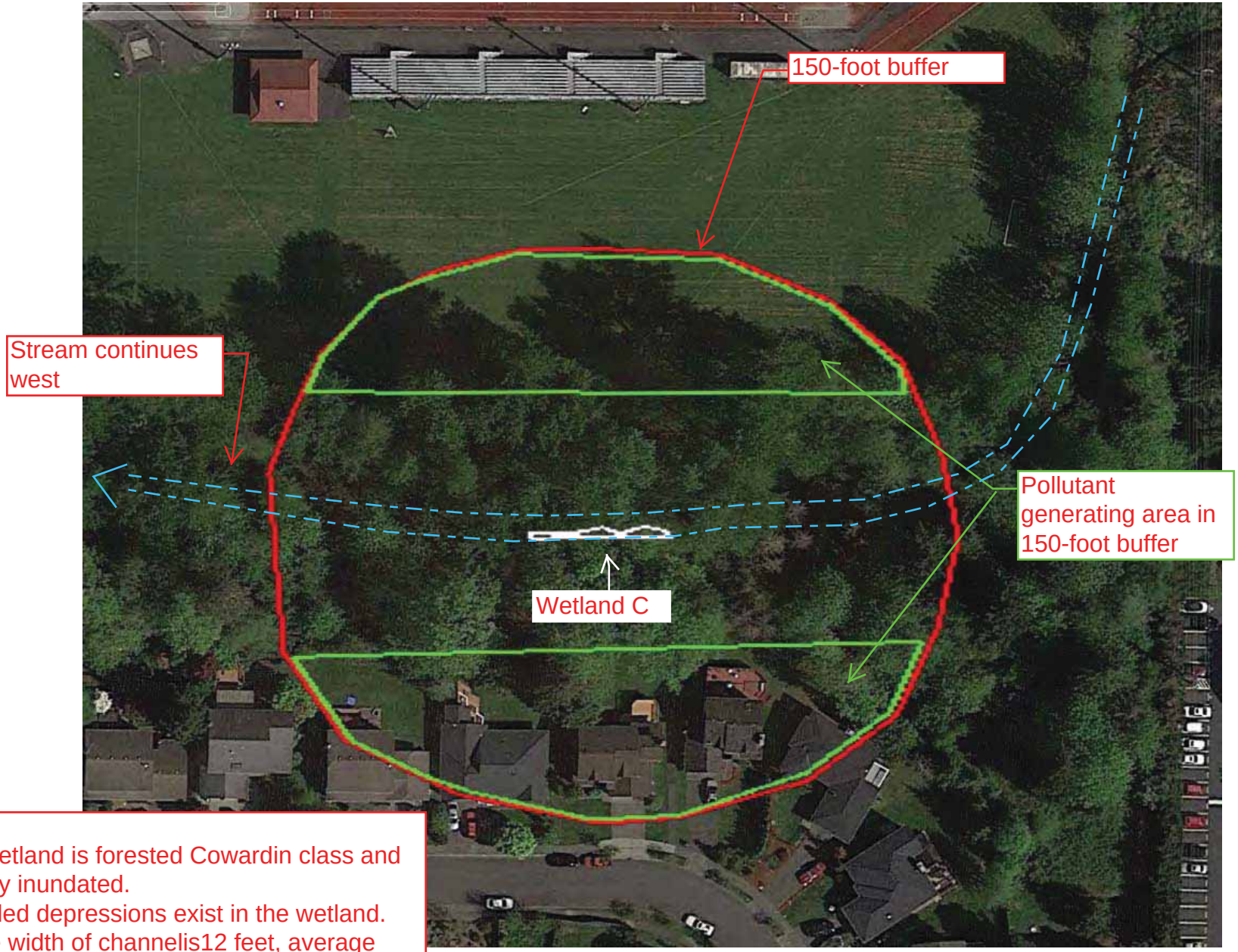
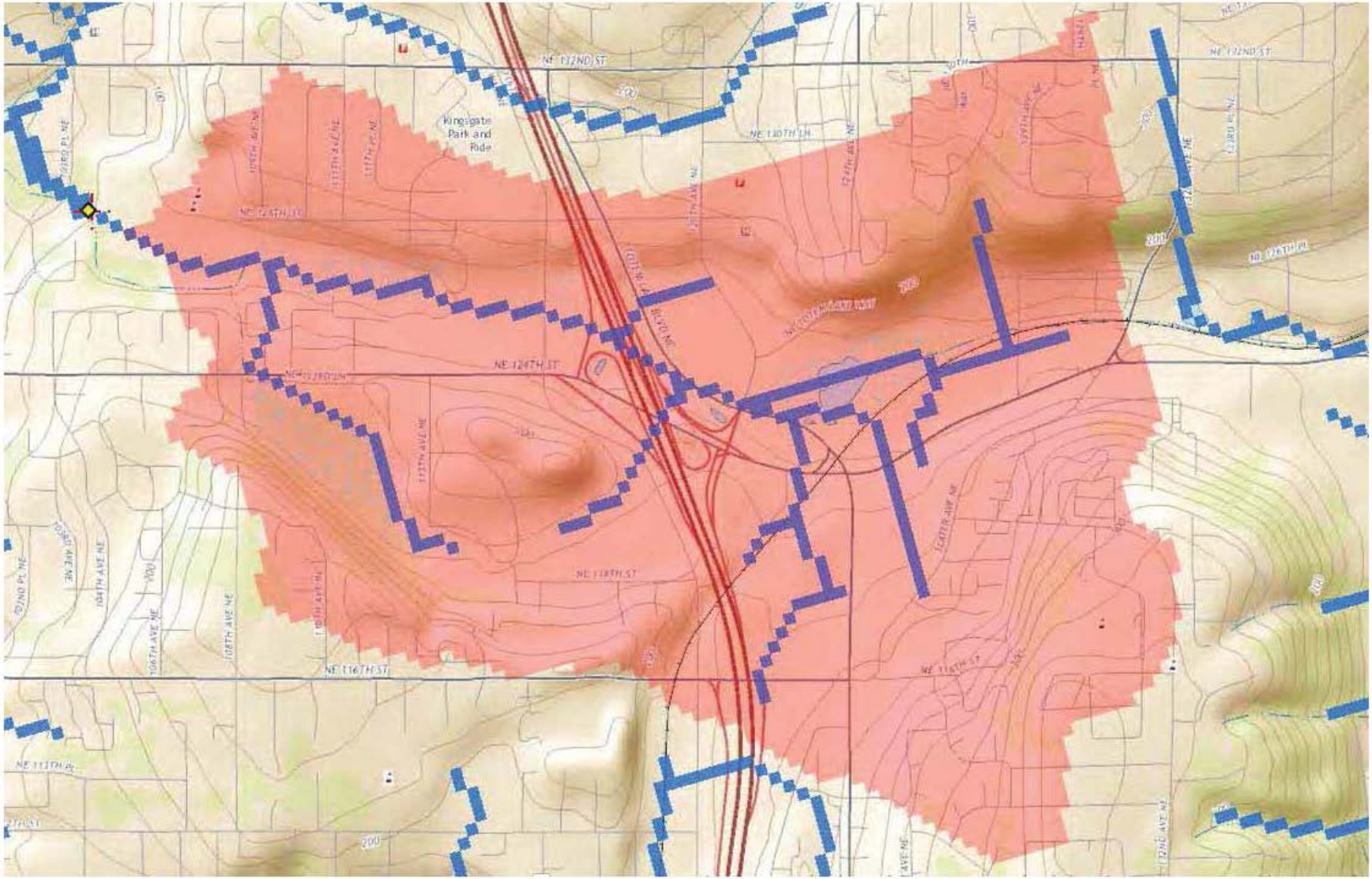
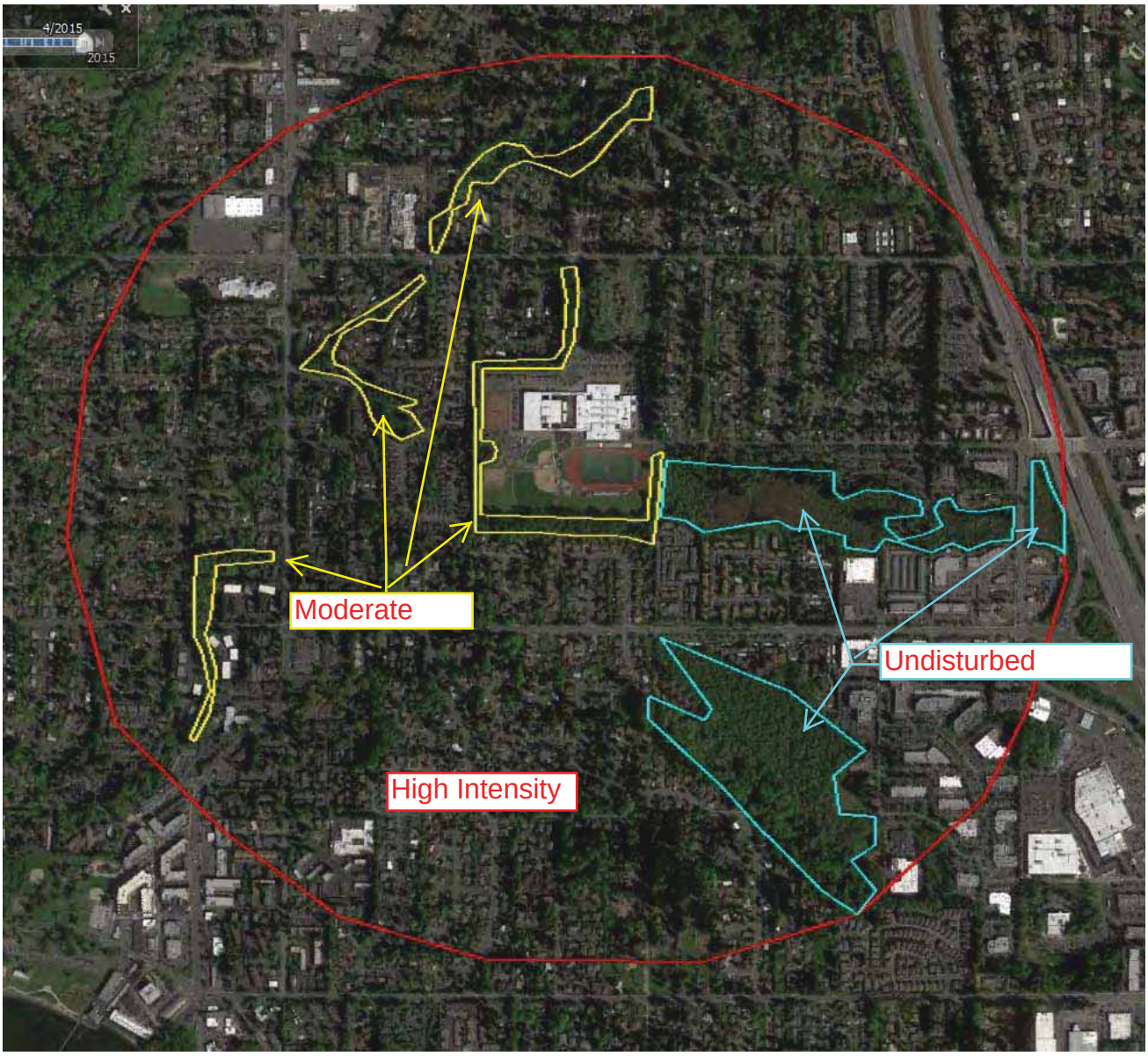


Notes:
- Entire wetland is forested Cowardin class and seasonally inundated.
- No ponded depressions exist in the wetland.
- Average width of channelis12 feet, average width of Wetland C is 4 feet.

Wetland C Rating Figure 1.



Wetland C Rating Figure 2. Contributing Basin



Notes:
- High Intensity: 91%
- Moderate Intensity: 3%
- Undisturbed: 6%

Wetland C Rating Figure 3. 1 Kilometer Buffer

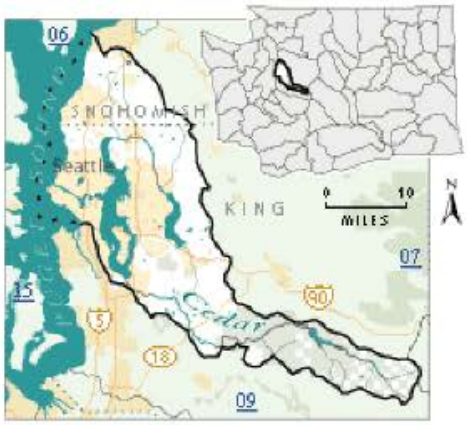
Wetland C Rating Figure 4. 303d Screen Shot

Water Quality Improvement Projects (TMDLs)

Water Quality Improvement > Water Quality Improvement Projects by WRIA > WRIA 8: Cedar-Sammamish

WRIA 8: Cedar-Sammamish

The following table lists overview information for water quality improvement projects (including total maximum daily loads, or TMDLs) for this water resource inventory area (WRIA). Please use links (where available) for more information on a project.



