



DEVELOPMENT SERVICES DEPARTMENT
ENVIRONMENTAL COORDINATOR
450 100th Ave NE., P.O. BOX 90012
BELLEVUE, WA 98009-9012

DETERMINATION OF NON-SIGNIFICANCE

PROPONENT: City of Bellevue Utilities Department

LOCATION OF PROPOSAL: Citywide

NAME & DESCRIPTION OF PROPOSAL:

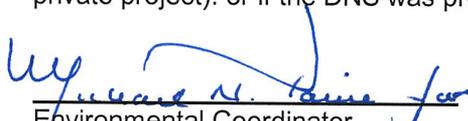
City of Bellevue 2011 Storm and Surface Water System Plan (Plan): The Plan is an update of the 1994 Comprehensive Drainage Plan. The Plan is a guidance document that establishes storm and surface water policies in support of the City's *Comprehensive Plan*. The Plan provides direction on the operation of the storm and surface water utility and is a tool for future planning of the system. Finally, it assists the City in compliance with federal, state and regional regulations.

FILE NUMBER: 12-104665-LM

The Environmental Coordinator of the City of Bellevue has determined that this proposal does not have a probable significant adverse impact upon the environment. An Environmental Impact Statement (EIS) is not required under RCW 43.21C.030(2)(C). This decision was made after the Bellevue Environmental Coordinator reviewed the completed environmental checklist and information filed with the Land Use Division of the Development Services Department. This information is available to the public on request.

- There is no comment period for this DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's office by 5:00 p.m. on _____.
- This DNS is issued after using the optional DNS process in WAC 197-11-355. There is no further comment period on the DNS. There is a 14-day appeal period. Only persons who submitted written comments before the DNS was issued may appeal the decision. A written appeal must be filed in the City Clerk's Office by 5 p.m. on October 20, 2011.
- This DNS is issued under WAC 197-11-340(2) and is subject to a 14-day comment period from the date below. Comments must be submitted by 5 p.m. on March 8, 2012. This DNS is also subject to appeal. A written appeal must be filed in the City Clerk's Office by 5 p.m. on March 15, 2012.

This DNS may be withdrawn at any time if the proposal is modified so that it is likely to have significant adverse environmental impacts; if there is significant new information indicating, or on, a proposals probable significant adverse environmental impacts (unless a non-exempt license has been issued if the proposal is a private project); or if the DNS was procured by misrepresentation or lack of material disclosure.


Environmental Coordinator

February 23, 2012
Date

OTHERS TO RECEIVE THIS DOCUMENT:

State Department of Fish and Wildlife
State Department of Ecology,
Army Corps of Engineers
Attorney General
Muckleshoot Indian Tribe



**City of Bellevue
Development Services Department
Land Use Staff Report**

Proposal Name: City of Bellevue Storm and Surface Water System Plan (SSWSP)

Proposal Address: Citywide

Proposal Description: The 2011 Storm and Surface Water System Plan (Plan) is an update of the 1994 Comprehensive Drainage Plan. The Plan is a guidance document that establishes storm and surface water policies in support of the City's *Comprehensive Plan*. The Plan provides direction on the operation of the storm and surface water utility and is a tool for future planning of the system. Finally, it assists the City in compliance with federal, state and regional regulations.

File Number: 12-104665-LM

Proponent: City of Bellevue Utilities Department
Contact: Brian Ward, 425-452-5206

Planner: Kevin LeClair, Planner

**State Environmental Policy Act
Threshold Determination:**

Determination of Non-Significance

Carol V. Helland, Environmental Coordinator
Development Services Department

Application Date: February 1, 2012
Notice of Determination Date: February 23, 2012
SEPA Comment Period Deadline: March 8, 2012
SEPA Appeal Deadline: March 15, 2012

For information on how to appeal a proposal, visit Development Services Center at City Hall or call (425) 452-6800. Comments on State Environmental Policy Act (SEPA) Determinations can be made with or without appealing the proposal within the noted comment period for a SEPA Determination. Appeal of the Decision must be received in the City's Clerk's Office by 5 PM on the date noted for appeal of the decision.

I. Proposal Description

The City's initial Drainage Master Plan was adopted by the City Council in 1979, and subsequently approved by voters in 1980. Major portions of the plan were constructed or installed between 1981 and 1984. The plan was then updated in 1988 and 1994 to include additional capital projects and management strategies.

The major reasons for updating the plan at this time are:

- Issuance of the Phase II municipal stormwater discharge permit (National Pollutant Discharge Elimination System) to the City of Bellevue (City) in 2007;
- City participation in regional efforts for salmon recovery due to Chinook salmon being listed under the Endangered Species Act in 1999;
- Changing climate conditions;
- Emerging technology and practices;
- Adoption of Critical Area ordinances; and
- New City initiatives and updates to the City's Comprehensive Plan.

The objectives for the current update to the Storm and Surface Water System Plan (SSWSP) include:

- Refine the Community Vision for Storm and Surface Water Management
- Review and update operating system policies to ensure consistency with other city policies and regulations
- Assess the capability of the existing storm and surface water system to meet regulatory requirements, including but not limited to the City's NPDES municipal stormwater permit, the Clean Water Act, and the Endangered Species Act
- Identify water flow, water quality, and habitat management data gaps and develop tactics to address them
- Develop a roadmap to guide system evaluation, improvements, and outreach/education over the next decade

The following is a brief summary of the general recommendations contained in the SSWSP. Recommendations affecting technical projects or programs are included within individual chapters of the SSWSP where the projects and programs are discussed.

A. Capital Investment Program:

The Utilities Department Storm and Surface Water Capital Investment Program (CIP) is a seven-year spending plan, representing a significant investment of Utilities Department resources intended to further the department's mission with regards to storm and surface water. The CIP recommendations are organized into four distinct categories for flood control, water quality, fish and wildlife habitat, and asset management:

Flood Control

No substantive changes are proposed in existing policies and practices.

Continue investing in the Flood Control Capital Program (D-94). Projects involve enlarging pipes or culverts to convey more stormwater, re-routing drainage to pipes with more capacity, adding detention or infiltration facilities, or other runoff control strategies.

Continue to use King County Flood Control Zone District Sub-Regional Opportunity funds to supplement local rates that partially fund projects in the City's Flood Control

capital program.

Water Quality

No substantive changes are proposed in in existing policies and practices.

Water quality concerns raised in Ecology's list of impaired water bodies are common non-point source pollution issues that are better addressed through programs, such as source control investigations or focused outreach, rather than capital projects. However, capital investments have been made at existing stormwater facilities to improve water quality.

Invest in cost-effective water quality projects, where appropriate.

Consider emerging technologies and techniques that improve water quality for pilot projects.

Fish and Wildlife Habitat

No substantive changes are proposed in in existing policies and practices.

Continue to invest in D-81 Fish Passage Improvement Program to remove fish passage barriers created by impassable culverts, debris jams, or accumulated sediment, that opens spawning and rearing habitat for salmon populations.

Continue to invest in D-86 Stream Channel Modification Program to construct habitat improvements on stream channels.

Invest in D-104 Stream Restoration for Mobility & Infrastructure Initiative for stormwater improvements associated with the Mobility and Infrastructure Initiative, a city-wide initiative which seeks to address high priority mobility and infrastructure needs in Downtown Bellevue and in the Bel-Red Corridor.

Asset Management

No substantive changes are proposed in in existing policies and practices.

Continue to invest in capital programs and projects so critical facilities (e.g. large diameter pipes and culverts) are repaired or replaced prior to failure.

