



King County

**King County Executive
Ron Sims**

ENVIRONMENTAL CHECKLIST

Purpose of Checklist:

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

Instructions for Applications:

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

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

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

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

A. BACKGROUND

1. Name of proposed project, if applicable:

King County Flood Protection Facilities Vegetation Management

2. Name of applicant:

King County Department of Natural Resources and Parks (DNRP)

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

John Koon, Engineer
Water and Land Resources Division
Department of Natural Resources and Parks
201 South Jackson Street, Suite 600
Seattle, WA 98104
206-296-8062

4. Date checklist prepared: December 17, 2007

5. Agency requesting checklist:

King County Department of Natural Resources and Parks
Water and Land Resources Division
River and Floodplain Management Unit

6. Proposed timing or schedule (including phasing, if applicable):

Ongoing

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

Due to the recent adoption of the King County 2006 Flood Hazard Reduction Plan and the creation and funding of the King County Flood Control Zone District, the current level of activity with respect to vegetation management on King County flood protection facilities is likely to expand to levels indicated in the plan. However, future vegetation management methods will continue to be carried out in accordance with existing BMPs described in Attachment A.

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

King County Surface Water Management Division. 1993. Guidelines for Bank Stabilization Projects in the Riverine Environments of King County Washington. Seattle, WA. 176 pages plus appendices.

King County Water and Land Resources Division, River Management Program. 2003. Programmatic Biological Effects Analysis. 100 pages plus appendices.

King County Water and Land Resources Division. 2006. 2006 King County Flood Hazard Management Plan. 350 pages plus appendices.

9. **Do you know whether applications are pending for government approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.**

No.

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

A site-specific Hydraulic Project Approval and Shorelines Substantial Development Permit exemption will be needed for the Sammamish River Transition Zone maintenance described in response to Question #11 (a) below, because the work will occur in areas that may be considered to be below the ordinary high water mark. Shorelines Substantial Development Permit exemptions may be required for some of the other vegetation maintenance activities described in this checklist.

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.**

The proposed action entails vegetation management on certain King County flood protection facilities. Such vegetation management falls into the following categories:

- a) Removal of vegetation using hand tools or mechanical means or both within the high flow areas of the Sammamish River Transition Zone (SRTZ) for the purpose of channel maintenance.

The SRTZ is the 1,600-linear-foot rock-lined segment of the river immediately downstream from the Sammamish River Weir in Marymoor Park in Redmond, Washington. The SRTZ was constructed as part of the Sammamish River Improvement Project in 1964 to provide a gradational and cross-sectional transition from Lake Sammamish to the Sammamish River downstream. The SRTZ significantly affects river hydraulics in the upper Sammamish River and water surface elevations in Lake Sammamish. Regular removal of a defined fraction of the vegetation (mostly willows; *Salix* spp.) within the SRTZ is needed to maintain flood conveyance in this reach of the river. Since 1998, approximately 50 percent of the native vegetation within the SRTZ has been removed every two to three years on alternate sides of the channel. During this vegetation management work, at least six inches of the stems of the native willow are left intact in order to provide for stand regeneration.

Vegetation removal in the SRTZ is not conducted within the constructed low flow portion of the channel (i.e., the central portion of the channel cross section where the water is deepest and flows year-around), or within a vegetated buffer that extends a minimum of 10 feet from the landward edge of the low flow channel.

- b) Willow and red-osier dogwood harvest to obtain cuttings for King County bank stabilization and habitat restoration projects countywide.

Since 1991, the King County River and Floodplain Management Program has repaired and rehabilitated more than six of the 115 miles of levees and revetments within its flood protection facilities inventory. These facilities are reconstructed using contemporary biostabilization methods set forth in the King County Guidelines for Bank Stabilization Projects cited above using native shrub cuttings (mostly willows), and, in many cases other native shrubs and trees as well. On average, the program rehabilitates approximately one half mile of flood protection facilities each year. The live cuttings used to revegetate these project sites are obtained from facilities that have been repaired in the past using similar cuttings. Vegetation removal is conducted in accordance with the attached best management practices (BMPs) that call for uniform thinning of up to one third of any given stand of mature native shrubs (mostly willows), and preservation of at least six inches at the base of the stems in order to provide for future stand regeneration. A link to these BMPs is posted on King County's River and Floodplain Management Unit's web page (<http://dnr.metrokc.gov/wlr/flood/rivers.htm>).

