DEPARTMENT OF PLANNING AND COMMUNITY DEVELOPMENT
ENVIRONMENTAL COORDINATOR
450 110th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

OPTIONAL DETERMINATION OF NON-SIGNIFICANCE (DNS) NOTICE MATERIALS

The attached materials are being sent to you pursuant to the requirements for the Optional DNS Process (WAC 197-11-355). A DNS on the attached proposal is likely. This may be the only opportunity to comment on environmental impacts of the proposal. Mitigation measures from standard codes will apply. Project review may require mitigation regardless of whether an EIS is prepared. A copy of the subsequent threshold determination for this proposal may be obtained upon request.

File No.	08-123427 LM
Project Name/Address:	City of Bellevue Utilities Department Operations and Maintenance Programmatic/ City wide
Planner:	Heidi M. Bedwell
Phone Number:	425-452-4862

Minimum Comment Period: July 17, 2008

Materials included in this Notice:

- [x] Blue Bulletin
- [x] Checklist
- [x] Vicinity Map
- [ ] Plans
- [ ] Other:

ATTACHMENT 3

City of Bellevue Submittal Requirements 27A

ENVIRONMENTAL CHECKLIST

If you need assistance in completing the checklist or have any questions regarding the environmental review process, please visit or call the Permit Center (425-452-6864) between 8 a.m. and 4 p.m., Monday through Friday (Wednesday, 10 to 4). ***Assistance for the hearing impaired: Dial 711*** *(Telecommunications Relay Service).*

Property Owner: City of Bellevue

Proponent: City of Bellevue, Utilities Operations & Maintenance

Contact Person: Joe O'Leary

(If different from the owner, all questions and correspondence will be directed to the individual listed.)

Address: 2901 115th Avenue NE (Bellevue Service Center), Bellevue, Washington 98004

Phone: 425-452-7947

Proposal Title: Programmatic review of the Department of Utilities' Storm and Surface Water Operations and Maintenance Program for the public surface water drainage system such as Creeks, Major Culverts, Regional Detention Facilities, and Regional Sediment Removal Facilities.

Proposal Location: Various locations throughout the City of Bellevue. Attachment A "O&M SEPA/Permit Areas" is a map of potential locations for standard operation and maintenance (O&M) activities. The sites identified in Attachment A also identify standard maintenance and operations work locations in critical areas that may need periodic maintenance. See also Attachment 1 "Maintenance Facilities Regularly Requiring Sediment Removal".

Please attach an 11" x 17" vicinity map that accurately locates the proposal site.

Give an accurate, brief description of the proposal's scope and nature:

1. General Description

The City of Bellevue Utilities Department is seeking SEPA coverage for three (3) years to perform O&M activities within the for the public surface water drainage system such as Creeks, Major Culverts, Regional Detention Facilities, and Regional Sediment Removal Facilities Maintenance of these facilities play a critical role in protecting water quality and ensuring the continuous operation of the drainage system in reducing flooding. Municipal operations and maintenance objectives are to maintain, repair, and return the man-made and natural drainage system back to the engineered permitted function for which it was designed. Further, O&M site mobilizations in sensitive areas are only temporary and are performed with the least amount of disturbance with utmost expedience. It is for this reason that maintenance work by its nature should not be deemed in the same light as permanent development activities.

This SEPA checklist is intended to provide programmatic approval for maintenance of Creeks, Major Culverts, Regional Detention Facilities, and Regional Sediment Removal Facilities so O&M may immediately respond to water quality and / or flooding issues as they arise.

Many of these activities will occur within locations defined as Critical Areas, i.e., streams wetlands, and shorelines) under Bellevue Municipal Code. The work may involve improvements and repairs, removal of accumulated sediments, and removal of water obstructions from creeks, culverts, trash racks, high-flow

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bypasses, detention ponds, and sedimentation facilities.

2. Acreage of site:

Acreages will vary by location and work function.

