

# Tab 3.0



### 3.0 OFF-SITE ANALYSIS

#### 3.1 Upstream Drainage

There is very minimal upstream area contributing to the site. A small upstream basin of approximately 0.04 acres drains into the project area from the south. This area is not anticipated to impact the project.

#### 3.2 Downstream Drainage Course

The downstream drainage course flows to the north in the west side of 120th Avenue N.E. for 345 feet where it discharges to the upstream inlet of Forbes Ditch.

Forbes Ditch is constricted by silt in varying degrees from this point to Forbes Lake. The water level in the ditch is also influenced by a very high seasonal groundwater table. The runoff from the proposed project will be reduced slightly with the increase in pervious surface so there will be no change to the performance of the downstream system.

There are no recorded drainage complaints available for this report but the City of Kirkland provided the following text:

Downstream problems in the Vicinity of 120<sup>th</sup> Ave NE from NE 90<sup>th</sup> Street north to Forbes Lake

1. The area between N.E. 90th Street and Forbes Lake has what appears to be a large area of wetlands and the water level in these wetlands determines the water level in the drainage network from the Costco site to Forbes Lake because the pipes in the area are very flat. Portions of the drainage system at the intersection of N.E. 90th Street and 120th Avenue N.E. are underwater throughout the year (see attached map). Backwater impacts of water levels in the pipe system should be considered in the project design. Water levels in the wetland appear to have caused nuisance problems such as driveway overtopping and yard flooding for the property at 8734 120th Avenue N.E.
2. Water level fluctuations in Forbes Lake cause nuisance yard flooding for properties directly adjacent to the lake during large (> 10-year) storm events.

Further study of these issues beyond the Level 1 Downstream Analysis will not be required, as based on the following in the 2009 KCWSWDM:

*“For any other nuisance problem which may be identified downstream, this manual does not required mitigation beyond the basic flow control standard applied in Core Requirement #3. This is because to prevent aggravation of such problems (e.g. those caused by the elevated water surfaces of ponds, lakes, wetlands, and closed depressions or those involving downstream erosion) can require two to three times as much onsite detention volume, which is considered unwarranted for addressing nuisance problems...”*  
(KCWSWDM page 1-25)

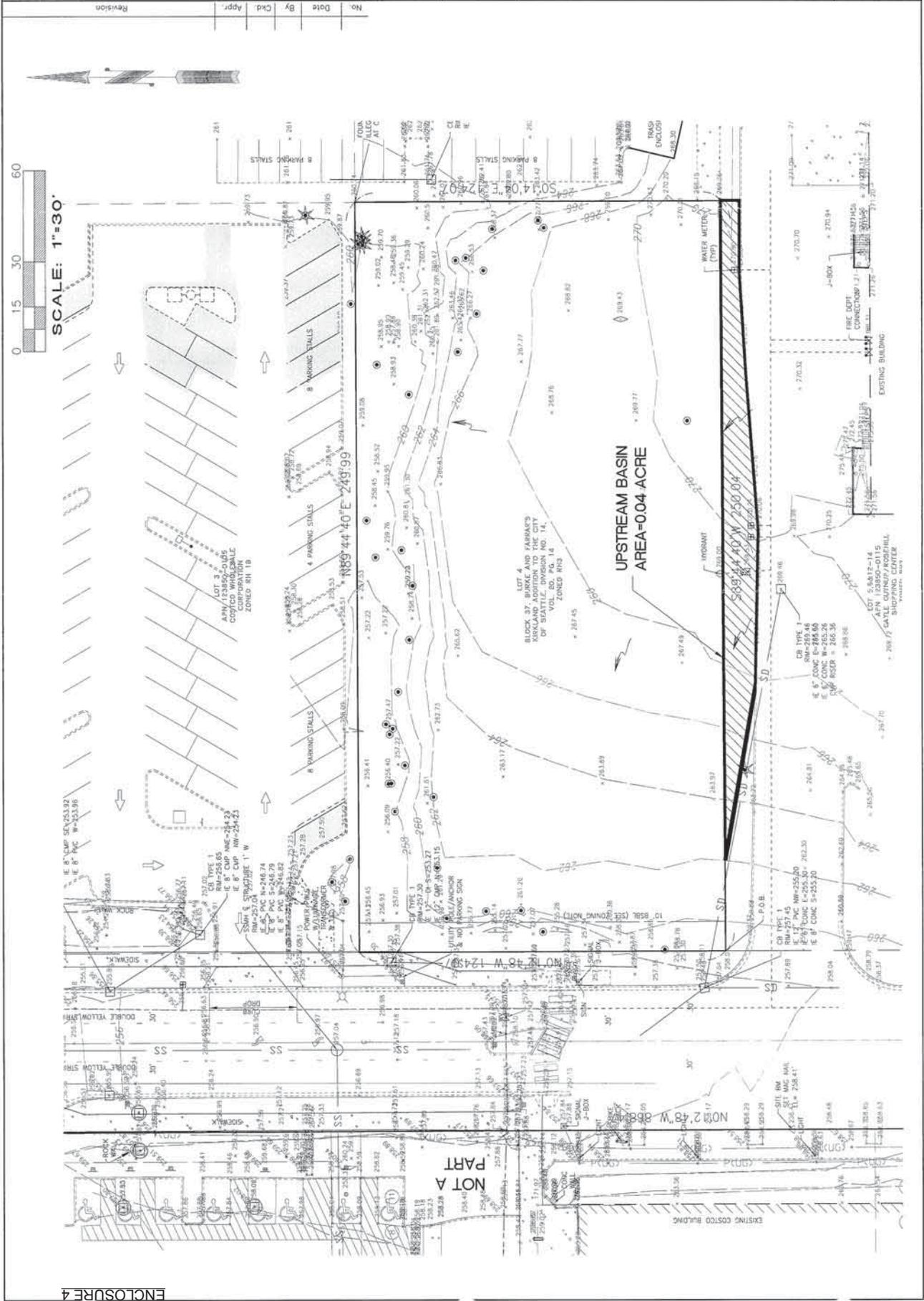
**UPSTREAM DRAINAGE BASIN MAP**

**Title:** UPSTREAM BASIN MAP  
 GYNNUP PARCEL  
 For: COSTCO WHOLESALE CORP.  
 999 LAKE DRIVE

Scale:	1" = 30'
Horizontal:	Checked
Vertical:	Checked
NA:	Checked

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 SURVEYING, ENVIRONMENTAL SERVICES

