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**Final Environmental Assessment  
City of Seattle (Seattle Public Utilities)  
Walsh Creek-Rock Creek Confluence Restoration Project  
Cedar River Municipal Watershed, King County, Washington  
FEMA-1817-DR-WA (Public Assistance)**

June 27, 2011



**FEMA**

U.S. Department of Homeland Security  
Federal Emergency Management Agency – Region X  
130 228<sup>th</sup> Street Southwest  
Bothell, Washington 98201-9796

Photo: 2009 Levee Failure, on #40 Road/Walsh Ditch Levee, approximately 4,000' west of the Rock Creek-Walsh Creek Confluence. Rock Creek is below road/levee to the right.

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# TERMS USED IN THIS DOCUMENT

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**Alternate Project** – if an applicant determines that the public welfare would not be best served by restoring a damaged facility or its function using FEMA funds, the applicant may apply to FEMA to use eligible disaster funds for other purposes (i.e. Alternate Projects). Examples of Alternate Projects include repair or expansion of other public facilities, purchase of capital equipment, or construction of new public facilities.

**Area of Potential Effect (APE)** – the geographic area within which an undertaking may cause changes in the character or use of historic properties, if such properties exist. The APE is influenced by the scale and nature of the undertaking.

**Best Management Practices (BMPs)** – environmental protection practices applied to help ensure that projects are conducted in an environmentally responsible manner.

**Channel Migration Zone (CMZ)** – the area where a stream or river has been and will be susceptible to channel erosion and/or channel occupation. Because alluvial channels are rarely static through time, rivers and streams naturally migrate within their valleys. Channels respond with horizontal movement (lateral migration, avulsions, channel widening, channel narrowing) and vertical movement (incision and aggradation) depending on site-specific circumstances and watershed conditions. Human landscape disturbance can exaggerate or constrain channel migration by affecting local and watershed processes of flooding, erosion, and deposition.

**FEMA Floodway** – that portion of the floodplain which is effective in carrying flow, within which this carrying capacity must be preserved and where the flood hazard is generally highest, i.e., where water depths and velocities are the greatest. It is that area which provides for the discharge of the base flood so the cumulative increase in water surface elevation is no more than one foot.

**Floodplain** – the lowland and relatively flat areas adjoining inland and coastal waters including, at a minimum, that area subject to a one percent or greater chance of flooding in any given year.

**Habitat Conservation Plan** – An HCP is an agreement established between a non-federal entity and the USFWS and/or NMFS under Section 10(a)(1)(B) of the Endangered Species Act. An HCP is long-term plan that guides protection and enhancement of habitats for threatened and endangered wildlife species on non-federal lands. An HCP is a mandatory component of an Incidental Take permit application.

**Hydrography** - focuses on the measurement of the depth of (inland) waters and its variation over time and space as well as the description of the morphological characteristics of the marginal land.

**Nonattainment Area** – the geographic area designated by EPA at 40 CFR Part 81 as exceeding a National Ambient Air Quality Standard for a given criteria pollutant. An area is nonattainment only for the pollutants for which the area has been designated nonattainment.

# ACRONYMS USED IN THIS DOCUMENT

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APE	Area of Potential Effect
BiOp	Biological Opinion
BMP	best management practice
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CRMW	Cedar River Municipal Watershed
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
DAHP	(Washington State) Department of Archaeological and Historic Preservation
EA	environmental assessment
Ecology	(Washington State) Department of Ecology
EFH	essential fish habitat
EIS	environmental impact statement
EO	(Presidential) Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
HCP	Habitat Conservation Plan
MBTA	Migratory Bird Treaty Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
REO	(FEMA) Regional Environmental Officer
SHPO	State Historic Preservation Officer
SPU	Seattle Public Utilities
USFWS	U.S. Fish and Wildlife Service
WNHP	Washington Natural Heritage Program
WRIA	Water Resource Inventory Area

The Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1973 (Stafford Act), as amended, provides federal assistance programs for both public and private losses sustained in disasters. FEMA provides assistance to private citizens, public entities, and non-profit groups following declared disasters. The City of Seattle, Seattle Public Utilities (SPU) applied, through the Washington State Emergency Management Division (EMD), to the U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) for funding of an Alternate Project to restore the confluence of Walsh and Rock creeks, remove a road/levee prone to slope failure, and improve habitat and access for re-colonizing anadromous salmonids. The project is located in the Cedar River Municipal Watershed (CRMW), which is owned and managed by SPU in King County, Washington (see Attachment A, Project Vicinity Map). The project is located in the NW1/4 of Section 16, Township 22N, Range 7E (47° 24'0"N/121°50'0"N or 47.39861, -121.93797).

The National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Part 1500 through 1508) direct FEMA and other federal agencies to take into consideration the environmental consequences of proposed federally funded projects. Numerous environmental studies have been prepared that are related to the proposed project including a Habitat Conservation Plan (HCP) for federally listed species in the CRMW.

NEPA encourages federal agencies to reduce duplication by adopting other federal agencies' NEPA documentation or incorporating available information by reference. In the case of the CRMW, a joint NEPA Environmental Assessment (EA)/State Environmental Policy Act (SEPA) Environmental Impact Statement (EIS) was prepared in 1998 for the HCP and a Finding of No Significant Impact (FONSI) was issued by National Marine Fisheries Service (NMFS) and U.S. Fish & Wildlife Service (USFWS) for the NEPA EA in 2000. FEMA considered whether to adopt the NEPA EA for the proposed project, which was designed to be in conformance with, and to further the objectives of, the HCP and the NEPA EA/SEPA EIS. However, Presidential Executive Orders relating to Environmental Justice, Floodplains, and Wetlands had not been addressed and documentation of FEMA's compliance with the National Historic Preservation Act (NHPA), including tribal consultation, was required. Therefore, in compliance with NEPA, the CEQ and FEMA implementing regulations, Presidential Executive Orders, and the NHPA, FEMA has prepared this EA to address the additional subject areas not covered by the EA for the HCP, and to document compliance with the procedural requirements of those additional regulations.