3. Number of dwelling units/buildings to be demolished:

Not applicable

4. Number of dwelling units/buildings to be constructed:

Not applicable

5. Square footage of buildings to be demolished:

Not applicable

6. Square footage of buildings to be constructed:

Not applicable

7. Quantity of earth movement (in cubic yards):

As partly described above, when engineered drainage structures or detention water storages are compromised and could fail to function as designed and / or become a detriment to water quality or could increase flooding concerns, necessary earth movement may be needed to restore the Best Management Practice (BMP) to its original designed intent. The quantities of earth movement are not a measure of cut excavation but related to sediment settlement accumulation. The quantity of sediment which will be removed under this program varies based on facility type and also on storm events. These facilities need to be properly functioning, otherwise accumulation of sediment may result in downstream sedimentation and turbidity impacts. The list below presents the range of volumes for sediment to be removed per facility type.

- Creeks - 1 to 5 cubic yards
- Major Culverts - 10 to 25 cubic yards
  - SE 30th St on Sunset Creek - 50 cubic yards
  - Kamber Rd on Richards Creek - 50 cubic yards
- Regional Detention Facilities 5 to 10 cubic yards
- Regional Sedimentation Removal Facilities - 500 to 1500 cubic yards

8. Proposed land use:

Operation and maintenance activities will vary over a wide spectrum of land use throughout the City, from residential, commercial, to industrial.

9. Design features, including building height, number of stories and proposed exterior materials:

Not Applicable

10. Other

See Attachment A for a map of potential locations for operations and maintenance activities throughout the City including critical areas.

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Estimated date of completion of this proposal or timing of phasing:

O&M activities are ongoing year round. Where work is necessary in critical areas, work will comply with the conditions of the Washington State Department of Fish and Wildlife (WDFW) permit and work window for the Lake Washington/Cedar River Watershed (WIRA No. 8), which is expected to be from June 15 to September 15.

Two of these activities (Coal Creek Sedimentation Facility and Coal Creek Regional Detention Pond) are required under court decree to be performed on an annual basis, regardless of the quantity of sediment accumulated, and are anticipated to occur in August.

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

No, O&M operations by their nature are temporary, not a permanent development project. The proposed activities are only associated for maintenance involving the City's surface water facilities listed above.

Only in the case of an annexation would there be a need to expand O&M operations. This is not expected since no annexations are known to be proposed in the next 3 years.

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

The following City O&M and Engineering documents serve as information that is directly used in preparing and planning of maintenance and operations under this proposal.

- Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines
- O&M Engineering Standards
- Regional Detention Facilities
- O&M Manual for Kelsey Creek and Coal Creek
- Maintenance Standards in the 2005 Stormwater Management Manual for Western Washington

Do you know whether applications are pending for governmental approvals of other proposals; directly affecting the property covered by your proposal? If yes, explain. List dates applied for and file numbers, if known.

No known permits that could impact the proposed maintenance activities are pending.

List any government approvals or permits that will be needed for your proposal, if known. If permits have been applied for, list application date and file numbers, if known.

- WDFW Hydraulic Project Approval (HPA) Permit
- COB Clearing and Grading Permit

Please provide one or more of the following exhibits, if applicable to your proposal. Not applicable. (Please check appropriate box(es) for exhibits submitted with your proposal):

There is nothing noteworthy, since this is for the purpose of O&M and not permanent development projects.

A. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site:

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☒Flat ❑ Rolling ❑ Hilly ❑ Steep slopes ❑ Mountains ❑ Other

Slopes at maintenance locations are typically rather flat. Maintenance activities will primarily occur within channels and culverts.

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

Slopes will also vary depending upon the site location, although the steepest slope expected to be encountered at these maintenance locations is approximately 20 percent.

Any areas requiring erosion control; will have appropriate BMPs, as cited, implemented.

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

Soil types anticipated at the majority of maintenance locations include deposited silts, sands, and gravels. The King County Soils Survey Map is an excellent source for soil types in Bellevue.

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

Due to the variety of locations where maintenance activities are expected, soil 'stability is likely to also vary. However, in general, soil instability is to be expected at some of the locations. In those areas requiring erosion control measures, the appropriate BMPs, as cited, will be implemented.

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

Import filling is rarely needed, and if so, only for slope stability for eroded area replacement purposes.

