

March 30, 2016

Ms. Jennifer Schroder
Mr. Jon Regala
City of Kirkland
Parks and Community Services Department and Planning Department
123 Fifth Avenue
Kirkland, WA 98033-6189

RE: I-405, SR 520 to SR 522 Stage 1 (Kirkland Stage 1) (Forbes Lake West)
Mitigation Site
City of Kirkland Permit LSM05-00017

To whom it may concern,

The Washington State Department of Transportation completed qualitative monitoring of the I-405 Forbes Lake West mitigation site on June 30, 2015, to address Year-10 (2017) performance standards. Monitoring activities included vegetation observations and photo documentation. This Year-8 report is being issued for compliance with the reporting requirements of the Land Surface Modification Permit – City of Kirkland Permit Number LSM05-00017.

General Site Information				
USACE NWP IP Number	200401410			
City of Kirkland Permit Number	LSM05-00017			
Mitigation Location	Adjacent to Forbes Lake in Kirkland, King County, King County.			
LLID Number	1221811476844			
Construction Date	2007-2008			
Monitoring Period	2008-2017			
Year of Monitoring	8 of 10			
Type of Impacts	Wetland		Buffer	
Area of Project Wetland Impact	1.56 acres		2.91 acres	
Type of Mitigation	Wetland Establishment	Wetland Enhancement	Wetland Preservation	Upland Habitat Enhancement
Area of Mitigation¹	0.26 acre	0.46 acre	0.74 acre	0.75 acre

¹ Additional wetland acreage provided by two other mitigation sites, including I-405 Thrasher's Corner and I-405 Forbes Lake East.

Performance Standards (Year-10)	2015 Results	Management Activities
Aerial cover of native woody species will be at least 80 percent in the forested and scrub-shrub wetlands, of this area no more than 30 percent will be volunteer red alder.	95 percent cover (qualitative) of native woody vegetation. 20-25 percent relative cover of red alder	
At least three native, non-invasive facultative or wetter plant species will achieve a minimum of 8 percent relative cover for each species in the emergent wetland zone by Year 10.	5 herbaceous provide 8 percent or more relative cover (qualitative).	
At least three native, non-invasive facultative or wetter plant species will achieve a minimum of 10 percent relative cover for each species in the forested and scrub-shrub wetland zones by Year 10.	5 woody species provide 10 percent or more relative cover (qualitative).	
Species identified as King County-listed noxious and obnoxious weeds, including, but not limited to, reed canarygrass, non-native blackberries, purple loosestrife, Scot's broom and Japanese knotweed will not exceed 20 percent cover in the wetland creation areas.	3-5 percent (qualitative). Species present include reed canarygrass and Himalayan blackberry.	4 weed control visits in 2015

Site development:

Vegetation communities at this site have developed as intended. . This will be the third year in a row that all of the final-year vegetative performance standards have been met or exceeded. A diverse and dense emergent zone has developed with at least sixteen native herbaceous species observed. Scrub-shrub and forested wetland communities are also diverse and well established in both establishment and enhancement areas.

Results for Performance Standard 1

(Aerial cover of native woody species will be at least 80 percent in the forested and scrub-shrub wetlands, of this area no more than 30 percent will be volunteer red alder):

The cover of native woody species in the scrub-shrub and forested wetlands is qualitatively estimated to be 95 percent. Within this area red alder is estimated to provide 20-25 percent cover.

Results for Performance Standard 2

(At least three native, non-invasive facultative or wetter plant species will achieve a minimum of 8 percent relative cover for each species in the emergent wetland zone by Year 10):

Four native herbaceous species provide eight percent or more relative cover. These species include soft rush (*Juncus effusus*), broadleaf cattail (*Typha latifolia*), small-fruited bulrush (*Scirpus microcarpus*), and soft-stem bulrush (*Schoenoplectus tabernaemontani*) (Photo 1).

Results for Performance Standard 3

(At least three native, non-invasive facultative or wetter plant species will achieve a minimum of 10 percent relative cover for each species in the forested and scrub-shrub wetland zones):

Five native species including Pacific ninebark, willows (*Salix spp.*), Nootka rose (*Rosa nutkana*), black cottonwood, and red alder each provide at least eight percent relative cover within the scrub-shrub and forested wetlands.

Results for Performance Standard 4

(Species identified as King County-listed noxious and obnoxious weeds, including, but not limited to, reed canarygrass, non-native blackberries, purple loosestrife, Scot's broom, and Japanese knotweed will not exceed 20 percent aerial cover in the wetland creation areas):

The cover of target invasive and noxious species in the created wetland is qualitatively estimated at five percent. Species observed included purple loosestrife (*Lythrum salicaria*) and reed canarygrass (*Phalaris arundinacea*). The loosestrife was reported and removed.