Counties

- King
- Snohomish

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7036
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7036
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Field work starts summer 2015	Ralph Svrjcek 425-649-7036
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7036

** ***Status*** *will be listed as one of the following: Approved by EPA, Under Development or Implementation*

For more information about WRIA 8:

- Waterbodies in WRIA 8 - using the Water Quality Assessment Query Tool
- Watershed Information for WRIA 8

Wetland C Rating Figure 5. TMDL Screen Shot

Wetland name or number D

RATING SUMMARY – Western Washington

Name of wetland (or ID #): D Date of site visit: 10/18/13 & 6/29/16

Rated by S. Corbin (PWS) Trained by Ecology? ✓ Yes ___ No Date of training 10/09 & 5/14

HGM Class used for rating Riverine Wetland has multiple HGM classes? ___ Y ✓ N

NOTE: Form is not complete without the figures requested *(figures can be combined).*
Source of base aerial photo/map Google Earth

OVERALL WETLAND CATEGORY III (based on functions ✓ or special characteristics ___)

1. Category of wetland based on FUNCTIONS

___ **Category I** – Total score = 23 - 27

___ **Category II** – Total score = 20 - 22

✓ **Category III** – Total score = 16 - 19

___ **Category IV** – Total score = 9 - 15

FUNCTION	Improving Water Quality	Hydrologic	Habitat	
	Circle the appropriate ratings			
Site Potential	H M (L)	H M (L)	H M (L)	
Landscape Potential	(H) M L	(H) M L	H M (L)	
Value	H (M) L	H (M) L	(H) M L	TOTAL
Score Based on Ratings	6	6	5	17

Score for each function based on three ratings *(order of ratings is not important)*

9 = H,H,H
8 = H,H,M
7 = H,H,L
7 = H,M,M
6 = H,M,L
6 = M,M,M
5 = H,L,L
5 = M,M,L
4 = M,L,L
3 = L,L,L

2. Category based on SPECIAL CHARACTERISTICS of wetland

CHARACTERISTIC	CATEGORY
Estuarine	I II
Wetland of High Conservation Value	I
Bog	I
Mature Forest	I
Old Growth Forest	I
Coastal Lagoon	I II
Interdunal	I II III IV
None of the above	✓

Wetland name or number D

Maps and figures required to answer questions correctly for Western Washington

Depressional Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	D 1.3, H 1.1, H 1.4	
Hydroperiods	D 1.4, H 1.2	
Location of outlet *(can be added to map of hydroperiods)*	D 1.1, D 4.1	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	D 2.2, D 5.2	
Map of the contributing basin	D 4.3, D 5.3	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	D 3.1, D 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	D 3.3	

Riverine Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	1
Hydroperiods	H 1.2	1
Ponded depressions	R 1.1	1
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	R 2.4	1
Plant cover of trees, shrubs, and herbaceous plants	R 1.2, R 4.2	1
Width of unit vs. width of stream *(can be added to another figure)*	R 4.1	1
Map of the contributing basin	R 2.2, R 2.3, R 5.2	2
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	3
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	R 3.1	4
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	R 3.2, R 3.3	5

Lake Fringe Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	L 1.1, L 4.1, H 1.1, H 1.4	
Plant cover of trees, shrubs, and herbaceous plants	L 1.2	
Boundary of area within 150 ft of the wetland *(can be added to another figure)*	L 2.2	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	L 3.1, L 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	L 3.3	

Slope Wetlands

Map of:	To answer questions:	Figure #
Cowardin plant classes	H 1.1, H 1.4	
Hydroperiods	H 1.2	
Plant cover of **dense** trees, shrubs, and herbaceous plants	S 1.3	
Plant cover of **dense, rigid** trees, shrubs, and herbaceous plants *(can be added to figure above)*	S 4.1	
Boundary of 150 ft buffer (can be added to another figure)	S 2.1, S 5.1	
1 km Polygon: Area that extends 1 km from entire wetland edge - including polygons for accessible habitat and undisturbed habitat	H 2.1, H 2.2, H 2.3	
Screen capture of map of 303(d) listed waters in basin (from Ecology website)	S 3.1, S 3.2	
Screen capture of list of TMDLs for WRIA in which unit is found (from web)	S 3.3	

Wetland name or number D

HGM Classification of Wetlands in Western Washington

For questions 1-7, the criteria described must apply to the entire unit being rated.

If the hydrologic criteria listed in each question do not apply to the entire unit being rated, you probably have a unit with multiple HGM classes. In this case, identify which hydrologic criteria in questions 1-7 apply, and go to Question 8.

1. Are the water levels in the entire unit usually controlled by tides except during floods?

   NO – go to 2 **YES** – the wetland class is **Tidal Fringe** – go to 1.1

   1.1 Is the salinity of the water during periods of annual low flow below 0.5 ppt (parts per thousand)?

   NO – Saltwater Tidal Fringe (Estuarine) **YES – Freshwater Tidal Fringe**
   *If your wetland can be classified as a Freshwater Tidal Fringe use the forms for **Riverine** wetlands. If it is Saltwater Tidal Fringe it is an **Estuarine** wetland and is not scored. This method **cannot** be used to score functions for estuarine wetlands.*

2. The entire wetland unit is flat and precipitation is the only source (>90%) of water to it. Groundwater and surface water runoff are NOT sources of water to the unit.

   NO – go to 3 **YES** – The wetland class is **Flats**
   *If your wetland can be classified as a Flats wetland, use the form for **Depressional** wetlands.*

3. Does the entire wetland unit **meet all** of the following criteria?
   ___The vegetated part of the wetland is on the shores of a body of permanent open water (without any plants on the surface at any time of the year) at least 20 ac (8 ha) in size;
   ___At least 30% of the open water area is deeper than 6.6 ft (2 m).

   NO – go to 4 **YES** – The wetland class is **Lake Fringe** (Lacustrine Fringe)

4. Does the entire wetland unit **meet all** of the following criteria?
   ___The wetland is on a slope (*slope can be very gradual*),
   ___The water flows through the wetland in one direction (unidirectional) and usually comes from seeps. It may flow subsurface, as sheetflow, or in a swale without distinct banks,
   ___The water leaves the wetland **without being impounded**.

   NO – go to 5 **YES** – The wetland class is **Slope**

   NOTE: Surface water does not pond in these type of wetlands except occasionally in very small and shallow depressions or behind hummocks (depressions are usually <3 ft diameter and less than 1 ft deep).

5. Does the entire wetland unit **meet all** of the following criteria?
   ✓ The unit is in a valley, or stream channel, where it gets inundated by overbank flooding from that stream or river,
   ✓ The overbank flooding occurs at least once every 2 years.

Wetland name or number D

NO – go to 6 YES – The wetland class is **Riverine**

NOTE: The Riverine unit can contain depressions that are filled with water when the river is not flooding

6. Is the entire wetland unit in a topographic depression in which water ponds, or is saturated to the surface, at some time during the year? *This means that any outlet, if present, is higher than the interior of the wetland.*

NO – go to 7 **YES** – The wetland class is **Depressional**

7. Is the entire wetland unit located in a very flat area with no obvious depression and no overbank flooding? The unit does not pond surface water more than a few inches. The unit seems to be maintained by high groundwater in the area. The wetland may be ditched, but has no obvious natural outlet.

NO – go to 8 **YES** – The wetland class is **Depressional**

8. Your wetland unit seems to be difficult to classify and probably contains several different HGM classes. For example, seeps at the base of a slope may grade into a riverine floodplain, or a small stream within a Depressional wetland has a zone of flooding along its sides. GO BACK AND IDENTIFY WHICH OF THE HYDROLOGIC REGIMES DESCRIBED IN QUESTIONS 1-7 APPLY TO DIFFERENT AREAS IN THE UNIT (make a rough sketch to help you decide). Use the following table to identify the appropriate class to use for the rating system if you have several HGM classes present within the wetland unit being scored.

NOTE: Use this table only if the class that is recommended in the second column represents 10% or more of the total area of the wetland unit being rated. If the area of the HGM class listed in column 2 is less than 10% of the unit; classify the wetland using the class that represents more than 90% of the total area.

HGM classes within the wetland unit being rated	HGM class to use in rating
Slope + Riverine	Riverine
Slope + Depressional	Depressional
Slope + Lake Fringe	Lake Fringe
Depressional + Riverine along stream within boundary of depression	Depressional
Depressional + Lake Fringe	Depressional
Riverine + Lake Fringe	Riverine
Salt Water Tidal Fringe and any other class of freshwater wetland	Treat as ESTUARINE

If you are still unable to determine which of the above criteria apply to your wetland, or if you have ***more than 2 HGM classes*** *within a wetland boundary, classify the wetland as Depressional for the rating.*

Wetland name or number D

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Water Quality Functions - Indicators that the site functions to improve water quality

R 1.0. Does the site have the potential to improve water quality?		
R 1.1. Area of surface depressions within the Riverine wetland that can trap sediments during a flooding event:		
Depressions cover > $^3/_4$ area of wetland	points = 8	
Depressions cover > ½ area of wetland	points = 4	
Depressions present but cover < ½ area of wetland	points = 2	0
No depressions present	points = 0	
R 1.2. Structure of plants in the wetland (areas with >90% cover at person height, **not** Cowardin classes)		
Trees or shrubs > $^2/_3$ area of the wetland	points = 8	
Trees or shrubs > $^1/_3$ area of the wetland	points = 6	
Herbaceous plants (> 6 in high) > $^2/_3$ area of the wetland	points = 6	0
Herbaceous plants (> 6 in high) > $^1/_3$ area of the wetland	points = 3	
Trees, shrubs, and ungrazed herbaceous < $^1/_3$ area of the wetland *	points = 0	
Total for R 1 Add the points in the boxes above		0

Rating of Site Potential If score is: ___ **12-16 = H** ___ **6-11 = M** ✓ **0-5 = L** *Record the rating on the first page*

R 2.0. Does the landscape have the potential to support the water quality function of the site?		
R 2.1. Is the wetland within an incorporated city or within its UGA?	Yes = 2 No = 0	2
R 2.2. Does the contributing basin to the wetland include a UGA or incorporated area?	Yes = 1 No = 0	1
R 2.3. Does at least 10% of the contributing basin contain tilled fields, pastures, or forests that have been clearcut within the last 5 years?	Yes = 1 No = 0	0
R 2.4. Is > 10% of the area within 150 ft of the wetland in land uses that generate pollutants?	Yes = 1 No = 0	1
R 2.5. Are there other sources of pollutants coming into the wetland that are not listed in questions R 2.1-R 2.4 Other sources _____	Yes = 1 No = 0	0
Total for R 2 Add the points in the boxes above		4

Rating of Landscape Potential If score is: ✓ **3-6 = H** ___ **1 or 2 = M** ___ **0 = L** *Record the rating on the first page*

R 3.0. Is the water quality improvement provided by the site valuable to society?		
R 3.1. Is the wetland along a stream or river that is on the 303(d) list or on a tributary that drains to one within 1 mi?	Yes = 1 No = 0	1
R 3.2. Is the wetland along a stream or river that has TMDL limits for nutrients, toxics, or pathogens?	Yes = 1 No = 0	0
R 3.3. Has the site been identified in a watershed or local plan as important for maintaining water quality? (*answer YES if there is a TMDL for the drainage in which the unit is found*)	Yes = 2 No = 0	0
Total for R 3 Add the points in the boxes above		1

Rating of Value If score is: ___ **2-4 = H** ✓ **1 = M** ___ **0 = L** *Record the rating on the first page*

* Majority of emergent plants are herbaceous and will have died back or not regrown > 6" at times of flooding.

Wetland name or number D

RIVERINE AND FRESHWATER TIDAL FRINGE WETLANDS

Hydrologic Functions – Indicators that site functions to reduce flooding and stream erosion

R 4.0. Does the site have the potential to reduce flooding and erosion?		
R 4.1. Characteristics of the overbank storage the wetland provides: *Estimate the average width of the wetland perpendicular to the direction of the flow and the width of the stream or river channel (distance between banks). Calculate the ratio: (average width of wetland)/(average width of stream between banks).* If the ratio is more than 20 If the ratio is 10-20 If the ratio is 5-<10 If the ratio is 1-<5 If the ratio is < 1	 points = 9 points = 6 points = 4 points = 2 points = 1	1
R 4.2. Characteristics of plants that slow down water velocities during floods: *Treat large woody debris as forest or shrub. Choose the points appropriate for the best description (polygons need to have >90% cover at person height. These are NOT Cowardin classes).* Forest or shrub for > $^1/_3$ area OR emergent plants > $^2/_3$ area Forest or shrub for > $^1/_{10}$ area OR emergent plants > $^1/_3$ area * Plants do not meet above criteria	 points = 7 points = 4 points = 0	4
Total for R 4	Add the points in the boxes above	5

Rating of Site Potential If score is: ___12-16 = H ___6-11 = M ✓ 0-5 = L *Record the rating on the first page*

R 5.0. Does the landscape have the potential to support the hydrologic functions of the site?		
R 5.1. Is the stream or river adjacent to the wetland downcut?	Yes = 0 No = 1	1
R 5.2. Does the up-gradient watershed include a UGA or incorporated area?	Yes = 1 No = 0	1
R 5.3. Is the up-gradient stream or river controlled by dams?	Yes = 0 No = 1	1
Total for R 5	Add the points in the boxes above	3

Rating of Landscape Potential If score is: ✓ 3 = H ___1 or 2 = M ___0 = L *Record the rating on the first page*

R 6.0. Are the hydrologic functions provided by the site valuable to society?		
R 6.1. Distance to the nearest areas downstream that have flooding problems? *Choose the description that best fits the site.* The sub-basin immediately down-gradient of the wetland has flooding problems that result in damage to human or natural resources (e.g., houses or salmon redds) Surface flooding problems are in a sub-basin farther down-gradient No flooding problems anywhere downstream	 points = 2 points = 1 points = 0	1
R 6.2. Has the site been identified as important for flood storage or flood conveyance in a regional flood control plan?	Yes = 2 No = 0	0
Total for R 6	Add the points in the boxes above	1

Rating of Value If score is: ___2-4 = H ✓ 1 = M ___0 = L *Record the rating on the first page*

Emergents are herbaceous that would not be adequately sized to slow water velocity @ times of flooding. Tree trunks and shrubs = ~ >10% @ person height.