Restoration of habitat by means such as removal of roads and culverts was addressed in the HCP and joint NEPA EA/SEPA EIS in a programmatic level of analysis. In addition, SPU prepared a detailed project-specific SEPA Checklist in 2011 for the Walsh Ditch-Rock Creek Restoration Project. In accordance with the CEQ and FEMA regulations, this EA hereby incorporates the

background information, alternatives analyses, environmental consequences and mitigation measures, in the HCP, the NEPA EA/SEPA EIS that was prepared for the HCP, and the SEPA Checklist. Other supporting environmental studies are also incorporated by reference:

- Walsh Ditch/Rock Creek Fatal Flaw Analysis--Phase 1B Report: Flow and Water Quality Monitoring (Taylor Associates, March 2008)
- Revised Walsh Ditch Fatal Flaw Analysis Hydrology Results Summary Memo (Clear Creek Solutions, April 2008)
- Walsh Ditch-Rock Creek Fatal Flaw Analysis Water Quality Results Summary Memo (Aqua Terra Consultants, June 2008)
- Final Technical Memorandum, Walsh Ditch Well Impact Assessment Critical Questions (Shannon & Wilson, 2009)
- Walsh Creek/Walsh Ditch/Rock Creek Wetland Characterization (Chapin (SPU), 2010)
- Walsh Ditch – Rock Creek Confluence Restoration Project: Invasive Species Risk Assessment (Herrera Environmental Consulting, 2010)
- Cultural Resources Assessment for the Proposed Walsh Ditch Confluence Restoration Project, Cedar River Municipal Watershed, King County, Washington (Historical Research Associates, Inc, 2010)
- Biological Opinion, Cedar River Watershed Habitat Conservation Plan, City of Seattle, Seattle Public Utility (1999/02074 as Amended National Marine Fisheries Service. 1999a)
- Biological and Conference Opinion for the Issuance of an Incidental Take Permit to the City of Seattle for the Seattle Public Utility's Cedar River Watershed Habitat Conservation Plan (2000 United States Fish and Wildlife Service Ref: 1-3-00-FWF-0243)

FEMA used the findings in the Draft EA to determine that the project would not significantly affect the quality of the human environment. Therefore, FEMA has made a Finding of No Significant Impact (FONSI) and determined that an environmental impact statement (EIS) is not necessary.

The CEQ and FEMA regulations (44 CFR Section 10) that implement NEPA require NEPA documents to be concise, focus on the issues relevant to the project, and exclude extraneous background data and discussion of subjects that are not relevant or would duplicate analyses already provided to the public. Accordingly, the following subjects are not evaluated in detail in this EA for the following reasons:

<b>Subject</b>	<b>Analysis</b>
Air Quality	The project is not in a nonattainment area, is located in an area that is remote, undeveloped, and receives little traffic. Construction would create dust and vehicle and equipment emissions; however, impacts would be temporary. The SEPA checklist (p.7-8) addresses air quality impacts and greenhouse gas emissions. The completed project would create a net benefit to air quality as

	riparian vegetation grows, sequestering carbon.
Fish and Wildlife	The SEPA checklist (p.13-16) addresses fish and wildlife, listed species, potential project impacts and mitigation measures. Additional information about the species, effects of management activities and conservation measures are discussed in the HCP and the associated NEPA EA/SEPA EIS and Biological Opinions (BiOps). The proposed project furthers the objectives of, and will comply with, the requirements of the HCP and associated environmental documentation. The provisions of the HCP and associated documents also adequately address habitat and species protections under the Magnuson-Stevens Fishery Conservation and Management Act (MSA) for Essential Fish Habitat (EFH) and the Migratory Bird Treaty Act (MBTA). Because SPU has stated that the Proposed Action falls within the scope of activities covered by the HCP, no further consultation with NMFS and USFWS under the ESA and MSA is required by FEMA. Carrying out the Proposed Action in compliance with the conditions of the HCP provides compliance with the ESA and MSA. The applicant is responsible for compliance with the provisions of the MBTA.
Geology and Soils	The SEPA checklist (p.4-5) addresses soils, slope stability, and potential project impacts and mitigation measures. The proposed project includes restoration of hillside hydrography to prevent ponding behind the levee fill on the steep slopes and reduce the potential for future landslides, thus resulting in long-term beneficial impact to geology and soils.
Noise	The SEPA checklist (p.18) addresses the potential for short-term construction-related noise and notes that construction equipment would be limited to levels of City of Seattle’s Noise Control Ordinance. Significant noise impacts are not anticipated to result from the proposed project.
Land Use and Socioeconomics	The project area is in a municipal watershed, owned and operated by SPU. Unauthorized public access is not permitted. The proposed project, to restore salmonid habitat, is not anticipated to affect land use or socioeconomics.
Traffic	The proposed project is in a municipal watershed, owned and operated by SPU and there are no public roads (access roads are gated and locked). Thus, traffic is not expected to increase or change as a result of the proposed project.
Vegetation	The SEPA checklist (p.13) notes that botanical surveys in the project area were conducted in 2002, 2003 and 2006 and no threatened or endangered species were found. Species of vegetation that would be removed, mitigation measures including revegetation methods, are identified in the SEPA checklist. Significant impacts to vegetation are not anticipated to result from the proposed project.
Visual Quality	The proposed project would result in the removal of some vegetation as described in the SEPA checklist; and would not significantly change the existing visual quality of the area as noted in the SEPA checklist (p.20-21).
Water Resources	The SEPA checklist (p.8-12) addresses water resources, potential project impacts and mitigation measures, including BMPs during construction. After project completion, soil permeability will substantially increase and improve stormwater percolation and storage. Long-term improvement to water quality is also expected in Rock Creek and the Cedar River as the potential for road/levee failures that result in large volumes of sediment and sediment-laden water would be reduced.