- c) Removal of plants designated as Noxious Weeds under Washington State Weed Law, (Chapter 17.10 RCW), Noxious Weeds and Weeds of Concern listed on the Washington State Noxious Weed Control Board's Noxious Weeds List (Chapter 16-750 WAC), other non-native species and, on a limited basis, native cucumber (*Marah oreganus*).

Class A Noxious Weeds are non-native species that are limited in distribution in Washington. State law requires that these weeds be eradicated. Currently, the River and Floodplain Management Program is not aware of any Class A Noxious Weed infestations on King County flood protection facilities, but must be prepared to address any new infestations that occur or are discovered.

Class B Noxious Weeds are non-native species that are either absent from, or limited in distribution in some portions in King County, but are very abundant in other areas. One of the goals of the King County Noxious Weed Control Program is to contain these plants where they are already widespread, and prevent their spread into new areas. Class B Noxious Weeds that have been designated as priority weeds in King County, and which have been found on King County flood protection facilities include spotted knapweed (*Centaurea stoebe*), yellow hawkweed (*Hieracium caespitosum*), and purple loosestrife (*Lythrum salicaria*).

Class C Noxious Weeds are non-native plants that are already widespread in Washington State that the King County Noxious Weed Control Board requires to be controlled. No Class C noxious weeds have been identified on King County flood protection facilities in recent years, but it is possible that one or more of these species could invade some of King County's flood protection facilities in the future.

Other aggressive, non-native plants that have invaded King County flood protection facilities include, but are not limited to, reed canarygrass (*Phalaris arundinacea*), Japanese knotweed (*Polygonum cuspidatum*), and Scot's broom (*Cytisus scoparius*).

Plant species listed as “Weeds of Concern” by the King County Noxious Weed Board are weeds that are not listed under the state noxious weed law, but which the Noxious Weed Board recognizes as invasive and recommends containment of existing populations. The primary Weed of Concern on King County’s flood protection facilities is Himalayan blackberry (*Rubus discolor*), which is a constant threat to the reestablishment of native riparian plant communities on rehabilitated levees and revetments.

Other plants that need to be removed from flood protection facilities include non-native ornamentals, which are not particularly aggressive, but which are not appropriate in restoration areas, and native cucumber (*Marah oreganus*), which can readily out-compete native plants and prevent the establishment of diverse riparian plant communities.

Removal methods include hand labor, mechanical brush mowing, covering with fabric, herbicide treatment, grazing and other appropriate methods as they are developed. Herbicides are used when other methods are known to be ineffective. Examples of species that are most effectively controlled with herbicides include spotted knapweed (*Centaurea biebersteinii*) and various species of knotweed (*Polygonum spp.*). Spot treatment of Himalayan blackberry (*Rubus discolor*) after mechanical or hand removal has also been found to be effective.

The RFMU staff works closely with staff of the King County Noxious Weed Control Program to implement integrated pest management (IPM) aimed at (i) preventing noxious weed problems; (ii) monitoring for the presence of noxious weeds and weed damage, (iii) treating noxious weed problems to reduce populations using strategies that may include biological, cultural, mechanical, and chemical control methods; application of these methods always take into account potential impacts on human health, ecological impacts, feasibility, and cost-effectiveness; (iv) restricting the use of chemical pesticides to those instances where alternative methods for control or eradication are known to be ineffective; and (v) evaluating the effects and efficacy of noxious weed control treatments.

- d) Removal of trees determined to pose a hazard to people, property or flood facility structural integrity.