Job Number  
 6222  
 Sheet  
 1 of 23





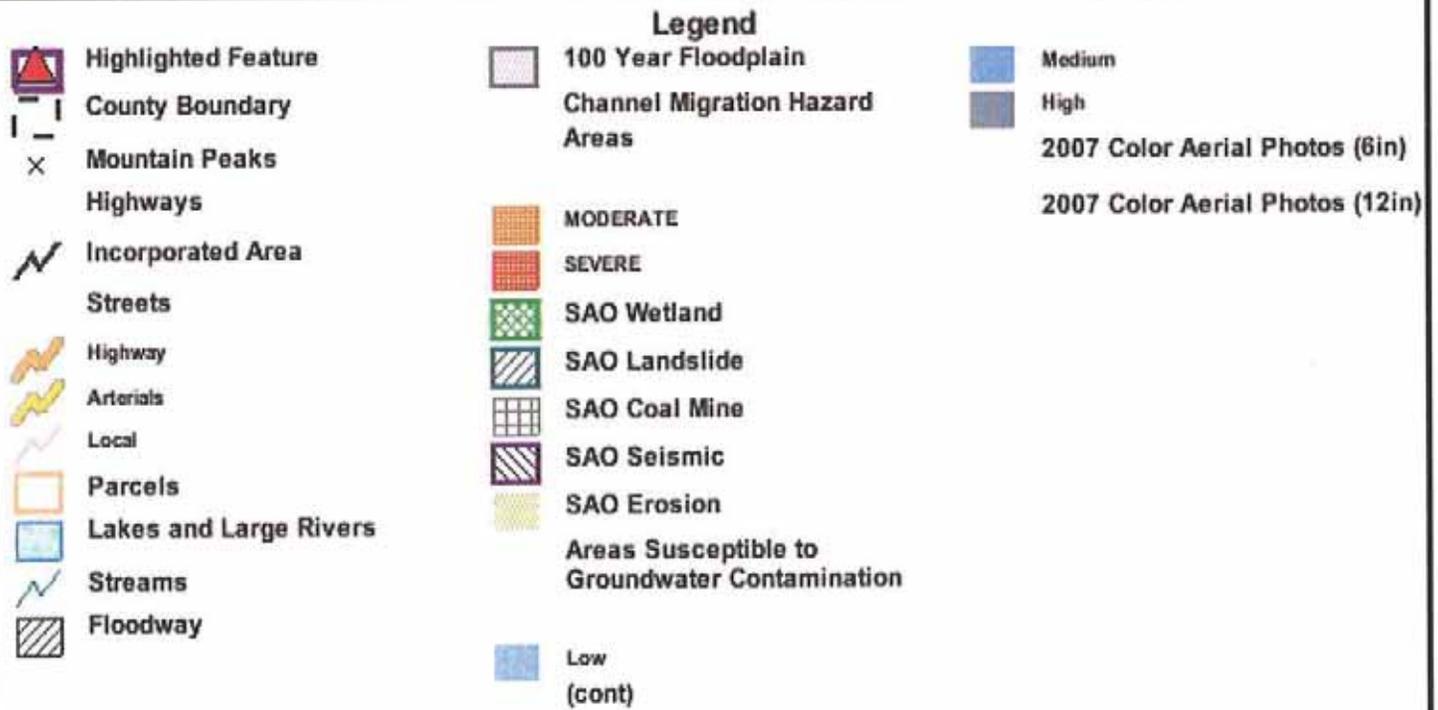
**SENSITIVE AREAS MAP**





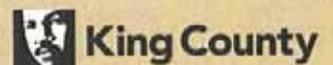
# Guynup Parcel - Sensitive Areas Map

ENCLOSURE 4



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Date: 10/13/2011 Source: King County iMAP - Sensitive Areas (<http://www.metrokc.gov/GIS/iMAP>)



# **BASIN RECONNAISSANCE REPORT**

RECONNAISSANCE REPORT NO. 7

FORBES CREEK BASIN

JUNE 1987

Natural Resources and Parks Division  
and Surface Water Management Division  
King County, Washington

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## I. SUMMARY

Forbes Creek Basin is located in north-central King County and is divided by Interstate 405 (I-405), running north and south. The eastern portion of the basin is primarily unincorporated, while the western half is in the city of Kirkland.

Much of the southern portion of the basin has been designated as "landslide hazard" in the Sensitive Areas Map Folio (SAMF) due to the underlying geology. Other areas have extensive sand deposits that are susceptible to surface erosion on moderate and steep slopes; these have been designated "high erosion" on the SAMF.

The field reconnaissance identified substantial evidence of environmental damage in this highly urbanized basin. Problems tended to be of two types: 1) **damage to property** from recent landslides, erosion, and flooding and 2) **destruction of wildlife and habitat** caused by discharge of pollutants (from roads and industrial activities), the dumping of domestic trash into streams, the deposition of fecal materials from livestock, siltation and sedimentation from erosion, and filling in wetland areas.

Recommendations for action in Forbes Creek Basin include efforts to 1) **prevent property damage from erosion and landslides**, 2) **prevent flooding**, 3) **improve the overall effectiveness of surface water management**, and 4) **mitigate current (and prevent future) deterioration of habitat**. These efforts should be coordinated with the city of Kirkland.

## II. INTRODUCTION

In 1985 the King County Council approved funding for the Planning Division (now called the Parks and Natural Resources Division), in coordination with the Surface Water Management Division, to conduct a reconnaissance of 29 major drainage basins located in King County. The effort began with an initial investigation of three basins -- Evans, Soos, and Hylebos Creeks -- in order to determine existing and potential surface water problems and to recommend action to mitigate and prevent these problems. These initial investigations used available data and new field observations to examine geology, hydrology, and habitat conditions in each basin.

Findings from these three basins led the King County Council to adopt Resolution 6018 in April 1986, calling for reconnaissance to be completed on the remaining 26 basins. The Basin Reconnaissance Program, which was subsequently established, is now an important element of surface water management. The goals of the program are to provide useful data with regard to 1) critical problems needing immediate solutions, 2) basin characteristics for use in the preparation of detailed basin management plans, and 3) capital costs associated with the early resolution of drainage problems.

The reconnaissance reports are intended to provide an evaluation of present drainage conditions in the County in order to transmit information to policymakers to aid them in developing more detailed regulatory measures and specific capital improvement plans. They are not intended to ascribe in any conclusive manner the causes of drainage or erosion problems; instead, they are to be used as initial surveys from which choices for subsequent detailed engineering and other professional environmental analysis may be made. Due to the limited amount of time available for the field work in each basin, the reports must be viewed as descriptive environmental narratives rather than as final engineering conclusions.

Recommendations contained in each report provide a description of potential mitigative measures for each particular basin; these measures might provide maximum environmental protection through capital project construction or development approval conditions. The

Forbes Creek Basin  
(continued)

incised through the glacial sediments into bedrock, creating a small, narrow valley immediately below I-405.

The till, sand, and clay stratigraphy of the hills in the southern portion of the basin has resulted in the area being designated "landslide hazard" in the Sensitive Areas Map Folio (SAMF) of King County. However, relatively low-gradient slopes (15-30%) have promoted intense residential development on these slopes with minimal consequences. Also, soils rich in sand (from the sandy outwash deposits) exist in large bands in the basin and are relatively susceptible to surface erosion. These areas have been designated as "high erosion" in the SAMF.

**Hydrological characteristics.** The basin is composed of one major stream that drains northward through Forbes Lake and then 2.5 miles westward to Lake Washington. Most of the stream reach that drains into Forbes Lake is contained in pipes within the street rights-of-way. Three tributaries drain from east to west and into the main stem of Forbes Creek below the outlet of Forbes Lake. The most southern of these tributaries drains two major wetlands located along it. The middle tributary is itself a wetland that drains into the main stem, and the majority of the northern tributary has been piped in the reach above the Northern Pacific Railroad tracks. The northern tributary then splits, with the majority of the tributary flowing through pipes in the Par Mac Industrial Park. The other portion also flows through Par Mac but along the east side of the railroad tracks. Another separate, smaller stream is located in the northwest portion of the basin. Like Forbes Creek, this stream drains through Juanita Wetlands Park and into Lake Washington. The eastern portion of the basin is characterized by small hills and plateaus, a contrast to the sloping lands of the western portion.

**Habitat characteristics.** While the overall habitat in the Forbes Creek Basin is in fair condition, nowhere could it be classified as good or excellent. Illegal filling of wetlands, channelization of streams, discharge of toxicants, and other signs of urbanization have resulted in fish kills and destruction of habitat. By walking most of the stream from Lake Washington to I-405 the field team discovered that streamside cover and canopy are in good condition but that pollutant inputs have resulted in very small visible fish populations. Some sections of the stream, however, exhibit healthy populations of benthic organisms; other sections sustain large growths of algae due to nutrient loading from animal wastes.

#### B. Effects of Urbanization in the Basin

As might be expected in an area which is almost completely urbanized, Forbes Creek Basin bears visible signs of land use and environmental conflicts. Many of the problems originate in the Par Mac Industrial Park area, where pollutants are discharged into waterways and where the rechannelization of Forbes Creek has eliminated most natural habitat features associated with natural streams and stream corridors. These two problems -- deterioration of water quality and loss of habitat -- are repeated elsewhere in the basin. Livestock on hobby farms deposit fecal materials and add nutrients in streams and tributaries. The Northeast 85th Street commercial corridor has produced a major source of nutrients, toxicants, and highly erosive flows that leave the water turbid and opaque. In addition, the channelization of the upper reaches of Forbes Creek has isolated the stream from its floodplain and caused a loss of instream structure (woody debris) and streamside cover and canopy. This has resulted in elimination of fish habi-

Forbes Creek Basin  
(continued)

intersection of 104th Street NE and 116th Avenue NE appears to increase the water temperature of the stream. This change in water temperature may inhibit or prevent the habitation of fish.

- c. **Deposition of fecal materials from livestock.** Livestock wastes add large amounts of nutrients to the stream system on Tributary 0242 at river mile 2.15. This is causing visible algal blooms and probably has decreased the dissolved oxygen levels.
- d. **Extensive siltation and sedimentation from erosion of stream channel banks.** Siltation in Tributary 0242 from river mile .90 to the mouth at Lake Washington reduces fish habitat by filling pools. Erosion of upstream banks is accelerated, in part, by channelization of Tributary 0242 at river miles 1.50 and 1.10.
- e. **Illegal filling of wetlands.** There were three illegal fills identified in two wetlands. One of these wetlands is in King County, the other one in the city of Kirkland. The effects of filling include the elimination of habitat, reduction of natural storage and filtering of surface water, and flooding.
- f. **Modification of natural stream beds.** The piping of stream flows, the elimination of channel meanders, and the removal of vegetative cover and woody debris have increased flow velocities resulting in erosion and damaged habitat.