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

Although the removal of sediment and debris will occur as "clean excavation," some minor erosion may occur as a result of the maintenance activities. However, temporary erosion control BMPs are always utilized where called for as earlier cited.

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

Municipal O&M activities only, no permanent development construction activities involved.

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

The BMPs earlier cited for Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines will be used.

2. AIR

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

No out of the ordinary air emissions are applicable with work

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

No other off-site emissions or odors are expected.

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

Except for the standard emission controls on equipment, no measures to control emissions are expected.

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.**

Attached to this SEPA is Attachment A showing those areas where O&M activities may occur. Most of the stream systems where this work is performed flow into Lake Washington. Attachment 1 shows the location of specific facilities regularly requiring sediment removal.

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, O&M activities will occur in the aforementioned City of Bellevue areas shown in Attachment A.

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.**

Quantities of sediment to be removed vary by facility type and by storm event. The list below presents the range of volumes for sediment removal per facility type.:

- Creeks - 1 to 5 cubic yards
- Major Culverts - 10 to 50 cubic yards
  - SE 30th St on Sunset Creek - 50 cubic yards
  - Kamber Rd on Richards Creek - 50 cubic yards
- Regional Detention Facilities 5 to 10 cubic yards
- Regional Sedimentation Removal Facilities - 500 to 1500 cubic yards

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

On occasion there may be a need to place temporary stream diversions or dewatering in order to remove sediments or obstructions. City O&M will meet all requirements under JARPA approvals and fully comply with their own pre-approved City standard engineered plans for water flow diversion and erosion control.

To accomplish this, Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines and BMPs will be strictly followed.

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

Many of the O&M activities will occur within the floodplain. However, the purpose of O&M when working in the flood plain will be to protect, and if necessary, restore flood plain areas. All maintenance activities are in part designed to maintain flood storage capacity and in no way reduce flood plain storage.

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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.**

   Minimal amounts of sediment.

b. Ground

1. **Will ground water be withdrawn, or will water be discharged to ground water? Give general description.**

No groundwater is withdrawn from the anticipated maintenance activities. In addition, no water is expected to be discharged 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 chemicals, agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.**

   Not applicable.

c. Water Runoff (including storm water)

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

No stormwater or water runoff is anticipated to be generated from the maintenance activities.

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

No waste materials will enter surface or groundwaters from the maintenance activities.

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

To avoid and/or reduce impacts to surface and groundwaters, all applicable BMPs will be implemented.

Through the proper installation and maintenance of these BMPs, it is expected that impacts to surface and groundwater resources will be minimized. Those impacts that may occur are expected to be temporary and localized to the area where the maintenance is occurring. No significant long-term impacts are expected from the anticipated maintenance activities.

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, bulrush, skunk cabbage, other x**

☒ **water plants: water lily, eelgrass, milfoil, other**

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☒ **other types of vegetation**

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

The anticipated maintenance activities are not expected to remove vegetation (native or noxious). However, there may be occurrences where vegetation is unavoidably disturbed or destroyed to access the maintenance location. Where this occurs, vegetation will be replaced with native trees, shrubs, and/or herbaceous species. Noxious weeds disturbed will be removed and disposed of off site.

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

No known threatened or endangered plant species have been documented in the City of Bellevue.

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

No proposed landscaping is anticipated to occur, other than the revegetation of those areas unavoidably disturbed as a result of the maintenance activity. As previously described, those species that will be used to revegetate disturbed areas will consist of only native trees, shrubs, and/or herbaceous species. No noxious weeds will be used to revegetate disturbed areas.

5. Animals

a. Check or 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:** hawk, heron, eagle, songbirds, other

☒**Mammals:** deer, bear, elk, beaver, other

☒ **Fish:** bass, salmon, trout, herring, shellfish, other

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

Those threatened or endangered species known or likely to occur within the vicinity of the O&M locations include Puget Sound Chinook salmon. Bull trout have been documented foraging within Lake Washington, although they are not expected to occur within the project site.

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

Some of the O&M locations will occur within streams used by the Puget Sound Chinook for migration, spawning, and rearing.