In some instances trees can become hazardous to people and property on or adjacent to a flood protection facility. Whenever there is a question as to whether a potential hazard tree is truly a hazard, a King County staff arborist will evaluate the condition of the tree and make a recommendation concerning its removal.

In some instances, hazardous trees that are visibly leaning or whose rootwads are partially dislodged pose a threat to the structural integrity of a levee, depending on the location within the levee prism, the size, and form of the root systems and vulnerability of the tree to strong winds. In situations where one or more trees are thought to pose an imminent risk of toppling in such a way that a levee could be seriously damaged or breached, such trees will be evaluated by a River and Floodplain

Management Program Engineer and, if necessary, a county arborist to determine whether the tree should be removed.

To the extent practicable, hazard trees that are removed will be placed in the stream channel in approximately the location in which they would have fallen had they been felled by natural processes.

e) Thinning of native vegetation to allow inspection of flood protection facilities

When necessary to allow access and inspection during and after flood events, King County routinely cuts non-native vegetation from flood protection facilities. This activity is described in King County's Flood Protection Facility Maintenance and Flood Damage Repair Program SEPA Mitigated Determination of Nonsignificance issued May 17, 2007. However, with the ongoing installation of vegetation during implementation of flood protection facility rehabilitation projects and the resulting maturation of that vegetation, it has become necessary to periodically thin willows and potentially other native vegetation to allow flood protection facilities to be inspected and thereby meet federal maintenance requirements. Federal and state agencies require active maintenance and repair of flood protection facilities as a condition of eligibility for cost-sharing programs that fund flood damage repairs. For example, maintenance of levees to USACE standards is required by contract on the two Federal Levees in King County's inventory—the Tukwila 205 Levee (Green River RM 12.60 – 16.83, left bank) and the Horseshoe Bend Levee (Green River, RM 24.83 – 26.21, right bank). The periodic removal of vegetation from much of the high flow channel in the Sammamish River Improvement Project as described above is also a USACE requirement.

Maintenance of levees in accordance with USACE standards is also required if King County is to receive assistance from the USACE through its Rehabilitation and Inspection Program authorized under Public Law (P.L.) 84-99, Flood Control and Coastal Emergencies Flood Control and Coastal Emergencies, of the Emergency Flood Control Funds Act of 1955. Maintenance of revetments is required for King County to receive assistance from the Federal Emergency Management Agency's (FEMA) Public Assistance Program in repairing flood damage; however, there are no specific maintenance standards for this program.

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

The vegetation management activities addressed in this checklist are limited to King County flood protection facilities located on King County's major rivers and large streams. These waterbodies include the six major rivers in King County—the South Fork Skykomish, Snoqualmie, Sammamish, Cedar, Green, and White Rivers and their large tributaries; and Issaquah Creek. The locations of these

facilities are available at King County River and Floodplain Management Program web site located at <http://dnr.metrokc.gov/wlr/flood/rivers.htm>.

B. ENVIRONMENTAL ELEMENTS

1. Earth

- a. General description of the site (underline one): Flat, rolling, hilly, steep slopes, mountainous, other: river banks.

The landscapes in which the flood protection facilities affected by this proposal are relatively flat valley floor areas in which large rivers and streams are located. Actual work will be carried out on raised levees and armored revetments, and in some cases on lands purchased for flood hazard reduction purposes.

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

The steepest slopes on these sites are the slopes of the existing King County levees and revetments themselves, which have slopes up to 1.5V:1H.

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

The soils within these flood protection facilities are diverse and may include imported urban soils (mixtures of free-draining sandy-gravelly materials and angular rock); coarse to fine-grained riverine sands and gravels; agricultural soils; and occasional inclusions of clay and muck.

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

The soils within levees and revetments can be unstable and prone to several modes of slope failure, including toe and face erosion, saturation slumping, seepage failure, and liquefaction.

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

This proposal does not include filling or grading.

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

No. Vegetation removal is conducted in accordance with the BMPs aimed at prevent erosion and sedimentation. Where appropriate, BMPs described in the Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines are used.