## IV. RECOMMENDATIONS FOR ACTION

## A. Prevent damage to property caused by erosion and landslides:

- 1. **Prohibit the placement of fill on hillslopes on Tributary 0242 at river mile 1.50.** Recent landslide activity observed here indicates that the steep hillslopes will probably experience further slides if development above encroaches over the hill by filling, by clearing, or if stormwater is discharged over the slope. (See #2 below.)
- 2. **Stop direct discharges of stormwater over hillslopes near Tributary 0242 at river mile 1.50.** A minimum consideration is to pipe the water down the hillslope.
- 3. **Pipe stormwater for 215 feet on Tributary 0242F,** where severe gully erosion exists.
- 4. **Consider, in the Forbes Creek basin plan, the possible construction of a sedimentation pond on Tributary 0242 near the gravel pit.** This would help reduce sedimentation problems occurring downstream of the gravel pit.

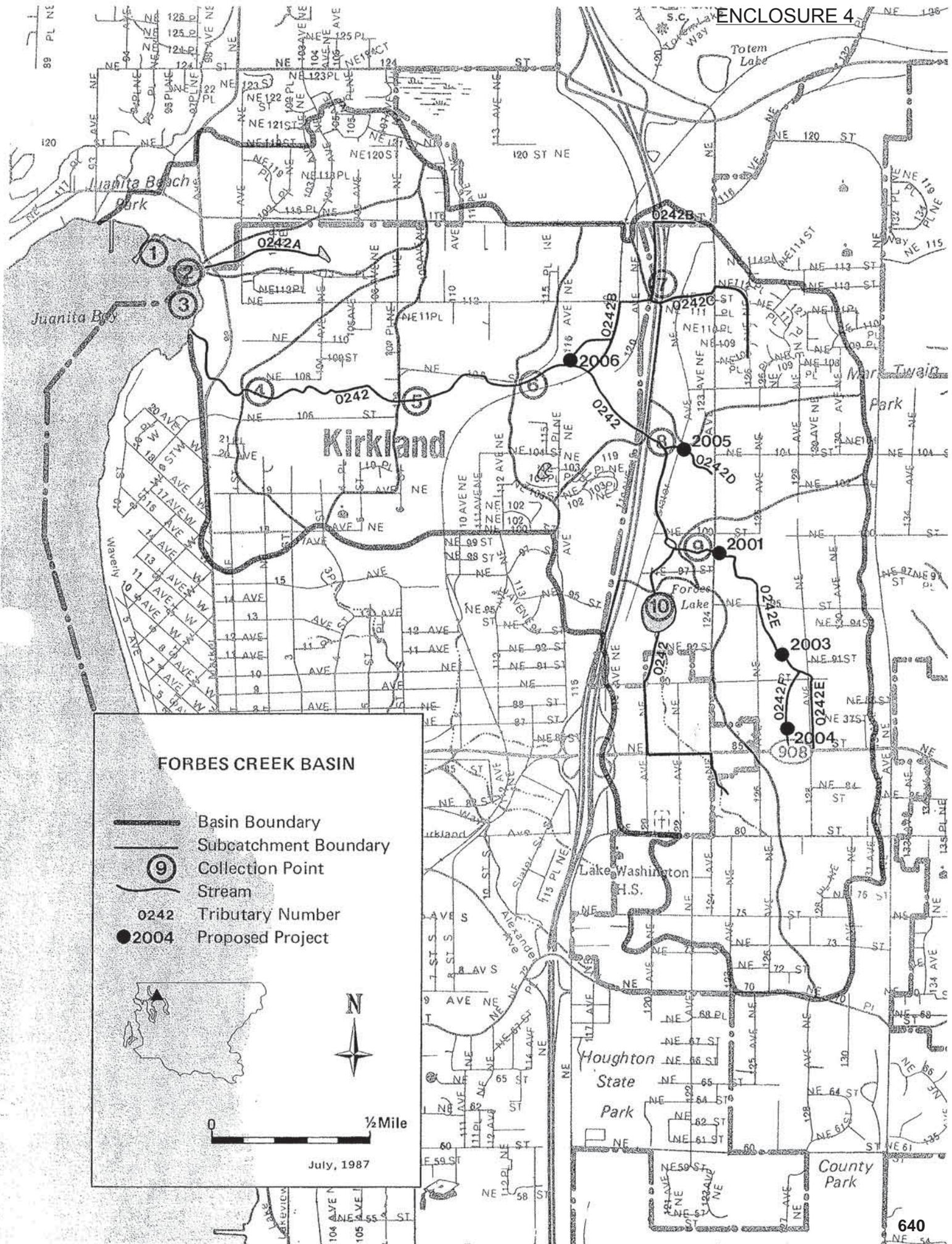
## B. Prevent flooding problems in the basin:

- 1. **Investigate the possibility of using the wetland that forms Tributary 0242D as well as Wetlands 2004 and 2005 as regional stormwater detention facilities in order to optimize their storage potentials and not degrade habitat values.**
- 2. **Work with the city of Kirkland to establish and maintain a stream corridor on Tributary 0242 from river miles .18 to 1.41 in order to maintain the storage pro-**

Forbes Creek Creek Basin  
(continued)

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4. **Establish stream corridor regulations** that prohibit encroachment or clearing along riparian corridors. The corridor for Forbes Creek Basin will be established at the time of basin planning.
  
5. **Create additional pools and cover** and rehabilitate instream gravels to provide spawning and rearing habitat for anadromous fish. This could be accomplished through activities established during the basin planning process or through community action projects.



**FORBES CREEK BASIN**

-  Basin Boundary
-  Subcatchment Boundary
-  Collection Point
-  Stream
-  Tributary Number
-  2004 Proposed Project



0  1/2 Mile

July, 1987

APPENDIX A  
 ESTIMATED COSTS: PROPOSED CAPITAL IMPROVEMENT PROJECTS  
 FORBES CREEK BASIN

\* Indicates project was identified by the Surface Water Management Office prior to reconnaissance.

NOTE: All projects located on map included in this report.

Project Number	Collect. Point	Project Description	Problem Addressed	Estimated Costs & Comments
2004*	9	Increase the R/D capacity of Forbes Creek Wetland 2004 by constructing a new outlet-control structure. Biological assessment needed to assure this project does not decrease habitat values.	Reduces peak flows by optimizing runoff storage potential in the wetland and improves water quality of runoff from suburban and urban areas.	\$113,000 (dependent on land acquisition costs)
2006*	9	Enhance the R/D capacity of Forbes Creek Wetland 2005 by constructing a new outlet-control structure. Biological assessment needed to assure this project does not decrease habitat values.	Reduces peak flows by optimizing the runoff storage potential in the wetland and improves the water quality of runoff from suburban and urban areas.	\$93,000 (dependent on land acquisition costs and outcome of enforcement actions on existing alterations to wetland identified during reconnaissance.
2007	9	Construct a pipe conveyance system for approximately 400 ft. from NE 85th St. to NE 87th St. cul-de-sac between 126th and 128th Ave. NE.	Eliminates channel and bank erosion in a reach of open channel that has severely eroded from concentrated urban flows.	\$58,000 (dependent on easement acquisition)

APPENDIX B  
CAPITAL IMPROVEMENT PROJECT RANKING  
FORBES CREEK BASIN

Prior to the Forbes Creek Basin field reconnaissance, three projects had been identified and rated for this basin, using the CIP selection criteria developed by the Surface Water Management Division and Natural Resources and Parks Division. Following the reconnaissance, five projects remain proposed for this basin. They include three previously unidentified and unrated projects. This displaces one previously selected project, which was eliminated based on the consensus of this basin's field team together with the Citizen Advisory Committee rating criteria.

One other project (2005) was proposed for this basin at a cost of \$84,000. However, the project did not receive a "GO" for Element 1 of the Citizen Advisory Committee criteria, so it was dropped.