The purpose of the Robert T. Stafford Disaster Relief and Emergency Assistance Act of 1973 (Stafford Act), as amended, is to provide a wide range of federal assistance for states and local governments significantly impacted by disasters or emergencies or both. The purpose of the Federal Emergency Management Agency's (FEMA) Public Assistance (PA) Grant Program is to provide assistance to State, Tribal and local governments, and certain types of Private Nonprofit organizations so that communities can quickly respond to and recover from major disasters or emergencies declared by the President. Through the PA Program, FEMA provides supplemental Federal disaster grant assistance for debris removal, emergency protective measures, and the repair, restoration, reconstruction, or replacement of disaster-damaged or destroyed publicly owned facilities and the facilities of certain Private Non-Profit (PNP) organizations.

The City of Seattle, SPU, owns and operates the Cedar River Municipal Watershed (CRMW) as part of a municipal water supply for more than 1.4 million people in the Central Puget Sound region. From 1904 to about 1947, the town of Taylor, Washington, was a large mining and manufacturing community in the CRMW. In the 1930s, the City of Seattle constructed the Walsh Lake Diversion Ditch (Walsh Ditch) to divert the water contaminated by this community.

The water was diverted just above the natural confluence with Rock Creek, a tributary of the Cedar River in the Municipal Watershed, and conveyed 1.7 miles to a discharge point on the Cedar River downstream of the Landsburg Diversion Dam (the diversion point for Seattle's Cedar River municipal water supply). Following abandonment and decommissioning of the Taylor townsite in 1947, water from the 4.3 square mile Walsh Lake Basin cleansed to the point where it is no longer considered polluted, making Walsh Ditch obsolete. A large landslide during a January 2009 rainstorm event caused the Walsh Lake outflow to be reconnected to its historic distributary stream, Rock Creek. Because Walsh Ditch is no longer needed and the current configuration of the reconnected streams and former ditch fills are unstable and provide impaired aquatic habitat, SPU is proposing to restore the confluence of the Walsh Creek and Rock Creek stream systems.

The need for the FEMA action is to provide funds to SPU to restore approximately 600 lineal feet of riparian and salmonid stream habitat within the confluence of Walsh and Rock creeks, and to reduce the potential for future landslides from the levee by deconstructing 7,040 feet of the #40 Road Levee immediately adjacent to Rock Creek (see Attachment B, Project Location Map).

The Proposed Action is an Alternate Project under the PA Program, which involves abandoning disaster damaged or destroyed facilities and applying the funds to an alternate action that benefits the public. Seattle Public Utilities has chosen to not use funds to rebuild 250 lineal feet of #40 Road/levee and to use those funds for this Proposed Action.

## **Alternatives, Affected Environment, Environmental Consequences**

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This section addresses the No Action and Proposed (or Preferred) Action Alternatives. Alternatives were also addressed in the NEPA EA/SEPA EIS that was prepared for the Cedar River Municipal Watershed (CRMW) Habitat Conservation Plan (HCP) at a programmatic level focusing on watershed management, timber harvesting, and anadromous fish mitigation. The Proposed Action (or Project) results from the anadromous fish mitigation alternatives analyzed in the NEPA EA/SEPA EIS, which is incorporated by reference in this EA.

### **ALTERNATIVE 1 – NO ACTION**

The No Action Alternative is required by the CEQ regulations to be included in the analysis, serves to provide a baseline of existing conditions and current impacts to resources in the project area, and is used to compare and contrast the impacts to resources of the other (action) alternatives.

Under the No Action alternative, FEMA would not provide funding to restore Walsh Creek and Rock Creek salmonid fish habitat. Leaving the #40 Road levee and Walsh Ditch infrastructure in its current state would continue the long-term threat to Rock Creek during future large storm events given the persistence of steep, unstable cut-slopes above Walsh Ditch. Twice in the last 15 years, large wedges of material have failed, fallen into and blocked Walsh Ditch during storms, resulting in saturation and failure of the #40 Road levee and delivery of large volumes of sediment directly to Rock Creek, a tributary to the Cedar River. The No Action Alternative would not reduce the potential for future slope failures since the #40 Road levee would not be deconstructed in order to restore natural hydrological flow paths. While a slight reduction in risk of future failures of the #40 Road/Walsh Ditch road/levee prism have been achieved by the installation of 4 culverts through the levee, some risk still exists.

When levee failures occur, key spawning habitat for Chinook and coho salmon is buried and riparian vegetation is destroyed. The No Action Alternative would allow the levee failures to continue and would not remove the obstructions to fish passage in both Rock and Walsh Creeks, which impair (but not eliminate) access to 7 miles of high quality stream habitat and 134 acres of lake and wetland habitat. Also, by not removing the large volumes of fill within Rock and Walsh creeks, the No Action Alternative would preclude the reestablishment of large, complex floodplains needed for flow dispersal, increased diversity of riparian vegetation and reductions in flow velocities and bed scour through these reaches.

Finally, the No Action Alternative would keep infrastructure that adversely encroaches on important riparian and aquatic habitat while providing no real infrastructural benefit to SPU. The objectives of the HCP regarding improvements to salmonid habitat in the CRMW would also not be met.