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

The anticipated O&M activities are designed to preserve and enhance wildlife by improving water quality or reduce flooding. The sediment accumulated within these streams, wetlands, detention ponds, and sedimentation facilities can negatively effect the survival of salmonid eggs and juveniles.

Regional Road Maintenance Endangered Species Act (ESA) Program Guidelines and BMPs will be utilized in a continued effort to mitigate O&M activities in critical areas.

Implementation of the Western Washington Phase II Municipal Stormwater Permit requires maintenance of stormwater facilities. Maintenance of these facilities includes sediment removal which improves salmonid egg and juvenile habitat as well as reducing flow velocities.

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 need? Describe whether it will be used for heating, manufacturing,

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etc.

The projected energy requirements to complete the O&M activities include diesel and gas powered equipment.

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 the proposal? List other proposed measures to reduce or control energy impacts, if any:

Work is completed in a timely manner to conserve energy and costs.

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.

Those environmental health hazards expected during O&M activities includes those hazards associated with operating diesel, gas powered, and hydraulic equipment in or adjacent to water bodies. Equipment will be in good working order, regularly maintained, and outfitted with spill response kits.

1. **Describe special emergency services that might be required.**

   None

2. **Proposed measures to reduce or control environmental health hazards, if any.**

   Operators will be trained and licensed for the equipment on site and will be familiarized with how to use the safety equipment available, including spill response kits.

b. Noise

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

   All of the O&M activities are located within the City of Bellevue, which is an urbanized area that requires compliance with City noise levels ordinance. No operation will exceed City noise ordinances requirements or conduct O&M outside the hours of 7:00AM to 8:00 PM without a City permit.

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, operation, other)? Indicate what hours noise would come from the site.**

   Noise generated during the project will include noise levels that will not exceed City ordinance noise level limits. All of the anticipated O&M activities are short term projects, which will occur between Monday and Friday, from 7:00AM to 3:30PM.

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

   Noise impacts are expected to be temporary and insignificant. They will be minimized through the timing of the maintenance activities.

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8. Land and Shoreline Use

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

O&M activities occur on a variety of different sites. All O&M activities will occur in Bellevue right-of-ways and easements.

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

No.

c. Describe any structures on the site.

O&M activities will occur at road culverts, trash racks, detention ponds, creeks and sedimentation facilities. Some detention facilities and sedimentation facilities have flow control structures.

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

No

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

Zoning classifications vary from residential, commercial to light and heavy industrial.

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

O&M activities will occur within the City of Bellevue boundaries. Comprehensive plan designations will vary widely. Please see Attachment A City map for reference.

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

The shoreline designation will vary depending upon the location of the O&M activities. However, those Shorelines of the State, as defined under Sections 173-18-210, 173-20-360, and 173-20-370 of the Washington Administrative Code (WAC). Urban - HMB

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

Yes, Attachment A to this SEPA checklist shows the environmental sensitive areas as critical areas within the City limits of Bellevue.

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

Non-applicable; all work lies in City owned right-of-way, City properties, or easements.

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

Non-applicable; all work lies in City owned right-of-way, City properties, or easements.

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

Non-applicable; all work lies in City owned right-of-way, City properties, or easements.

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

Non-applicable; all work lies in City owned right-of-way, City properties, or easements.

9. Housing

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

Non-applicable; all work lies in City owned right-of-way, City properties, or easements.

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

Non-applicable; all work lies in City owned right-of-way, City properties, or easements.

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

Non-applicable; all work lies in City owned right-of-way, City properties, or easements.

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?

Not applicable.

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

Not applicable.

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

Not applicable.

11. Light and Glare

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

Not applicable. Unless there is an emergency, all O&M activities will completed within regular work hours, Monday– Friday, 7:00 AM to 3:30PM.

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

Not applicable.

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

Not applicable.

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

Not applicable.

12. Recreation

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

Some O&M activities may occur adjacent to or in City Parks.

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

No. Not applicable.

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

Not applicable.

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.

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Only one of these locations that may be present within the vicinity of the O&M activities is the Wilburton Trestle, which spans Kelsey Creek.