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

None. This proposal does not involve installation of impervious surfaces.

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

Vegetation removal is conducted in accordance with BMPs aimed at preventing erosion and other impacts to the earth. Because most of the removed vegetation is used at other bank stabilization and habitat restoration project sites, the proposal will result in a further net reduction in erosion at the sites where the cuttings are installed.

2. **Air**

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

Small short-term increases in gasoline engine emissions to the air will result from this proposal in instances where mechanical mowers or chain saws are used for vegetation removal. Vehicular access to sites where vegetation is being managed, and/or vehicular transport of cuttings will also result in gasoline engine emissions.

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

No.

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

Whenever possible, mechanized equipment used for vegetation removal are equipped with 4-cycle engines.

To the extent practicable, harvest and thinning activities will be located in areas near other facility repair project sites and/or habitat restoration project sites to minimize transport distance and associated vehicle use, and thereby minimize fuel consumption and greenhouse gas emissions from vehicular transport of the cuttings.

3. **Water**

- a. Surface:

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

Large rivers, their major tributaries, and other large streams are in close proximity to areas where vegetation removal is conducted.

Adjacent waterbodies include the six major rivers in King County—the South Fork Skykomish, Snoqualmie, Sammamish, Cedar, Green, and White Rivers and their large tributaries; and Issaquah Creek. Except for the Sammamish River Transition Zone, in which vegetation management will occur in the high flow channel, this proposal does not entail work below the ordinary high water mark of these waterbodies.

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

Yes. Vegetation removal will occur near rivers, large streams, and in the Sammamish River Transition Zone. In nearly all cases, work will be within 200 feet of the described waters.

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 proposal will not entail any filling or dredging in surface water or wetlands.

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

No. The proposal does not affect water withdrawals or diversions.

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

Yes. Most of the sites at which vegetation removal will be conducted are within a 100-year floodplain. The locations at which the vegetation management activities could occur include all levees and revetments in King County and the Sammamish River Transition Zone. Maps showing the location of these facilities are available at the River and Floodplain Management web site located at <http://dnr.metrokc.gov/wlr/flood/rivers.htm>.

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. The proposal will not generate any discharges of waste materials to surface waters.

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. The proposal will not result in any type of groundwater withdrawals or discharges to groundwater.

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

The proposal will not result in any discharges from septic tanks or other sewage systems.

c. Water Runoff (including storm water):

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

The proposal will not generate stormwater runoff.

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

No. As mentioned in response to question #3 (a) (6) above, the proposal will not cause waste materials to enter ground or surface waters.

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

As mentioned in response to question #3 (a) (6) above, the proposal will not cause waste materials to enter ground or surface waters.

4. **Plants**

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

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation (landscaping)

Almost all of these vegetation types could be near the banks of rivers and large streams and within floodplains. The species directly affected include native and non-native hazard trees, woody native shrubs (mostly willows), and Washington State- and King County-listed noxious weeds.

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

Sammamish River Transition Zone: The entire area to be mowed covers approximately 14,000 square yards, of which roughly half is covered by two- to three-year-old willow saplings.

Willow and Red Osier Dogwood Harvest: At present, the River and Floodplain Management Program's rehabilitation of approximately one-half mile of flood protection facilities per year requires harvest of 20,000 to 80,000 willow branches annually. Due to the King County Council's recent adoption of the 2006 Flood Hazard Reduction Plan and the related increase in funding of flood protection facility rehabilitation projects, the harvest of willow branches could increase up to 10-fold over current harvest levels.

Removal of Noxious Weeds and Weeds of Concern: Each year approximately 210,000 square yards of Himalayan blackberry and other non-native vegetation are mowed on King County levees and revetments. It is anticipated that this mowing area will slowly be reduced as increasing numbers of flood protection facilities are retrofitted and planted with native vegetation. Noxious weed removal has been limited to a few small sites per year. However, with the recent increase in River and Floodplain Management Program maintenance funding, the program will partner with other programs to stop the spread of knotweed (*Polygonum spp.*), which poses a serious threat to both existing native vegetation communities and all river restoration efforts. The distribution total amount and distribution of knotweed on King County flood protection facilities is currently not known.