Wetland name or number D

These questions apply to wetlands of all HGM classes. **HABITAT FUNCTIONS** - Indicators that site functions to provide important habitat	
H 1.0. Does the site have the potential to provide habitat?	
H 1.1. Structure of plant community: *Indicators are Cowardin classes and strata within the Forested class.* Check the Cowardin plant classes in the wetland. *Up to 10 patches may be combined for each class to meet the threshold of ¼ ac or more than 10% of the unit if it is smaller than 2.5 ac. Add the number of structures checked.* ____Aquatic bed — 4 structures or more: points = 4 ____Emergent — 3 structures: points = 2 ____Scrub-shrub (areas where shrubs have > 30% cover) — 2 structures: points = 1 ✓ Forested (areas where trees have > 30% cover) — 1 structure: points = 0 *If the unit has a Forested class, check if:* ____The Forested class has 3 out of 5 strata (canopy, sub-canopy, shrubs, herbaceous, moss/ground-cover) that each cover 20% within the Forested polygon	0
H 1.2. Hydroperiods Check the types of water regimes (hydroperiods) present within the wetland. The water regime has to cover more than 10% of the wetland or ¼ ac to count (*see text for descriptions of hydroperiods*). ✓ Permanently flooded or inundated — 4 or more types present: points = 3 ✓ Seasonally flooded or inundated — 3 types present: points = 2 ____Occasionally flooded or inundated — 2 types present: points = 1 ✓ Saturated only — 1 type present: points = 0 ✓ Permanently flowing stream or river in, or adjacent to, the wetland ____Seasonally flowing stream in, or adjacent to, the wetland ____**Lake Fringe wetland** — **2 points** ____**Freshwater tidal wetland** — **2 points**	1
H 1.3. Richness of plant species Count the number of plant species in the wetland that cover at least 10 ft^2. *Different patches of the same species can be combined to meet the size threshold and you do not have to name the species.* ***Do not include Eurasian milfoil, reed canarygrass, purple loosestrife, Canadian thistle*** If you counted: > 19 species — points = 2 5 - 19 species — points = 1 < 5 species — points = 0	1
H 1.4. Interspersion of habitats Decide from the diagrams below whether interspersion among Cowardin plants classes (described in H 1.1), or the classes and unvegetated areas (can include open water or mudflats) is high, moderate, low, or none. *If you have four or more plant classes or three classes and open water, the rating is always high.* **None** = 0 points — **Low** = 1 point — **Moderate** = 2 points All three diagrams in this row are **HIGH** = 3points 	0

Wetland name or number D

H 1.5. Special habitat features: Check the habitat features that are present in the wetland. *The number of checks is the number of points.* ___ Large, downed, woody debris within the wetland (> 4 in diameter and 6 ft long). ✓ Standing snags (dbh > 4 in) within the wetland ___ Undercut banks are present for at least 6.6 ft (2 m) **and/or** overhanging plants extends at least 3.3 ft (1 m) over a stream (or ditch) in, or contiguous with the wetland, for at least 33 ft (10 m) ✓ Stable steep banks of fine material that might be used by beaver or muskrat for denning (> 30 degree slope) OR signs of recent beaver activity are present *(cut shrubs or trees that have not yet weathered where wood is exposed)* ___ At least ¼ ac of thin-stemmed persistent plants or woody branches are present in areas that are permanently or seasonally inundated *(structures for egg-laying by amphibians)* ✓ Invasive plants cover less than 25% of the wetland area in every stratum of plants (*see H 1.1 for list of strata*)	3
Total for H 1 — Add the points in the boxes above	5

Rating of Site Potential If score is: ___ **15-18 = H** ___ **7-14 = M** ✓ **0-6 = L** *Record the rating on the first page*

H 2.0. Does the landscape have the potential to support the habitat functions of the site?	
H 2.1. Accessible habitat (include *only habitat that directly abuts wetland unit*). *Calculate:* % undisturbed habitat 0 + [(% moderate and low intensity land uses)/2] 1.5 = 1.5 % If total accessible habitat is: > $^1/_3$ (33.3%) of 1 km Polygon — points = 3 20-33% of 1 km Polygon — points = 2 10-19% of 1 km Polygon — points = 1 < 10% of 1 km Polygon — points = 0	0
H 2.2. Undisturbed habitat in 1 km Polygon around the wetland. *Calculate:* % undisturbed habitat 6 + [(% moderate and low intensity land uses)/2] 1.5 = 7.5 % Undisturbed habitat > 50% of Polygon — points = 3 Undisturbed habitat 10-50% and in 1-3 patches — points = 2 Undisturbed habitat 10-50% and > 3 patches — points = 1 Undisturbed habitat < 10% of 1 km Polygon — points = 0	0
H 2.3. Land use intensity in 1 km Polygon: If > 50% of 1 km Polygon is high intensity land use — points = (-2) ≤ 50% of 1 km Polygon is high intensity — points = 0	-2
Total for H 2 — Add the points in the boxes above	-2

Rating of Landscape Potential If score is: ___ **4-6 = H** ___ **1-3 = M** ✓ **< 1 = L** *Record the rating on the first page*

H 3.0. Is the habitat provided by the site valuable to society?	
H 3.1. Does the site provide habitat for species valued in laws, regulations, or policies? *Choose only the highest score that applies to the wetland being rated.* Site meets ANY of the following criteria: — points = 2 ✓ It has 3 or more priority habitats within 100 m (see next page) — It provides habitat for Threatened or Endangered species (any plant or animal on the state or federal lists) — It is mapped as a location for an individual WDFW priority species — It is a Wetland of High Conservation Value as determined by the Department of Natural Resources — It has been categorized as an important habitat site in a local or regional comprehensive plan, in a Shoreline Master Plan, or in a watershed plan Site has 1 or 2 priority habitats (listed on next page) within 100 m — points = 1 Site does not meet any of the criteria above — points = 0	2

Rating of Value If score is: ✓ **2 = H** ___ **1 = M** ___ **0 = L** *Record the rating on the first page*

Wetland name or number D

WDFW Priority Habitats

Priority habitats listed by WDFW (see complete descriptions of WDFW priority habitats, and the counties in which they can be found, in: Washington Department of Fish and Wildlife. 2008. Priority Habitat and Species List. Olympia, Washington. 177 pp. http://wdfw.wa.gov/publications/00165/wdfw00165.pdf or access the list from here: http://wdfw.wa.gov/conservation/phs/list/)

Count how many of the following priority habitats are within 330 ft (100 m) of the wetland unit: ***NOTE:*** *This question is independent of the land use between the wetland unit and the priority habitat.*

— **Aspen Stands:** Pure or mixed stands of aspen greater than 1 ac (0.4 ha).

— **Biodiversity Areas and Corridors**: Areas of habitat that are relatively important to various species of native fish and wildlife (*full descriptions in WDFW PHS report*).

— **Herbaceous Balds:** Variable size patches of grass and forbs on shallow soils over bedrock.

— **Old-growth/Mature forests:** Old-growth west of Cascade crest – Stands of at least 2 tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) > 32 in (81 cm) dbh or > 200 years of age. Mature forests – Stands with average diameters exceeding 21 in (53 cm) dbh; crown cover may be less than 100%; decay, decadence, numbers of snags, and quantity of large downed material is generally less than that found in old-growth; 80-200 years old west of the Cascade crest.

— **Oregon White Oak:** Woodland stands of pure oak or oak/conifer associations where canopy coverage of the oak component is important (*full descriptions in WDFW PHS report p. 158 – see web link above*).

✓ **Riparian:** The area adjacent to aquatic systems with flowing water that contains elements of both aquatic and terrestrial ecosystems which mutually influence each other.

— **Westside Prairies:** Herbaceous, non-forested plant communities that can either take the form of a dry prairie or a wet prairie (*full descriptions in WDFW PHS report p. 161 – see web link above*).

✓ **Instream:** The combination of physical, biological, and chemical processes and conditions that interact to provide functional life history requirements for instream fish and wildlife resources.

— **Nearshore:** Relatively undisturbed nearshore habitats. These include Coastal Nearshore, Open Coast Nearshore, and Puget Sound Nearshore. (*full descriptions of habitats and the definition of relatively undisturbed are in WDFW report – see web link on previous page).*

— **Caves:** A naturally occurring cavity, recess, void, or system of interconnected passages under the earth in soils, rock, ice, or other geological formations and is large enough to contain a human.

— **Cliffs:** Greater than 25 ft (7.6 m) high and occurring below 5000 ft elevation.

— **Talus:** Homogenous areas of rock rubble ranging in average size 0.5 - 6.5 ft (0.15 - 2.0 m), composed of basalt, andesite, and/or sedimentary rock, including riprap slides and mine tailings. May be associated with cliffs.

✓ **Snags and Logs:** Trees are considered snags if they are dead or dying and exhibit sufficient decay characteristics to enable cavity excavation/use by wildlife. Priority snags have a diameter at breast height of > 20 in (51 cm) in western Washington and are > 6.5 ft (2 m) in height. Priority logs are > 12 in (30 cm) in diameter at the largest end, and > 20 ft (6 m) long.

Note: All vegetated wetlands are by definition a priority habitat but are not included in this list because they are addressed elsewhere.

Wetland name or number D

CATEGORIZATION BASED ON SPECIAL CHARACTERISTICS

Wetland Type *Check off any criteria that apply to the wetland. Circle the category when the appropriate criteria are met.*	Category
SC 1.0. Estuarine wetlands Does the wetland meet the following criteria for Estuarine wetlands? — The dominant water regime is tidal, — Vegetated, and — With a salinity greater than 0.5 ppt Yes –Go to **SC 1.1** No= **Not an estuarine wetland**	
SC 1.1. Is the wetland within a National Wildlife Refuge, National Park, National Estuary Reserve, Natural Area Preserve, State Park or Educational, Environmental, or Scientific Reserve designated under WAC 332-30-151? Yes = **Category I** No - Go to **SC 1.2**	**Cat. I**
SC 1.2. Is the wetland unit at least 1 ac in size and meets at least two of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing, and has less than 10% cover of non-native plant species. (If non-native species are *Spartina*, see page 25) — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland has at least two of the following features: tidal channels, depressions with open water, or contiguous freshwater wetlands. Yes = **Category I** No = **Category II**	**Cat. I** **Cat. II**
SC 2.0. Wetlands of High Conservation Value (WHCV) SC 2.1. Has the WA Department of Natural Resources updated their website to include the list of Wetlands of High Conservation Value? Yes – Go to **SC 2.2** No – Go to **SC 2.3** SC 2.2. Is the wetland listed on the WDNR database as a Wetland of High Conservation Value? Yes = **Category I** No = **Not a WHCV** SC 2.3. Is the wetland in a Section/Township/Range that contains a Natural Heritage wetland? http://www1.dnr.wa.gov/nhp/refdesk/datasearch/wnhpwetlands.pdf Yes – **Contact WNHP/WDNR and go to SC 2.4** No = **Not a WHCV** SC 2.4. Has WDNR identified the wetland within the S/T/R as a Wetland of High Conservation Value and listed it on their website? Yes = **Category I** No = **Not a WHCV**	**Cat. I**
SC 3.0. Bogs Does the wetland (or any part of the unit) meet both the criteria for soils and vegetation in bogs? *Use the key below.* ***If you answer YES you will still need to rate the wetland based on its functions.*** SC 3.1. Does an area within the wetland unit have organic soil horizons, either peats or mucks, that compose 16 in or more of the first 32 in of the soil profile? Yes – Go to **SC 3.3** No – Go to **SC 3.2** SC 3.2. Does an area within the wetland unit have organic soils, either peats or mucks, that are less than 16 in deep over bedrock, or an impermeable hardpan such as clay or volcanic ash, or that are floating on top of a lake or pond? Yes – Go to **SC 3.3** No = **Is not a bog** SC 3.3. Does an area with peats or mucks have more than 70% cover of mosses at ground level, AND at least a 30% cover of plant species listed in Table 4? Yes = **Is a Category I bog** No – Go to **SC 3.4** **NOTE:** If you are uncertain about the extent of mosses in the understory, you may substitute that criterion by measuring the pH of the water that seeps into a hole dug at least 16 in deep. If the pH is less than 5.0 and the plant species in Table 4 are present, the wetland is a bog. SC 3.4. Is an area with peats or mucks forested (> 30% cover) with Sitka spruce, subalpine fir, western red cedar, western hemlock, lodgepole pine, quaking aspen, Engelmann spruce, or western white pine, AND any of the species (or combination of species) listed in Table 4 provide more than 30% of the cover under the canopy? Yes = **Is a Category I bog** No = **Is not a bog**	**Cat. I**

Wetland name or number D

SC 4.0. Forested Wetlands Does the wetland have at least 1 contiguous acre of forest that meets one of these criteria for the WA Department of Fish and Wildlife's forests as priority habitats? ***If you answer YES you will still need to rate the wetland based on its functions.*** — **Old-growth forests** (west of Cascade crest): Stands of at least two tree species, forming a multi-layered canopy with occasional small openings; with at least 8 trees/ac (20 trees/ha) that are at least 200 years of age OR have a diameter at breast height (dbh) of 32 in (81 cm) or more. — **Mature forests** (west of the Cascade Crest): Stands where the largest trees are 80- 200 years old OR the species that make up the canopy have an average diameter (dbh) exceeding 21 in (53 cm). Yes = **Category I** No = **Not a forested wetland for this section**	**Cat. I**
SC 5.0. Wetlands in Coastal Lagoons Does the wetland meet all of the following criteria of a wetland in a coastal lagoon? — The wetland lies in a depression adjacent to marine waters that is wholly or partially separated from marine waters by sandbanks, gravel banks, shingle, or, less frequently, rocks — The lagoon in which the wetland is located contains ponded water that is saline or brackish (> 0.5 ppt) during most of the year in at least a portion of the lagoon *(needs to be measured near the bottom)* Yes – Go to **SC 5.1** No = **Not a wetland in a coastal lagoon**	**Cat. I**
SC 5.1. Does the wetland meet all of the following three conditions? — The wetland is relatively undisturbed (has no diking, ditching, filling, cultivation, grazing), and has less than 20% cover of aggressive, opportunistic plant species (see list of species on p. 100). — At least ¾ of the landward edge of the wetland has a 100 ft buffer of shrub, forest, or un-grazed or un-mowed grassland. — The wetland is larger than $^{1}/_{10}$ ac (4350 ft^2) Yes = **Category I** No = **Category II**	**Cat. II**
SC 6.0. Interdunal Wetlands Is the wetland west of the 1889 line (also called the Western Boundary of Upland Ownership or WBUO)? ***If you answer yes you will still need to rate the wetland based on its habitat functions.*** In practical terms that means the following geographic areas: — Long Beach Peninsula: Lands west of SR 103 — Grayland-Westport: Lands west of SR 105 — Ocean Shores-Copalis: Lands west of SR 115 and SR 109 Yes – Go to **SC 6.1** No = **not an interdunal wetland for rating**	**Cat I**
SC 6.1. Is the wetland 1 ac or larger and scores an 8 or 9 for the habitat functions on the form (rates H,H,H or H,H,M for the three aspects of function)? Yes = **Category I** No – Go to **SC 6.2**	**Cat. II**
SC 6.2. Is the wetland 1 ac or larger, or is it in a mosaic of wetlands that is 1 ac or larger? Yes = **Category II** No – Go to **SC 6.3**	**Cat. III**
SC 6.3. Is the unit between 0.1 and 1 ac, or is it in a mosaic of wetlands that is between 0.1 and 1 ac? Yes = **Category III** No = **Category IV**	**Cat. IV**
Category of wetland based on Special Characteristics If you answered No for all types, enter "Not Applicable" on Summary Form	N/A