### **ALTERNATIVE 2 – PROPOSED ACTION (THE PREFERRED ALTERNATIVE)**

The Proposed Action is largely a road removal/decommissioning project intended to enhance fish habitat via the removal of sections of three roads: ( #18, #40, and #40.5 roads) within the active channel and riparian corridor of Rock and Walsh creeks in the CRMW. Past cut-slope failures plugged Walsh Ditch, triggering levee failures that resulted in shallow rapid landslides initiating in the levee fill (as last occurred in the January 2009 storm event). General project construction activities include: 1) levee decommissioning (excavation of notches in the levee) west of the confluence; 2) excavation of fill and removal of infrastructure along Rock Creek near the confluence; 3) excavation of fill and removal of built infrastructure along Walsh Ditch/Walsh Creek; and (4) grading to install large woody debris (LWD) in the channel/floodplain.

Removal of road fill (~5,000 cubic yards) and reconstruction of low floodplains in this reach will be designed with the objective of restoring natural geomorphic processes and self-sustaining channel attributes beneficial to the recolonization of anadromous salmonids in this system.

Removal of two stream crossings on Rock Creek will also improve fish passage and connectivity to high quality habitat in the upper Rock Creek and Walsh Lake catchments. The project consists of the following specific elements:

- 1) Removal of two large road crossing structures including a concrete bridge spanning Walsh Creek on the #40 Road and three 42-inch diameter steel pipes under the #40 Road at Rock Creek.
- 2) An excavator will be used to remove road fill associated with the #18, #40, and #40.5 roads currently occupying the top of Walsh Creek-Rock Creek floodplains and stream channels.
- 3) Reconstruct natural confluence between Walsh and Rock creeks. Confluence would consist of two connections: a primary connection near the top of the project location, and a high flow/side channel connection between Walsh Ditch and Rock Creek entering Rock Creek approximately 100 feet upstream of the current connection.
- 4) Install LWD structures to stabilize stream bank and floodplain soils and to create stream cover for juvenile salmonids.
- 5) Excavate notches in the #40 Road levee along the former Walsh Ditch between the #18 and #41 road junctions (a length of 7,239 feet) to restore natural slope hydrography.
- 6) Revegetate exposed soils to reduce near-term surface erosion, promote diversity of riparian species, and encourage establishment and growth of conifers available for future recruitment into the aquatic system.

Once installed, aquatic monitoring would be conducted to track project effectiveness and success. The SEPA checklist provides additional project description details including best management practices (BMPs) to be used for stormwater and erosion control.

## **Alternatives, Affected Environment, Environmental Consequences**

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This section discusses the subjects and Presidential Executive Orders that were not addressed in the previous NEPA EA/SEPA EIS for the HCP or other environmental documentation (described in the Introduction section of this EA). For all resource areas addressed in this section, the No Action Alternative, under which FEMA would not provide funding for the project, would mean that no project-related construction impacts to those resources would occur, but on-going environmental impacts described under the No Action Alternative would continue.

### **COASTAL ZONE MANAGEMENT ACT (CZMA)**

Activities and development affecting coastal resources that involve federal activities, federal licenses or permits, and federal assistance programs (funding as in the current case), require written decision by the Washington Department of Ecology (Ecology) that the project is consistent with Washington's Coastal Zone Management Program (CZMP) to the "maximum extent practicable." According to the CZMP, King County is a coastal county and therefore subject to review of the project's potential effects on coastal resources.

In an e-mail from Ecology to SPU dated May 2, 2011, Ecology stated: "Since the project has applied for a federal permit (NWP 27), the CZM consistency review and determination will be coupled with the federal permit review by the Army Corps and Ecology. A separate CZM review for federal funding is not required." The applicant (SPU) will be responsible for compliance with the provisions of the state CZMP.

### **HISTORIC, ARCHAEOLOGICAL, AND CULTURAL RESOURCES**

Federal undertakings (such as funding and permitting) require review and compliance with provisions of Section 106 of the National Historic Preservation Act (NHPA). In the Cedar River Watershed HCP's NEPA EA/SEPA EIS, SPU committed to protect and manage cultural resources in the CRMW in compliance with Section 106 of the NHPA through developing and implementing a comprehensive Cultural Resources Management Plan. This plan was completed in 2004, with relevant comments incorporated from the Muckleshoot Nation, King County Historic Preservation Office, State Historic Preservation Office (Department of Archaeology and Historic Preservation) and the Advisory Council on Historic Preservation. Seattle Public Utilities is complying with the Section 106 requirements developed during review for the Incidental Take Permit issued by NMFS under the Habitat Conservation Plan.

In addition, a cultural resource assessment was conducted for the proposed project in 2010. The survey included the Walsh Creek-Rock Creek confluence area and portions of Walsh Ditch east of the 2009 landslide location. The survey assessment is incorporated by reference in this EA. Although archaeological sites were recorded, none had the requisite integrity for eligibility for listing in the National Register of Historic Places.

## **Alternatives, Affected Environment, Environmental Consequences**

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The Walsh Ditch site (45K1995) is eligible for listing in the Washington Heritage Register as an individual archaeological resource and as a contributing element to the Cedar River Watershed Cultural Landscape due to its documented historic significance at a local level. Since the proposed work is confined to that portion of the ditch which was already damaged by the 2009 landslide, the majority of Walsh Ditch will retain sufficient integrity to convey its significance.

A determination of “no historic properties affected” for this undertaking was made and the Washington Department of Archaeology and Historic Preservation concurred with these findings in a letter dated April 19, 2011.

Because of the possibility that intact pre-contact archaeological materials may exist in the Project area of potential effect (APE), monitoring will take place during project excavation, particularly when ground disturbing activities approach previously undisturbed soils.

### **SOCIOECONOMIC AND ENVIRONMENTAL JUSTICE (EO 12898)**

Executive Order (EO) 12898, Environmental Justice, directs federal agencies to identify and address, as appropriate, disproportionately high and adverse human health or environmental effects on minority and low-income populations in the U.S. resulting from federal programs, policies, and activities. The proposed project, to restore the confluence of Walsh and Rock creeks, is located in a municipal watershed. There are no minority or low-income populations in the CRMW nor will they be adversely affected by the action.