The previous SWM capital improvement project list for the Forbes Creek Basin had an estimated cost of \$550,000, while the revised list decreases to an estimated cost of \$388,000. This 29.5 percent decrease in capital costs is due mainly to downward revisions of cost estimates for securing or acquiring easements over wetlands.

The following table summarizes the scores and costs for the CIPs proposed for the Forbes Creek Basin. These projects were rated according to previously established SWM Program Citizen Advisory Committee criteria. The projects ranked below are those for which the first rating question, ELEMENT 1: "GO/NO GO," could be answered affirmatively. These projects can be considered now for merging into the "live" CIP list. Any projects scoring over 100 points should be considered for incorporation into the six-year CIP plans.

<u>RANK</u>	<u>PROJECT NO.</u>	<u>SCORE</u>	<u>COST</u>
1	2009	88	To be determined by planning.
2	2007	65	\$ 58,000
3	2004*	60	113,000
4	2008	60	94,000
5	2006*	45	<u>93,000</u>
		TOTAL	\$358,000 +

\* Indicates that project was identified by the Surface Water Management Division prior to reconnaissance.

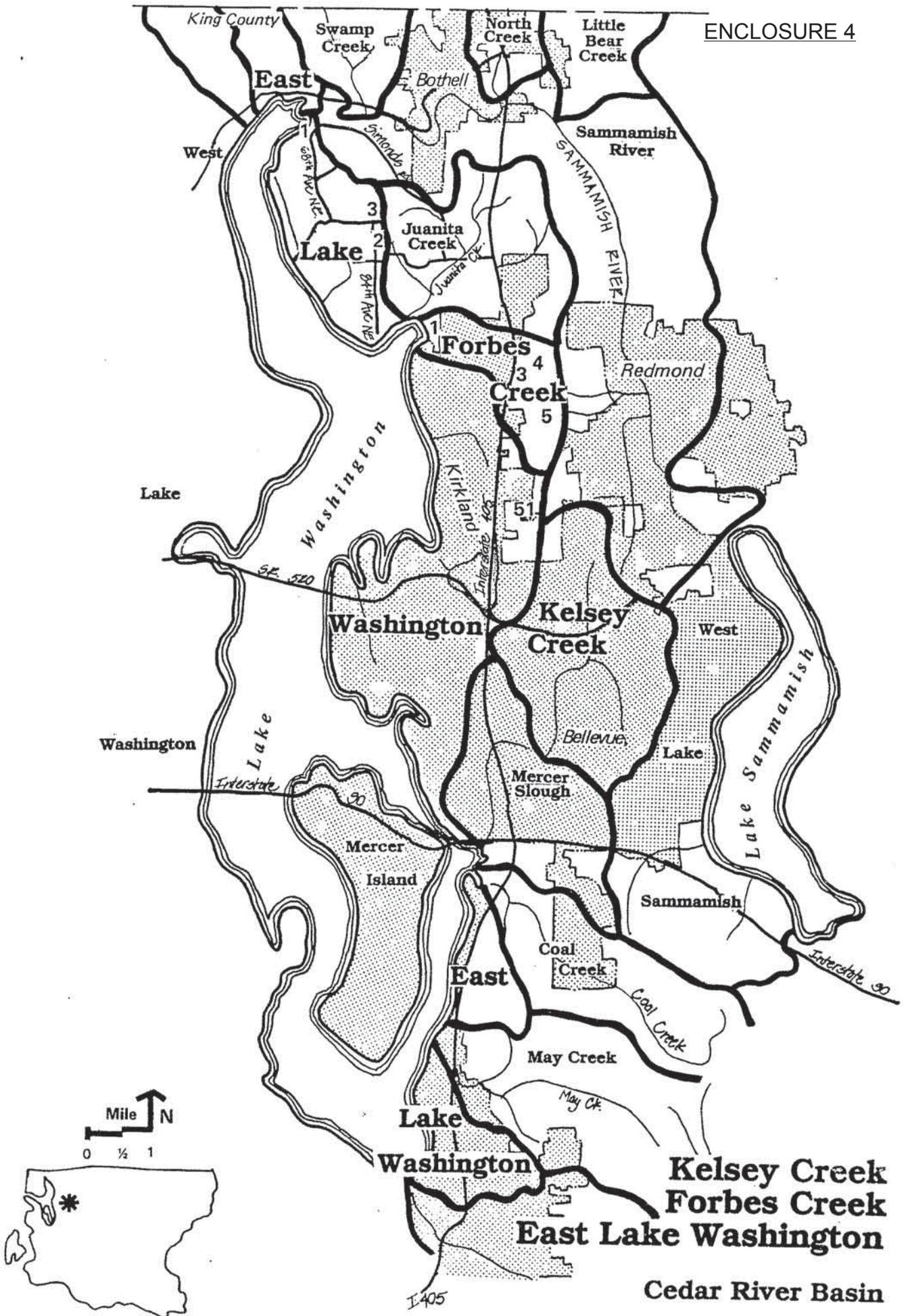
APPENDIX C  
 DETAILED FINDINGS AND RECOMMENDATIONS  
 FORBES CREEK BASIN

\* All items listed here are located on final display maps in the offices of Surface Water Management, Building and Land Development, and Basin Planning

Item*	Trib. & River Mi.	Collect. Point	Category	Prop. Proj.	Existing Conditions and Problems	Anticipated Conditions and Problems	Recommendations
1	0242 RM .05	3	Habitat		Numerous beaver dams causing water to threaten flooding of sewer lift station.	Potential for lift station failure due to flooding.	<ul style="list-style-type: none"> <li>- Leave beaver dams in place.</li> <li>- Build larger berm around lift station.</li> </ul>
2	0242 RM .30-.90	4	Habitat		Forbes Creek flows through large wetland area.	Low gradient could result in further sedimentation from above. More filling may occur.	<ul style="list-style-type: none"> <li>- Place stormwater volume and water quality controls in upper part of basin.</li> <li>- Kirkland should enforce no filling in wetland and floodplain areas.</li> </ul>
3	0242 RM .50	4	Habitat		There is a landfill exceeding 500 cubic yards in the wetland and floodplain.	Loss of riparian habitat and flood storage. Will increase flooding at lift station and at Juanita Wetlands Park.	Enforcement by appropriate jurisdictions. (NOTE: City of Kirkland and Army Corps of Engineers notified on 10/22/86.)

<u>Item</u>	<u>Trib. &amp; River Mi.</u>	<u>Collect. Point</u>	<u>Category</u>	<u>Prop.Proj.</u>	<u>Existing Conditions &amp; Problems</u>	<u>Anticipated Conditions &amp; Problems</u>	<u>Recommendations</u>
7	<u>0242</u> RM 1.50	6	Geology		Gully erosion from concentrated stormwater from development. Recent landslides on steep slopes.	Possible increase in landslide activity if development proceeds to (or passes) edge of hillslope. Gully erosion will continue unless flows are piped or diverted.	<ul style="list-style-type: none"> <li>- Prohibit building on fill over edge of hill-slopes.</li> <li>- Reroute or pipe stormflow in order to reduce gully erosion.</li> </ul>
8	<u>0242</u> RM 2.10- 2.15	8	Habitat		Large amounts of algae growing in stream. Source is a duck farm and pond at RM 2.15. Hundreds of ducks and domestic livestock defecate in area without ground cover; this drains into pond through which Forbes Creek flows.	Continued water quality problems. (This was the second worst water quality problem in Forbes Creek Basin).	Ask property owners to remedy problem. If no response, then refer problem to Health Dept., State Fisheries Dept. or Game Dept. for action. Farm area needs vegetation and an established stream corridor.
9	<u>0242</u> RM 2.30- 2.37	8	Hydrology		Conveyance capacity of outlet channel from Forbes Lake has been reduced from build-up of apparent sediment. Channel side slopes are vertical and vary in depth from 1' (at point of build-up) to 4' (further downstream). Stream banks range from lightly to heavily vegetated.	Properties surrounding Forbes Lake may experience flooding because of higher water surface elevation caused by reduced capacity of outlet channel. This will be most noticeable during periods of heavy runoff. Properties upstream of lake may also experience flooding because runoff will not drain into lake due to higher water-surface elevation.	At time of basin planning determine source of sediment build-up and impacts of sediment removal on downstream system. Also determine potential for upstream sediment ponds.

