King County

ENVIRONMENTAL CHECKLIST ADDENDUM

LOWER RUSSELL LEVEE SETBACK

NOTE: Bold text contains new information that varies from the original SEPA Environmental Checklist. Non-bold, strike-through text contains the responses to questions in the original Environmental Checklist. Only background information and those questions to which the answers have changed as a result of this addendum are presented here; answers to questions not shown here are unchanged from the original Environmental Checklist.

A. BACKGROUND

1. Name of the proposed project, if applicable:

King County Flood Protection Facility Maintenance and Flood Damage Repair Program Programmatic SEPA

2. Name of Applicant:

Kerry Bauman
King County Department of Natural Resources and Parks
Water and Land Resources Division

3. Address and phone number of applicant and contact person:

King County Water and Land Resources Division
201 South Jackson Street, Suite 600
Seattle, WA 98104-3855
Phone: 206-477-4637
Fax: 206-205-5134

4. Date checklist prepared:

May 15, 2007; **Revised 03/24/2020 (Questions A.6, A.10, A.11, B.2, B.3, B.6, and B.7 have been revised).**

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):

April, 2019 – ~~June, 2020~~ **March, 2022**

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

Permit	**Issuing/Regulating Agency**
Clean Water Act Section 404 Permit	US Army Corps of Engineers (USACE)
Rivers and Harbors Act Section 10 Permit	USACE
Endangered Species Act Section 7 Consultation	NOAA Fisheries and US Fish and Wildlife Service
Clean Water Act Section 401 Water Quality Certification	WA Dept of Ecology
NPDES Permit	WA Dept of Ecology
~~Temporary~~ Water Right Permit	WA Dept of Ecology
National Historic Preservation Act Section 106	USACE/Tribes/WA Dept of Archaeology & Historic Preservation
SEPA (State Environmental Policy Act)	King County (lead agency)
Hydraulic Project Approval	WA Dept of Fish & Wildlife with Tribal review
Aquatic Use Authorization	WA Dept of Natural Resources
Shoreline Management Act Compliance	City of Kent
Critical Areas compliance	City of Kent
Floodplain Development Permit	City of Kent
~~Clearing/Grading Permit~~ **Civil Construction Permit**	**City of Kent**
Flood Hazard Certification	City of Kent
~~Right of Way Construction Permits~~	City of Kent
Demolition Permit	City of Kent
Building Permits	**City of Kent**
RCO Conversion	WA Recreation and Conservation Office

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 project description).

Project Description

The Lower Russell Levee Setback project, located on the Green River between S. 212th Street (RM 17.8) and Veterans Way/S. 228th Street Way (RM 19.25) within the City of Kent, will replace the existing flood containment system of levee and revetments along the right (east) bank of the river within the 1.4 mile project reach to provide long-term flood protection, improve riparian and aquatic habitat, and enhance recreational opportunities. The existing flood containment system is being replaced because it does not meet current engineering design standards and is prone to scour and slope instability.

The project will set the levee back to the maximum extent practicable and restore aquatic, floodplain, and riparian habitat. The project has the following main components (Figure 1):

1. Improve flood protection by replacing and upgrading 1.4 miles of existing levee and revetment with a new flood containment system that meets current engineering design standards and the Lower Green River System Wide Improvement Framework 500-year (18,800 cfs) level of protection standard.

2. Reconnect about 40 acres of floodplain that is currently isolated from the river by the existing levee and Russell Road by setting the new levee back from the river bank and excavating portions of the hydraulically isolated floodplain down to an elevation that is inundated under the river's altered flow regime.