Wetland name or number D

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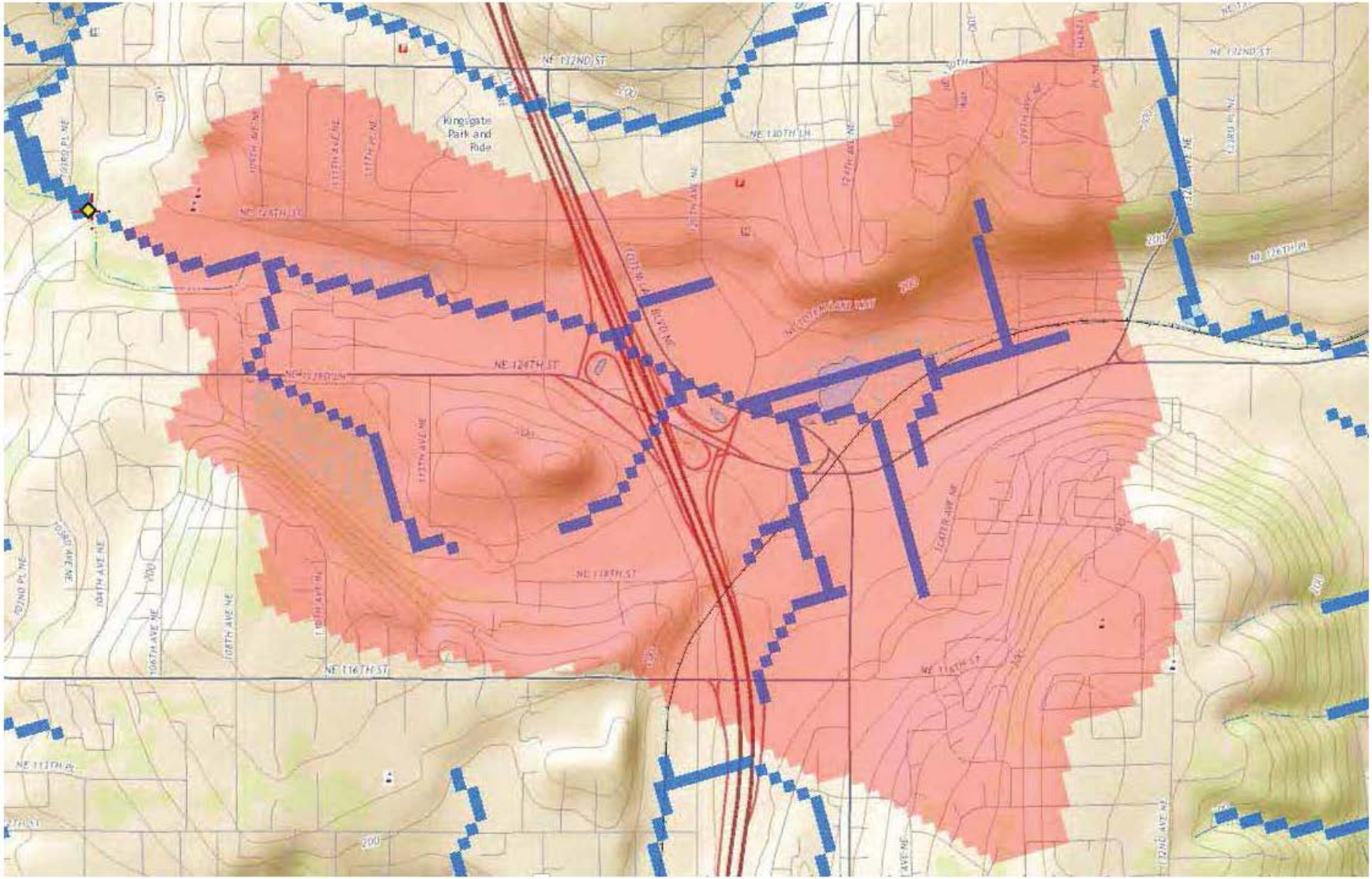
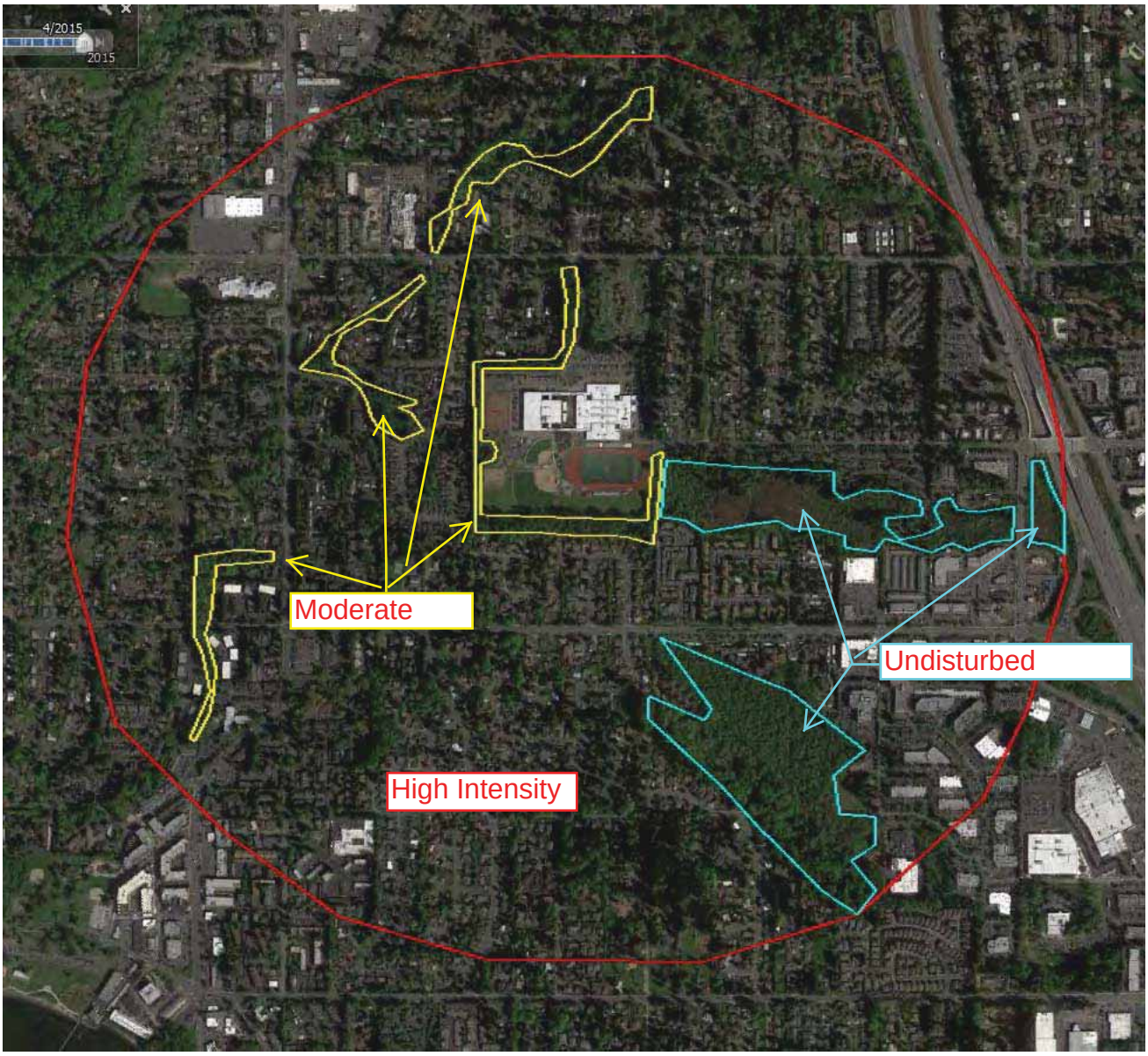
Notes:
- Entire wetland is forested Cowardin class and is seasonally inundated
- No ponded depressions exist in wetland unit
- Average stream width is 12 feet and average width of unit is two feet.

Wetland D Rating Figure 1.



Wetland D Rating Figure 2. Contributing Basin



Notes:
- High Intensity: 91%
- Moderate Intensity: 3%
- Undisturbed: 6%

Wetland D Rating Figure 3. 1 Kilometer Buffer

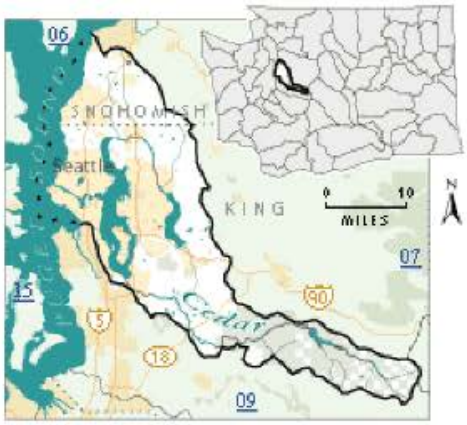
Wetland D Rating Figure 4. 303(d) Screen Shot

Water Quality Improvement Projects (TMDLs)

Water Quality Improvement > Water Quality Improvement Projects by WRIA > WRIA 8: Cedar-Sammamish

WRIA 8: Cedar-Sammamish

The following table lists overview information for water quality improvement projects (including total maximum daily loads, or TMDLs) for this water resource inventory area (WRIA). Please use links (where available) for more information on a project.



Counties

- King
- Snohomish

Waterbody Name	Pollutants	Status**	TMDL Lead
Ballinger Lake	Total Phosphorus	Approved by EPA	Tricia Shoblom 425-649-7288
Bear-Evans Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
	Dissolved Oxygen Temperature	Approved by EPA	
Cottage Lake	Total Phosphorus	Approved by EPA Has an implementation plan	Tricia Shoblom 425-649-7288
Issaquah Creek Basin	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Little Bear Creek Tributaries: Trout Stream Great Dane Creek Cutthroat Creek	Fecal Coliform	Approved by EPA	Ralph Svrjcek 425-649-7036
North Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7036
Pipers Creek	Fecal Coliform	Approved by EPA	Joan Nolan 425-649-4425
Sammamish River	Dissolved Oxygen Temperature	Field work starts summer 2015	Ralph Svrjcek 425-649-7036
Swamp Creek	Fecal Coliform	Approved by EPA Has an implementation plan	Ralph Svrjcek 425-649-7036

** ***Status*** *will be listed as one of the following: Approved by EPA, Under Development or Implementation*

For more information about WRIA 8:

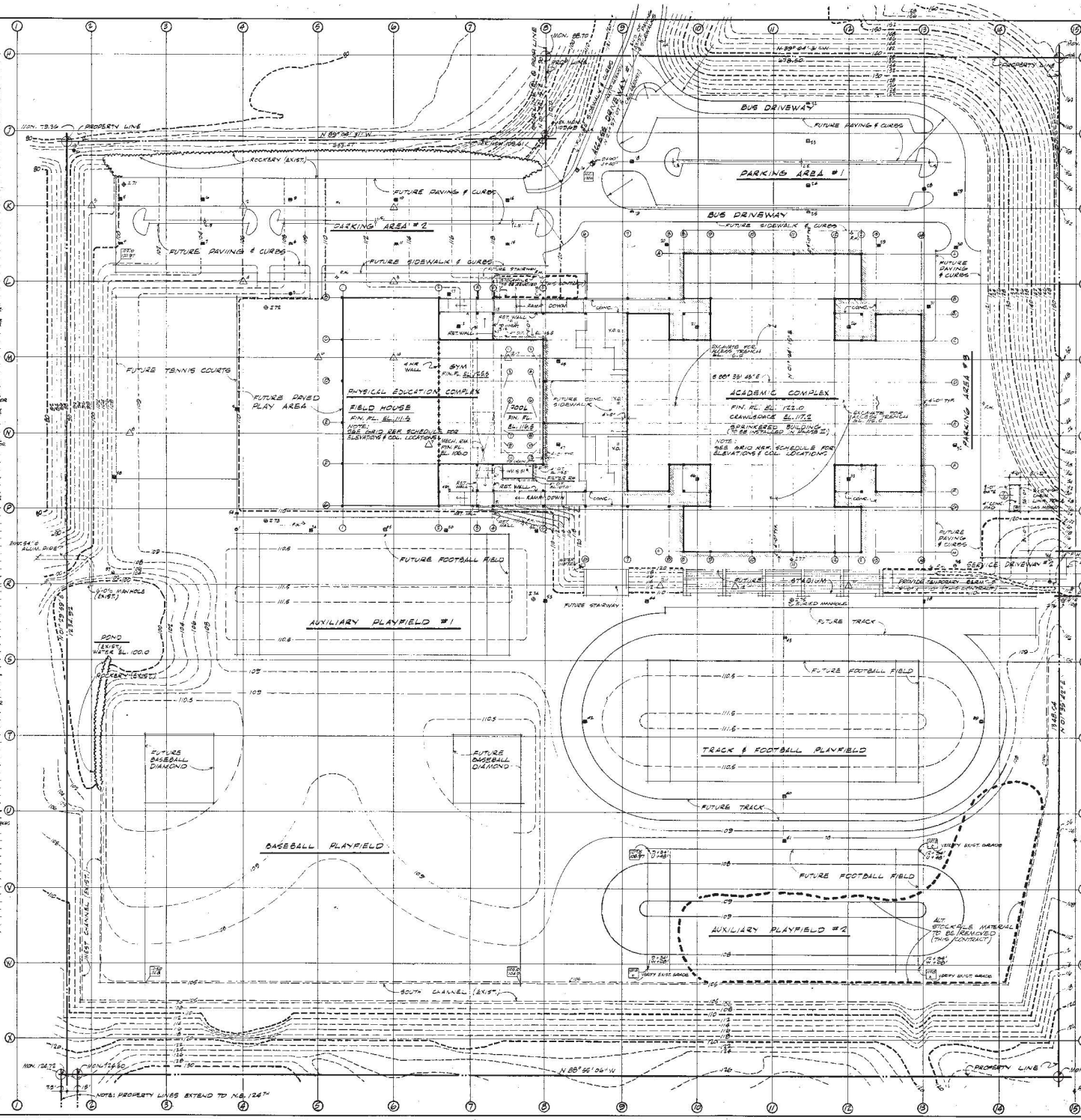
- Waterbodies in WRIA 8 - using the Water Quality Assessment Query Tool
- Watershed Information for WRIA 8