### **FLOODPLAINS (EO 11988) AND WETLANDS (EO 11990)**

EO 11988 (Floodplains) requires federal agencies to reduce the risk of flood loss, minimize the impact on human health, safety, and welfare, and restore the natural and beneficial values served by floodplains. Under FEMA’s implementing regulations at 44 CFR Part 9, FEMA must evaluate the potential effects of any actions it may take in a floodplain and consider alternatives to avoid adverse effects. Similarly, EO 11990 (Wetlands) requires that federal agencies take action to minimize the destruction, loss, or degradation of wetlands, and to preserve and enhance the natural and beneficial effects of wetlands. Federal agencies, in planning their actions, are required to consider alternatives to wetland sites and limit potential damage if an activity affecting a wetland cannot be avoided. Federal agencies are also required under 44 CFR Part 9 to provide public notice and review of plans for actions in floodplains and wetlands. The public notice for this disaster and public review of the Draft EA meet FEMA’s public notice and review requirements.

The Flood Panel 53033C1050F is not printed for the project area as no special flood hazard areas are established for this unpopulated area. FEMA assumes the project area is subject to flooding because the action is occurring in a stream channel and its associated floodplain (SEPA Checklist). The proposed project would reduce the level of human use of the floodplain and

## **Alternatives, Affected Environment, Environmental Consequences**

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enhance and restore fish habitat. The abandonment of the #40 Road/Walsh Ditch levee would reduce future risk of repeated landslides into Rock Creek by no longer impounding water draining from the steep adjacent hillsides. The project would also include removal of two large road crossing structures including a concrete bridge spanning Walsh Creek on the #40 Road and three 42-inch diameter steel pipes under the #40 Road at Rock Creek (SEPA Checklist 2011).

Although the Proposed Action is a habitat restoration project, the project would cause both short term and longer term construction-related impacts to the floodplain in the project area. Short-term construction related impacts, such as water quality impacts, would be avoided and/or minimized with construction Best Management Practices (BMPs). Longer-term construction related impacts, such as vegetation clearing, will be offset over time as re-planted vegetation matures, with the end result of the project being restoration of stream and floodplain habitat.

Wetlands occur within the project area (Chapin, 2010). Approximately 4,000 square feet of wetland would be permanently filled or excavated associated with decommissioning the levee and restoring the stream channel (JARPA 2010). Avoidance and minimization measures are included in the project design to limit impacts to wetlands to the extent practicable, while achieving the overall goal of salmonid habitat restoration. BMPs would be implemented to minimize short-term, construction-related impacts from sediment delivery and disturbance of vegetation. Where road fill removal above wetlands would occur, heavy equipment would be restricted to the existing road prism. Fill of stream- and ditch-adjacent wetlands would be minimized via the creation of a side channel connection between Walsh and Rock Creeks above the existing confluence. Creating a second, high flow channel would prevent disturbance to over 200 feet of wetlands lining both sides of Walsh Creek above the diversion gate. In addition, excavating notches in the #40 Road/Walsh Ditch levee, instead of completely removing it, would significantly reduce the amount of affected wetland by decommissioning the structure.

Wetland fill of 4,000 square feet would be offset with approximately 15,500 square feet of wetland creation, thereby providing a net increase in functions and values of wetlands in the project area.

### **CUMULATIVE IMPACTS**

Cumulative effects or impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative effects are determined by combining the effects of an action with other past, present, and reasonably foreseeable future actions.

## **Alternatives, Affected Environment, Environmental Consequences**

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The HCP and NEPA EA/SEPA EIS address SPU's activities for the Cedar River Municipal Watershed (CRMW) as a whole, and therefore address cumulative impacts from a comprehensive and long-term watershed management perspective. The Proposed Action is a specific project within the suite of activities addressed in the HCP and NEPA EA/SEPA EIS. This project would reduce on-going contributions to cumulative impacts in the CRMW in the resource areas of water quality, fish and fish habitat, thereby reducing current cumulative impacts on those resources. The No Action Alternative, in contrast, would result in a continuation of on-going impacts and, therefore, continue to contribute to cumulative impacts to the resources in the watershed and the Cedar River.

The HCP and NEPA EA/SEPA EIS were prepared approximately 11 years ago; however, because the plan and documentation propose a long-term watershed-wide management approach, the cumulative effects analysis is not changed by any actions that may have taken place to date.

The contribution of noise and of dust from equipment and vehicle emissions during construction of the stormwater overflow channel would not result in a measurable contribution to cumulative impacts on air quality, to greenhouse gases, or to climate change.

While there would be removal of vegetation during construction, there will be a long-term net increase of riparian habitat and no loss of species or their habitat is expected that would contribute a measurable amount to cumulative effects.

### **PUBLIC INVOLVEMENT**

FEMA is the lead federal agency for conducting the NEPA compliance process prior to deciding whether to fund the proposed creek restoration project. As the lead agency, FEMA expedites the preparation and review of NEPA documents, responds to any public comments, meets the spirit and intent of NEPA, and complies with all NEPA provisions.

In addition, SPU provided substantial public participation and outreach, including public meetings and working groups, during development of the HCP and NEPA EA/SEPA EIS. Taking into consideration the amount of public participation already provided for this project, and the focused nature of the EA, FEMA determined that an adequate public comment period for the Draft EA was 15 days after the publication of the public notice. The notice identified the action, location of the proposed site, and how to provide comments. The Public Notice and Draft EA were mailed to 94 recipients for review on June 9, 2011 with comments due by June 25, 2011. No comment letters were received on the Draft EA.