<u>Item</u>	<u>Trib. &amp; River Mi.</u>	<u>Collect. Point</u>	<u>Category</u>	<u>Prop.Proj.</u>	<u>Existing Conditions and Problems</u>	<u>Anticipated Conditions and Problems</u>	<u>Recommendations</u>
12	0242E RM .41	9	Hydrology	2004	Forbes Creek Wetland #2004 appears to be in good condition. Outlet pipe from wetland under 124th NE was totally submerged. Properties to south of wetland appear to be very low. Residences and roads appear to be only slightly higher than wetland.	Runoff peaks and volumes from future development will likely be accommodated in this wetland and Wetland 2205 upstream. Both will need to be utilized because of limited capacity of each wetland to handle total amount of development runoff.	<ul style="list-style-type: none"> <li>- Conduct and evaluate a detailed perimeter survey and flood-proof surrounding properties, as suggested by survey.</li> <li>- Construct regional R/D control facility here to optimize runoff storage potential in wetland.</li> <li>- Study, optimize, and integrate existing R/D facilities in immediate area with regional R/D facility.</li> <li>- Determine developed 100-year floodplain for wetland and prohibit structures, fills, or obstructions within floodplain.</li> </ul>
13	0242E RM .60	9	Habitat		Clearing and disturbance in Wetland 2005.	Loss of habitat. Flooding downstream.	Require wetland to be restore to its natural condition.
14	0242F	9	Geology		215 ft. of gully erosion has created a 6 X 6 ft. channel.	Erosion will continue.	Pipe flow the entire 215 ft. of length.
15	0242F RM .11	9	Hydrology	2007	Concentrated flows from urban runoff are discharging into an open channel and causing extensive bank and channel erosion, as well as transporting sediment downstream.	Further erosion and sedimentation will occur if channel is not stabilized.	Install tightline pipe system to replace the severely eroded channel.



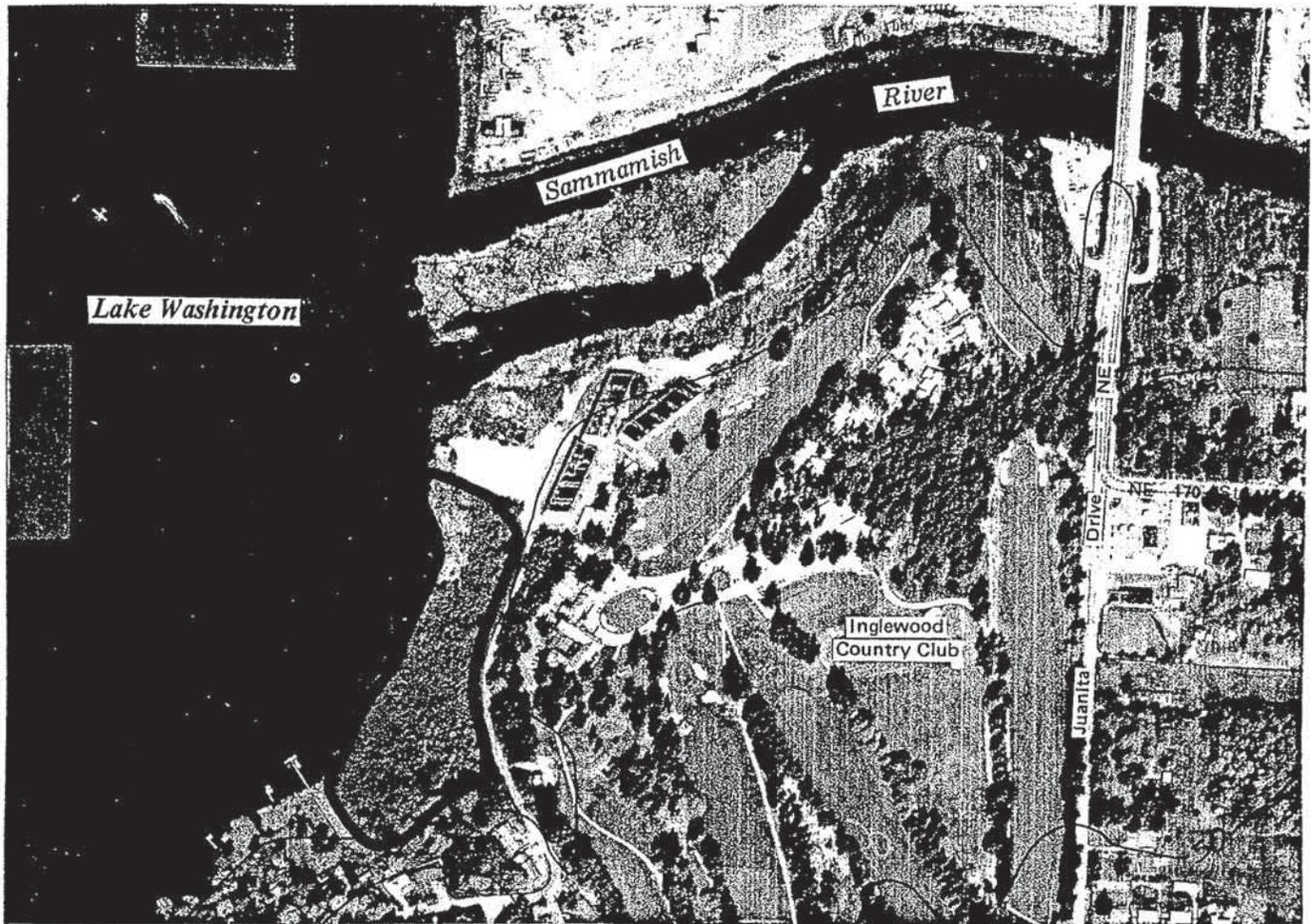


Photo Date: 5-80

North

Approx. Scale: 1" = 500'

WETLAND: *East Lake Washington 1*COMMUNITY  
PLAN AREA: *Northshore*LOCATION: *SW SE 11-26-4, NW SE 11-26-4*BASIN OR  
DRAINAGE: *Cedar River*INVENTORY DATE: *7-9-81*ACREAGE: *9.5*

CLASSIFICATION:	Fish and Wildlife Service	Common Name
<i>PSS1</i>	<i>Palustrine, Scrub-Shrub, Broad-leaved deciduous (Willow)</i>	<i>Scrub-Shrub</i>
<i>PEM5</i>	<i>Palustrine, Emergent, Narrow-leaved Persistent (Yellow Iris)</i>	<i>Deep Marsh</i>

NOTE: The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland often occurs over a broad area called the "transition zone". For a discussion, see *Wetland Plants of King County and the Puget Sound Lowlands* and "Guidelines for King County Wetlands."

**OBSERVED SPECIES: (refer to list in Appendix 1)**

**Trees:** AR, PT  
**Herbs:** LS, HF, MX, SN, IP, TL  
**Shrubs:** CS, RP, RS, SX, SD  
**Sedges/Rushes/Grass/Fern:** JO, JA, AZ, SG, AF, LM  
**Birds:** WD, PG, KF, VR, GB, CG, MA, CQ, CO, VR, VS, TS, BS, AR, MW  
**Mammals:** DE, RA  
**Fish:**  
**Other:**

**RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)**

**Recorded/Observed:**  
**Potential:** BE, OS

**SIGNIFICANT HABITAT FEATURES:** See original field notes; important site.

**OUTLET:** **Type:** Overland Undefined  
**Condition:**  
**Outflow enters:** Lake Washington

**POTENTIAL STORAGE:** **Existing Active:** 0 ac. ft.  
**Potential Active:** 0 ac. ft.

**GENERAL OBSERVATIONS:** Noise from Kenmore airport; garbage.

**WETLAND EVALUATION SUMMARY:**

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category	Rank (by percentile)	
	Sub-basin	County-wide
<b>Hydrology:</b> runoff storage potential, water quality, potential for minimizing damage in downstream areas	25	9
<b>Biology:</b> quality of habitat, abundance and diversity of plant and animal species	100	97
<b>Visual:</b> diversity and contrast of wetland and surrounding vegetation, surrounding landforms	100	69
<b>Cultural:</b> types of access, proximity to schools/institutions, overall environmental quality	100	33
<b>Economic:</b> presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	100	98