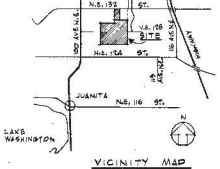
Wetland D Rating Figure 5. TMDL Screen Shot

APPENDIX F

1969 JUANITA HIGH SCHOOL SITE PLAN

BLDG COLUMN	GRID REFERENCE SOUTH	GRID REFERENCE EAST	ELEVATIONS FIN. FL.	ELEVATIONS NEW GRADE	ELEVATIONS EXIST. GRADE	CRAWLSPACE OR MECH. RM. FIN. FL. OR GRADE	CRAWLSPACE OR MECH. RM. EXIST. GRADE	NOTE
L 8	K+60.5	5+82.0	122.0		121.0	117.51	117.31	
L 9	K+60.5	10+17.0	122.0		121.0	117.66	117.46	
L 10	K+60.5	0+77.0	122.0		121.0	117.89	117.69	
L 11	K+60.5	11+77.0	122.0		121.0	117.89	117.69	
L 12	K+60.5	11+82.0	122.0		121.0	117.66	117.46	
L 12	K+60.5	2+17.0	122.0		121.0	117.51	117.31	
S	L+60.5	6+32.0	111.5		111.0			
S 2	L+60.5	8+57.0	111.5		111.0			
S 3	L+60.5	7+00.0	113.9	113.9	116.0			
S 4	L+60.5	7+80.0	113.9	113.9	116.0			
S 5	L+60.5	7+87.0	118.1	118.1	118.75			
S 6	L+60.5	8+61.0	121.5	121.5	121.0			
S 7	L+60.5	9+07.0	121.9	121.9	121.0			
S 8	L+60.5	9+60.0	121.9	121.9	121.0			
S 8A	L+60.5	9+85.0	121.9	121.9	121.0			
S 9	L+60.5	10+17.0	122.0		121.0	117.66	117.46	
S 12	L+60.5	1+85.0	122.0		121.0	117.66	117.46	
S 12	L+60.5	2+17.0	122.0		121.0	117.51	117.31	
S 2	L+60.5	6+57.0	111.5		111.0			
S 3	L+60.5	7+08.0	116.1	116.1	116.0			
S 4	L+60.5	7+30.0	116.1	116.1	116.0			
S 5	L+60.5	7+87.0	118.3	118.3	118.75			
S 6	L+60.5	8+52.0	121.5	121.5	121.0			
S 7	L+60.5	9+07.0	121.5	121.5	121.0			
S 8	L+60.5	9+32.0	121.5	121.5	121.0			
S 8A	L+60.5	9+85.0	121.5	121.5	121.0			
S 9	L+60.5	10+17.0	122.0		121.0	117.66	117.46	
S 12	L+60.5	1+85.0	122.0		121.0	117.66	117.46	
S 12	L+60.5	2+17.0	122.0	121.5	121.0	117.51	117.31	
S 13	L+60.5	12+37.0	122.0		121.0	117.53	117.33	
S 14	L+60.5	12+82.0	122.0		121.0	117.72	117.0	
C 1	L+75.5	6+32.0	111.5		111.0			
C 2	L+75.5	6+57.0	111.5		111.0			
C 3	L+75.5	7+30.0	116.5		116.0			116.5 @ CURBS FOR FUTURE SIDEWALK VARIES
C 4	L+75.5	7+57.0	116.5		116.0			121.0 FUTURE GRADE
C 5	L+75.5	7+87.0	116.5		116.0			
C 7	L+75.5	9+07.0	121.0		121.0	117.2	117.0	
C 8	L+75.5	9+60.0	122.0		121.0	117.53	117.33	
C 8A	L+75.5	9+85.0	122.0		121.0	117.51	117.31	
C 9	L+75.5	10+17.0	122.0		121.0	117.66	117.46	
C 12	L+75.5	11+85.0	122.0		121.0	117.66	117.46	
C 12	L+75.5	12+17.0	122.0		121.0	117.51	117.31	
C 13	L+75.5	12+37.0	122.0		121.0	117.53	117.33	
C 14	L+75.5	12+87.0	122.0		121.0	117.2	117.0	
D 1	M+30.5	5+32.0	111.5		111.0			
D 2	M+30.5	7+08.0	116.5		116.0			116.5 @ CURBS FOR FUTURE SIDEWALK VARIES
D 4	M+30.5	7+30.0	116.5		116.0			121.0 FUTURE GRADE
D 5	M+30.5	7+87.0	116.5		116.0			
D 7	M+30.5	9+07.0	122.0		121.0	117.2	117.0	
D 14	M+30.5	12+87.0	122.0		121.0	117.2	117.0	
E 1	M+55.5	5+32.0	111.5		111.0			
E 3	M+55.5	7+08.0	116.5		116.0	106.0	116.0	116.5 @ CURBS FOR FUTURE SIDEWALK VARIES
E 4	M+55.5	7+30.0	116.5		116.0	106.0	116.0	121.0 FUTURE GRADE
E 5	M+55.5	7+87.0	116.5		116.0			
E 7	M+55.5	9+07.0	122.0		121.0	117.2	117.0	
E 14	M+55.5	12+87.0	122.0		121.0	117.2	117.0	
F 1	N+60.5	5+32.0	111.5		111.0			
F 2	N+60.5	6+57.0	111.5		111.0			
F 3	N+60.5	7+08.0	116.5		116.0	106.0	116.0	116.5 @ CURBS FOR FUTURE SIDEWALK VARIES
F 4	N+60.5	7+30.0	116.5		116.0	106.0	116.0	121.0 FUTURE GRADE
F 5	N+60.5	7+87.0	116.0		116.0			
F 7	N+60.5	9+07.0	122.0		121.0	117.2	117.0	
F 8	N+60.5	9+60.0	122.0		121.0	117.53	117.33	
F 8A	N+60.5	9+85.0	122.0		121.0	117.51	117.31	
F 9	N+60.5	10+17.0	122.0		121.0	117.66	117.46	
F 12	N+60.5	11+85.0	122.0		121.0	117.66	117.46	
F 12	N+60.5	12+17.0	122.0		121.0	117.51	117.31	
F 13	N+60.5	12+37.0	122.0		121.0	117.53	117.33	
F 14	N+60.5	12+87.0	122.0		121.0	117.2	117.0	
G 1	N+75.5	5+32.0	111.5		111.0			
G 2	N+75.5	6+57.0	111.5		111.0			
G 3	N+75.5	7+08.0	113.9	113.9	116.0			110.0 @ SIDEWALK 112.0 @ SIDEWALK
G 4	N+75.5	7+30.0	113.9	113.9	116.0			
G 5	N+75.5	7+87.0	118.1	118.1	118.75			
G 6	N+75.5	8+52.0	121.5	121.5	121.0			
G 7	N+75.5	9+07.0	121.5	121.5	121.0			
G 8	N+75.5	9+60.0	121.5	121.5	121.0			
G 8A	N+75.5	9+85.0	121.5	121.5	121.0			
G 9	N+75.5	10+17.0	122.0		121.0	117.66	117.46	
G 12	N+75.5	11+85.0	122.0		121.0	117.66	117.46	
G 12	N+75.5	12+17.0	122.0		121.0	117.51	117.31	
G 13	N+75.5	12+37.0	122.0		121.0	117.53	117.33	
G 14	N+75.5	12+87.0	122.0		121.0	117.2	117.0	
H 1	P+55.5	5+32.0	122.0		121.0	117.51	117.31	
J 9	P+55.5	10+17.0	122.0		121.0	117.66	117.46	
H 10	P+55.5	10+77.0	122.0		121.0	117.89	117.69	
H 11	P+55.5	11+77.0	122.0		121.0	117.89	117.69	
H 12	P+55.5	11+82.0	122.0		121.0	117.66	117.46	
H 12	P+55.5	12+17.0	122.0		121.0	117.51	117.31	
	SWIMMING POOL EXCAVATION							
1	M+20.6	7+62.0	112.5		116.0			
2	M+22.6	7+87.0	112.5		116.0			"
3	M+28.8	7+62.0	112.0		116.0			"
4	M+28.6	7+87.0	112.0		116.0			"
5	N+26.6	7+62.0	108.6		116.0			"
6	M+26.6	7+87.0	108.6		116.0			"
7	M+26.6	7+62.0	108.6		116.0			"
8	M+26.6	7+87.0	108.6		116.0			"
9	N+22.6	7+62.0	108.0		116.0			"
10	N+22.6	7+87.0	108.0		116.0			"
11	N+22.6	7+62.0	107.6		116.0			"
12	N+22.6	7+87.0	107.6		116.0			"





LEGEND

- CATCH BASIN
- INLET
- MANHOLE
- YD. YARD DRAIN
- FILL (COMPACTED WITH EXIST GRADE)
- EXIST CONTOUR GRADE
- NEW CONTOUR GRADE
- CONC. PAVING
- NEW GRADE
- EXIST GRADE
- CHAIN LINK FENCE
- 4-HR FIRE WALL
- BLOCK GRID NODALE SEE GRID REF. & ELEVATION CHART FOR LOCATIONS
- SITE GRID NODALE (100'-0" O.C.)
- SEWER MANHOLE
- FIRE HYDRANT
- LIGHT STANDARD
- FIELD DENSITY TEST SEE SHANNON & WILSON LTR. OF 5 APR 1960

UTILITIES

WATER - DISTRICT #119
SEWER - NE LAKE WASHINGTON SEWER DISTRICT
POWER - PUGET SOUND POWER & LIGHT CO.

SOILS DATA:
SHANNON & WILSON REPORT DATED 5 APR 1960

SURVEY DATA:
HART-WIGLER & ASSOCIATES DATED 26 MAR 1968

DATUM: ELEVATIONS SHOWN ARE BASED ON THE DATUM AND ELEVATION OF A BRASS CAP SET IN THE INTERSECTION OF N.E. 132 ST. AND 108TH AVE. N.E. CULS.

LEGAL DESCRIPTION

THAT PORTION OF THE NW¼ OF SEC. 23, TWP. 26 N., R.5 E., W.M., IN KING COUNTY, WASH., DESCRIBED AS FOLLOWS: BEG. AT THE NW CR. OF SAID SECTION AND THE NE CR. OF THE NW¼ OF SAID SECTION; THENCE S. ON THE WESTERLY LINE OF SAID NW¼ 1320.0 FT. TO THE SE CR. OF THE NE¼ OF SAID NW¼; THENCE W. ON THE SOUTHERLY LINE OF SAID NE¼ OF SAID NW¼ 1320.0 FT. TO THE SW CR. OF THE NE¼ OF SAID NW¼; THENCE N. ON THE WESTERLY LINE OF SAID NE¼ OF SAID NW¼ 1320.0 FT. TO THE NW CR. OF SAID NE¼ OF SAID NW¼; THENCE E. ON THE NORTHERLY LINE OF SAID NE¼ OF SAID NW¼ 1320.0 FT. TO THE POB.
EXCEPT THAT PORTION DEED TO CITY OF SEATTLE LTR. DATED 30 JULY 1968.

GENERAL NOTES

1. PERCENT COVERAGE = 10.8%
2. OCCUPANCY - GROUP "E"
3. CONSTRUCTION: TYPE III 1-HR.
4. CAPACITY: 1600 STUDENTS
5. FLOOR AREA:
ACADEMIC COMPLEX
* = 121,256 S.F.
P.E. COMPLEX
POOL & GYM 37,930 S.F.
FIELD HOUSE 34,014 S.F.
71,944 S.F.

ALLOWABLE AREA (UBC)	
TYPE III 1HR	15,200 S.F.
+18	9,266
BASIC	24,466
100%	24,466
	* 48,932 S.F.
SPRINKLERS	×3
	** 121,696 S.F.

NORTH

REVISIONS

SHEET A1 OF 15

SITE PLAN

SCALE 1" = 50'-0"

DATE 5 MAY 1969

JOB NO.