D-64 Storm Water System Conveyance Infrastructure Rehabilitation: This ongoing program rehabilitates or replaces defective storm drainage pipelines and ditches identified in the Utility's condition assessment program or other means.

D-103 Replace Coal Creek Pkwy Culvert at Coal Creek: Recent inspections revealed the pipe is heavily corroded, with limited remaining structural integrity.

B. Storm and Surface Water Emerging Issues

Management of Stormwater

Continue to encourage use of emerging Low Impact Development (LID) technologies and collect data on their effectiveness.

Continue to educate the public how to optimize on-site stormwater runoff management.

Monitor the effectiveness of structural and outreach programs over time.

Puget Sound Partnership

Continue to support regional planning efforts and activities of the Puget Sound Partnership (PSP) related to water quality, quantity and habitat consistent with community values and resources.

Regulatory Drivers

Continue to implement the planned NPDES activities described in the City's annual Stormwater Management Program report.

Water Quality Improvement Project Process

Verify the state's list of water quality impairments in Bellevue (303(d) listed water bodies) to determine if existing programs will address identified water quality impairments.

Regional Water Quality Monitoring

Continue to participate in and support the recommendations of the Stormwater Work Group which provide more meaningful and useful results, are less expensive to implement, and meet multiple objectives, such as Chinook salmon recovery or Growth Management Act directives.

C. Policies

No substantive changes to existing policies or practices are proposed. The wording of policies was updated to acknowledge new regulatory oversight and improved clarity of policy intent. One new policy is proposed, "Encourage the Use of Low Impact Development Techniques Where Feasible." This is a new policy intended to support and promote the appropriate implementation of low impact development (LID) techniques.

II. Public Notice and Comment

Application Date:	February 1, 2012
Public Notice (500 feet):	February 23, 2012
Minimum Comment Period:	March 8, 2012
Appeal period ends:	March 15, 2012

This Notice of SEPA Threshold Determination was published in the City of Bellevue weekly permit bulletin on February 23, 2010.

III. State Environmental Policy Act (SEPA)

For the proposed non-project action, environmental review indicates no probability of significant adverse environmental impacts. Therefore, issuance of a Determination of Non-Significance pursuant to WAC 197-11-340 and Bellevue City Code 22.02.034 is appropriate.

Other adverse impacts that are less than significant may be mitigated pursuant Bellevue City Code 22.02.140, RCW 43.21C.060, and WAC 197-11-660.

Mitigation Measures

The lead agency has determined that the requirements for environmental mitigation have been adequately addressed in the development regulations and comprehensive plans

adopted under Chapter 36.70A RCW and in other applicable local, state or federal laws or rules, as provided by RCW 42.21C.240 and WAC 197-11-158. No specific mitigation is required for this SEPA Threshold Determination.

A. Earth

The actions of the Bellevue Utilities Department in implementing the SSWSP that affect earth include:

- Capital facilities construction which will involve earth displacement for pipe installation of publicly owned detention of other stormwater management facilities. These project-specific actions will undergo separate SEPA project review and are not included in this analysis.
- The operation of city-owned and privately-owned storm water facilities serve to control the transport of pollutants and sediment, preventing them from contaminating the rest of the surface water system.
- Measures implemented by city codes for private and public projects that include erosion control in order to keep pollutants, including sediment, out of the stormwater runoff. Such programs are supported in the SSWSP, but are implemented by the Development Services Department as part of implementation of Clearing and Grading Permit requirements.

The construction, maintenance and operation of the storm and surface water facilities that exceed clearing and grading permit (BCC 23.76) and critical area requirement (LUC 20.25H) thresholds will obtain necessary permit review and measures will be implemented that ensure earth resources are preserved and impacts are avoided or minimized.

Adoption of the SSWSP will not result in direct or indirect impacts on earth that will result in significant adverse impacts. For the most part, the SSWSP will result in beneficial impacts on earth.

B. Water

The actions of the Utilities Department in implementing the SSWSP that affect water include:

- Control of impervious surface and preservation of native forest cover, which influences the amount of runoff versus infiltration, addressed in policies that support LID.
- Source controls, which are measures that keep pollutants out of the stormwater runoff (for example, erosion control and spill containment). In general, source controls are specific to a given site while preventative measures are applied across the landscape.
- Head-of-the-pipe treatment, such as oil/water separators and sedimentation ponds that reduce the rate of discharge and remove pollutants from runoff before they enter the main stormwater conveyance system. Treatment is different from preventative measures; prevention avoids water quality problems.
- Preventative measures, which are limitations on the presence of such substances, and include reduction in use or prohibition of polluting materials, such as lead in gasoline and copper in brake pads or the reduction in cleared area from land development.
- The SSWSP has a new policy to “Encourage the Use of Low Impact Development Techniques Where Feasible” but does not include a change in policies that would affect other programs.
- There are a wide variety of federal, state and local programs that address water resources and water quality. The federal and state Clean Water Acts (CWA) include

major policy direction for water quality. The City's NPDES municipal stormwater permit provides a mandate to implement policies of the CWA and also implements capital projects and other programs in addition to the mandates to improve storm and surface water quality.

The construction, maintenance and operation of the storm and surface water facilities that exceed clearing and grading permit (BCC 23.76) and critical area requirement (LUC 20.25H) thresholds will obtain necessary permit review and measures will be implemented that ensure water resources are preserved and impacts are avoided or minimized.

Adoption of the SSWSP will not result in direct or indirect impacts on water that will result in significant adverse impacts. In fact, the SSWSP will result in beneficial impacts on water.

C. Plants and Vegetation

The actions of the Bellevue Utilities Department in implementing the SSWSP that affect plants include:

- Capital facilities construction which will involve earth displacement for pipe installation of publicly owned detention of other stormwater management facilities. These project-specific actions will undergo separate SEPA project review and are not included in this analysis. The restoration of disturbance associated with capital facility construction is required by Bellevue's clearing and grading code. If the work is within a regulated critical area, then restoration is required by the Land Use Code.
- Measures implemented by city codes for private and public projects that include preservation of native vegetation through LID in order to preserve more natural hydrologic patterns.
- The SSWSP has minor effects on plants and vegetation as compared to other city programs and regulations implemented by the Development Services Department, including Critical Areas codes and implementation of Clearing and Grading Permit requirements.

The construction, maintenance and operation of the storm and surface water facilities and programs that exceed clearing and grading permit (BCC 23.76) and critical area requirement (LUC 20.25H) thresholds will obtain necessary permit review and measures will be implemented that ensure plant resources are preserved or restored.

Adoption of the SSWSP will not result in direct or indirect impacts on plants that will result in significant adverse impacts. For the most part, the SSWSP will result in beneficial impacts on plants.

D. Animals

A major effect of stormwater management is on fish and other aquatic species. Potential adverse impacts of urban runoff are largely related to water quality, the properties of flow (velocity, turbulence and discharge) and the creation and maintenance of habitat within streams. These impacts include:

- Excessive erosion caused by urban stream flows results in sedimentation which degrades aquatic habitat
- Nutrients can result in excessive or accelerated growth of vegetation, such as algae. When algae die, they absorb oxygen from the water during decomposition. This

harms fish.

- Some hydrocarbon compounds in urban stormwater are toxic to aquatic organisms at low concentrations.
- Metals are toxic to aquatic organisms and can bioaccumulate in fish.
- Synthetic organic compounds (adhesives, cleaners, sealants, solvents, etc.) cause harm to aquatic life.
- Pesticides (including herbicides, fungicides, rodenticides, and insecticides) accumulate in simple aquatic organisms and are biomagnified through the food web, potentially resulting in elevated levels of toxins in organisms such as fish and birds.
- Maintenance practices may interrupt natural, habitat forming processes.