**WETLAND RATING:**

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

**Wetland Rating:** 1 (a)

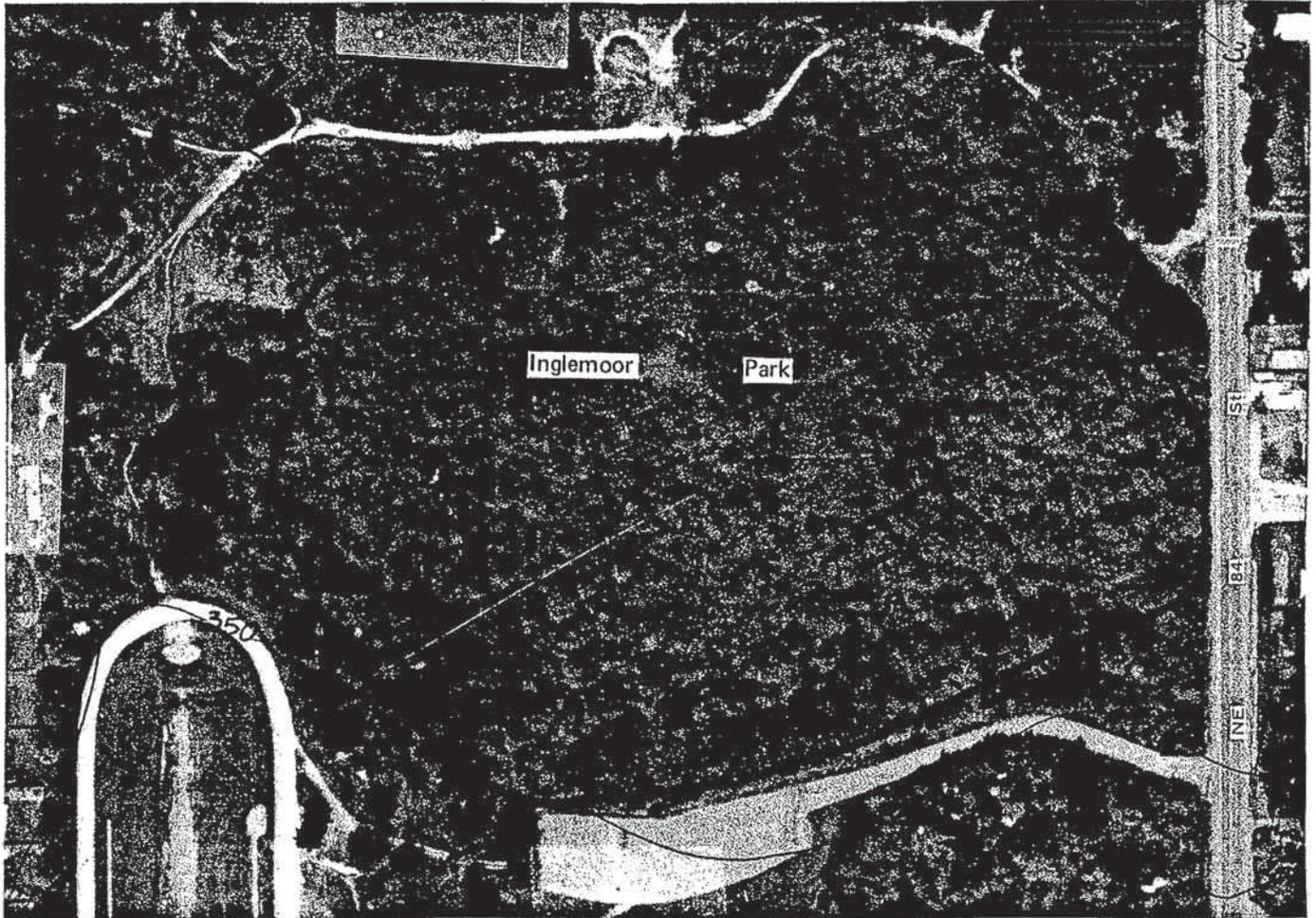


Photo Date: 5-80

North ▲

Approx. Scale: 1" = 200'

WETLAND: *East Lake Washington 2*COMMUNITY  
PLAN AREA: *Northshore*LOCATION: *SE SE 24-26-4, NE SE 24-26-4*BASIN OR  
DRAINAGE: *Cedar River*INVENTORY DATE: *7-8-81*ACREAGE: *15.5*

CLASSIFICATION:	Fish and Wildlife Service	Common Name
<i>PSS1</i>	<i>Palustrine, Scrub-Shrub, Broad-leaved deciduous (Hardhack)</i>	<i>Scrub-Shrub</i>
<i>PF01</i>	<i>Palustrine, Forested, Broad- leaved deciduous (Willow)</i>	<i>Forested</i>

NOTE: The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland often occurs over a broad area called the "transition zone". For a discussion, see *Wetland Plants of King County and the Puget Sound Lowlands* and "Guidelines for King County Wetlands."

**OBSERVED SPECIES: (refer to list in Appendix 1)**

- Trees:** AR, PT
- Herbs:** OS, RR
- Shrubs:** SR, RP, RS, SX, SD
- Sedges/Rushes/Grass/Fern:** AF
- Birds:** CQ, VS, TS, BS, AR, ST, CO, SS, YT, YW, GF
- Mammals:** RA, CY
- Fish:**
- Other:**

**RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)**

- Recorded/Observed:**
- Potential:**

**SIGNIFICANT HABITAT FEATURES:**

- OUTLET:**
- Type:** Pipe (24")
- Condition:** Partially Blocked
- Outflow enters:** Stream

- POTENTIAL STORAGE:** Existing Active: 6 ac. ft.
- Potential Active: 50 ac. ft.

**GENERAL OBSERVATIONS:** King County Park site; stagnation; garbage.

**WETLAND EVALUATION SUMMARY:**

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category	Rank (by percentile)	
	Sub-basin	County-wide
<b>Hydrology:</b> runoff storage potential, water quality, potential for minimizing damage in downstream areas	100	78
<b>Biology:</b> quality of habitat, abundance and diversity of plant and animal species	50	58
<b>Visual:</b> diversity and contrast of wetland and surrounding vegetation, surrounding landforms	100	68
<b>Cultural:</b> types of access, proximity to schools/institutions, overall environmental quality	100	27
<b>Economic:</b> presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	75	65

**WETLAND RATING:**

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

**Wetland Rating:** 2



Photo Date: 5-80

North ▲

Approx. Scale: 1" = 200'

WETLAND: *East Lake Washington 3*COMMUNITY  
PLAN AREA: *Northshore*LOCATION: *SW NW 19-26-5*BASIN OR  
DRAINAGE: *Cedar River*INVENTORY DATE: *6-4-81*ACREAGE: *.7*

CLASSIFICATION:	Fish and Wildlife Service	Common Name
<i>POW</i>	<i>Palustrine, Open Water</i>	<i>Open Water</i>
<i>PSSI</i>	<i>Palustrine, Scrub-Shrub, Broad-leaved Deciduous (Willow)</i>	<i>Scrub-Shrub</i>

NOTE: The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland often occurs over a broad area called the "transition zone". For a discussion, see *Wetland Plants of King County and the Puget Sound Lowlands* and "Guidelines for King County Wetlands."

**OBSERVED SPECIES: (refer to list in Appendix 1)**

- Trees:
- Herbs:
- Shrubs: *LI, SX, SD*
- Sedges/Rushes/Grass/Fern:
- Birds: *GB, MA, TS*
- Mammals:
- Fish:
- Other:

**RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)**

- Recorded/Observed:
- Potential:

**SIGNIFICANT HABITAT FEATURES:**

- OUTLET:**
- Type: *Open Channel*
  - Condition: *Open*
  - Outflow enters: *Stream*

- POTENTIAL STORAGE:**
- Existing Active: *1 ac. ft.*
  - Potential Active: *1 ac. ft.*

**GENERAL OBSERVATIONS:** *Traffic noise; Garbage prevalent.*

**WETLAND EVALUATION SUMMARY:**

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category	Rank (by percentile)	
	Sub-basin	County-wide
<b>Hydrology:</b> runoff storage potential, water quality, potential for minimizing damage in downstream areas	75	31
<b>Biology:</b> quality of habitat, abundance and diversity of plant and animal species	75	64
<b>Visual:</b> diversity and contrast of wetland and surrounding vegetation, surrounding landforms	25	6
<b>Cultural:</b> types of access, proximity to schools/institutions, overall environmental quality	25	11
<b>Economic:</b> presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	50	15

**WETLAND RATING:**

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

Wetland Rating: 3



Photo Date: 5-80

North ►

Approx. Scale: 1" = 200'

WETLAND: *East Lake Washington 51*COMMUNITY  
PLAN AREA: *Eastside*LOCATION: *SW SW 16-25-5, NW SW 16-25-5*BASIN OR  
DRAINAGE: *Cedar River*INVENTORY DATE: *7-8-81*ACREAGE: *5.2*

CLASSIFICATION:	Fish and Wildlife Service	Common Name
<i>PSSI</i>	<i>Palustrine, Scrub-Shrub, Broad-leaved deciduous (Willow)</i>	<i>Scrub-Shrub</i>

NOTE: The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland often occurs over a broad area called the "transition zone". For a discussion, see *Wetland Plants of King County and the Puget Sound Lowlands* and "Guidelines for King County Wetlands."