3. Restore aquatic and riparian habitats, with focus on the following elements:
   a) Restore an annual flood regime in select locations by excavating portions of the reconnected floodplain to create about 15 acres of rearing and refuge habitat for juvenile salmon;
   b) Shade the river and enhance and restore riparian functions and the recreational experience by planting about 24 acres of the riparian corridor adjacent to the river;
   c) Install large wood in habitat areas to create and enhance rearing and refuge habitat for juvenile salmon, provide immediate shade and thermal refuge for fish, and create holding pools for adult salmon migrating upstream.
   d) Install an electric pump and associated buried pipe to allow withdrawal of up to 3 cfs of water from the Green River 24 hours a day seven days a week from January through June annually to provide a perennial water source to an excavated backwater embayment (Habitat Area B) with the purpose of providing rearing and refuge habitat for juvenile salmon, especially ESA-listed Chinook salmon. Surface water will be withdrawn at about Rivermile (RM) 18.65 and flow through the excavated backwater (or infiltrate), exiting the backwater and returning to the Green River at about RM 18.38.

4. Improve recreational features:
   a) Relocate and enhance Van Doren's Landing Park to allow for habitat restoration in the existing park location;
   b) Enhance the Green River Regional trail by constructing about 1.4 miles of separated multi-purpose trail through the relocated park and along the northern levee;
   c) Construct nearly a mile of trails for passive recreation within enhanced habitat areas.

5. Achieve multiple objectives by integrating the new levee, road, and reconnected floodplain with existing and enhanced parks, trails, and open space, thereby creating a unified landscape that offers opportunities for active and passive recreation while at the same time restoring aquatic and riparian habitats and providing flood protection.