JUANITA HIGH SCHOOL
ON SITE NO. 61 • KIRKLAND, WASHINGTON
PHASE II
LAKE WASHINGTON SCHOOL DISTRICT #414

REGISTERED ARCHITECT STATE OF WASHINGTON

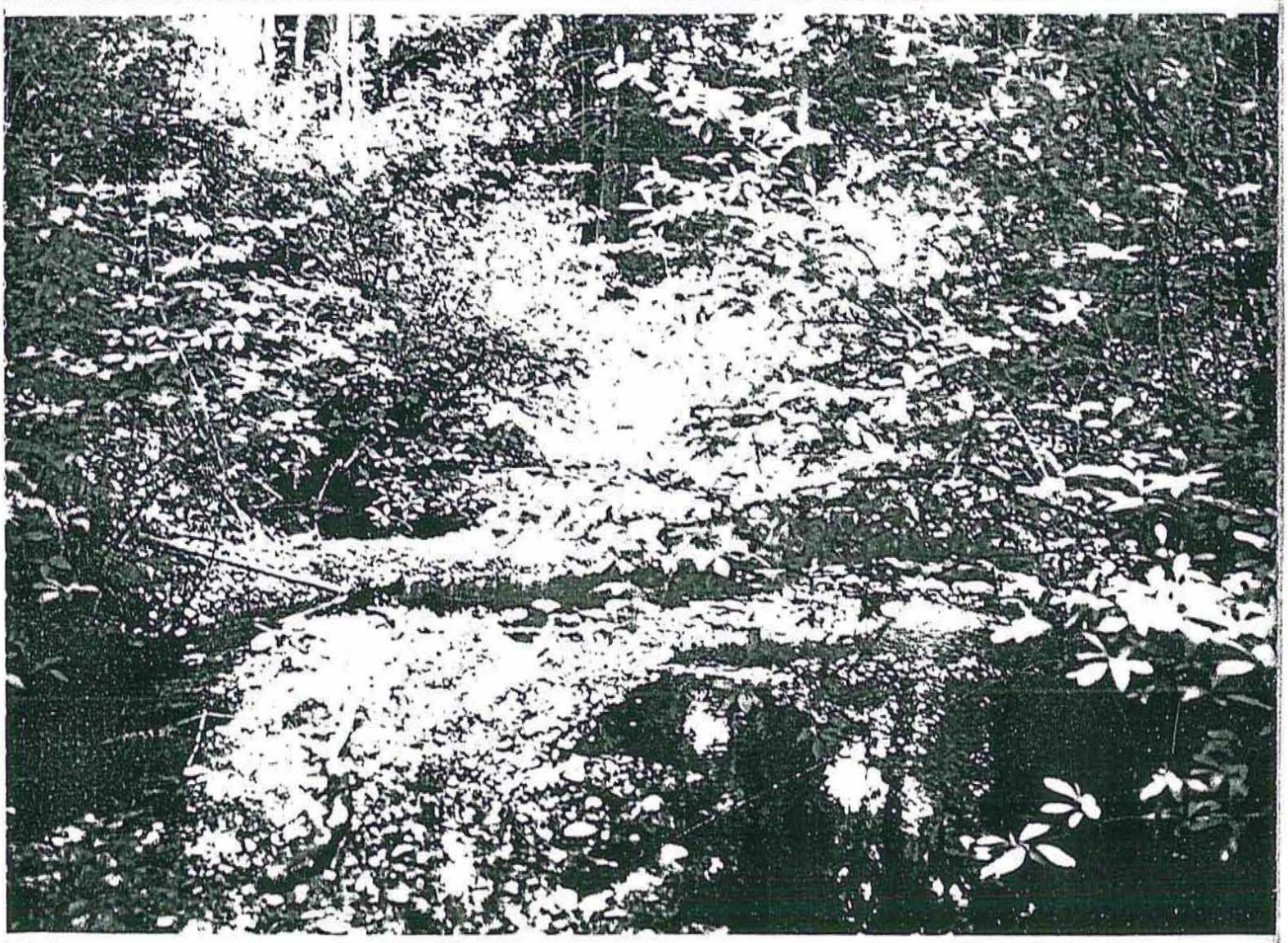
KIRK, WALLACE, McKINLEY, A.I.A. & ASSOCIATES, ARCHITECTS
PAUL HAYDEN KIRK, FAIA • DONALD S. WALLACE, A.I.A. • DAVID A. McKINLEY, FAIA
ASSOCIATES
ROBERT L. ROSSELL • EDWARD W. WILLIAMSON
ALFRED E. ELLISON • JOYCE P. PENNINGER
FRANK CARROLL • KEITH A. JACOBSON
2000 FAIRVIEW AVENUE EAST, SEATTLE, WASHINGTON 98102 EAST 4-2000

APPENDIX G

1977 JUANITA CREEK BASIN PLAN

Juanita Creek Basin Plan

A Multiple Purpose
Surface Water Management Program



King County, Washington

Juanita Creek Basin

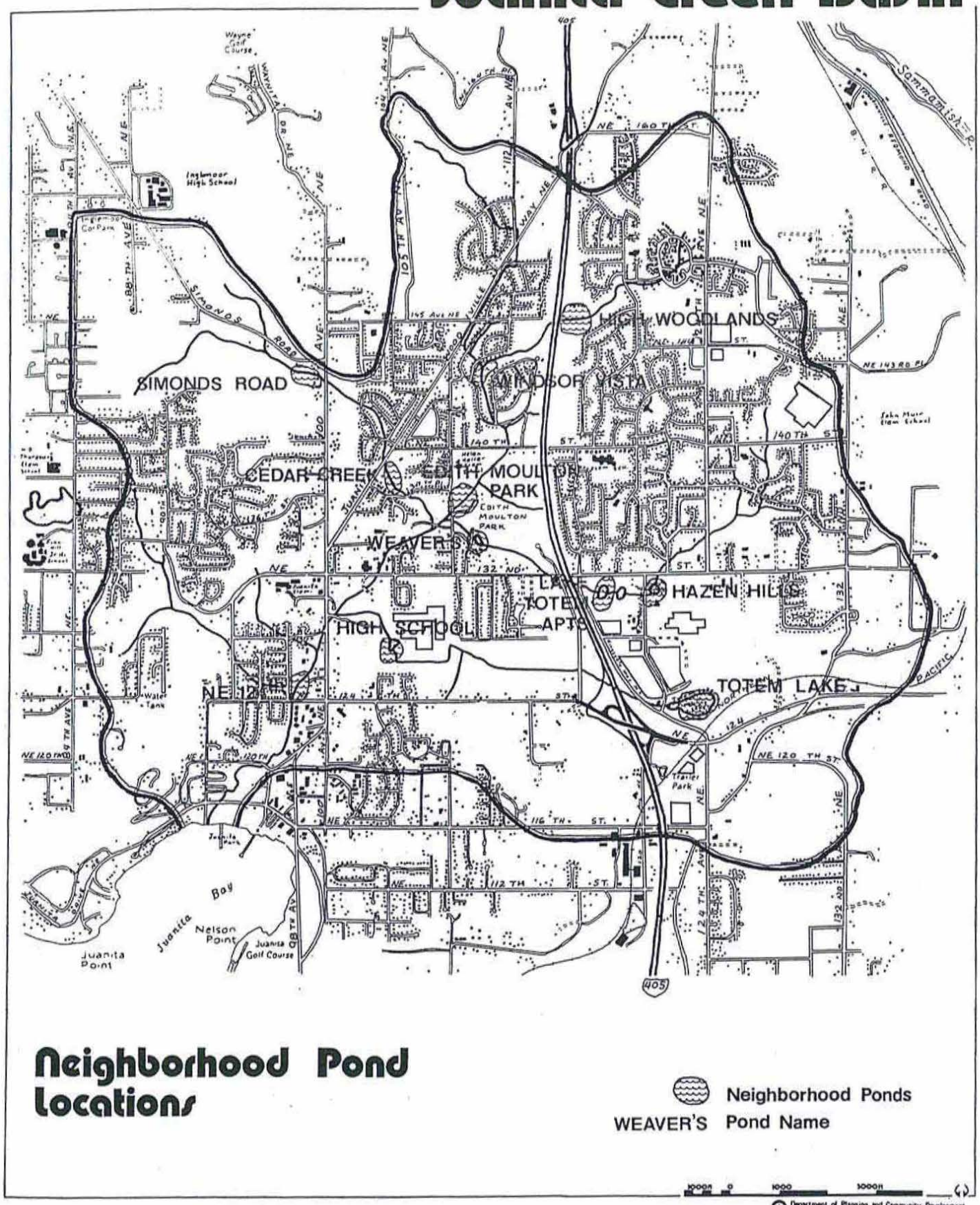
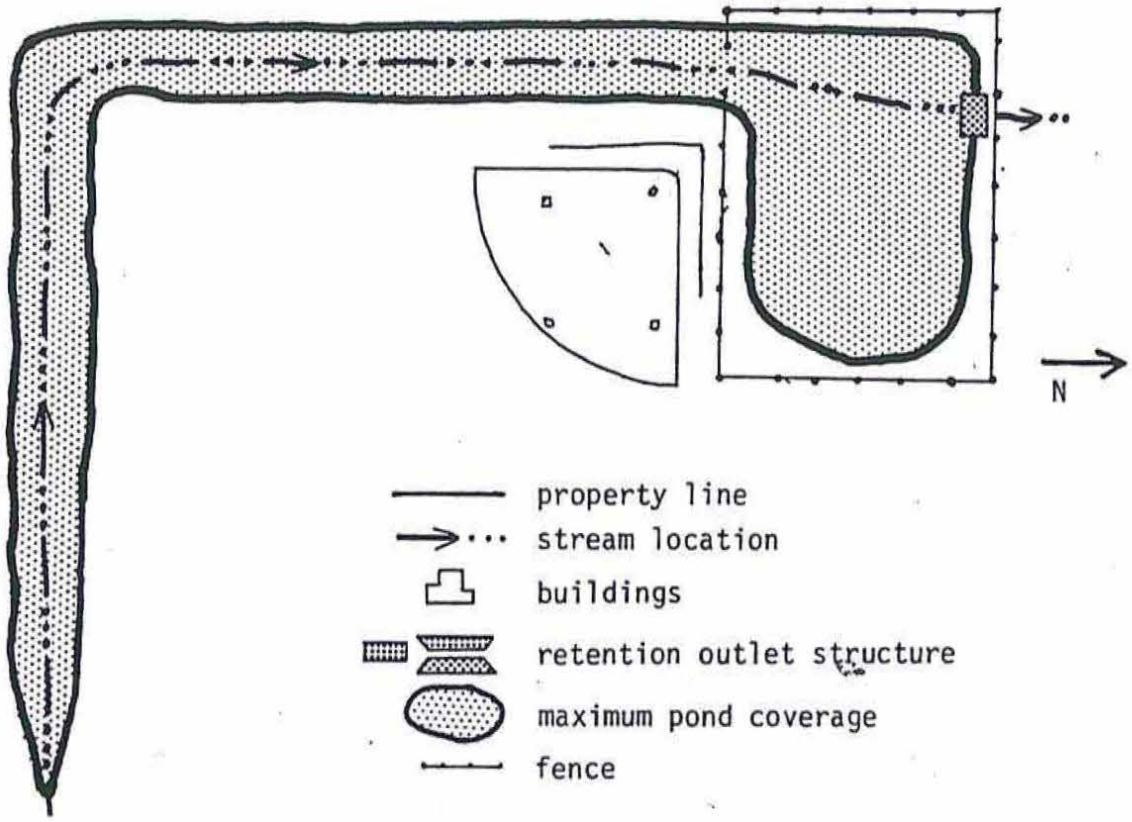


FIGURE 16a

HIGH SCHOOL POND

The High School Pond is located near the south boundary of the Juanita High School grounds behind the baseball field. A detention pond currently exists at the same location.



The existing blue/green detention pond regulates streamflows for the lower quarter of the Totem Lake Tributary. The new pond will make improvements to the old facilities. Little excavation will be necessary except for some maintenance grading in the lowest section of the pond. A short berm will be constructed at the northwest corner of the pond - the existing low point in the perimeter. The outlet structure will be replaced to increase maximum depth at overflow stage from approximately five feet to eleven feet. No new areas will be flooded except water will back up farther in the stream channel than it presently does during storms. After storms the site will drain and dry out. Negotiation with the school district will be necessary to gain approval for these improvements.

The deep end of the pond will be enclosed by fencing for safety reasons because the site is on school property. Landscaping will help the fence blend with surroundings.

The additional protection provided by these improvements will make more feasible the salmon enhancement project proposed for the downstream reach by the State Department of Fisheries.

Pre-design Specifications

Active Storage Volume - 215,200 cubic feet, 11 foot maximum depth

Grade and Excavation - restoration work over 1/2 acre

Berm Construction - 75 cubic yards

Fencing - 600 feet surrounding the deep portion of the pond, 1 gate

Rip rap - protection around outlet structure

Landscape - hydroseeding of exposed soil, tree and shrub planting around fenced perimeter

APPENDIX H

IMPORTANT INFORMATION ABOUT YOUR WETLAND DELINEATION/MITIGATION AND/OR STREAM CLASSIFICATION REPORT

SHANNON & WILSON, INC.
Geotechnical and Environmental Consultants

Attachment to and part of Report 21-1-12553-001

Date: March 22, 2017
To: Ms. Stacy Shewell
Lake Washington School District

IMPORTANT INFORMATION ABOUT YOUR WETLAND DELINEATION/MITIGATION AND/OR STREAM CLASSIFICATION REPORT

A WETLAND/STREAM REPORT IS BASED ON PROJECT-SPECIFIC FACTORS.

Wetland delineation/mitigation and stream classification reports are based on a unique set of project-specific factors. These typically include the general nature of the project and property involved, its size, and its configuration; historical use and practice; the location of the project on the site and its orientation; and the level of additional risk the client assumed by virtue of limitations imposed upon the exploratory program. The jurisdiction of any particular wetland/stream is determined by the regulatory authority(s) issuing the permit(s). As a result, one or more agencies will have jurisdiction over a particular wetland or stream with sometimes confusing regulations. It is necessary to involve a consultant who understands which agency(s) has jurisdiction over a particular wetland/stream and what the agency(s) permitting requirements are for that wetland/stream. To help reduce or avoid potential costly problems, have the consultant determine how any factors or regulations (which can change subsequent to the report) may affect the recommendations.

Unless your consultant indicates otherwise, your report should not be used:

- If the size or configuration of the proposed project is altered.
- If the location or orientation of the proposed project is modified.
- If there is a change of ownership.
- For application to an adjacent site.
- For construction at an adjacent site or on site.
- Following floods, earthquakes, or other acts of nature.

Wetland/stream consultants cannot accept responsibility for problems that may develop if they are not consulted after factors considered in their reports have changed. Therefore, it is incumbent upon you to notify your consultant of any factors that may have changed prior to submission of our final report.

Wetland boundaries identified and stream classifications made by Shannon & Wilson, Inc. are considered preliminary until validated by the U.S. Army Corps of Engineers (Corps) and/or the local jurisdictional agency. Validation by the regulating agency(s) provides a certification, usually written, that the wetland boundaries verified are the boundaries that will be regulated by the agency(s) until a specified date, or until the regulations are modified, and that the stream has been properly classified. Only the regulating agency(s) can provide this certification.

MOST WETLAND/STREAM "FINDINGS" ARE PROFESSIONAL ESTIMATES.