**OBSERVED SPECIES: (refer to list in Appendix 1)**

- Trees: AR, PT, TP
- Herbs: SN, GM, LA, OS, RR, TL, VA
- Shrubs: SR, RS, SX, SD
- Sedges/Rushes/Grass/Fern: EH, AF, LM
- Birds: VS, BS, AR, SS
- Mammals:
- Fish:
- Other:

**RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)**

- Recorded/Observed:
- Potential:

**SIGNIFICANT HABITAT FEATURES:**

- OUTLET:**
- Type: Pipe (18")
  - Condition:
  - Outflow enters: Stream

- POTENTIAL STORAGE:**
- Existing Active: 1 ac. ft.
  - Potential Active: 4 ac. ft.

**GENERAL OBSERVATIONS:** Garbage at North end;

**JETLAND EVALUATION SUMMARY:**

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category	Rank (by percentile)	
	Sub-basin	County-wide
<b>Hydrology:</b> runoff storage potential, water quality, potential for minimizing damage in downstream areas	50	29
<b>Biology:</b> quality of habitat, abundance and diversity of plant and animal species	25	9
<b>Visual:</b> diversity and contrast of wetland and surrounding vegetation, surrounding landforms	50	32
<b>Cultural:</b> types of access, proximity to schools/institutions, overall environmental quality	100	22
<b>Economic:</b> presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	50	15

**WETLAND RATING:**

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

Wetland Rating: 2

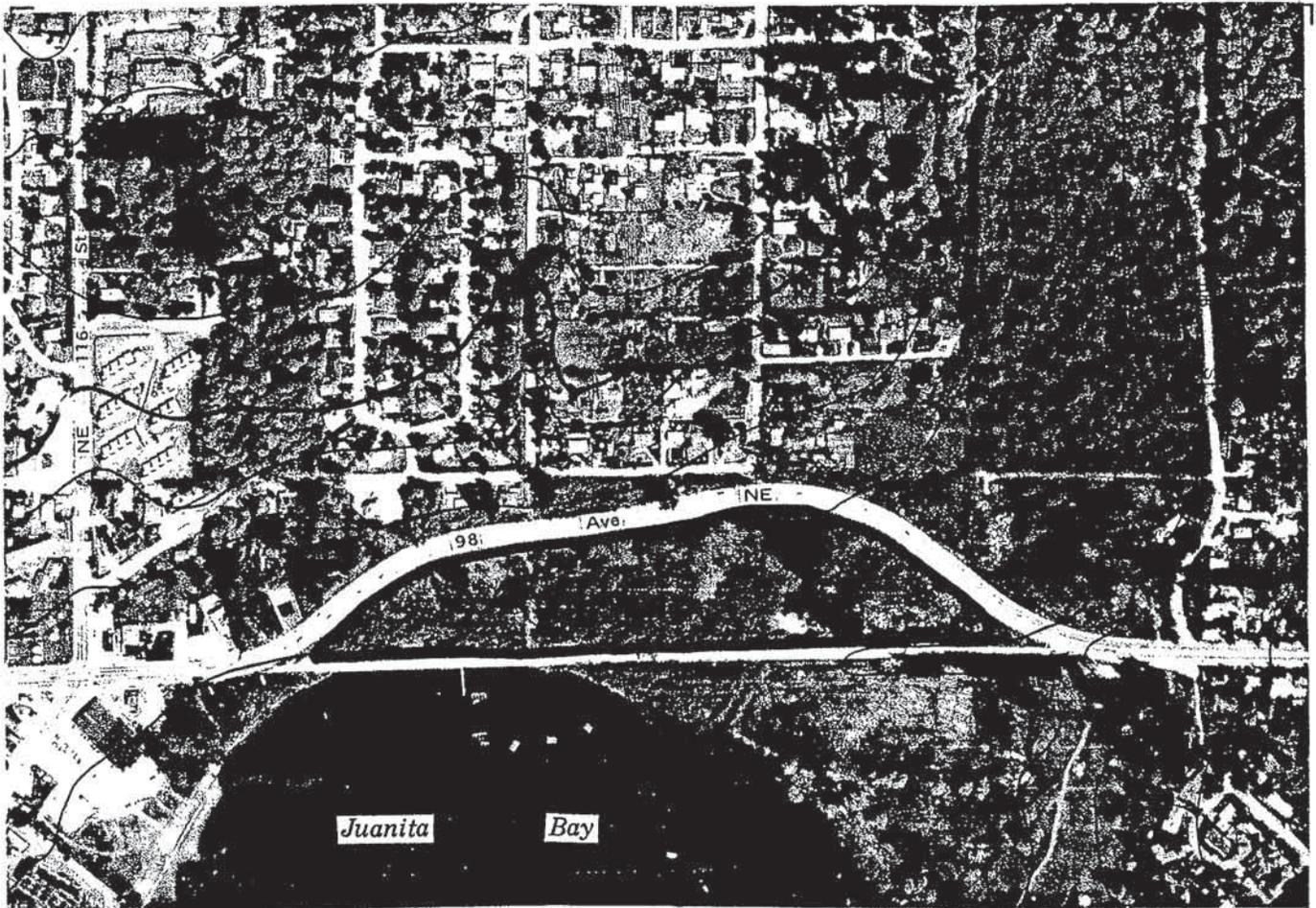


Photo Date: 5-80

North 

Approx. Scale: 1" = 500'

WETLAND: *Forbes Creek 1*COMMUNITY  
PLAN AREA: *Eastside*LOCATION: *NE NE 31-26-5*  
*SE NE 31-26-5*BASIN OR  
DRAINAGE: *Cedar River*INVENTORY DATE: *8-3-81*ACREAGE: *18*

CLASSIFICATION:	Fish and Wildlife Service	Common Name
<i>PSS1</i>	<i>Palustrine, Scrub-Shrub, Broad-leaved Deciduous (willow)</i>	<i>Scrub-Shrub</i>
<i>PEM5</i>	<i>Palustrine, Emergent, Narrow-leaved Persistent (Reed Canary Grass)</i>	<i>Deep Marsh</i>
<i>POW</i>	<i>Palustrine, Open Water</i>	<i>Open Water</i>

NOTE: The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland often occurs over a broad area called the "transition zone". For a discussion, see *Wetland Plants of King County and the Puget Sound Lowlands* and "Guidelines for King County Wetlands."

Forbes Creek 1

**OBSERVED SPECIES: (refer to list in Appendix 1)**

**Trees:** AR  
**Herbs:** LS, LA, RR, TL  
**Shrubs:** RS, SX, SD  
**Sedges/Rushes/Grass/Fern:** SM, AF, CX, JE, PA, SV  
**Birds:** MA, VS, TS, BS, CO, SS, YT  
**Mammals:**  
**Fish:**  
**Other:**

**RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)**

**Recorded/Observed:**  
**Potential:**

**SIGNIFICANT HABITAT FEATURES:**

**OUTLET:**                   **Type:** *Open channel*  
                                  **Condition:** *Partially blocked*  
                                  **Outflow enters:** *Lake Washington*

**POTENTIAL STORAGE:** **Existing Active:** *35 ac. ft.*  
                                  **Potential Active:** *72 ac. ft.*

**GENERAL OBSERVATIONS:** *Series of outlet channels under old road bridge*

**WETLAND EVALUATION SUMMARY:**

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category	Rank (by percentile)	
	Sub-basin	County-wide
<b>Hydrology:</b> runoff storage potential, water quality, potential for minimizing damage in downstream areas	50	50
<b>Biology:</b> quality of habitat, abundance and diversity of plant and animal species	100	80
<b>Visual:</b> diversity and contrast of wetland and surrounding vegetation, surrounding landforms	100	92
<b>Cultural:</b> types of access, proximity to schools/institutions, overall environmental quality	25	39
<b>Economic:</b> presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	50	44

**WETLAND RATING:**

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

**Wetland Rating:** 1 (c)



Photo Date: 5-80

North 

Approx. Scale: 1" = 200'