6. Construct six eddy features and access trails in support of Tribal treaty fishing rights.

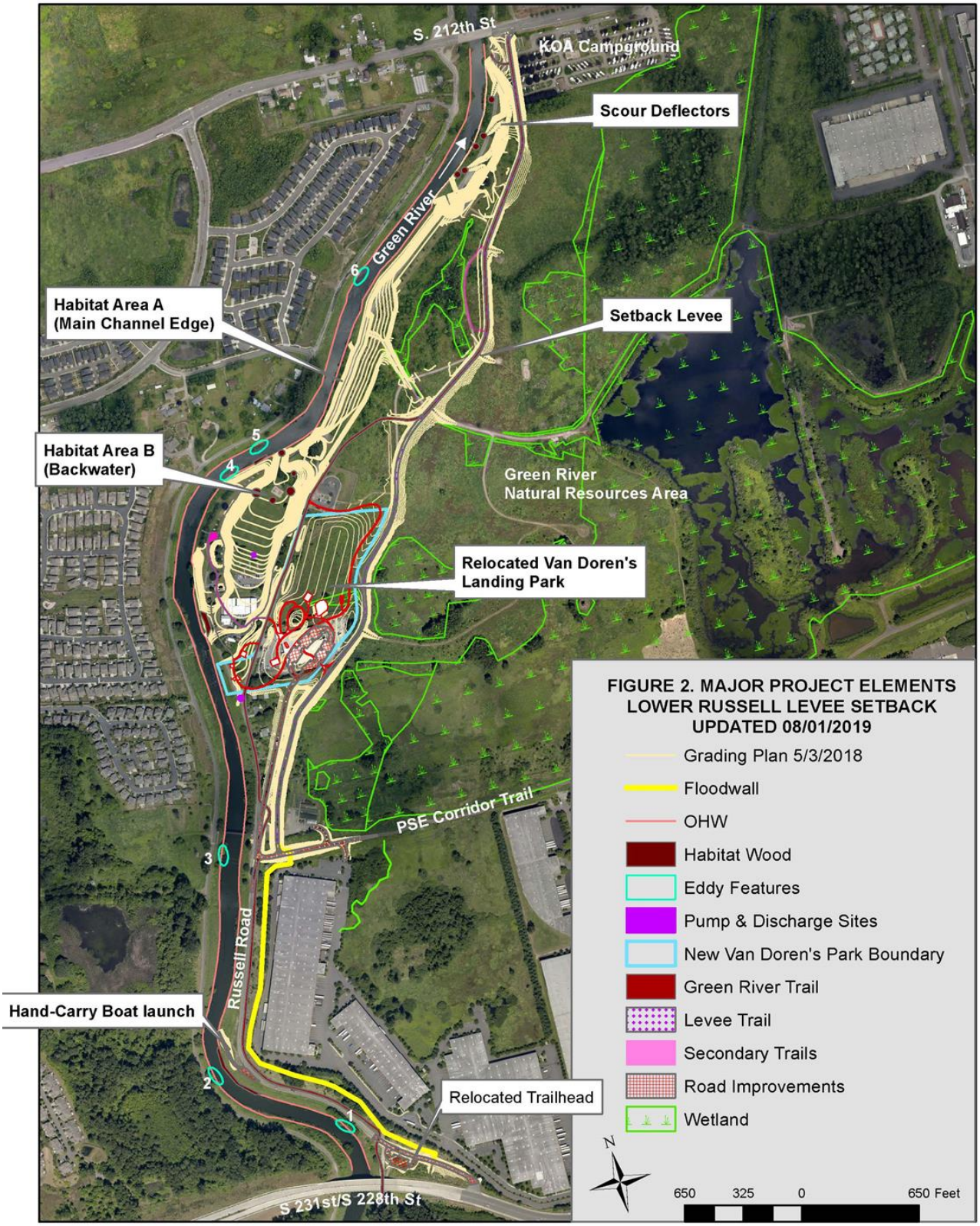


Figure 1. Major project elements.

B. ENVIRONMENTAL ELEMENTS

1. Earth

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

The following excavation is proposed:

- Removal of about 1,500 cubic yards (CY) of existing riprap revetment along roughly 3,600 linear feet (LF) of riverbank. All visible angular rock larger than eight inches in diameter will be removed from the riverbank.
- Levee foundation preparation excavation of approximately 12,000 CY
- Floodwall foundation excavation of approximately 7,000 CY
- Scour installation excavation of approximately 17,000 CY
- Park grading preparation excavation of approximately 16,000 CY
- Habitat area excavation of approximately 313,000 CY

Suitable soils excavated from on site will be reused on site. The site will generate a much larger volume of excavated material than can be reused on site. The excess excavated soils will be hauled off site.

The following fill is proposed:

- Levee embankment fill of approximately 85,000 CY
- Roadway embankment fill of approximately 25,000 CY
- Rock for barb and rock revetment construction of approximately 14,000 CY
- **Boulders and riprap for eddy features: approximately 19 boulders and 53 CY riprap. Rounded cobble for eddy feature scour aprons: approximately 18 CY**
- Park fill of approximately 57,000 CY
- Wood chip mulch of approximately 13,000 CY
- Compost soil amendment of approximately 6,000 CY
- ~~220~~ **396** boulders (approx.) ballasting habitat wood

- ~~290~~ **437** logs (>12" dia.) for large wood habitat structures and 20 logs for a crib wall

3. Water

a. Surface:

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

Construction of the setback levee, relocation of Van Doren's Landing Park, and excavation of floodplain benches to facilitate meander progression will require some encroachment into Wetlands B and E and fill of Wetlands G, D and H. These project elements, along with construction of a levee access road near the Puget Sound Energy corridor, will result in encroachments into the buffers of Wetlands A, B, C, and E. Construction of the floodwall, levee, and habitat backwater feature will require tree removal within 200 feet of the river. Impacts to trees and wetlands will be mitigated by levee and revetment removal, construction of extensive aquatic habitat and buffer and floodplain revegetation. In-river work consists of rock riprap removal, **construction of six rock eddy features,** and construction of three rock scour deflectors at the downstream end of the project to direct flow under the South 212th Street Bridge.

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.

