

GOVERNMENT ISLAND GRASSLAND MITIGATION 2012 ANNUAL REPORT

Pre-treatment Success Measure Status based on Fall 2012 Monitoring Plot Data			
Metric	Overall	Native Species	Measure of Success
Relative % cover of native species	0.32	0.32	Relative cover of native plant species 50% or more
Relative % cover of woody vegetation	2	0.1	Little to no woody vegetation (less than 15%)
Relative % cover by forbs	4	0.16	Approximately 10-30% cover by forbs
Relative % cover of bare ground	3	n/a	Greater than 5% bare ground, but no more than 20%
Number of single non-native plants with more than 50% cover	0	n/a	No single non-native plant will have more than 50% cover on site
Relative % cover of invasive non-native species	14	n/a	Invasive non-native species (as identified in table D-2 of the Recovery Plan) will be targeted for appropriate level of control
Plant species richness	28	5	Plant species richness greater than 10 species
Number of grass species	11	1	Preferably 3 species of grasses.
Number of bunch-type grass species	4	1	At a minimum 1 species of bunch grass
Number of forb species	14	2	Preferably 10 species of forbs but at a minimum no less than 7 species of forbs.
Average height (cm) of visual obstruction	12	NA	Not Applicable

INTENDED FUTURE CONDITION OF SITE

(Excerpt from Phase 1 Grassland Mitigation Plan)

The purpose of this mitigation project is to replace the upland grassland resource values that may be lost or degraded when the four PDX properties are developed. These PDX properties are ecologically degraded by a dominance of non-native vegetation but provide acceptable habitat for a suite of grassland associated wildlife species. Once completed, the mitigation site should provide the grassland habitat features suitable for these wildlife species and other grassland associates not documented at the PDX properties. Specifically the mitigation site will address grassland resource loss by focusing on creation of habitat structure and function utilized by grassland associated species, particularly those grassland species found on the four PDX properties. The success of the project will not be based on the utilization of the site by these species. However, it is reasonable to assume that if the habitat conditions are suitable, the target grassland species will be attracted to the site. The one unavoidable variable is that this enhancement will occur on an island which may preclude use by the species we are hoping to attract. Some of the target wildlife species include: grey-tailed vole, western meadowlark, Savannah sparrow, northern harrier, and American kestrel. These species are found on the PDX properties and are included in the City's Special Habitat Areas criteria for grasslands. Although grassland birds were the main focus of the City's designation of PDX properties as Special Habitat, this mitigation plan is not limited to improving habitat for grassland birds. It is also designed to improve pollinator habitat within the project area. Many native pollinators that are in decline regionally rely on native flowering forbs that are found in grasslands. This mitigation plan is designed to include a variety of native forbs so there will be a nectar source for pollinators throughout the growing season. In effect, the Port is trying to take a holistic approach to this enhancement in an effort to create a site that is not single species focused. Instead, the idea is to create a site full of micro-habitats that will be beneficial for a variety of grassland species of all types.

Given the uniqueness of this grassland enhancement site being on an island in the Columbia River there are no reference sites in the region that can be used to define desired conditions. All other regional grassland restoration and enhancement projects of this scale have occurred to the south in the Willamette Valley and to the north in the Georgia Basin/Puget Trough areas. Therefore the Port intends to enhance the mitigation area so that the plant associations are comparable to prairies with similar soil types in the region without utilizing any one reference site. The Port will use records of early vegetation surveys that were conducted in the Portland area pre-settlement in addition to looking at other grassland and prairie sites in the region to help develop the planting plan. The historical data being used are the historical botanical survey records of David Douglas' observations in the area of Government Island and Howell-Flinn's records from Sauvie Island dated in the 1800's. The purpose of using this historic data is not to attempt to recreate site conditions that may have occurred historically. Instead, this data is being used as a reference point to determine what might have occurred on the site historically and compare it to regionally available seed that is being used on other restoration projects. This will be used as a starting point for developing a proposed species composition.