NA

## 11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

NA

- b. Could light or glare from the finished project be a safety hazard or interfere with views?

NA

- c. What existing off-site sources of light or glare may affect your proposal?

NA

- d. Proposed measures to reduce or control light and glare impacts, if any:

NA

## 12. Recreation

- a. What designated and informal recreational opportunities are in the immediate vicinity?

Passive recreation at Harper Estuary for kayaking, walking, wildlife observation. Harper Park provides hiking trails and passive recreation. An informal ball field is at the park and operated by Kitsap Parks and Recreation.

- b. Would the proposed project displace any existing recreational uses? If so, describe.

During construction, recreation at Harper Estuary may be temporarily disrupted for public safety reasons. After the project is complete, recreational opportunities will be enhanced. The ball fields are lightly used, and a portion of them will be converted into parking for the newly established boat landing.

- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

During the community meetings, we learned that the local residents highly value the ability to launch a kayak or small boat at Harper Estuary. As such, we will relocate the boat landing, retaining its function, while minimizing the footprint of the new boat landing to enhance estuarine habitat value. During construction, the ability to launch a small boat at the estuary will be closed for public safety. A nearby boat launch at Manchester will be available, as well as kayak launch at several nearby locations (Harper pier or Southworth ferry area).

We do not anticipate a road closure which should allow pedestrian traffic to continue throughout the project duration. Some areas of the estuary will be temporarily blocked from public access during construction for safety reasons.

### 13. Historic and cultural preservation

- a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe.

The site is the location of the former Harper Brick and Tile Factory. The cultural resource assessment prepared for the project addresses historic site eligibility. While there are no sites within the construction site currently or eligible to be listed, evidence of the local history was apparent during evaluation of the project area in the cultural resource assessment. We've been working with the local community and Kitsap County to document local history as part of the project, in addition to preparing a cultural resource assessment report.

- b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

A cultural resource assessment (CRA) was prepared by SWCA Environmental Consultants in preparation for a Section 106 process within the federal permitting. During investigation, no human remains were found, but three archeological sites were evaluated. A draft CRA was shared with the Suquamish Tribe for their preliminary review. We expect to follow the Section 106 review process during our federal permit review.

*“Cultural Resource Assessment of the Harper Estuary Restoration Project, Kitsap County, Washington”, July 2015, prepared by SWCA Environmental Consultants, Seattle, Washington.*

Archeological and historical information were presented at a community meeting in June 2015. A copy of the public presentation is available at [Cultural Resource Community Presentation](#). The full report will not be publicly available, as is common to all CRA's due to potentially sensitive information.

- c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

From the summary of the CRA:

*“The Washington Department of Fish and Wildlife (WDFW), as part of the Harper Estuary Restoration Project, contracted with SWCA Environmental Consultants (SWCA) to develop an archaeological and cultural resources report for Section 106 compliance. SWCA reviewed historical materials available throughout the region and developed an historic context that provides background on the project area and the brick and tile manufacturing company once located there. Archaeological field work included twenty-five shovel/auger probes and 11 backhoe test pits, which were excavated at Harper Estuary between May 19 and 21, 2015. Fill associated with the Harper Brick and Tile Company deposited in the 1930s and a 1970s boat ramp were encountered in the excavations overlying naturally deposited marsh, intertidal, and beach deposits...”*

We expect to continue consultation through the Section 106 process for federal permitting.

- d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

We expect to follow the Section 106 process to continue consultation. We will avoid to the greatest extent possible impacts to cultural resources as required by the Section 106 review.

#### 14. Transportation

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

Two county roads are within the project area: Southworth Drive and Olympiad Drive. These roads are shown on the plan set. These roads will remain open during construction, although traffic will be confined to one lane during culvert replacement on Southworth Drive. Traffic on Olympiad Drive will be temporarily impacted by construction traffic at times but will remain open.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

A public bus route and school bus routes are within the project area. A bus stop at Olympiad and Southworth Drive is expected to be available during construction and will not be altered by the finished project. We will consult with the schools and transit system during planning for the project to avoid or minimize disruption.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

Users of the boat landing currently park informally on the shoulder of Olympiad Drive and on the boat landing area. The project will eliminate this informal parking and will improve parking for vehicles (including small trailers) in the Harper Park parking lot. See the plan set for additional information.

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

The project will maintain county standards for roadways for the culvert replacement area at Southworth Drive. The remaining roadways will not be altered. Bridge construction and associated changes to the Olympiad Drive roadway will be in Phase 2 of the project.

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

We do not anticipate use of water, rail or air transportation. It is possible that some materials may be delivered by water transport.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

The estuary restoration project will not generate additional vehicular trips.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

NA

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

We will work with Kitsap County Public Works and the school district to finalize plans during construction to avoid or minimize impacts to transportation.

**15. Public Services**

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

The estuary restoration project will not increase need for public services.

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

NA

**16. Utilities**

a. Circle utilities currently available at the site:

No utilities are associated with the estuary. However, utilities are associated with the roads.

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 which might be needed.

No new utilities are proposed for the project. We will work with utility companies for potential impacts related to construction activities.

**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: \_\_\_\_\_

Name of signee \_\_\_\_\_

Position and Agency/Organization \_\_\_\_\_

Date Submitted: \_\_\_\_\_

*Donis Small*  
\_\_\_\_\_  
*Donis Small*  
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*Habitat Restoration Coordinator, WDFW*  
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*10/15/2015*  
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