- Fill or clearing and grubbing will occur in all of Wetlands B (0.1 acre; 4,356 SF), D (0.06 acre; 2,614 SF), G (0.3 acre; 13,068 SF), and H (0.01 acre; 436 SF) and portions of Wetlands B (0.11 acre; 3,738 SF), C (0.04 acre; 1,244 SF), and E (0.04 acre; 1,262 SF), for a total of 0.48 acre (21,315 SF) of wetland impact (Figure 3). The fill material will be repurposed sandy-silt native soils excavated on-site during other project elements. No fill or rock for barb or revetment construction will be placed within the existing river channel as they will be constructed in excavated areas. **About 19 boulders, 53 CY of riprap, and 18 CY or river cobble will be placed in the Green River for construction of six eddy features in support of Tribal treaty fishing rights.**

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

~~No.~~ **An electric pump (e.g., Godwin Dri-Prime CD150M or similar) will be used to withdraw up to three cubic feet per second (1,500 gallons per minute) of surface water from the Lower Green River 24 hours a day seven days a week from January through June annually to provide a perennial water source to the excavated backwater embayment (Habitat Area B), with the purpose of providing rearing and refuge habitat for juvenile salmon, especially ESA-listed Chinook salmon.**

Surface water will be withdrawn at about Rivermile (RM) 18.65, piped under the high flow entrance and upstream portion of the excavated backwater, discharge in the backwater at about elevation 21, flow through the excavated backwater (or infiltrate), and exit the backwater, returning to the Green River at about RM 18.38. The surface water is intended to: 1) help to minimize sediment deposition in the backwater outlet, 2) prevent accumulations of iron-oxidizing bacteria, 3) provide surface flow for juvenile Chinook salmon rearing in the backwater, and 4) attract juvenile salmon to the backwater habitat.

An existing utility pole near the pump location will provide electrical power for the pump. The pump is portable and will be delivered to begin pumping water around January 1, and be removed after pumping is complete around June 30, annually. The pump may also be removed prior to predicted large flood events if the pump is in danger of being inundated with floodwaters. A temporary housing will be installed around the pump to prevent vandalism.

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.~~ No groundwater will be withdrawn. **Surface water withdrawn from the Green River and discharged into the excavated backwater embayment to enhance rearing and refuge habitat for juvenile salmonids from January – June annually may sometimes infiltrate in the backwater embayment.**

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.

Petroleum fuels will be used to operate all construction and watering equipment during construction. Once the project is completed, petroleum fuels will be used to power watering trucks or portable pumps (to irrigate installed vegetation), if their temporary use is permitted by the Department of Ecology, during hot weather in the summer for up to three years following construction. ~~Once the project is completed and the vegetation is established, no further source of energy will be needed.~~

An electric pump (e.g., Godwin Dri-Prime CD150M or similar) will be used to withdraw up to three cubic feet per second of surface water from the Lower Green River 24 hours a day seven days a week from January through June annually to provide a perennial water source to the excavated backwater embayment (Habitat Area B). An existing utility pole near the pump location will provide electrical power for the pump. The pump is portable and will be delivered to begin pumping water around January 1, and be removed after pumping is complete around June 30, annually. The pump may also be removed prior to predicted large flood events if the

pump is in danger of being inundated with floodwater. A temporary housing will be installed around the pump to prevent vandalism.

7. Environmental Health

b. Noise:

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.

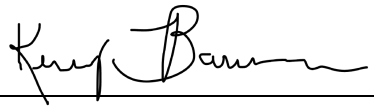
On a short-term basis, noise will be generated from construction equipment (e.g., truck traffic hauling materials to and from the site, excavator activity, pile driving, etc.). Short-term noise impacts will be minimized by limiting the hours of construction in accordance with applicable regulations. Short-term noise impacts will cease upon project completion; ~~no long-term noise impacts will be created by or associated with the proposed project.~~ **An electric pump will operate 24 hours a day seven days a week from January – June annually to withdraw up to 3 cfs of surface water from the Green River and discharge it to the excavated backwater embayment (Habitat Area B) to enhance rearing and refuge habitat for juvenile salmon.**

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

Standard mufflers will be used on all construction equipment during regular daytime working hours. **An electric pump was chosen for the water withdrawal, in part, to reduce noise. The pump will be enclosed in a shed or similar structure to further reduce noise and discourage vandalism.**

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: 

Title: Senior Ecologist

Date Submitted: March 26, 2020