## **Preparers, Agencies and Persons Consulted & References**

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### **LIST OF PREPARERS**

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### **AGENCIES AND PERSONS CONSULTED**

#### Tribes

Muckleshoot Nation: Virginia Cross, Chair; D. Jerry; M. Calvert, Laura Murphy

Snoqualmie Nation: Shelly Burch, Chair; Ray Mullen

Tulalip Tribes: Melvin Sheldon, Jr., Chair; Richard Young, Hank Gobin

#### City of Seattle, Seattle Public Utilities

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#### Washington Department of Archaeology and Historic Preservation

Robert G. Whitlam, PhD, State Archaeologist

#### Washington Emergency Management Division

Gary Urbas, Deputy State Coordinating Officer

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### **REFERENCES**

Aqua Terra Consultants. 2008. Walsh Ditch-Rock Creek Fatal Flaw Analysis Water Quality Results Summary Memo.

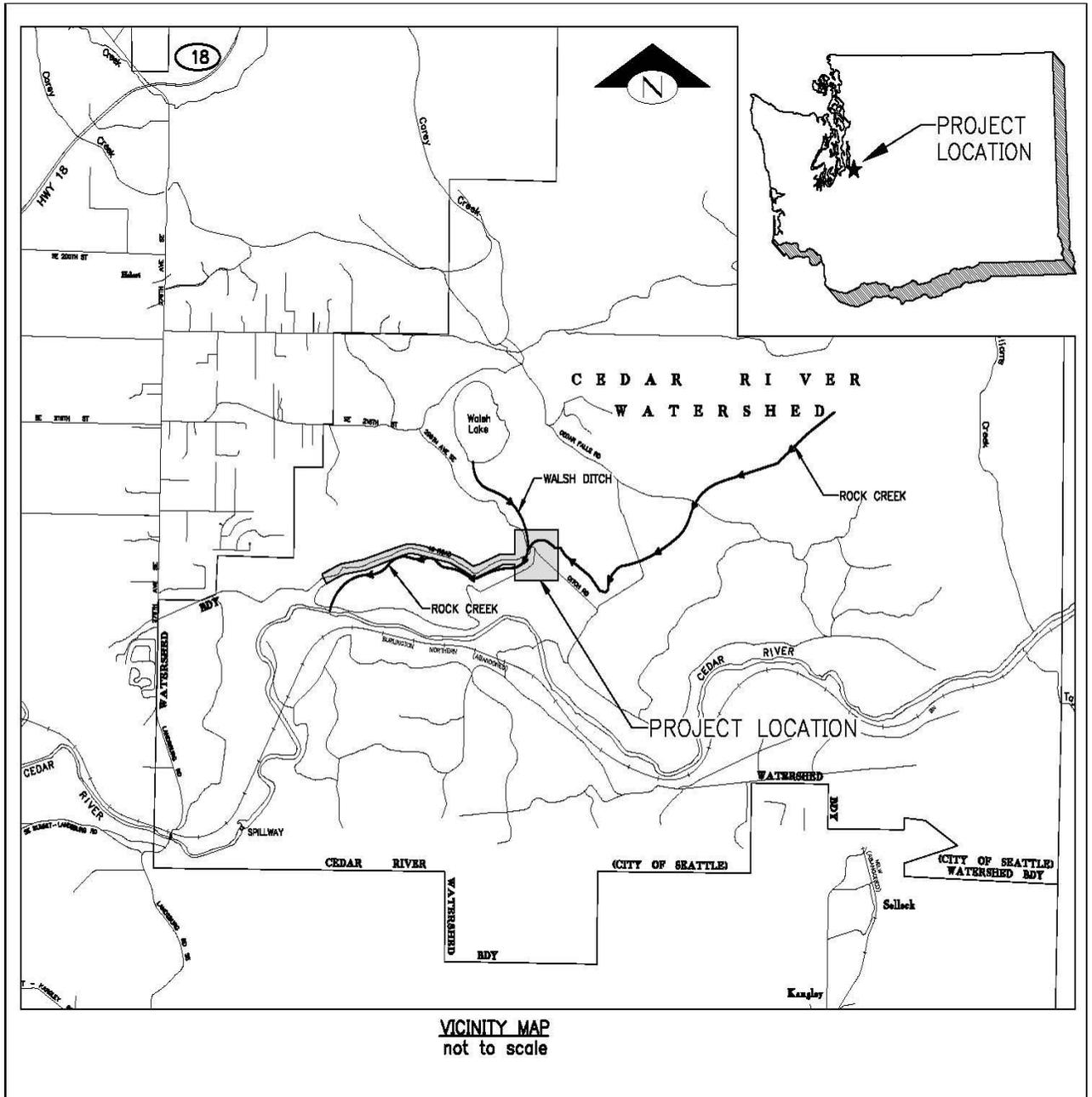
Chapin. 2010. Walsh Creek/Walsh Ditch/Rock Creek Wetland Characterization.