Programs in the SSWSP and existing policies that address these impacts include:

- Implementation of LID to preserve more natural hydrology
- Source reduction practices such as erosion control measures on new construction
- Operation and maintenance of city facilities and inspection of private facilities maintenance standards, to ensure proper system functions.
- Programmatic permitting of operation and maintenance programs when they affect stream and wetland critical areas are required.
- Public education and outreach
- Public involvement and participation
- Capital projects
- Spill control and water quality response
- Other federal, state and local programs address wildlife and fish including the federal Endangered Species Act, federal laws governing migratory wildfowl, the State Department of Fish and Wildlife management responsibility for fish and wildlife as a public resource and the mandate of the Growth Management Act to local government to protect Critical Fish and Wildlife Habitat. The major local responsibility for protection of riparian habitat in the city is through Critical Areas regulations and the Shoreline Master Program.

Adoption of the SSWSP will not result in direct or indirect impacts on animals that will result in significant adverse impacts. In fact, the SSWSP will likely result in beneficial impacts.

E. Energy and Natural Resources

Energy is used in the construction and maintenance of stormwater facilities, largely through the operation of vehicles and machinery.

No specific goals or policies in the SSWSP address energy and natural resources.

Adoption of the SSWSP will not result in direct or indirect impacts on energy and natural resources that will result in significant adverse impacts.

F. Land and Shoreline Use

The primary effects on land use and shoreline use in the city is administration by the Development Services Department of Land Use Code regulations (Bellevue City Code Title 20) and the city's Shoreline Master Program (Shoreline Element of Bellevue's *Comprehensive Plan* and Chapter 20.25E LUC).

Utility management of city-owned stormwater facilities or inspection and maintenance of private facilities is not likely to directly affect land use. The current practices of the Utilities

Department in requiring detention and treatment facilities has some influence on land use where surface ponds and other facilities may displace buildings, parking lots or other facilities. The choice of whether to employ facilities that displace potential land use, such as open ponds, or enclosed facilities such as vaults that can be placed beneath parking areas or buildings is largely a financial decision by property owners and developers, and not dictated by utility specifications.

The new policy in the SSWSP which will have an impact on the character of development but not underlying types of land use is "Encourage the Use of Low Impact Development Techniques Where Feasible." This policy, however, is not unique to the SSWSP and is currently in place in the Comprehensive Plan Environment Element which encourages the use of low impact development techniques on the watershed scale to address urban hydrology issues.

Adoption of the SSWSP will not result in direct or indirect impacts on land or shoreline use that will result in significant adverse impacts.

G. Transportation

Impacts on transportation from utility facilities are largely limited to transportation of construction materials and transportation related to routine maintenance of facilities and inspection. These activities generate relatively few trips compared to peak hour commuting.

Adoption of the SSWSP will not result in direct or indirect impacts on transportation that will result in significant adverse impacts.

H. Public Services and Utilities

The proposed changes in policies in the SSWSP are not likely to substantially increase demands on the utility or change current practices. For the most part, the proposed plan would result in continuing implementation of existing programs at a similar level. Most new programs are required to respond to the requirements of the municipal stormwater NPDES Phase II permit.

Adoption of the SSWSP will not result in direct or indirect impacts on public services or utilities that will result in significant adverse impacts.

City of Bellevue
Storm and Surface Water System Plan (SSWSP)
ENVIRONMENTAL CHECKLIST

Reviewed under Bellevue file
#12-104665 LM
Reviewer: Kevin LeClair

WAC 197-11-960 Environmental checklist.

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C 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 applicants:

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.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND INFORMATION

Proposal Title: City of Bellevue Storm and Surface Water System Plan (SSWSP)

Property Owner: City of Bellevue

Proponent: City of Bellevue

Contact Person: Brian Ward

Received
FEB - 1 2012
Permit Processing

REVIEWED
By Kevin LeClair at 4:30 pm, Feb 13, 2012

Contact Person's Address: 450 110th Ave. NE
P.O. Box 90012
Bellevue, WA 98009

Contact Person's Phone: 425-452-5206

Proposal Location: Citywide

Brief description of the proposal's scope and nature:

General description: See Attachment A: Description of Proposal for additional detail

The City's initial Drainage Master Plan was adopted by City Council in 1979, and approved by voters in 1980 with over a 60 percent positive vote. The major portions of the plan were completed between 1981 and 1984. The plan was updated in 1988 and 1994 with the addition of additional capital projects and management strategies.

The objectives for the current update entitled the City of Bellevue Storm and Surface Water System Plan (SSWSP) include:

- Refine the Community Vision for Storm and Surface Water Management
- Review and update operating system policies to ensure consistency with other city policies and regulations
- Assess the capability of the existing storm and surface water system to meet regulatory requirements, including but not limited to the City's NPDES municipal stormwater permit, the Clean Water Act, and the Endangered Species Act
- Identify water flow, water quality, and habitat management data gaps and develop tactics to address them
- Develop a roadmap to guide system evaluation, improvements, and outreach/education over the next decade.

In general, the programs, policies, and practices implemented since the last systematic review of the stormwater utility are aligned with the needs of the system, so no major changes are recommended.

Recommendations do not change existing utility policies or facilities but reflect needs for increased service levels to respond to regulatory requirements, most notably the Municipal Stormwater National Pollution Discharge Elimination System (NPDES) Phase II permit.

2. Acreage of site: N/A

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

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

5. Square footage of buildings to be demolished: N/A

6. Square footage of buildings to be constructed: N/A

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

8. Proposed land use: N/A

9. Design features: N/A

10. Other: N/A

B. Environmental Elements

1. Earth

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

All these features, except mountains, are present in the city and in areas subject to the Storm and Surface Water System Plan (SSWSP).

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

Some slopes approach 100%

Steep slopes up to approximately 6 percent are found in the city, although most land within the city is at lower slope ranges.

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

A wide range of soils are found in the city ranging from glacial till, to outwash soils, to peat based soils to urban fill. The various types of soils and runoff character are addressed as factors affecting runoff and surface water in the SSWSP.

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

There are some areas of unstable soils in the city. These areas are not changed by the policies within the SSWSP and are addressed by other programs, such as critical area regulations.

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

No specific fill or grading is proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

No specific actions resulting in erosion is proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

The SSWSP will not result in impervious surfaces but addresses the runoff characteristic of an urban context with impervious surface. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

No specific actions resulting in erosion is proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

No specific actions resulting in air emissions are proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

Not relevant to a policy action such as the SSWSP.

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

None as part of the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

There are numerous watersheds and surface water bodies in Bellevue subject to the SSWSP; these are described in detail in the plan.

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.

No specific actions resulting in such work is proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

No specific actions resulting in fill and dredge material is proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

No specific withdrawals or diversions are proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

Portions of the city are within flood plans. Managing flooding is one of the goals of the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

The potential effects of the plan on discharge are addressed in Subsection C Supplemental Sheet for Nonproject Actions. No specific discharge is proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

The potential effects of the plan are addressed in Subsection C Supplemental Sheet for Nonproject Actions. No specific withdrawal or discharge is proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial; 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.