Site exploration identifies wetland/stream conditions at only those points where samples are taken and when they are taken, but the physical means of obtaining data preclude the determination of precise conditions. Consequently, the information obtained is intended to be sufficiently accurate for design, but is subject to interpretation. Additionally, data derived through sampling and subsequent laboratory testing are extrapolated by the consultant who then renders an opinion about overall conditions, the likely reaction to proposed construction activity, and/or appropriate design. Even under optimal circumstances, actual conditions may differ from those thought to exist because no consultant, no matter how qualified, and no exploration program, no matter how comprehensive, can reveal what is hidden by earth, rock, and time. Nothing can be done to prevent the unanticipated, but steps can be taken to help reduce their impacts. For this reason, most experienced owners retain their consultants through the construction or wetland mitigation/stream classification stage to identify variances, to conduct additional evaluations that may be needed, and to recommend solutions to problems encountered on site.

WETLAND/STREAM CONDITIONS CAN CHANGE.

Since natural systems are dynamic systems affected by both natural processes and human activities, changes in wetland boundaries and stream conditions may be expected. Therefore, delineated wetland boundaries and stream classifications cannot remain valid for an indefinite period of time. The Corps typically recognizes the validity of wetland delineations for a period of five years after completion. Some city and county agencies recognize the validity of wetland delineations for a period of two years. If a period of years have passed since the wetland/stream report was completed, the owner is advised to have the consultant reexamine the wetland/stream to determine if the classification is still accurate.

Construction operations at or adjacent to the site and natural events such as floods, earthquakes, or water fluctuations may also affect conditions and, thus, the continuing adequacy of the wetland/stream report. The consultant should be kept apprised of any such events and should be consulted to determine if additional evaluation is necessary.

THE WETLAND/STREAM REPORT IS SUBJECT TO MISINTERPRETATION.

Costly problems can occur when plans are developed based on misinterpretation of a wetland/stream report. To help avoid these problems, the consultant should be retained to work with other appropriate professionals to explain relevant wetland, stream, geological, and other findings, and to review the adequacy of plans and specifications relative to these issues.

DATA FORMS SHOULD NOT BE SEPARATED FROM THE REPORT.

Final data forms are developed by the consultant based on interpretation of field sheets (assembled by site personnel) and laboratory evaluation of field samples. Only final data forms customarily are included in a report. These data forms should not, under any circumstances, be drawn for inclusion in other drawings because drafters may commit errors or omissions in the transfer process. Although photographic reproduction eliminates this problem, it does nothing to reduce the possibility of misinterpreting the forms. When this occurs, delays, disputes, and unanticipated costs are frequently the result.

To reduce the likelihood of data from misinterpretation, contractors, engineers, and planners should be given ready access to the complete report. Those who do not provide such access may proceed under the mistaken impression that simply disclaiming responsibility for the accuracy of information always insulates them from attendant liability. Providing the best available information to contractors, engineers, and planners helps prevent costly problems and the adversarial attitudes that aggravate them to a disproportionate scale.

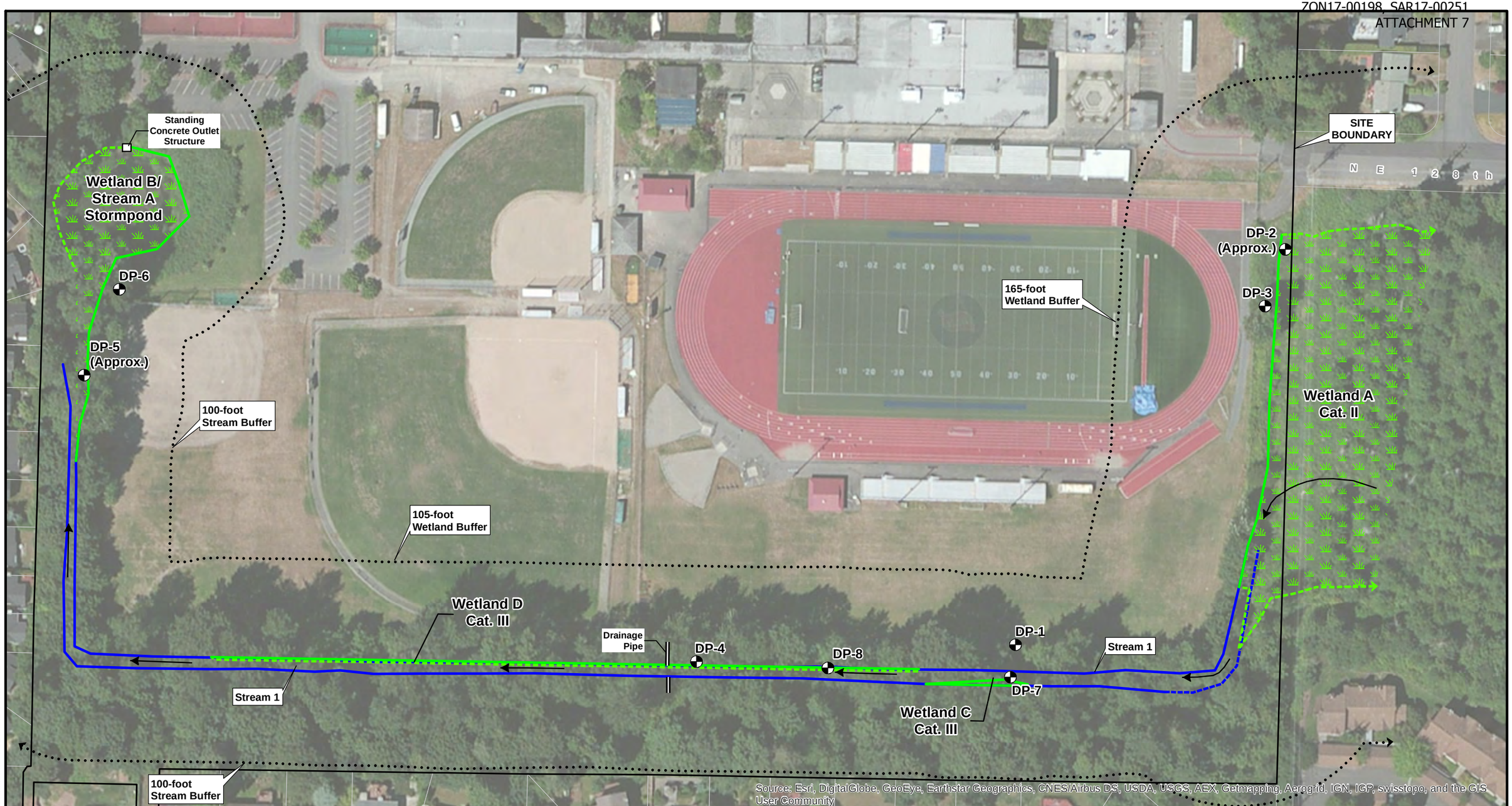
READ RESPONSIBILITY CLAUSES CLOSELY.

Because a wetland delineation/stream classification is based extensively on judgment and opinion, it is far less exact than other design disciplines. This situation has resulted in wholly unwarranted claims being lodged against consultants. To help prevent this problem, consultants have developed a number of clauses for use in written transmittals. These are not exculpatory clauses designed to foist the consultant's liabilities onto someone else; rather, they are definitive clauses that identify where the consultant's responsibilities begin and end. Their use helps all parties involved recognize their individual responsibilities and take appropriate action. Some of these definitive clauses are likely to appear in your report, and you are encouraged to read them closely. Your consultant will be pleased to give full and frank answers to your questions.

THERE MAY BE OTHER STEPS YOU CAN TAKE TO REDUCE RISK.

Your consultant will be pleased to discuss other techniques or designs that can be employed to mitigate the risk of delays and to provide a variety of alternatives that may be beneficial to your project.

Contact your consultant for further information.



LEGEND

DP-1 Data Pit

Wetland Boundary
- Delineated
- Approximate

Stream Boundary (OHWM)
- Delineated
- Approximate

Stream Flow Direction

Wetland/Stream Buffer

Wetland categories based on Washington Department of Ecology's 2014 Wetland Rating System for Western Washington. Wetland B is documented as a stormwater pond since before 1969 and is not considered a City jurisdictional wetland. Therefore, Wetland B is not categorized.

Shannon & Wilson, Inc. delineated Wetlands A, B, and stream boundaries on October 18, 2013 and delineated Wetlands C and D boundaries on June 29, 2016. Flags were surveyed by Bush, Roed & Hitchings, Inc. Approximate wetland and stream boundaries were not delineated nor surveyed.

N W E S

0 100 200
Feet

Lake Washington School District
Juanita High School
Kirkland, Washington

WETLAND AND STREAM DELINEATION MAP

March 2017 21-1-12553-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 2

Filename: I:\WIP\21-1\12553 LWSD Natural Resource\-001 Juanita\GIS\MXD\WetlandDelin.mxd

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

March 5, 2018

Planning and Building Department
City of Kirkland
123 5th Avenue
Kirkland, WA 98033

Attn: Mr. Tony Leavitt

RE: PUBLIC AGENCY EXCEPTION ASSESSMENT, JUANITA HIGH SCHOOL REPLACEMENT PROJECT, LAKE WASHINGTON SCHOOL DISTRICT, KIRKLAND, WASHINGTON

Shannon & Wilson, Inc. was contracted by the Lake Washington School District (School District) to provide natural resource and permitting support services for the Juanita High School Replacement Project (the project). The School District is requesting a Public Agency Exception (PAE) from the City of Kirkland (the City), which will exempt the project from sections of the Kirkland Zoning Code (KZC) Chapter 90 that would otherwise prevent the school replacement from moving forward. Specifically, the PAE will be used for the following sections of KZC 90.[1]

1. KZC 90. 60 Wetland Modification and 90.70 Stream Modification
2. KZC 90.130 Vegetative Buffer Standards
3. KZC 90.140 Structure Setback from Critical Area Buffer

This letter will discuss why the project is requesting PAE, and will outline how the project's request meets the PAE decisional criteria within KZC 90.45 Public Agency and Public Utility Exceptions.

BACKGROUND

The School District submitted the project's critical areas report, *Wetland and Stream Delineation Report, Juanita High School,*[2] to the City in November 2016. The City's third party critical

[1] City of Kirkland (City), 2017, Kirkland Zoning Code (KZC) Chapter 90 critical areas – wetlands, streams, minor lakes, fish wildlife habitat areas, and frequently flooded areas: Kirkland, Wash., adopted December 13, 2016, available: http://www.codepublishing.com/WA/Kirkland/

[2] Shannon & Wilson, 2016, Wetland and Stream Delineation Report, Juanita High School, Kirkland, Washington: Report prepared by Shannon & Wilson, Inc, Seattle Wash., 21-1-12553-001, for Lake Washington School District, Redmond, Wash., November, 186 p.

areas reviewer provided comments on the report, which were incorporated into the revised critical areas report, provided to the City in March 2017.[3]

The southern third of the school parcel is encumbered by critical areas and their associated buffers. The critical areas report describes four onsite wetlands, all of which are associated with an un-named stream that enters the project site from the east, flows along the southern parcel boundary, and leaves the project site midway up the western parcel boundary. The project critical areas report meets the requirements outlined in KZC 90.110 Critical Areas Report.

DEMONSTRATED NEED FOR PUBLIC AGENCY EXCEPTION (PAE)

The project is requesting a PAE for several specific sections of the KZC Chapter 90. Descriptions of the proposed design elements and accompanying code constraints are described below.

KZC 90. 60 Wetland Modification and 90.70 Stream Modification

The proposed design will not impact the site wetlands or stream and will not result in permanent impacts to buffer. However, temporary impacts will occur within the improved portion of the onsite buffer. While buffer impacts are allowed under KZC 90.60 and 90.70, the requirements of these sections cannot be met because a buffer modification must be associated with a wetland or stream impact.[4] Therefore, the project's temporary impacts to buffer only, must be processed under a PAE. The proposed buffer impacts include the main activities below.

Temporary Parking

Onsite temporary parking areas will be constructed within the site's improved buffer, in areas currently used as athletic fields. The temporary construction parking is needed to accommodate construction-related traffic, to make up for the temporary removal of existing

[3] Shannon & Wilson, 2017, Revised wetland and stream delineation report, Juanita High School, City of Kirkland, Washington: Report prepared by Shannon & Wilson, Inc., Seattle, Wash., 21-1-12553-001, for Lake Washington School District, Redmond, Wash., March, 208 p.

[4] Lieberman-Brill, Joan, 2016, Updates to City of Kirkland chapter 90 (thread titled "Juanita HS Wetlands Meeting Agenda Oct. 17, 2016"): Personal communication (email) between Joan Lieberman-Brill, Janice Coogan, Teresa Swan, and Jeremy McMahan, City of Kirkland, Kirkland, Wash., and Sarah Corbin, Shannon & Wilson, Inc., Seattle, Wash., and Stacy Shewell, Lake Washington School District, Redmond, Wash., and Kim Young, Integrus Architecture, Seattle, Wash., November 3.

parking spaces required to accommodate construction, and to ameliorate the community concerns that student drivers will park on nearby residential streets.

A tall chain link fence currently separates the athletic fields from the naturally vegetated portion of the site buffer and the wetland and stream system. The parking areas will be located on the improved side of the chain link fence. Ecology blocks will line the perimeter of the parking areas to prevent cars from leaving the designated areas. Stormwater generated in the parking areas will be collected and treated for basic water quality and flow control before joining an existing stormwater outfall system that discharges to the site stream. Following construction, the temporary parking features will be removed and the area will be restored to its pre-project condition.

Hazard Tree Removal

The second temporary impact to the site buffer will be the removal of six hazard trees, as identified by the project's arborist report.[5] The hazard trees will be removed from the outer edge of the northeast corner of buffer, in a grassy area adjacent to the NE 128th Street school access road. The portion of buffer from which the hazard trees will be removed are separated from the associated wetland by NE 128th Street and a paved driveway. The arborist report identifies the hazard trees as five small to moderately sized (ranging from 4 to11 inches diameter at breast height [DBH]) big leaf maple, and one 14-inch DBH black cottonwood, all of which were found to be in poor to poor/fair condition. The six removed hazard trees will be replaced at a 1:1 ratio with native tree species within the same general buffer location from which they will be removed.

KZC 90.130 Vegetative Buffer Standards

The KZC 90.130 Vegetative Buffer Standards describes wetland and stream buffer standards that will be required for projects that meet the following criteria:

1. The total net new impervious surface on the entire subject property exceeds 1,000 square feet or

[5] American Forest Management, 2013, Arborist report for Juanita High School, Kirkland, Washington: Report prepared by American Forest Management, Kirkland, Wash., for Bush, Roed and Hitchings, Inc., Seattle, Wash., December, 48 p.