WETLAND: *Forbes Creek 3*COMMUNITY  
PLAN AREA: *Eastside*LOCATION: *NW 4-25-5*BASIN OR  
DRAINAGE: *Cedar River*INVENTORY DATE: *8-3-81*ACREAGE: *8*

CLASSIFICATION:	Fish and Wildlife Service	Common Name
<i>POW</i>	<i>Paulstrine, Open Water</i>	<i>Open Water</i>
<i>PAB5</i>	<i>Palustrine, Aquatic Bed, Floating (white pond lily)</i>	<i>Open Water</i>
<i>PSS1</i>	<i>Palustrine, Scrub-Shrub, Broad- leaved Deciduous (hardhack)</i>	<i>Scrub-Shrub</i>

**NOTE:**

The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland often occurs over a broad area called the "transition zone". For a discussion, see *Wetland Plants of King County and the Puget Sound Lowlands and "Guidelines for King County Wetlands"*

**OBSERVED SPECIES: (refer to list in Appendix 1)**

Trees: AR  
 Herbs: IP, NO, PP, RR, TL  
 Shrubs: OC, SX, SD  
 Sedges/Rushes/Grass/Fern: CX, JE, JX, PA  
 Birds: MA, VS, TS, BS, AR  
 Mammals:  
 Fish:  
 Other:

**RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)**

Recorded/Observed:  
 Potential:

**SIGNIFICANT HABITAT FEATURES:**

OUTLET: Type: Open channel  
 Condition: Partially blocked  
 Outflow enters: Stream

POTENTIAL STORAGE: Existing Active: 16 ac. ft.  
 Potential Active: 8 ac. ft.

**GENERAL OBSERVATIONS:**

**WETLAND EVALUATION SUMMARY:**

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category	Rank (by percentile)	
	Sub-basin	County-wide
<b>Hydrology:</b> runoff storage potential, water quality, potential for minimizing damage in downstream areas	100	63
<b>Biology:</b> quality of habitat, abundance and diversity of plant and animal species	75	56
<b>Visual:</b> diversity and contrast of wetland and surrounding vegetation, surrounding landforms	75	56
<b>Cultural:</b> types of access, proximity to schools/institutions, overall environmental quality	50	52
<b>Economic:</b> presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	50	12

**WETLAND RATING:**

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

Wetland Rating: 2



Photo Date: 5-80

North ←

Approx. Scale: 1" = 200'

WETLAND: *Forbes Creek 4*COMMUNITY  
PLAN AREA: *Eastside*LOCATION: *NW NE 4-25-5*BASIN OR  
DRAINAGE: *Cedar River*INVENTORY DATE: *8-3-81*ACREAGE: *7.5*

CLASSIFICATION:	Fish and Wildlife Service	Common Name
<i>PSS1</i>	<i>Palustrine, Scrub-Shrub, Broad-leaved Deciduous (willow, hardhack)</i>	<i>Scrub-Shrub</i>
<i>PEM5</i>	<i>Palustrine, Emergent, Narrow-leaved Persistent (cattail, reed canary grass)</i>	<i>Wet Meadow</i>

NOTE: The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland often occurs over a broad area called the "transition zone". For a discussion, see *Wetland Plants of King County and the Puget Sound Uplands and "Guidelines for King County Wetlands"* 659

**OBSERVED SPECIES: (refer to list in Appendix 1)**

Trees: AR  
 Herbs: RR, SD, TL, VS  
 Shrubs: SX, SD  
 Sedges/Rushes/Grass/Fern: SM, AF, CX, JE, JX  
 Birds: BS, RB, SS, YW, WW  
 Mammals:  
 Fish:  
 Other:

**RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)**

Recorded/Observed:  
 Potential:

**SIGNIFICANT HABITAT FEATURES:** Several snags

**OUTLET:** Type: Pipe  
 Condition: Open  
 Outflow enters: Wetland

**POTENTIAL STORAGE:** Existing Active: 15 ac. ft.  
 Potential Active: 15 ac. ft.

**GENERAL OBSERVATIONS:** Road noise from 124 Avenue NE

**WETLAND EVALUATION SUMMARY:**

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category	Rank (by percentile)	
	Sub-basin	County-wide
<b>Hydrology:</b> runoff storage potential, water quality, potential for minimizing damage in downstream areas	75	62
<b>Biology:</b> quality of habitat, abundance and diversity of plant and animal species	50	17
<b>Visual:</b> diversity and contrast of wetland and surrounding vegetation, surrounding landforms	25	43
<b>Cultural:</b> types of access, proximity to schools/institutions, overall environmental quality	100	77
<b>Economic:</b> presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	100	25

**WETLAND RATING:**

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

Wetland Rating: 2



Photo Date: 5-80

North ➤

Approx. Scale: 1" = 200'

WETLAND: *Forbes Creek 5*COMMUNITY  
PLAN AREA: *Eastside*LOCATION: *SW NE 4-25-5*BASIN OR  
DRAINAGE: *Cedar River*INVENTORY DATE: *8-3-81*ACREAGE: *4*

CLASSIFICATION:	Fish and Wildlife Service	Common Name
<i>PSS1</i>	<i>Palustrine, Scrub-Shrub, Broad-leaved Deciduous (hardhack, willow)</i>	<i>Scrub-Shrub</i>
<i>PEM5</i>	<i>Palustrine, Emergent, Narrow-leaved Persistent (reed canary grass)</i>	<i>Shallow Marsh</i>

NOTE: The wetland edge shown above is approximate. In marshes, ponds or lakes, the transition from standing water to uplands is usually clear. However, the edges of forested or scrub/shrub wetlands are less distinct. There, the change from wetland to upland often occurs over a broad area called the "transition zone". For a discussion, see *Wetland Plants of King County and the Puget Sound Lowlands* and "Guidelines for King County Wetlands".

**OBSERVED SPECIES: (refer to list in Appendix 1)**

**Trees:** AR, TP  
**Herbs:** RR, TL, VS  
**Shrubs:** RS, SX, SD  
**Sedges/Rushes/Grass/Fern:** AF, CX, JE  
**Birds:** VS, BS, YW, WW  
**Mammals:**  
**Fish:**  
**Other:**

**RARE/ENDANGERED/THREATENED SPECIES: (refer to list in Appendix 2)**

**Recorded/Observed:**  
**Potential:**

**SIGNIFICANT HABITAT FEATURES:****OUTLET:**

**Type:** *Open channel*  
**Condition:** *Open*  
**Outflow enters:** *Pipe*

**POTENTIAL STORAGE:** Existing Active: *0 ac. ft.*  
 Potential Active: *4 ac. ft.*

**GENERAL OBSERVATIONS:** *Fill on portion of wetland*

**WETLAND EVALUATION SUMMARY:**

Data was collected in the five categories shown below. Within each category the data was evaluated to produce numerical values. Composite values for each category were produced in order to compare each wetland to other wetlands in its sub-basin and in King County. The result of that comparison was a percentile rank. The percentile is expressed on a scale of one hundred and indicates the percent of wetlands that scored equal to or below that particular site. For example, a percentile rank of 80 under sub-basin means that the wetland scored equal to or better than 80 percent of all sites within the sub-basin for that evaluation category. NOTE: The percentile ranks are valid only within the individual evaluation category and are intended solely for reference and comparison.

Evaluation Category	Rank (by percentile)	
	Sub-basin	County-wide
<b>Hydrology:</b> runoff storage potential, water quality, potential for minimizing damage in downstream areas	25	33
<b>Biology:</b> quality of habitat, abundance and diversity of plant and animal species	25	5
<b>Visual:</b> diversity and contrast of wetland and surrounding vegetation, surrounding landforms	50	50
<b>Cultural:</b> types of access, proximity to schools/institutions, overall environmental quality	100	74
<b>Economic:</b> presence of agriculture/peat extraction, anadromous or game fish, game birds or mammals of commercial value	75	12

**WETLAND RATING:**

Each wetland was assigned one of three possible wetland ratings. The wetland ratings were determined by examining the scores of selected inventory tasks, specific data or percentile ranks for individual evaluation categories. The criteria used to assign the wetland ratings are described in the Introduction. For each rating a number of specific guidelines for new development in or adjacent to wetlands were prepared. The guidelines are intended to assist in carrying out King County's Sensitive Areas Ordinance and other wetland policies. They are included in a separate report titled "Guidelines for King County Wetlands".

**Wetland Rating:** 2