No specific system discharges are proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

c. Water runoff (including stormwater):

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

The potential effects of the plan are addressed in Subsection C Supplemental Sheet for Nonproject Actions. No specific source runoff is proposed in the SSWSP. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

The potential effects of the plan are addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

The SSWSP contains a range of policies to address runoff on a city-wide and watershedbasis as addressed in Subsection C Supplemental Sheet for Nonproject Actions Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

A wide range of plants are found in the city.

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

The SSWSP contains a range of policies to address vegetation removal and alteration on a city-wide basis as it affects water. This addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

No endangered plants are known to be found in the city.

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

The SSWSP contains a range of policies to address vegetation as part of low impact development on a city-wide basis as it affects water. This addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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: hawk, heron, eagle, songbirds, other:

mammals: deer, bear, elk, beaver, other:

fish: bass, salmon, trout, herring, shellfish, other:

Most or all of the species listed are found in the city, except bear which only occasionally enter the city from wildlands outside of the city.

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

Chinook Salmon and cutthroat trout are found in the city.

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

Migration routes of anadromous fish and wildfowl are within the city.

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

The SSWSP contains policies that address aquatic habitat as addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

The potential effects of the plan are addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

The SSWSP is very unlikely to have such an impact.

- 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:

None. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

The potential effects of the plan on spills and discharge into surface water are addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

None. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

The potential effects of the plan on spills and discharge into surface water are addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

b. Noise

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

A wide variety of noise sources and noise levels are found in an urban environment such as Bellevue.

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.

None. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

None. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

8. Land and shoreline use

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

A wide variety of land uses are found in an urban environment such as Bellevue.

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

There is little agricultural use in the city, most of the remaining agriculture is blueberry farming within city owned open space.

c. Describe any structures on the site.

A wide variety of structures are found in an urban environment such as Bellevue.

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

None. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

A wide variety of zoning classifications are found in Bellevue.

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

The comprehensive plan designates a variety of urban uses.

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

A wide variety of shoreline designations are found in Bellevue.

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

A variety of areas in Bellevue are classified as environmentally sensitive, particularly critical areas.

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

None. The SSWSP will not directly affect population or employment.

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

None. The SSWSP will not directly affect population or employment.

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

None. The SSWSP will not directly affect population or employment.

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

None. The SSWSP will not directly affect land use.

9. Housing

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

None. The SSWSP will not directly affect housing.

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

None. The SSWSP will not directly affect housing.

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

None. The SSWSP will not directly affect housing.

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. No specific structures are proposed in the SSWSP.

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

Not applicable. No specific facilities that would alter views are proposed in the SSWSP.

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

None. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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. No specific lighting is proposed in the SSWSP.

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

Not applicable. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

None. Light and glare is unlikely to affect management of the storm water system.

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

Not applicable. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

12. Recreation

REVIEWED

By Kevin LeClair at 4:38 pm, Feb 13, 2012

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

There is a wide variety of recreational opportunities in the city.

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

Not applicable. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

- 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. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

There are a variety of historic resources within the city.

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

Not applicable. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

Not applicable. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

There is a wide variety of transportation facilities in the city. Stormwater from transportation facilities is addressed in the SSWSP.

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

There is a wide variety of public transit facilities in the city.

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

Not applicable. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

- 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).

Not likely. Facility needs that may result from the SSWSP are not likely to require new roads.

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

Given the wide variety of transportation facilities in the city it is likely that facilities that result from the SSWSP will be in the immediate vicinity of transportation facilities.

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

The potential effects of the plan on transportation are addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

None. The potential effects of the plan on transportation are addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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.

Any increased demand would likely be very small. The potential effects of the plan on public services are addressed in Subsection C Supplemental Sheet for Nonproject Actions. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

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

None. See Subsection C Supplemental Sheet for Nonproject Actions.

16. Utilities

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

A variety of utility facilities are available throughout the city.

- 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.

The Storm and Surface Water System Plan is a plan for utility service. Impacts of specific projects that may result from policies in the SSWSP will be addressed by project-level SEPA review.

C. Supplemental Sheet for Nonproject Actions

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

The purpose of the Storm and Surface Water System Plan (SSWSP) is to manage the discharge of stormwater to surface waters. In an urban context such as Bellevue, water that falls as rain or snow either infiltrates into the ground or flows across the land surface or through a conveyance system (constructed pipes or ditches), until it reaches a receiving water body (lakes, streams, wetlands). Stormwater provides flow to streams, lakes, and wetlands, and replenishes groundwater supplies.

Increased discharge to stormwater conveyance or receiving waters is partially related to the design and management of the system but is influenced to a greater extent by the conversion of land from native forest cover to urban land use featuring impervious surfaces from buildings, parking areas, roads, and sidewalks and pervious surfaces with lower infiltration rates such as lawn and other ornamental vegetation.

Bellevue's storm and surface water system is a direct result of the topography, current and historic land uses, regulations, and past decisions on stormwater management. Stormwater in Bellevue flows through 26 drainage basins, into 79 miles of streams, about thirteen miles of

lakeside shoreline (Lake Washington and Lake Sammamish) and 3 small lakes (Larsen Lake, Lake Bellevue and Phantom Lake).

Sites adjacent to streams, lakes or other surface water conveyance often discharge directly into surface waters. Other sites discharge into the 390 miles of city maintained storm drainage pipes as well as approximately 250-miles of privately owned storm water pipes which convey runoff to open channels, wetlands, streams or lakes.

In addition to conveyance, the Bellevue Utilities Department operates 11 regional detention facilities, and hundreds of other detention and water quality facilities, five high-flow bypass systems. These are pipes that remove peak flows from stream channels that routinely flood or have serious erosion problem). There are also numerous water quality and detention facilities built, owned and maintained by the private sector.

Detention facilities do not influence the total amount of water entering the system but does determine where discharge to surface waters occur and at what rate and quality.

The stormwater management system does not produce toxins but addresses release of toxic substances to the stormwater system and surface water. Pollutants of concern include nutrients, hydrocarbons, and trace metals and chemicals.

Nutrients, such as nitrogen and phosphorous, which are the major plant nutrients used for fertilizing landscapes, are often found in stormwater. During storms, nutrients that have accumulated on landscaped areas are washed into storm drains and streams. Nutrients can result in excessive or accelerated growth of vegetation, such as algae, resulting in impaired use of water in lakes and other sources of water supply. Algae growth reduces water clarity, and when algae die, it absorbs oxygen from the water as it decomposes. This harms fish and causes unpleasant odors. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish.

A wide array of hydrocarbon compounds are present in oil and grease that are discharged from vehicle leakage, spills, cleaning and sloughing associated with vehicle and equipment use, from restaurants, and waste oil disposal. Some hydrocarbons are toxic to aquatic organisms at low concentrations.

Metals, including lead, zinc, cadmium, copper, chromium, and nickel, are commonly found in stormwater. Many of these enter the system as treated surfaces corrode, flake, dissolve, decay, or leach. Over half the trace metal load carried in stormwater is associated with sediments. Metals are of concern because they are toxic to aquatic organisms, can bioaccumulate (accumulate to toxic levels in aquatic animals such as fish), and have the potential to contaminate drinking water supplies.

Pesticides, including herbicides, fungicides, rodenticides, and insecticides, have been repeatedly detected in stormwater at toxic levels, even when pesticides have been applied in accordance with label instructions. Accumulation of pesticides in simple aquatic organisms, such as plankton, provides an avenue for biomagnification through the food web, potentially resulting in elevated levels of toxins in organisms that feed on them, such as fish and birds.