Removal of Hazard Trees: To date, removal of hazard trees has averaged fewer than ten trees per year. This could increase somewhat as increasing numbers of flood protection facilities are planted with trees in the future. As those trees mature, some small percentage of them will become hazard trees that may have to be removed. However, it is also possible that current and future local, state, and federal regulations that protect critical habitat for ESA-listed species could restrict tree removal to a greater extent than at present. In addition, the continued buyout of floodplain properties will allow restoration of riparian habitat and limit the need for removal of hazard trees.

Thinning of Native Vegetation to Allow Flood Protection Facility inspections: Willows harvested for projects will be taken from areas that need to be thinned for inspection purposes. Thinning volumes at these sites will not exceed those described above for willow harvest.

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

The sites affected by this proposal include riverine and riparian habitats that are actually or potentially inhabited by the following federal Endangered Species Act (ESA)-listed species: Chinook salmon, steelhead trout, and bull trout.

Most if not all of these sites have been designated as Critical Habitat for ESA-listed salmon and steelhead trout species (U.S. Department of Commerce, National Oceanographic and Atmospheric Administration (NOAA) Fisheries, 50 CSR, Part 226, RIN 0648-AU38) and bull trout (U.S. Department of the Interior, Fish and Wildlife Service, 50 CFR, Part 17, RIN 1018-AJ12).

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

A fundamental purpose of this proposal is to allow revegetation of river and stream banks, and floodplain areas with native riparian species by removing invasive species and allowing harvest of native plants for revegetation of environmental rehabilitation and restoration project sites. The proposal also includes BMPs aimed at promoting the regeneration of stands of native plants from which vegetation is removed.

5. **Animals**

- a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawks, heron, eagle, songbirds, other.

mammals: deer, bear, elk, beaver, other: river otter,
rodents, coyotes, sea lion

fish: bass, salmon, trout, herring, shellfish (freshwater mussels),
other.

All of these species except herring occur in and near large rivers and streams or floodplains that could be affected by this proposal.

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

The proposal pertains primarily to riverine, riparian, and floodplain habitats that are actually or potentially inhabited by the following federal Endangered Species Act-listed species: Chinook salmon, steelhead trout, and bull trout.

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

Many of the riverine and riparian habitats that could be affected by this proposal are migration routes for salmonids. Some of the riparian areas affected by this proposal are within the Pacific Flyway used by waterfowl and other migratory bird species.

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

The proposal supports the revegetation of flood protection facilities with diverse native vegetation communities and includes BMPs to minimize impacts of willow harvest. More information about King County's vegetation BMPs are attached to this checklist.

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.

Energy needs will be limited to petroleum products use to operate and maintain mowers, chain saws, and vehicles used to cut and transport vegetative cuttings.

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

No.

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

Conducting willow harvest and thinning on levees and revetments concurrently with revegetation at environmental rehabilitation and restoration project sites will minimize the consumption of fossil fuels that would otherwise be needed to transport these cuttings long distances or to a landfill.

7. Environmental Health

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

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

No special emergency services will be required as a result of this proposal.

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

The proposal will not create any environmental health hazards, and may help reduce some of these hazards by providing for the maintenance and rehabilitation of flood protection facilities that reduce flood-related risks to public health and safety.

- b. Noise

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

Discountable and short-term noise from the operation of mechanical vegetation removal equipment will occur as a result of this proposal.

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.

Some noise will be generated over limited temporal intervals ranging from a few minutes to several hours during daylight hours (7 a.m. to 5 p.m.) when mechanical equipment is used for vegetation removal.

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

Operation of machinery used in vegetation removal will be limited to 7 a.m. to 5 p.m.

