

Seattle: Wetlands

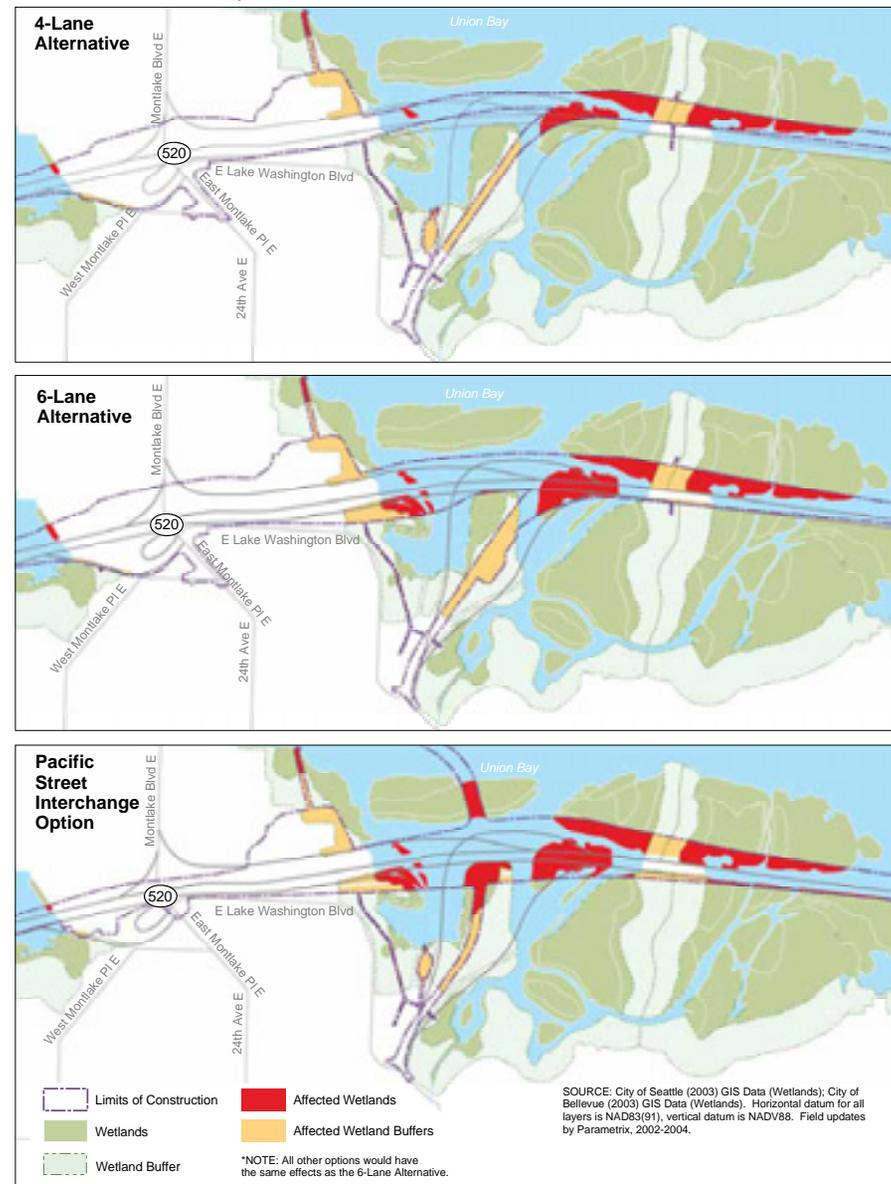
Project Effects

- Up to 0.2 acres would be filled in Seattle (see map at right).
- Some Seattle wetlands would also be shaded by new or wider roadway structures. Shading has the greatest effect on wetlands in Seattle.
- The 6-Lane Alternative would have more effects on wetlands than the 4-Lane Alternative.
- The Pacific Street Interchange option would have more effects than the base 6-Lane Alternative.
- Construction could cause erosion that might affect nearby wetlands.

Mitigation

- Mitigation would include creation and/or enhancement of wetlands and buffers.
- WSDOT would develop a detailed mitigation strategy after a preferred alternative is identified.