There are four basic approaches to control these discharges:

- Control of impervious surface and preservation of native forest cover, which influences the amount of runoff versus infiltration.
- Source controls, which are measures that keep pollutants out of the stormwater runoff (for example, erosion control and spill containment). Source controls are different from preventative measures; prevention avoids water quality problems.

- **Head-of-the-pipe treatment, which include facilities such as oil/water separators and sedimentation ponds that reduce the rate of discharge and remove pollutants from runoff before they enter the main stormwater conveyance system.**
- **Preventative measures are limitations on the presence of toxic substances and include reduction in use or prohibition of polluting materials, such as lead in gasoline and copper in brake pads or the reduction in cleared area from land development. In general, source controls are specific to a given site, while preventative measures are applied across the landscape.**

Proposed measures to avoid or reduce pollution increases are:

Control of Impervious Surfaces

The SSWSP has a new policy to “Encourage the Use of Low Impact Development Techniques Where Feasible.” This new policy recognizes that low impact development (LID) techniques have a positive effect on the hydrologic balance in stormwater basins where they are appropriately used and reduces total runoff and improves water quality by preserving a greater component of infiltration.

Source Controls

There are no proposed changes in source reduction practices in the proposed SSWSP, such as erosion control measures on new construction. Source reduction practices are judged to be generally adequate.

Head-of-the-pipe treatment

There are no proposed changes in head of pipe detention and treatment requirements in the proposed SSWSP. Bellevue uses the current Ecology manual for stormwater control. Detention systems do not change the amount of runoff but do change the rate at which it discharges from a site and may avoid stream erosion. New development and redevelopment over a certain threshold are required to install permanent stormwater detention and water quality controls. To ensure proper function of head-of-pipe facilities owned by private entities the City implements maintenance standards, drainage system inspections and spot checks of drainage facilities for proper system functions. No changes to this practice are included in the proposed SSWSP.

Preventative Measures

Other water quality protection programs include:

- **Public education and outreach**
- **Public involvement and participation**
- **Spill control and water quality response (also known as illicit discharge detection and elimination, or IDDE)**

Expected future preventative measures include federal regulation limiting the use of toxic metals in car brake pads. As this measure goes into effect over the next several years, the amount of copper found in stormwater runoff should be reduced.

Programs by other city departments that affect discharge to water and water quality include Development Services Department Critical Areas, shoreline, clear and grade, and floodplain development regulations. Parks and Community Development and Civic Services have operational programs for public properties. The Transportation Department affects water quantity and quality through capital roads projects. All city departments are operated in compliance with the NPDES municipal stormwater permit.

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

One of the effects of stormwater management of urban runoff is on fish and other aquatic species. Potential adverse impacts of urban runoff, in the absence of stormwater management for detention and treatment, include:

- Excessive erosion caused by urban stream flows results in sedimentation, which degrades aquatic habitat by filling the void spaces in stream gravels where macroinvertebrates live, eliminating pools that provide resting areas for fish, and smothering salmon eggs after they are buried in the stream gravels to incubate.
- Nutrients can result in excessive or accelerated growth of vegetation, such as algae, resulting in impaired use of water in lakes and other sources of water supply. Algae growth reduces water clarity, and when algae die, it absorbs oxygen from the water as it decomposes. This harms fish. In addition, un-ionized ammonia (one of the nitrogen forms) can be toxic to fish.
- Some hydrocarbon compounds are toxic to aquatic organisms at low concentrations.
- Metals are toxic to aquatic organisms, and can bioaccumulate (accumulate to toxic levels) in aquatic animals such as fish.
- Synthetic organic compounds (adhesives, cleaners, sealants, solvents, etc.) cause harm to aquatic life living in waterways.
- Pesticides) accumulate in simple aquatic organisms, such as plankton, and provide an avenue for biomagnification through the food web, potentially resulting in elevated levels of toxins in organisms that feed on them, such as fish and birds.

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

One of the goals of the SSWSP is “The Utilities Department strives to manage the storm and surface water system in a manner that controls damage from storms, protects surface water quality, *supports fish & wildlife habitat*, and protects the environment. [Emphasis added]

The new policy in the SSWSP which will have positive impacts on fish and wildlife habitat is to “Encourage the Use of Low Impact Development Techniques Where Feasible:” This new policy recognizes that LID techniques have a positive effect on the hydrologic balance in stormwater basins where they are used and reduces sedimentation and may increase low flows and moderate temperature fluctuation by increasing groundwater recharge that recharges streams through interflow.

The Utilities Department Lake Management Policy outlines measures to preserve the water quality in Bellevue’s lakes. As of 2000, Bellevue’s Parks Department stopped using fertilizers containing phosphates on turf at city facilities, ball fields, parks and schools. Water treatment BMPs and LID for redeveloping properties, education about spill prevention, lake aerators, alum treatments to reduce phosphorus, and ongoing monitoring are recommended to meet water quality goals for Bellevue’s lakes. Ongoing management involves maintaining capital facilities and working to minimize the entry of phosphorus and other pollutants into the lakes through:

- Ensuring BMPs are required of new development and redevelopment, including BMPs for nutrient control.
- Continuing to educate businesses and residents on their role in lake protection.

Existing policies and programs that protect or conserve plants, animals, and fish, and cumulatively marine life in Puget Sound, into which Bellevue surface water ultimately flows includes:

- Source reduction practices such as erosion control measures on new construction

- **Maintenance of city facilities and implementation for private facilities of maintenance standards, to ensure proper system functions.**
- **Public education and outreach**
- **Public involvement and participation**
- **Spill control and water quality response (also known as illicit discharge detection and elimination, or IDDE)**

Capital projects that prevent or reduce property damage from flooding or streams, protect or improve water quality, maintain or improve the reliability and integrity of the storm and surface water system, or *improve fish and/or riparian wildlife* habitat are consistent with this mission.”
[Emphasis added]

In addition, all management activities of Bellevue’s surface water resources—whether streams, lakes, or stormwater—must take into account the federal Endangered Species Act (ESA). In addition, Native American tribes and the Washington Department of Fish and Wildlife (WDFW) co-manage state fish, shellfish, and wildlife resources. The tribes have federal recognition for fish and wildlife habitat management, including habitat, through treaty obligations. The ESA provides for the conservation of species that are determined to be either endangered or threatened as well as the conservation of the ecosystems on which they depend.

Programs by other city departments that affect discharge to water and water quality include Parks Department management of parks and open space and Development Services Department Critical Areas regulations.

3. How would the proposal be likely to deplete energy or natural resources?

Energy is used in maintaining stormwater facilities, largely through the operation of vehicles and machinery. Also, energy use is embodied in the materials used in utility facilities, most significantly in pipe and concrete used in catch basins and detention facilities.

Natural resources, such as aggregate and lime, are embodied in concrete used in utility facilities. A variety of natural resources are used in other facilities.

Proposed measures to protect or conserve energy and natural resources are:

No specific goals or policies in the SSWSP address energy and natural resources.

Energy use by the Utilities Department for stormwater management is relatively minor compared to other sources of energy use, such as water and sewer pumping stations. Utility use of energy is minor compared to transportation and space heating/air conditioning, the two largest energy uses in the state.

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Critical areas are defined by RCW 36.70A.030(5) and WAC 365-196-485 as:

- **Wetlands;**
- **Areas of critical recharging effect on aquifers used for potable water;**
- **Fish and wildlife habitat conservation areas;**
- **Frequently flooded areas; and**

- **Geologically hazardous areas.**

The stormwater management system addressed in the SSWSP directly affects frequently flooded areas and fish and wildlife habitat conservation areas related to streams and lakes.