2. The cost of new or replacement improvements exceeds 50 percent of the assessed or appraised value of the existing improvements on the entire subject property, whichever is greater (City, 2017).

The project will: (1) result in a net increase in impervious surface greater than 1,000 square feet and (2) although the City does not assess the value of public lands, it is probable that an appraisal would show exceedance of the 50 percent value. Therefore, the vegetative buffer standards would apply to the project. These standards require native cover of at least 80 percent throughout the wetland and stream buffer area, requires less than 10 percent of the buffer consist of noxious weeds, and require that existing improvements and structures in the buffer be removed.

The naturally vegetated portion of buffer adjacent to the stream and wetland areas meets the vegetative buffer percentage standards. However, the majority of the onsite buffer is made up of existing improvements such as the football field, track, baseball fields, javelin throw, and athletic practice fields that will not be removed. The buffer area outside of the improvements consists of mowed lawn that is used by students and the community for recreation; these uses will remain the same after construction. Because the project cannot implement KZC 90.130, a PAE is requested.

KZC 90.140 Structure Setback from Critical Area Buffer

The KZC 90.140 outlines required structure setback widths for specific improvement types from critical area buffers. The code requires a structure setback of 10 feet from the buffer edge and identifies other improvements that may extend further into the structure setback. The site's encumberment requires that a stormwater vault be constructed within the 10-foot setback, beyond the prescribed width. The stormwater vault is located adjacent to the portion of site buffer that is separated from the associated wetland by NE 128th Street and a paved driveway. Relocation of the stormwater vault would necessitate the addition of an additional manhole and would shift the stormwater alignment further into the site buffer, which would result in removal of non-hazard trees. To minimize site buffer impacts, a PAE is requested for improvements that exceed the allowances within KZC 90.140.

DECISIONAL CRITERIA

This section outlines how the project meets each of the PAE decisional criteria in KZC 90.45.3. The specific criteria are shown below in *italics*, followed by the project's response.

1. *There is no other practical alternative to the proposed project with less impact on the critical areas or buffer.*
   The size of the school site and presence of critical areas and their associated buffers limits the school replacement to the currently developed and improved footprint. Implementation of the avoidance and minimization measures described below in #3 have allowed the project design to avoid any impact to the site's wetland and stream wetland system as well as avoid permanent impacts to the site's critical areas buffer. The temporary impacts that will occur within the site buffer are located within existing improved and/or developed areas of buffer.

2. *Strict application of this chapter would unreasonably restrict or prohibit the ability to provide public utilities or public agency services to the public.*
   The strict application of the code sections identified above would either prevent the project from moving forward (e.g. vegetation requirements in the existing improved buffer is not feasible) or would result in buffer impacts (e.g. the vault located in the buffer setback).

3. *The proposal minimizes impacts to the critical area or buffer through mitigation sequencing, and through type and location of mitigation, pursuant to KZC 90.145 and 90.150, if applicable, including such installation measures as locating facilities in previously disturbed areas, boring rather than trenching, and using pervious or other low impact materials.*
   In accordance with KZC 90.145, a thorough application of the mitigation sequencing process (i.e., avoidance, minimization, and rectification/restoration) was incorporated throughout the project's 2+ years-long design process. Consequently, no impacts to site critical areas nor permanent impacts to associated buffers will occur, and therefore no compensatory mitigation will be required.

   Mitigation sequencing measures that the project design has implemented include the following:

a. All site features have been kept out of site critical areas and no permanent features will occur within unimproved critical areas buffer.

b. The portion of the site unencumbered by critical areas and buffers is maximized to accommodate necessary high school programming needs., e.g., the academic building is proposed to be three stories in place of the existing one-story building to minimize the footprint.

c. No improvements are proposed to the existing football stadium, track, or athletic fields located within the site buffer.

d. The proposed location of geothermal wells was moved out of the buffer, at a greater cost to project budget and schedule.

e. Proposed addition of new tennis courts was eliminated when the proposed location could not be moved outside of the buffer.

f. To capture stormwater in the school paved areas, the project design has implemented the use of rain gardens and biofiltration to the extent possible.

g. Temporarily disturbed buffer areas will be restored to pre-project conditions.

4. *The proposal protects and/or enhances critical area and buffer functions and values, consistent with the best available science and with the object of no net loss of critical area functions and values.*
Through impact avoidance to the site wetland and stream system, and avoidance of permanent impacts to the site buffers, the proposed design protects the existing function and value of the critical areas. Additionally, the proposed design incorporates enhanced stormwater treatment for 7.29 acres of currently untreated pavement that discharges to the site stream. The proposed addition of water quality treatment will improve water quality within the site wetland and stream system, thereby enhancing the hydrologic function within the system and within waterbodies downstream of the site.

CONCLUSIONS

Strict application of the KZC sections 90.60, 90.70, 90.130, and 90.140 would prevent the proposed school replacement from moving forward under the City's permitting process. The project has demonstrated the need for a PAE and has outlined how the proposed design meets the

PAE decisional criteria in KZC 90.45.3. The School District therefore, requests that the City employ a PAE to permit the project.

LIMITATIONS

The findings and conclusions documented in this letter have been prepared for specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our agreement. The conclusions presented in this letter are professional opinions based on interpretation of information currently available to us and are made within the operational scope, budget, and schedule constraints of this project. No warranty, express or implied, is made.

We appreciate the opportunity to be of service to you. If you have any questions or would like clarification of the information provided herein, please contact me at scc@shanwil.com or (206) 695-6674.

Sincerely,

SHANNON & WILSON, INC.

Sarah L. Corbin

Sarah Corbin, PWS
Senior Biologist

SCC:KLW/scc

THE WATERSHED COMPANY

April 5, 2018

Tony Leavitt
City of Kirkland Planning Department
123 5th Avenue
Kirkland, WA 98033

Re: Juanita High School Public Agency Exception, Peer Review
The Watershed Company Reference Number: 160622.15

Dear Tony:

The Lake Washington School District is proposing improvements at Juanita High School in the City of Kirkland. Prior critical areas studies have determined that wetland and stream buffers encumber much of the southern portion of the school property. The following documents summarize the wetland, stream, and buffer constraints on the property:

- *Wetland and Stream Delineation Report Submittal, Juanita High School Project, Kirkland, Washington* (Shannon & Wilson, Inc. November 21, 2016).
- *Juanita High School Wetland and Stream Delineation Study, 3rd Party Review* (The Watershed Company. January 6, 2017).
- *Response to Wetland and Stream Delineation Report Review, Juanita High School Project, Kirkland, Washington* (Shannon & Wilson, Inc. March 22, 2017).

Given the extent of the buffer encumbrances on the property, the School District is applying for a Public Agency Exception (PAE) to allow for uses and activities within the buffers that are not allowed under the standard provisions of the Kirkland Zoning Code (KZC). The approach and compliance with the PAE requirements are summarized in the *Public Agency Exception Assessment, Juanita High School Replacement Project, Lake Washington School District, Kirkland, Washington* (Shannon and Wilson, Inc. March 5, 2018) (PAE Assessment). This letter represents our review of the PAE Assessment.

750 Sixth Street South | Kirkland, WA 98033
p 425.822.5242 | f 425.827.8136 | watershedco.com

PAE Assessment Summary

The PAE Assessment identifies four primary components of the proposed school redevelopment that do not comply with the allowed use or standard provisions in Chapter 90 of the Kirkland Zoning Code:

Vegetative Buffer Standards

The PAE Assessment notes that maintaining a naturally vegetated buffer in accordance with KZC 90.130 is infeasible given the existing improvements and uses of the buffer areas. The Watershed Company agrees that strict adherence to these provisions would place an undue burden on the School District to eliminate substantial areas of actively used and maintained athletic fields and gathering spaces. Expanding the buffer by 33 percent in-lieu of achieving the vegetative buffer standards would not yield any ecological benefit, as this action would create more low-functioning buffer composed of athletic fields, and the PAE would still be necessary.

Structure Setback from Critical Area Buffer

The PAE Assessment notes that it cannot comply with the 10-foot structure setback in a single location adjacent the northeast buffer area, where a new stormwater vault is proposed. The PAE Assessment has determined that alternative locations are not feasible, as the only potential alternative location would be within the buffer rather than the setback. The proposed location is adjacent to a portion of buffer that is separated from the wetland by NE 128th Street and a paved driveway.

KZC Table 90.140.1 appears to authorize underground structures within the first 9 feet of the structure setback. Thus, a PAE may not be applicable. Regardless, under KZC 90.120.a & d, a critical area buffer that is isolated from the critical area where an existing legally established and improved public right-of-way or improved easement road interrupts a portion of the critical area buffer from the portion of the buffer adjacent to the critical area may be waived by the planning department if:

1) The existing legal improvement creates a substantial barrier to the buffer function;

2) The interrupted buffer does not provide additional protection of the critical area from the proposed development; and

3) The interrupted buffer does not provide significant hydrological, water quality and wildlife buffer functions relating to the portion of the buffer adjacent to the critical area.

In our opinion, the area in question satisfies all of the above criteria. The extent of pollutant-generating impervious surfaces separating the wetland from the setback area creates a significant barrier to buffer function. The small area of buffer across NE 128th Street is not a highly functioning buffer, and it likely only provides insignificant protection for the wetland area. It is our opinion that this area meets all of the criteria under KZC 90.120 and should not be regulated as buffer. Therefore, a PAE is not necessary for this component of the proposed redevelopment.

Hazard Tree Removal

The PAE Assessment notes that six hazard trees are to be removed from the outer buffer area in a similar location as described above for the stormwater vault (across NE 128th Street from the associated wetland). As described above, it is our opinion that this area is not regulated as a buffer in accordance with KZC 90.120. Therefore, a PAE is not necessary for this component of the proposed project. In addition, removal of hazard trees within a buffer would not require a PAE, as this is allowed by KZC 90.135. The City's tree replacement requirements would apply regardless of critical area/buffer constraints. It should be noted, however, that the PAE Assessment identifies the trees as hazards, yet goes on to describe their condition as 'poor to poor/fair'. Thus, the trees may not meet the criteria of a hazard tree as defined in KZC 95.10.7.

Similarly, but not addressed in the PAE Assessment, is a group of trees proposed for removal within the buffer area northeast of the existing stormwater pond along the western property boundary. The trees will be removed to allow for Phase 1 temporary portables to be placed at this location, and they may or may not be true hazard trees. We believe the same logic applies to this area as discussed in the previous section. The trees are isolated within the existing parking lot, which functions similarly to a legally established road. The trees provide no functional protections for the wetland/stream area within the pond. Therefore, it is our opinion that this area should not be regulated as buffer, in accordance with KZC 90.120.

Temporary Parking

The PAE Assessment notes that on-site temporary parking areas will be constructed within the buffer area currently used as athletic fields. The temporary parking areas are needed due to the limitations of existing parking at the school and surrounding neighborhoods. The PAE Assessment summarizes that temporary buffer impacts are not allowed in the absence of direct wetland and/or stream impacts. A strict reading of the allowed modifications in wetland/stream buffers under KZC 90.60 (wetlands) and 90.70 (streams) confirms this limitation: "*Modifications to wetlands/streams and related impacts to associated buffers shall be prohibited, <u>except as permitted as part of a wetland/stream modification</u> approved under this section.*" Correspondence with City staff, as described in

the PAE Assessment, determined the same conclusion. Therefore, it is infeasible to provide sufficient construction-related parking areas outside of critical area buffers, and the temporary impacts are not allowed under standard processes. We agree that a PAE is required and appropriate for this purpose. The temporarily disturbed areas must be restored to the pre-project condition, as mentioned in the PAE Assessment. This may require soil decompaction, depending on the post-construction condition. A restoration plan should be prepared that provides details on how the disturbed areas will be restored and what success criteria will be used to determine completion.

Decision Criteria

The PAE Assessment addresses each of the decision criteria in KZC 90.45.3. We agree that there is no practical alternative with less impact on critical area buffers; strict application would unreasonably restrict or prohibit the ability of the District to provide services to the public; mitigation sequencing has been sufficiently implemented; and no net loss of critical area functions and values are anticipated. It is our opinion that the decision criteria under KZC 90.45.3 have been satisfied.

Submittal Requirements

KZC 90.45.4 requires a critical area report (CAR) pursuant to KZC 90.110 and a mitigation plan pursuant to KZC 90.145 shall be included in the PAE application. While the PAE Assessment includes some components of a CAR, it does not satisfy all of the required report contents. A mitigation or restoration plan has not been submitted, either.

Conclusion

Based on the information available to us, The Watershed Company concludes that the proposed redevelopment of Juanita High School and the associated unavoidable wetland/stream buffer impacts complies with the applicable decisional criteria for a Public Agency Exception under KZC 90.45.3. However, the submittal requirements of KZC 90.45.4 have not been sufficiently addressed.

All temporarily disturbed buffer areas should be revegetated post-construction (likely including only reseeding with native grasses), according to a restoration plan that describes the methods and success criteria for re-establishing the pre-impact conditions. Soil decompaction may be necessary prior to reseeding the area. The restoration plan must satisfy the requirements of KZC 90.145.

A CAR should be prepared in accordance with the criteria defined under KZC 90.110

In our opinion, areas north of NE 128th Street and areas isolated within the parking lot should not be regulated as buffer, in accordance with the criteria under KZC 90.120.

Therefore, activities proposed in these area do not require a PAE. These areas are still subject to tree retention/replacement requirements under KZC 95.

The information contained in this letter is based on the application of technical guidelines currently accepted as the best available science. All discussions, conclusions and recommendations reflect the best professional judgment of the author(s) and are based upon information available to us at the time the study was conducted. All work was completed within the constraints of budget, scope, and timing. The findings of this report are subject to verification and agreement by the appropriate local, State and Federal regulatory authorities. No other warranty, expressed or implied, is made.

Please call if you have any questions or if we can provide you with any additional information.

Sincerely,

Ryan Kahlo, PWS
Senior Ecologist