Effects on Wetlands in the Seattle Project Area



Eastside: Wetlands

Project Effects

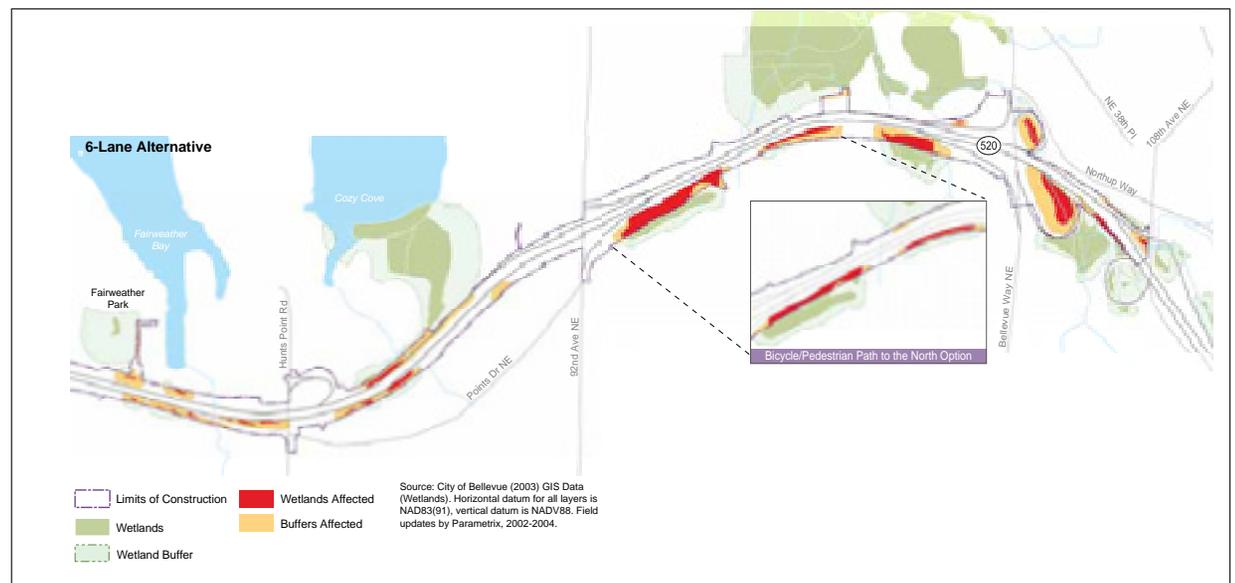
- Up to 7.8 acres of wetlands would be filled on the Eastside (see map at right).
- The 6-Lane Alternative would have more effects on wetlands than the 4-Lane Alternative.
- The South Kirkland Park-and-Ride-108th Avenue NE option would have more effects than the base 6-Lane Alternative.
- Construction could cause erosion that might affect nearby wetlands.

Mitigation

- Mitigation would include creation and/or enhancement of wetlands and buffers.
- WSDOT would develop a detailed mitigation strategy after a preferred alternative is identified.



Effects on Wetlands in the Eastside Project Area



Wetland and Buffer Effects in Areas				
	Fill		Shading ^a	
Alternative/ Option	Wetland	Buffer	Wetland	Buffer
Seattle Project Area				
4-Lane Alternative	0.2	2.0	4.5	2.3
6-Lane Alternative	0.2	3.8	6.7	2.2
Pacific Street Interchange Option ^b	0.2	5.3	7.8	1.3
Eastside Project Area				
4-Lane Alternative	3.2	5.5	-	-
6-Lane Alternative	6.4	11.6	-	-
South Kirkland Park-and-Ride Transit Access – 108th Avenue Northeast Option	7.8	12.7	-	-
Bicycle/Pedestrian Path to the North Option	4.9	10	-	-
^a Number represents the maximum area shaded; actual shading may be substantially less. ^b Other Seattle options would not differ from the 6-Lane Alternative.				



How would this project affect water resources?

Existing Conditions

- Storm runoff from SR 520 is currently not treated. Roadway pollutants are carried directly into streams, lakes, and wetlands.