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

No landmarks or, evidence of anything of cultural importance is believed to be located on or next to any of the O&M locations.

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

No measures to reduce or control cultural impacts are believed to be necessary.

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.

Many of the maintenance locations will occur within culverts under public streets and highways. Temporary lane closures may be necessary depending upon the proximity of the work to the right-of-way.

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 be completed project have? How many would the project eliminate?

Not applicable.

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

No.

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.

Not applicable.

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

Not applicable.

15. Public Services

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

Not applicable.

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

Not applicable.

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16. Utilities

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

Not applicable.

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.

Not applicable.

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.

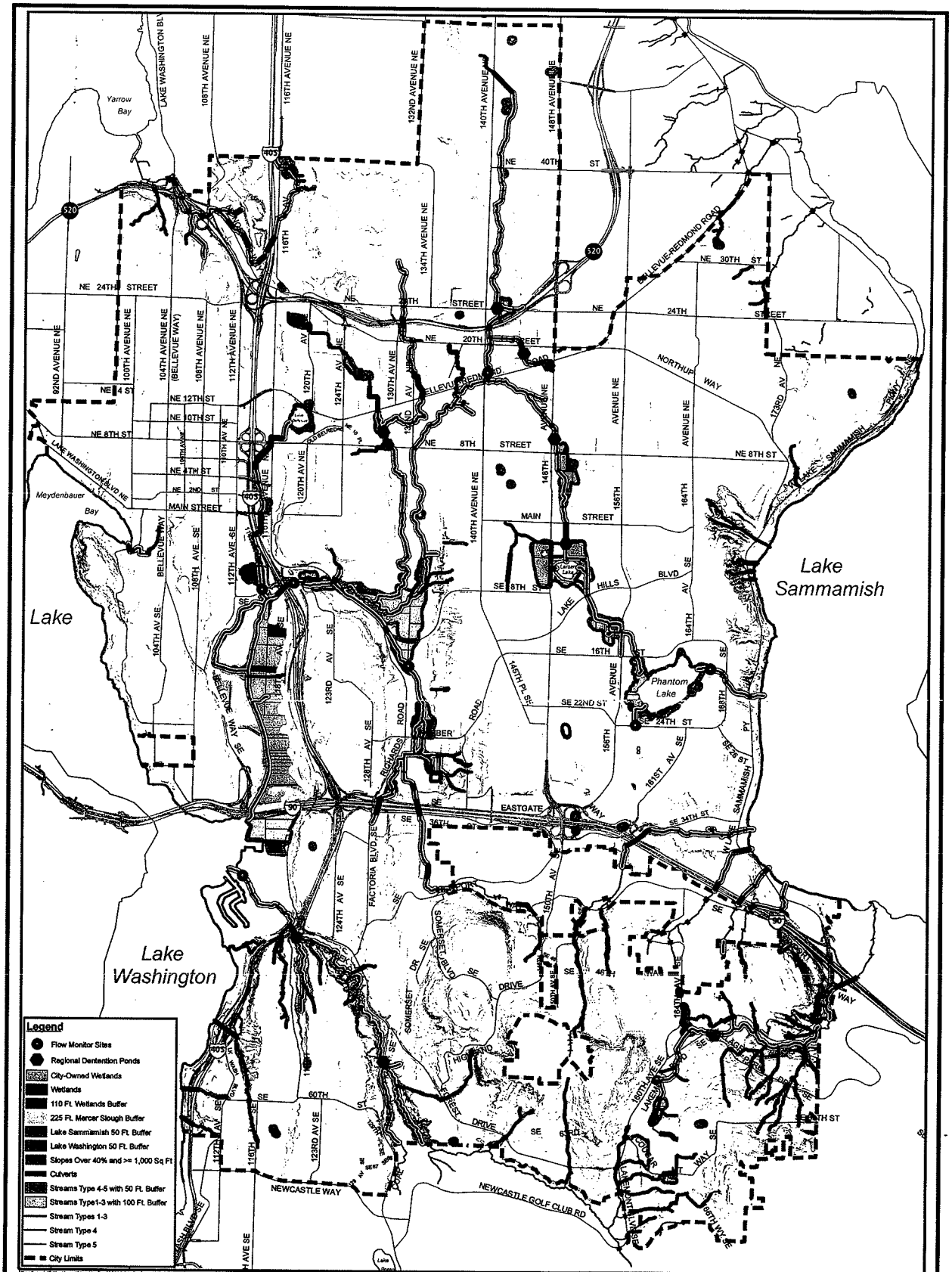
Peter Blaue

Signature

6/16/2008

Date submitted

6/26/2008
AMB



NORTH

City of Bellevue
IT Department
GIS Services
Plot Date: 2/4/2008

City of Bellevue
O&M SEPA/Permit Areas

This map is a graphic representation derived from the City of Bellevue Geographic Information System. It was designed and intended for City of Bellevue staff use only; it is not guaranteed to survey accuracy. This map is based on the best information available on the date shown on this map.

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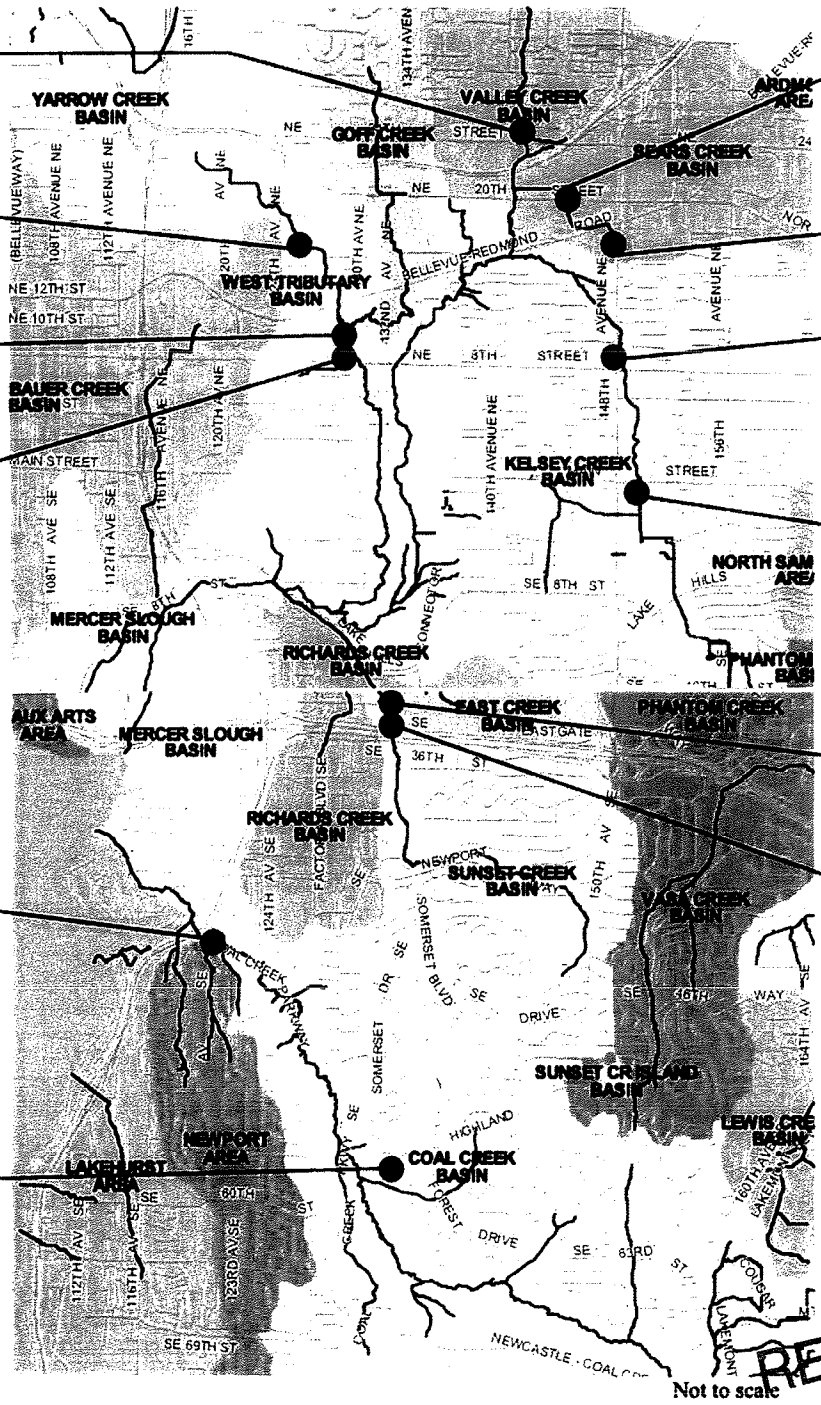
City of Bellevue
Storm & Surface Water
Maintenance Facilities
Regularly Requiring Sediment Removal