This is reflected in the Storm and Surface Water Utilities Mission Statement:

A surface water system that controls damage from storms, protects surface water quality, supports fish and wildlife habitat, and protects the environment.

The Utilities Department's stormwater management goals, as identified by the Basin Evaluation Criteria, are derived directly from the Mission Statement, while also meeting regulatory obligations. The specific goals are to:

- **Minimize damages from floods, including flooded buildings, street closures, and stream bank erosion;**
- **Improve water quality within the city's jurisdiction to meet federal and state water quality standards; and**
- **Improve aquatic habitat within the city's open stream channels and lakes to foster the continued existence of native fish and other aquatic organism populations.**

One of the major elements of the city's flood control are eleven engineered regional stormwater detention facilities owned by the city. These facilities affect flooding by holding water and releasing the stored water slowly downstream. No changes in policies or facilities for flood control are included in the proposed SSWSP.

The stormwater management system affects fish and wildlife habitat conservation areas and endangered species through effects that management practices have on stream and lake habitat. City operated detention facilities on streams that are habitat for endangered salmon provide fish passage facilities to ensure that they do not present a barrier for access to spawning and rearing habitat.

The Utilities Department does operate some facilities in conjunction with the Parks Department, such as detention facilities in the Lakemont Park, Lake Hills Greenbelt, and Commissioner's Waterway. There are no changes of policy in the proposed SSWSP that are likely to affect parks.

The city's utility programs have little or no effect on historic or cultural sites.

There are no prime farmlands in active use in the city, except lands owned by the Parks Department. These lands are not adversely affected by utility facilities or programs.

There is no wilderness or wild and scenic rivers in the City of Bellevue.

Proposed measures to protect such resources or to avoid or reduce impacts are:

The majority of land in the city that contains environmentally sensitive areas, endangered species habitat, wetlands, and floodplains are on privately owned land, but are still subject to inspection and maintenance standards.

The primary focus of city efforts to protect sensitive areas including wetlands and floodplains is the administration of Critical Areas land-use regulations by the Development Services Department.

As a manager of city-owned utility facilities, and in its oversight role in ensuring that private facilities function properly, the Utilities Department provides support to overall city-efforts to protect and avoid impacts to these resources.

The new policy in the SSWSP which will have positive impact on fish and wildlife habitat is to “Encourage the Use of Low Impact Development Techniques Where Feasible:” This new policy recognizes that LID techniques have a positive effect on the hydrologic balance in stormwater basins where they are appropriately used and reduces sedimentation and may increase low flows and moderate temperature fluctuation by increasing groundwater recharge that recharges streams through interflow.

In addition to Low Impact Development, existing plans and programs will continue to address frequently flooded areas; and fish and wildlife habitat conservation areas, including:

- Source reduction practices such as erosion control measures on new construction
- Operations and maintenance of city facilities
- Implementation and inspection of private facilities maintenance standards
- Implementation of detention and water quality development codes and engineering standards
- Public education and outreach
- Public involvement and participation
- Spill control and water quality response (also known as illicit discharge detection and elimination, or IDDE)

The proposed SSWSP acknowledges that all management activities of Bellevue’s surface water resources—whether streams, lakes, or stormwater—must take into account the federal Endangered Species Act (ESA) which provides for the conservation of species that are determined to be either endangered or threatened as well as the conservation of the ecosystems on which they depend.

The proposed SSWSP also acknowledges Native American treaty tribes as co-managers of fish and wildlife resources within Washington State.

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Utilities Department management of city-owned stormwater facilities or inspection of private facilities is not likely to directly affect land use. The current practices of the Department in requiring detention and treatment facilities has some influence on land use where surface ponds and other facilities may displace buildings, parking lots or other facilities. The choice of whether to employ facilities that displace potential land use, such as open ponds, or enclosed facilities such as vaults that can be placed beneath parking areas or buildings is largely a financial decision by property owners and developers, and not dictated by utility specifications.

The new policy in the SSWSP which will have an impact on the character of development, but not underlying types of land use is “Encourage the Use of Low Impact Development Techniques Where Feasible:”

The SSWSP supports city comprehensive plan policies related to Low Impact Development, including:

POLICY EN-27. Implement the citywide use of low impact development techniques and green building practices that provide benefits to critical areas functions.

POLICY EN-37. Reduce runoff from streets, parking lots and other impervious surfaces and improve surface water quality by utilizing low impact development techniques in new development and redevelopment.

The Utilities Department implements these policies through the Surface Water Engineering Standards, Chapter D6, "On-site Stormwater Manual."

Proposed measures to avoid or reduce shoreline and land use impacts are:

Because the vast majority of land in the city is not controlled by the Utilities Department, the policies in the SSWSP have little influence on land and shoreline use, unlike the Land Use Element of the Comprehensive Plan and the Land Use Code, which is largely administered by the Development Services Department.

Changes made in the future to policies and regulations to address LID are likely to primarily be Land Use Code provisions administered by the Development Services Department with a supporting role by the Utilities Codes and Engineering Standards, including specifications and plan review for stormwater management facilities.

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

None of the proposed changes in policies in the SSWSP are likely to increase demands on transportation. Impacts on transportation from utility facilities are largely limited to transportation of construction materials and transportation related to routine maintenance of facilities and inspection. These activities generate relatively few trips compared to peak hour commuting.

The proposed changes in policies in the SSWSP are not likely to substantially increase demands on the utility or change current practices. The proposed plan would result in continuing implementation of existing programs at a similar level. Some resources from the utility will be needed to develop policies and regulations to implement LID provisions as part of the normal codes and standards update process.

Proposed measures to reduce or respond to such demand(s) are:

No specific measures are proposed to reduce demands on the utility. No substantial new programs are proposed. Some increased services are required to respond to the requirements of the municipal stormwater NPDES Phase II permit. While referenced in the SSWSP, these are more fully articulated in the annual NPDES stormwater management plan.

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.

The proposed changes in policies in the SSWSP do not conflict with any known local, state, or federal laws or requirements for the protection of the environment and are designed to implement such programs, specifically the requirements of the municipal stormwater NPDES Phase II permit and the Endangered Species Act.

D. SIGNATURE

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

Signature:

City of Bellevue SSWSP
Environmental Checklist



Name: David Sherrard, Senior Environmental Planner, Parametrix Inc.
411 108th Ave. NE, Bellevue, WA 98004, 425-458-6374

Date Submitted: January 27, 2012

REVIEWED
By Kevin LeClair at 4:39 pm, Feb 13, 2012

ATTACHMENT A

Description of Proposal

The 2012 Storm and Surface Water System Plan (Plan) is an update of the 1994 Comprehensive Drainage Plan. This plan responds to the following changes that have taken place since:

- Stormwater management regulatory requirements have become more rigorous since the Department of Ecology (Ecology) issued a Phase II municipal stormwater discharge permit (National Pollutant Discharge Elimination System) to the City of Bellevue (City) in 2007
- The City participates in new regional efforts, such as salmon recovery, due to Chinook salmon being listed under the Endangered Species Act in 1999
- Climate forecasts indicate changing climatic conditions that are still uncertain, but planning is needed to ensure the City can continue to operate a storm and surface water system that protects public health and safety, protects the environment, and remains affordable
- New City programs such as the Environmental Stewardship Initiative and updates to the City's Comprehensive Plan place an emphasis on aspects of storm and surface water management