8. Land and Shoreline Use

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

Land uses in the areas affected by this proposal are extremely diverse, ranging from undeveloped forested land to densely developed urban land uses.

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

Agricultural areas exist at some of locations along some of the rivers and large streams affected by this proposal.

- c. Describe any structures on the sites.

Structures on the flood protection facilities are limited to occasional fishing shacks. A diverse array of structures, ranging from farm buildings to offices and major shopping malls, are present and found adjacent to the flood protection facilities affected by this proposal.

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

No.

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

The proposal potentially affects areas with all zoning classifications in King County.

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

The proposal will affect sites subject to many King County and municipal comprehensive plan designations in King County, although standards may differ between urban and rural designations, and among municipalities.

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

The proposal applies to rivers and large streams in all shoreline master program designations.

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

The proposal applies to the vegetative buffers of large rivers and streams, and to the channel of the Sammamish River Transition Zone at sites shown on the attached King County flood protection facilities maps.

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

None. There are no dwelling units or businesses located within the areas from which vegetation will be removed as a result of this proposal.

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

None.

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

No displacements will occur as a result of this proposal.

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

No measures are needed to ensure compatibility with existing and projected land uses and plans.

9. Housing

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

This proposal will not affect any housing units.

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

This proposal will not affect any housing units.

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

This proposal will not affect any housing units.

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?

This proposal does not entail the construction of any buildings.

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

The view of the Sammamish River Transition Zone will be affected by periodic removal of vegetation within the channel. The views in the vicinity of other vegetation removal sites will be affected only slightly and temporarily by vegetation thinning. Views in areas where harvested vegetation will be used to stabilize slopes and restore native plant communities will be enhanced by the replacement of weedy species such as blackberries and reed canarygrass with native riparian species.

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

Vegetation removal will be conducted in accordance with BMPs aimed at minimizing aesthetic impacts. In the case of the Sammamish River Transition Zone, vegetation will not be cleared from both sides of the high flow channel in any given year, allowing partial regeneration of one side of the channel before the opposite side of the channel is cut.

11. **Light and Glare**

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

The proposal will not produce light or glare.

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

No.

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

The proposal will not be affected by off-site sources of light or glare.

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

The proposal will not produce light or glare.

12. **Recreation**

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

Some formal and informal recreational areas exist in and adjacent to some of the rivers, large streams, riparian areas, and floodplains affected by this proposal. Recreational opportunities include walking, running, biking, etc. on established trails, fishing, bird watching, and boating.

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

The proposal will not displace any existing recreational uses.

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

The proposal will not adversely affect existing recreational uses.

13. Historic and Cultural Preservation

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

No places or objects listed on or proposed for national, state, or local preservation registers known to be on or next to the sites affected by this proposal.

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

No landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site known to be on or next to the sites affected by this proposal

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

No measures are proposed to control impacts to historic, archaeological, scientific or cultural resources.

14. Transportation

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

Major arterial roadways are shown on the flood protection facility maps located at <http://dnr.metrokc.gov/wlr/flood/rivers.htm>.

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

Not applicable.

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

None.

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

No.

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

No.

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

None.

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

N/A

15. Public Services

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

No.

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

The proposal will not affect the need for public services.

16. Utilities

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

N/A

- 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 utilities will be affected by the proposal.

17. Climate

- a. Describe the impacts this project will have on the production of greenhouse gases.

This work will include the use of trucks, mowers, and powered hand tools, all of which produce greenhouse gas emissions (e.g., carbon dioxide). Harvesting willows in close proximity to the areas in which they will be used should minimize the production of greenhouse gases from trucks and other gasoline-powered equipment. The establishment of new willow stands as part of the projects for which willows are harvested may help sequester carbon dioxide. Mowing may reduce the ability of riparian vegetation to sequester carbon dioxide, at least over the short term. The harvested plants will regenerate vigorously after being cut, and after three to five years the original vegetative conditions will be restored to the pre-harvest condition.

C. SIGNATURE

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

Signature: _____

Date Submitted: _____