## **Preparers, Agencies and Persons Consulted & References**

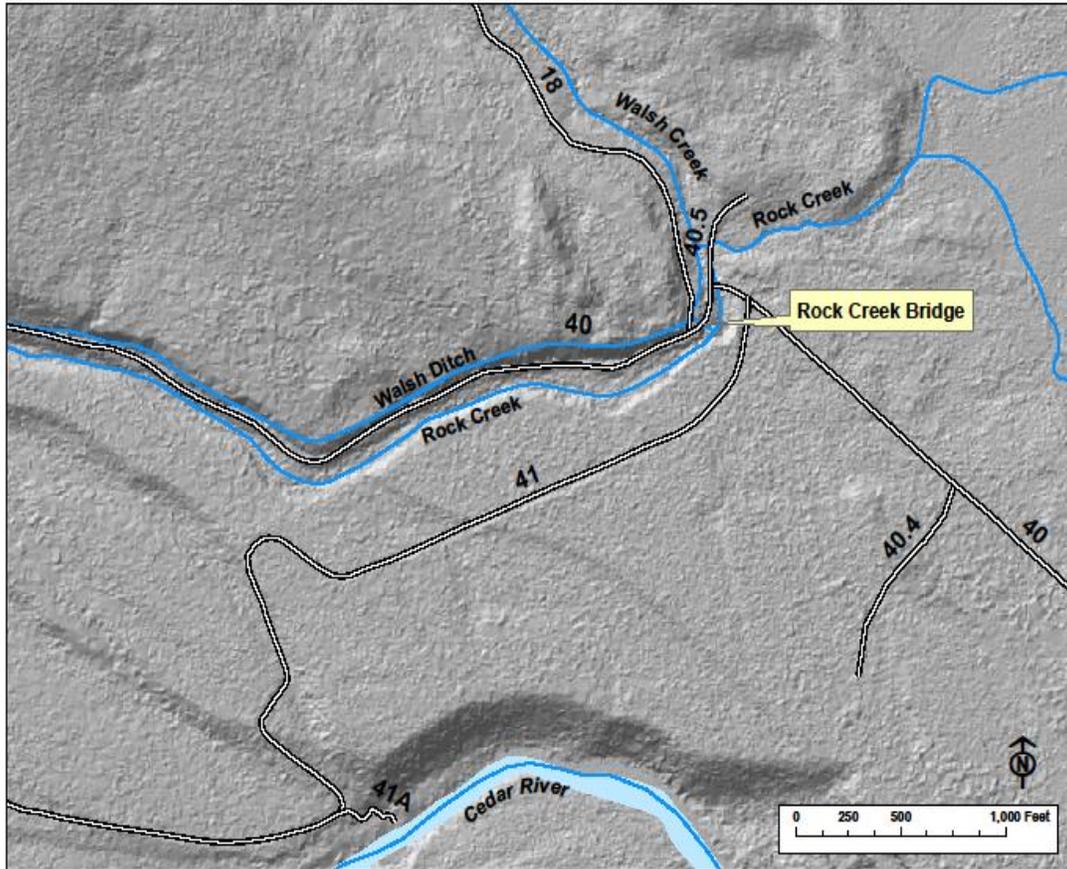
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Attachment A: Project Vicinity Map



Attachment B: Project Location Map





United States Department of Commerce  
National Oceanic and Atmospheric Administration  
National Marine Fisheries Service  
United States Department of the Interior  
Fish and Wildlife Service



National Marine Fisheries Service  
510 Desmond Drive SE., Suite 103  
Lacey, Washington 98503

U.S. Fish and Wildlife Service  
510 Desmond Drive S.E., Suite 102  
Lacey, Washington 98503

Mark Eberlein  
Regional Environmental Officer  
Federal Emergency Management Agency (FEMA)  
130 228<sup>th</sup> St. SW  
Bothell, WA 98021-9796

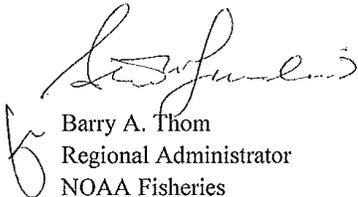
May 26, 2010

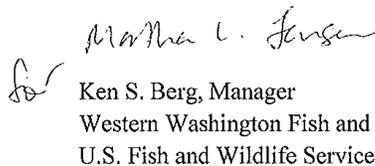
Dear Mr. Eberlein:

We have been informed that the City of Seattle has proposed to conduct an Alternate Project, the *Walsh Creek Confluence Restoration Project*, instead of completing repairs to the former Walsh Lake Diversion Ditch damaged in the January 2009 DR#1817 flood disaster event. Similar to the other flood repair projects authorized by your agency related to this disaster declaration, the City has asked us to review this alternate project in the context of the City's approved Cedar River Watershed Habitat Conservation Plan (HCP). We agree with the City that this Alternate Project is completely consistent with the activities described in the HCP, and that the HCP provides the programmatic review and Endangered Species Act consultation required of FEMA for this federally authorized project.

Should you have any questions about this matter, please do not hesitate to contact our respective staff who oversee the City's implementation of their HCP: Matt Longenbaugh ([matthew.longenbaugh@noaa.gov](mailto:matthew.longenbaugh@noaa.gov)) 360-753-7761, or Tim Romanski ([Tim\\_Romanski@fws.gov](mailto:Tim_Romanski@fws.gov)) 360-753-5823.

Sincerely,

  
Barry A. Thom  
Regional Administrator  
NOAA Fisheries

  
Ken S. Berg, Manager  
Western Washington Fish and Wildlife Office  
U.S. Fish and Wildlife Service

cc: Brent Lackey, Seattle Public Utilities  
Erika Lund, Emergency Management Division



STATE OF WASHINGTON

**DEPARTMENT OF ARCHAEOLOGY & HISTORIC PRESERVATION**

1063 S. Capitol Way, Suite 106 • Olympia, Washington 98501  
Mailing address: PO Box 48343 • Olympia, Washington 98504-8343  
(360) 586-3065 • Fax Number (360) 586-3067 • Website: [www.dahp.wa.gov](http://www.dahp.wa.gov)

April 19, 2011

Mr. Mark Eberlein  
FEMA / Region X  
130 228<sup>th</sup> Street SW  
Bothell, Washington

Re: 40 Road/Walsh Ditch Project  
Log No: 041911-09-FEMA  
*FEMA-DR-1817-WA/PW-1897*

Dear Mr. Eberlein;

Thank you contacting our department. We have reviewed the revised professional cultural resources survey you provided for the proposed 40 Road/Walsh Ditch Project in the Cedar River Municipal Watershed, King County, Washington.

We concur with your determination of No Historic Properties Affected. Please provide a professional archaeological monitoring report when available.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties that you receive as you consult under the requirements of 36CFR800.4(a)(4).

These comments are based on the information available at the time of this review and on the behalf of the State Historic Preservation Officer in conformance with Section 106 of the National Historic Preservation Act, as amended, and its implementing regulations 36CFR800. Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment and a copy of these comments should be included in subsequent environmental documents.