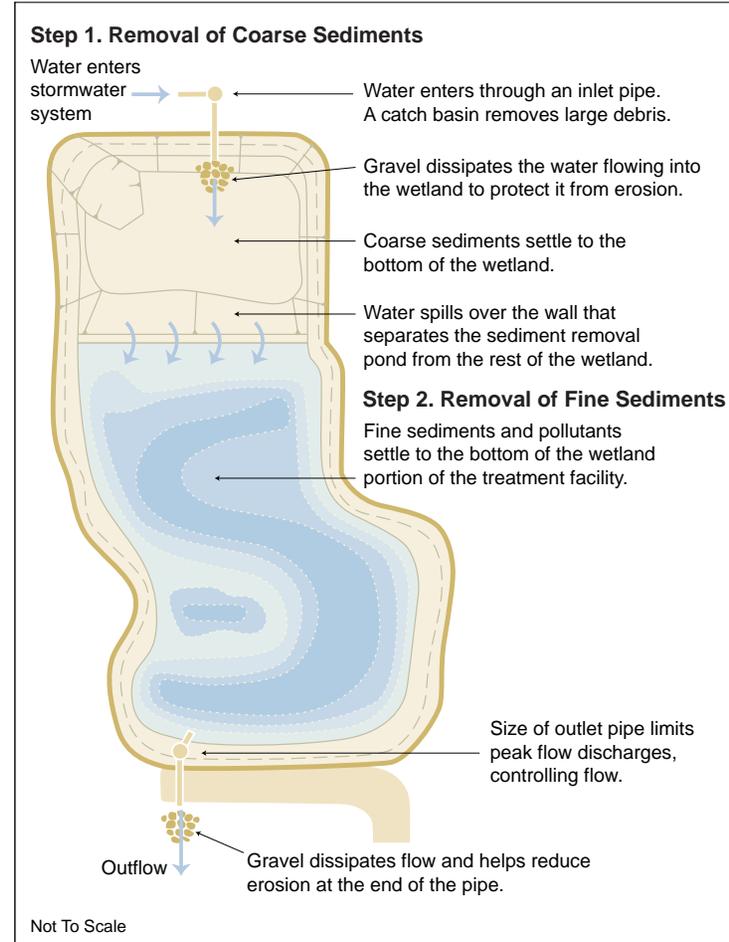
Project Effects

- Build alternatives would create new impervious surface, which would generate additional stormwater runoff.
- The project would include new stormwater treatment facilities that include water quality vaults, stormwater wetlands, bridge column treatment wetlands, and other techniques.
- Construction would remove vegetation and increase the potential for erosion into surface waters.

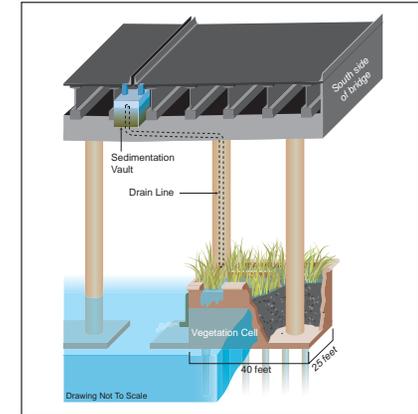
Mitigation

- To protect surface waters, WSDOT will develop plans to control erosion and sedimentation during construction.
- Best management practices, such as silt fencing, mulching, and covering exposed soils, are effective in minimizing erosion.

Diagram of a Stormwater Treatment Wetland Facility



Stormwater Treatment Wetland at Bridge Column



Example of a stormwater treatment wetland.



How would the project affect fish habitat and passage?

Existing Conditions

- Urban development, including construction of the Lake Washington Ship Canal, has dramatically affected fish habitat.
- There are also many barriers to fish passage along Eastside streams in the project area.

Project Effects

- In Seattle, SR 520's wider bridges would cover more water than existing bridges. However, they would be higher (casting lighter shadows), and would have fewer columns than today's bridges.
- On the Eastside, the project would remove eight fish passage barriers, such as culverts, opening upstream habitat to salmon.
- A sockeye spawning area under the east highrise of the Evergreen Point Bridge could be displaced by project construction.
- Construction work and detour bridges in Portage Bay and Union Bay would create disturbance in the water.

Mitigation

- Best management practices, such as silt fencing, mulching, and covering exposed soils, are effective in minimizing erosion.
- Construction activities would be limited during fish migration periods.



All in-water project construction would minimize affects on fish migration areas, such as the Montlake Cut.



Culverts like this pose significant barriers to fish passage, and will be removed as part of this project.



A new or retrofitted culvert would carry Fairweather Creek under SR 520. The new culvert would improve fish passage and could open upstream areas of the creek for use by fish.