Drainage Basins

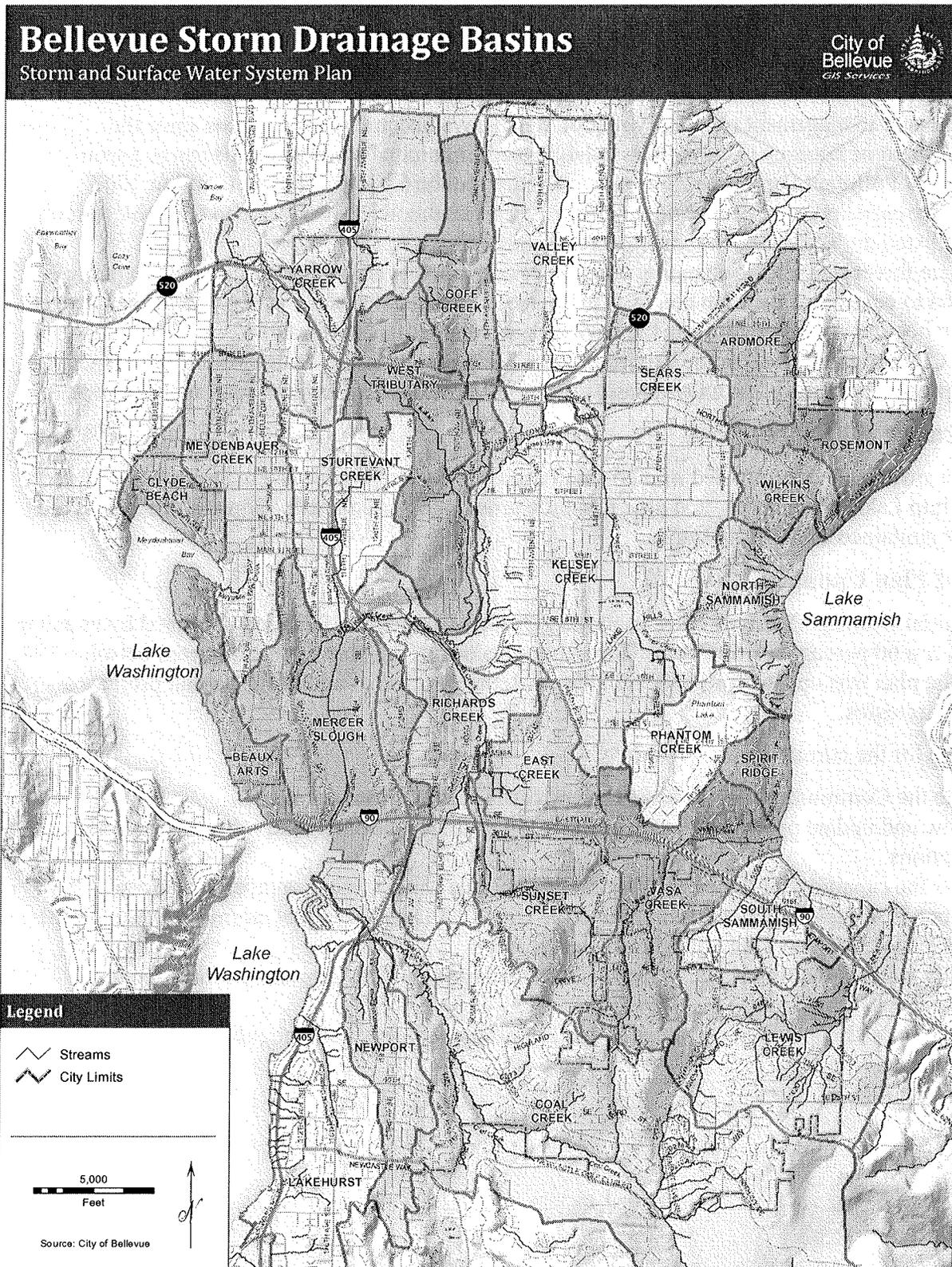
City drainage areas have been divided into 26 small drainage basins (Figure A-1). Seventeen of these basins drain into Lake Washington, and nine drain towards Lake Sammamish. Some of the basins are only partially contained within City limits.

Objective of Plan Update

The City's initial Drainage Master Plan was adopted by City Council in 1979, and approved by voters in 1980 with over a 60 percent positive vote. The major portions of the plan were completed between 1981 and 1984. The plan was updated in 1988 and 1994 with the addition of additional capital projects and management strategies.

The objectives for the current update include:

- Refine the Community Vision for Storm and Surface Water Management
- Review and update operating system policies to ensure consistency with other city policies and regulations
- Assess the capability of the existing storm and surface water system to meet regulatory requirements, including but not limited to the City's NPDES municipal stormwater permit, the Clean Water Act, and the Endangered Species Act
- Identify water flow, water quality, and habitat management data gaps and develop tactics to address them
- Develop a roadmap to guide system evaluation, improvements, and outreach/education over the next decade.



Plot Date: 9/2/2011 File Name: V:\utpl\ArcGIS\Storm\UtilCompPlan_2010\ArcGIS\Bellevue Location and Storm Drainage Basins.mxd IT Department

Figure A-1. Location of the City of Bellevue and the 26 storm drainage basins. Note that some basins are located partially outside City limits.

Plan Recommendations

In general, the programs, policies, and practices implemented since the last systematic review of the stormwater utility, such as new detention regulations or asset management strategies, seem to be aligned with the needs of the system. Recommendations do not change existing utility policies or facilities but reflect needs for some increased service levels to respond to regulatory requirements, most notably the Municipal Stormwater National Pollution Discharge Elimination System (NPDES) Phase II permit. Recommendations affecting technical projects or programs are included within individual chapters where they are discussed.

Capital Investment Program

The Utilities' Storm and Surface Water Capital Investment Program (CIP) is a seven-year spending plan, representing a significant investment of Utilities Department resources intended to further the department's mission with regards to storm and surface water. The CIP recommendations are organized into four distinct categories for flood control, water quality, fish and wildlife habitat, and asset management.

Flooding

Bellevue does not have wide-spread flooding problems, though a few areas of flooding concern remain. Established Level-of-Service goals are intended to prevent flooding of structures, flooding which restricts access to residences or businesses, or most street flooding, particularly on primary emergency routes.

The King County Flood Control Zone District (KCFZD) is a special purpose government created to provide funding and policy oversight for flood protection projects and programs throughout King County, including Bellevue. KCFZD has on its CIP list a project to replace 5 culverts and increase conveyance capacity of Coal Creek in the Newport Shores neighborhood. That project is scheduled to receive funding beginning in 2014. In addition to its CIP program, the District redirects one-percent of its funding back to local jurisdictions for sub-regional flood control capital projects.

Recommendations: No substantive changes in existing policies and practices.

1. Continue investing in the Flood Control Capital Program (D-94). Projects involve enlarging pipes or culverts to convey more stormwater, re-routing drainage to pipes with more capacity, adding detention or infiltration facilities, or other runoff control strategies.
2. Continue to use King County Flood Control Zone District Sub-Regional Opportunity funds to supplement local rates that partially fund projects in the City's Flood Control capital program.

Water Quality

Water quality concerns raised in Ecology's list of impaired water bodies are common non-point source pollution issues that are better addressed through programs, such as source control investigations or focused outreach, rather than capital projects. However, capital investments have been made at existing stormwater facilities to improve water quality.

Recommendations: No substantive changes in existing policies and practices.

- Surface Water Quality: The wording of the Surface Water Quality policy was updated to acknowledge issuance of the City's National Pollutant Discharge Elimination System (NPDES) Municipal Stormwater Permit in 2007. Policy intent was not substantially changed.