DMP 197- Valley Creek

DMP 165- West Trib.

DMP 164N- Goff Creek

DMP 164S- West Trib.

I405 RDF and Sediment Pond

Coal Creek Sediment Pond

DMP 179N- Overlake

DMP 179S- Commissioners

DMP 133- Kelsey

DMP 149- Larsen Lake

Kamber Road Fish Culvert

SE 30th St Culvert

Not to scale

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Attachment 2 -

Activity Based Best Management Practices

This document provides detail for the maintenance Best Management Practices implemented to reduce flooding and maintain water quality for the City of Bellevue's Creeks, Major Culverts, Regional Detention Facilities, Regional Sediment Removal Facilities and Associated Facilities.

The Regional Detention Facilities and Regional Sedimentation Removal Facilities are inventoried and incorporated into the maintenance schedule requirements in compliance with the Western Washington Phase II Municipal Stormwater Permit.

Creeks

Description

The City of Bellevue has 26 drainage basins that lie within its boundaries that contain creeks requiring maintenance to prevent flooding and maintain water quality. Creeks requiring maintenance include Coal, Yarrow, Wilkens, Meydenbauer, Sturtevant, Sunset, Goff, Valley, Phantom, Kelsey, Richards and Vasa Creeks and their tributaries.

BMP Approach

The approach is to inspect creek systems in the dry summer months to determine if sediments accumulated in the winter high flow period will reduce system capacity so that flooding is likely to occur in the following wet season. If portions of a creek system have accumulated sediment to the extent that subsequent wet season flooding is likely, then remove accumulated sediment in a manner that minimizes the amount of disturbance to the creek.

BMP Activity-based O&M

- Perform fish removal and install erosion controls
- Using a Vactor Truck, remove sufficient sediment to restore stream to original condition.

Major Culverts

Description

Culverts are closed pipe portions of the natural creeks located generally at road and right of way crossings. Major Culvert locations are noted in the figure shown in Attachment 1 - City of Bellevue Stream Maintenance Locations.

BMP Approach

The approach is to inspect culverts in the dry summer months to determine if sediments accumulated in the winter high flow period will reduce system capacity so that flooding is likely to occur in the following wet season. If a culvert has accumulated sediment to the extent that subsequent wet season flooding is likely, then remove accumulated sediment in a manner that minimizes the amount of disturbance to the creek.

BMP Activity-based O&M

- Perform fish removal and install erosion controls
- Using a Vactor Truck, remove sufficient sediment to restore stream to original condition.

Regional Sediment Removal Facilities

Description

Regional Sediment Removal Facilities (RSRFs) are engineered in stream facilities that include permanent bypass conveyance structures to be operated during maintenance activities. The City of Bellevue has two existing RSRFs (Coal Creek Sediment Pond and I-405 Sediment Pond) and a third (Sunset Creek Sediment Pond) scheduled for construction in 2009.

BMP Approach

Inspection

City staff shall inspect RSRFs in the dry summer months to determine if sediments accumulated in the winter high flow period have filled up the sediment storage area. If the sediment storage area is full of sediment, then accumulated sediment should be removed according to the following maintenance procedures. The Regional Sedimentation Removal Facilities are inventoried and incorporated into the maintenance schedule requirements under the Western Washington Phase II Municipal Stormwater Permit.