Sincerely,

A handwritten signature in blue ink, appearing to read "Rob Whitlam".

Robert G. Whitlam, Ph.D.  
State Archaeologist  
(360)586-3080  
email: [rob.whitlam@dahp.wa.gov](mailto:rob.whitlam@dahp.wa.gov)

cc: L. Tso



The following conditions and measures shall be followed:

- The applicants shall obtain all required local, state, and federal permits and approvals prior to implementing the Proposed Action Alternative and comply with any and all conditions imposed. Permits identified at this time include:
  1. Hydraulic Project Approval (HPA) from the Washington Department of Fish and Wildlife
  2. Forest Practice Application (FPA) from Washington Department of Natural Resources
  3. Nationwide Permit (27) Aquatic Habitat Restoration, Establishment, and Enhancement from USACE
  4. Section 401 Water Quality Certification from WA DOE
  5. Section 404 Permit (Discharge of Dredge or Fill Material into Water)
  6. Project has been determined to be exempt from King County's Shoreline Master Program permitting.
  7. The Project has been determined by National Marine Fisheries Service and the U.S. Fish & Wildlife Service to be compliant with all provisions of the federal Endangered Species Act by means of the Cedar River Habitat Conservation Plan ([http://www.seattle.gov/util/About\\_SPU/Water\\_System/Habitat\\_Conservation\\_Plan/index.asp](http://www.seattle.gov/util/About_SPU/Water_System/Habitat_Conservation_Plan/index.asp)).
- The applicant is responsible for selecting, implementing, monitoring, and maintaining best management practices to control erosion and sediment, reduce spills and pollution, and provide habitat protection.
- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other laws and Executive Orders.
- In the event that archaeological or historic materials are discovered during project activities, work in the immediate vicinity should be discontinued, the area secured, and the State and FEMA notified.

**PUBLIC NOTICE** (issued June 9, 2011)**Federal Emergency Management Agency  
Draft Environmental Assessment  
Walsh Creek-Rock Creek Confluence Restoration Project  
Cedar River Municipal Watershed, King County, WA**

The U.S. Department of Homeland Security's Federal Emergency Management Agency (FEMA) proposes to provide funding to the City of Seattle, Seattle Public Utilities (SPU) for an Alternate Project to restore approximately 600 lineal feet of riparian and salmonid stream habitat within the confluence of Walsh and Rock creeks, and for the deconstruction of 7,040 feet of the #40 Road levee immediately adjacent to Rock Creek to reduce the potential for future landslides from the levee. The project is located in the Cedar River Municipal Watershed (CRMW), which is owned and managed by the SPU, in King County, Washington (see Attachment A, Project Vicinity Map). The project is located in the NW1/4 of Section 16, Township 22N, Range 7E (47° 24' 0"N/121° 50' 0"N or 47.39861, -121.93797).

The National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] Part 1500 through 1508) direct FEMA and other federal agencies to take into consideration the environmental consequences of proposed federally funded projects. Numerous environmental studies have been prepared that are related to the proposed project, with extensive public participation and outreach including public meetings and numerous public notices. A Habitat Conservation Plan (HCP) for federally listed species in the CRMW and other technical studies were prepared.

NEPA encourages federal agencies to reduce duplication and paperwork by adopting other federal agencies' NEPA documentation or by incorporating available information by reference. In the case of the CRMW, a joint NEPA Environmental Assessment (EA)/State Environmental Policy Act (SEPA) EIS was prepared in 1998-1999 for the HCP and a Finding of No Significant Impact (FONSI) was issued by National Marine Fisheries Service (NMFS) and U.S. Fish & Wildlife Service (USFWS) for the NEPA EA in 2000. FEMA considered whether to adopt the NEPA EA for the proposed project, which was designed to be in conformance with, and to further the objectives of, the HCP and the NEPA EA/SEPA EIS. However, Presidential Executive Orders relating to Environmental Justice, Floodplains, and Wetlands had not been addressed and documentation of FEMA's compliance with the National Historic Preservation Act (NHPA), including tribal consultation, also needed to be added. Therefore, in compliance with NEPA and the CEQ and FEMA implementing regulations, Presidential Executive Orders, and the NHPA, FEMA has prepared this EA to address the additional subject areas not covered by the EA for the HCP, and to document compliance with the procedural requirements of those additional regulations.

In addition, SPU prepared and circulated for public review, a detailed project-specific SEPA Checklist dated February 14, 2011 for the Proposed Action that is the subject of this EA. FEMA's Walsh Creek-Rock Creek Confluence Restoration Project EA incorporates by reference the previous environmental documentation prepared for the CRMW HCP and the proposed Walsh Creek-Rock Creek Confluence Restoration Project. Seattle Public Utilities provided substantial public participation and outreach, including public meetings and working groups, during development of the HCP and NEPA EA/SEPA EIS. Taking into consideration the amount of public participation already provided for this project, and the focused nature of the EA, FEMA has determined an adequate public comment period for the EA to be 15 days after the publication of the public notice.

The Draft EA is available for review online at the FEMA environmental website at: <http://www.fema.gov/plan/ehp/envdocuments> under Region X. If no significant issues are identified during the comment period, FEMA will finalize the EA, issue a Finding of No Significant Impact (FONSI) and fund the project. Unless substantive comments are received, FEMA will not publish another notice for this project. However, should a FONSI be issued, it will be available for public viewing at <http://www.fema.gov/plan/ehp/envdocuments> under Region X.

Written comments on the Draft EA should be received no later than 5 pm on June 25, 2011 to Susan King, FEMA Region 10, 130 228th Street SW, Bothell Washington 98021-9796 or by e-mail to [susan.king@dhs.gov](mailto:susan.king@dhs.gov).