- **Lake Management:** This existing policy was revised for clarity. Specifically, the policy acknowledged a need for coordination with lake management and to provide general background information on lakes with more recent examples of the Utilities Department lake management policy in action.
- **Encourage the Use of Low Impact Development Techniques Where Feasible:** This is a new policy intended to support and promote the implementation of low impact development (LID) techniques. The policy was developed because there is general recognition that LID techniques have a positive effect on the hydrologic balance in stormwater basins where they are used. The Storm and Surface Water Utility has a unique role in promoting the environmental benefits associated with LID techniques.

Habitat

Streams in Bellevue, like most urban streams in the Puget Sound, are impaired and lack quality habitat (see chapter 7 Basin Issues and Needs). There is insufficient wood in the streams and there are not enough deep, in-channel pools where fish forage and seek refuge. Macro-invertebrates data also showed impacts of urban impairment.

Barriers to fish migration also exist. The city is required by state law to maintain fish passage at all road crossings (RCW 77.57.030). Culverts that are perched high above the stream channel or culverts where the water is too shallow or too fast are examples of fish passage barriers. Removing fish barriers supports the community's vision for maintaining fish habitat, and regional efforts to protect and enhance salmon populations.

Recommendations: No substantive changes in existing policies and practices.

1. Continue to invest in D-81 Fish Passage Improvement Program to remove fish passage barriers created by impassable culverts, debris jams, or accumulated sediment, that opens spawning and rearing habitat for salmon populations.
2. Continue to invest in D-86 Stream Channel Modification Program to construct habitat improvements on stream channels.
3. Invest in D-104, Stream Restoration for Mobility & Infrastructure Initiative for stormwater improvements associated with the Mobility and Infrastructure Initiative (a citywide initiative which seeks to address high priority mobility and infrastructure needs in Downtown Bellevue and in the Bel-Red Corridor).

Asset Management

Bellevue owns almost 400 miles of stormwater conveyance pipe. Much of the constructed drainage system was built before standards for storm pipe material and construction were in place; consequently, some infrastructure asset characteristics are unknown. For example, the installation date is known for only approximately 25 percent of the drainage pipes. The strategy for identifying asset conditions and residual life is identified in the SSWSP. It is a fundamental assumption of the stormwater asset management program that significant investments will be needed to maintain the system and replace components that are reaching the end of their useful life. The Storm Capital Investment Program focuses on critical pipes where the consequences of failure would be significant.

Recommendations: No substantive changes in existing policies and practices.

1. Continue to invest in capital programs and projects so critical facilities (e.g. large diameter pipes and culverts) are repaired or replaced prior to failure.
 - D-64 Storm Water System Conveyance Infrastructure Rehabilitation: This ongoing program rehabilitates or replaces defective storm drainage pipelines and ditches identified in the Utility's condition assessment program or other means.
 - D-103 Replace Coal Creek Pkwy Culvert at Coal Creek: Recent inspections revealed the pipe is heavily corroded, with limited remaining structural integrity.

Customer Service

Recommendations: No substantive changes in existing policies and practices.

Deltas: An existing policy updated to indicate that the city will not generally interfere in the natural process of delta formation. This reflects current conditions and provides improved clarity of policy intent.

Emerging Issues

The following recommendations are in response to the emerging issues related to the management of stormwater:

Recommendations: No substantive changes in existing policies and practices.

1. Continue to encourage use of emerging Low Impact Development (LID) technologies and collect data on their effectiveness.
2. Continue to educate the public how to optimize on-site stormwater runoff management.
3. Monitor the effectiveness of structural and outreach programs over time.

Puget Sound Partnership: The Puget Sound Partnership (PSP) is a community effort of citizens, governments, tribes, scientists and businesses working together to restore and protect Puget Sound. The Governor and the Legislature tasked the Partnership to create an Action Agenda to clean up Puget Sound by 2020. The State Legislature intends that all government entities within the Puget Sound will exercise their existing authority to implement the applicable provisions of the action agenda (RCW 90.71.350).

Recommendation: Continue to support regional planning efforts and activities related to water quality and quantity, and habitat consistent with community values and resources.

Regulatory Drivers: The City's Municipal NPDES Stormwater permit, issued by the State Department of Ecology (Ecology) is the basis for regulatory compliance for operating the City's municipal storm and surface water system (MS-4). Ecology will implement the conditions of the permit using a phased approach, using 5-year permit cycles to slowly ramp-up the permit requirements.

Recommendation: Continue to implement the planned NPDES activities described in the City's annual Stormwater Management Program report.

Water Quality Improvement Project: Ecology may require projects and programs to improve surface water quality for water bodies identified on the State's list of impaired water bodies (the 303 (d) list). The Total Maximum Daily Load (TMDL) or Water Quality Improvement Project process establishes limits on pollutants that can be discharged to a listed waterbody and still allow state standards to be met. Bellevue has water bodies on the state's 303(d) list.

Recommendation: Verify the State’s list of water quality impairments in Bellevue (303(d) listed water bodies) to determine if existing programs will address identified water quality impairments.

Regional Water Quality Monitoring. The City’s current NPDES permit requires Bellevue to prepare a comprehensive long-term monitoring program (NPDES Stormwater Management Program, 2011). These permit requirements focused on characterization of outfall quantity and quality and effectiveness of practices will likely be replaced in the next municipal NPDES permit by a regional stormwater monitoring program being developed by the Stormwater Work Group (SWG).

Recommendation: Continue to participate in and support the recommendations of the Stormwater Work Group that provides more meaningful and useful results, is less expensive, and meets multiple objectives, such as Chinook recovery or Growth Management Act directives.

Regional Policies: Regional, State, and Federal Involvement. Changes were made to this existing policy to clarify, update, and make it consistent with other City processes without substantially altering the original intent of the policy.

Financial Policies: Five separate financial policies are evaluated with each budget cycle. For the Storm and Surface Water System Plan, they were not part of the policy review process.

Deleted Policies

- **Residential Drainage Assistance Policy:** *“The Utility should offer education and advice to single-family property owners with private drainage problems.”*

This policy was deleted because the service described in the policy is an existing Level of Service (LOS) that has been in place for years across all utility services (water, wastewater, and storm) and should not be limited to residential areas.

- **Neighborhood Enhancement Projects Policy:** *“Each year the Utility shall allocate part of the capital budget to construct drainage projects identified through the Neighborhood Enhancement Program.”*

This policy was deleted because the Utilities Capital Investment Program includes an ongoing program to support the City’s Neighborhood Enhancement Program.

- **Stormwater Runoff Control Requirements Policy:** *“The Utility should develop appropriate Codes, Regulations and Standards to carry out the City Comprehensive Plan policy of restricting the runoff from all new development and re-development. The goal of this policy is to maintain a hydrologic balance that provides for the safety and enjoyment of citizens, and preserves and enhances habitat and sensitive areas. To address the goal of this policy, the City must minimize the potential for flooding and streambank erosion.”*

This policy was deleted because runoff control requirements are now required by the City’s Phase II NPDES Municipal Stormwater Permit that is issued by Washington State Department of Ecology (Ecology). Runoff control requirements for new and redeveloping properties consistent with the permit are included in the City’s Storm and Surface Water Codes, which have been adopted by the City Council.

- **Property Restoration Policy:** *“During the project design process, the Utility shall consider the impact to private property due to Utility construction... [complete policy not reproduced].”*

This policy was deleted because property restoration standards described in this policy are now included in the Storm and Surface Water Engineering Standards, as well as the easement documents necessary to gain access to the property.