Two of these facilities (Coal Creek Sedimentation Facility and Coal Creek Regional Detention Pond) are required under court decree to be performed on an annual basis, regardless of the quantity of sediment accumulated, and are anticipated to occur in August.

Maintenance

BMP Activity-based O&M

- Place WDFW approved fish screens to prevent fish from moving into maintenance area,
- Remove stop logs and any accumulated debris from maintenance bypass pipeline inlet structure

- Install temporary sandbag diversion weir and drain pipe to divert flow into maintenance bypass pipeline.
- Remove all fish from the bypassed stream reach prior to working in the sediment pond. Captured fish shall be immediately and safely transferred to free flowing water downstream of the project site by a qualified fish biologist.
- Perform turbidity monitoring in accordance with Clear and Grade Permit.
- Remove accumulated sediments from the sediment pond down to original grades via maintenance access road. [The sediment pond is below the water table.] The contractor shall pump and treat water as required to complete the necessary excavation.
- Remove sandbag diversion weir and temporary drain piping.
- Replace stop logs in maintenance bypass pipeline inlet structure.
- Remove fish screens from site.
- Restore maintenance access ramp and staging areas to original condition with 5/8" minus crush rock.

Regional Detention Facilities

Description

Detention facilities allow sediments and pollutants to settle out of stormwater. There are 11 major instream Regional Detention Facilities (RDFs) within the City of Bellevue drainage basins.

RDFs hold back flood waters from a large tributary area and release it slowly to streams to prevent downstream flooding. Detention facilities also have a water quality benefit as well. The effectiveness of the City's Regional Detention Facilities is based on its ability to store a certain volume of water and release it slowly.

Approach

Inspection

Many Regional Detention Facilities are classified as dam structures by Ecology. Under Ecology rules, the RDFs are required to be inspected as per the O&M Manuals by the design engineer. The City of Bellevue has adopted this protocol for all the regional detention facilities. In regard to publicly owned detention facilities, inspections and cleanings are required on annual basis and are a part of the Regional Detention Facility Maintenance Program. The Regional Detention Facilities are inventoried and incorporated into the maintenance schedule requirements under the Western Washington Phase II Municipal Stormwater Permit.

Maintenance

Removal of silt, debris, and overgrown vegetation helps to maintain the flood control capacity of RDFs. Sediment and debris removal may also improve water quality downstream by removing the pollutants contained in those deposits. However, leaving some vegetation in place helps to prevent erosion, trap sediment, and filter stormwater.

In order to maintain the RDF's design capacity, silt and /or obstructions must be removed from time to time. When the sediments are fine and accessible from the facility perimeter, a ventilation power system is used to vacuum the deposits When the facility is drained of water but the debris is too coarse for a ventilation powered system, a trackhoe is used. Unless construction activities or other highly erosive activities take place upstream, it may be twenty years or so before sediment removal is required. More frequently, maintenance is needed to remove trash and debris, mow, and remove blockages from the facility's outlet structure.

Activity based O&M

- So long that no vegetation or obstructions (woody debris, beaver dams, etc.) compromise engineered design flows or flood storage, care should be taken not to disturb wildlife or aquatic life in the streams or ponds, including any riparian vegetation which is needed for the wildlife to survive.

- Most of the maintenance work in RDFs is done by hand or power operated mowers and weedwackers. However, heavy machinery may be needed to remove large sediment deposits, heavy brush or trees.

- No pesticides, insecticides or fertilizers are used in the maintenance practices in meeting the needs of this program. Proper procedures are always followed for disposal of sediments and debris from cleanup sites.

- Specific Program BMPs
    - Blocking Facility Inlet and Outlet
    - Filter/Perimeter Protection
    - Erosion / Sedimentation Control
    - Preservation of Existing Vegetation
    - Stream By Pass
    - Proper Disposal Practices

Associated Facilities (Catchbasins, Facility Inlets/Outlets, Oil/Water Separators)

Maintenance of these facilities associated with :

- Creeks,
- Major Culverts,
- Regional Detention Facilities and
- Regional Sediment Removal Facilities

would be performed in accordance with City maintenance standards and to meet the requirements of the Western Washington Phase II Municipal Stormwater Permit.