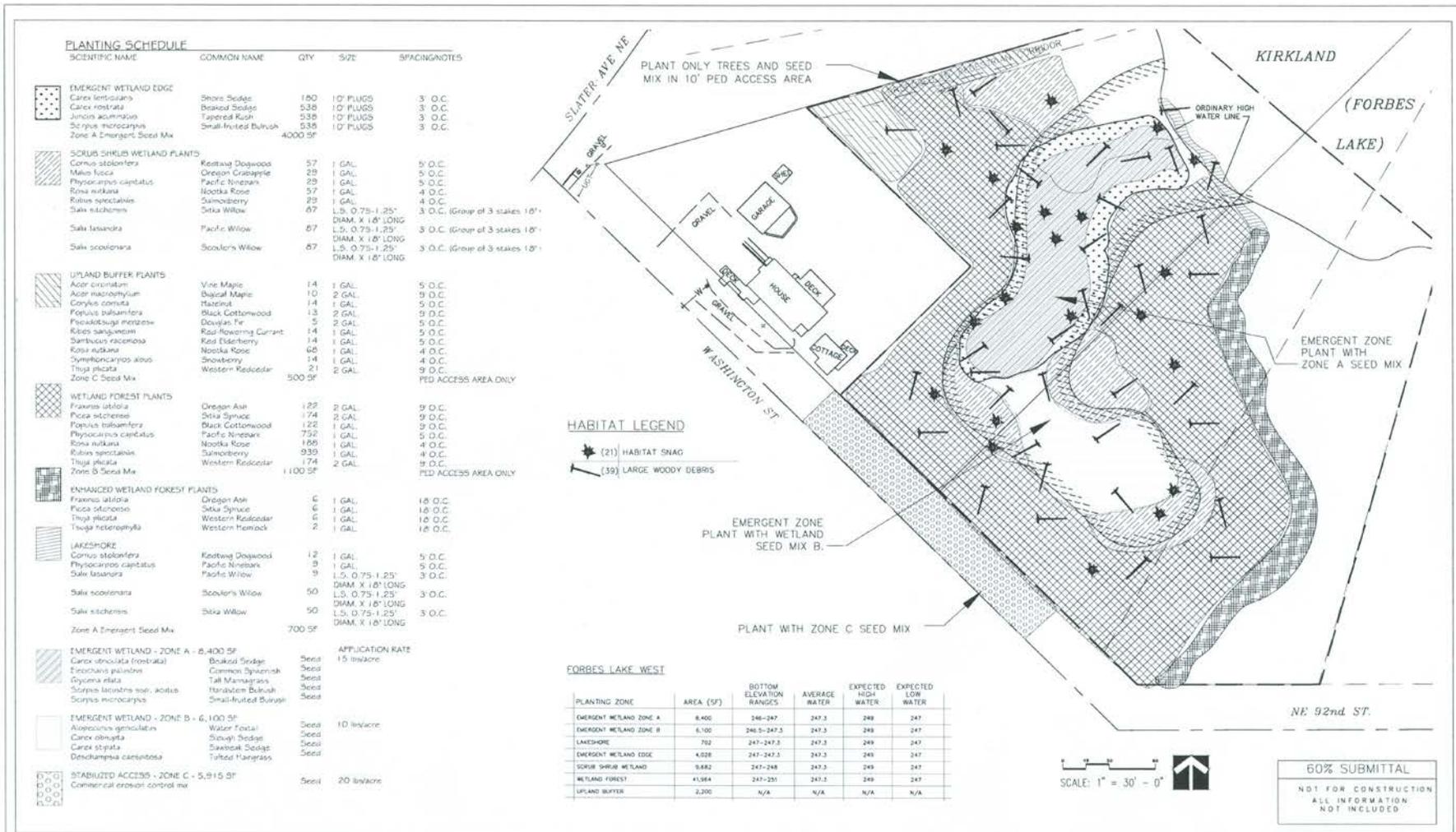


Photo 1 – Facultative and wetter species in the emergent zone

We welcome your questions or comments. Please contact me at 360/570-2579 or by e-mail at littaud@wsdot.wa.gov for questions about these mitigation sites.

Sincerely,

Doug Littauer
Wetlands Program



FILE NAME	TIME	DATE	DESIGNED BY	ENTERED BY	CHECKED BY	PROJ. ENGR	REGIONAL ADM	REVISION	DATE	BY	FED.AID PROJ.NO.	CONTRACT NO.	LOCATION NO.	DATE	DATE	405 Project Team	Washington State Department of Transportation	1-405, SR 520 TO SR 522 KIRKLAND NICKEL PROJECT	FORBES LAKE WEST - PLANTING PLAN	SHEET 4 OF 12 SHEETS
		2/10/05	m. epstein																	
		2/16/05																		
		4/20/05																		
		5/2/05																		
		5/18/05																		