

## **6.0 LANDSCAPE MANAGEMENT PLAN IMPLEMENTATION**

It is intended that this long term management plan will be implemented over a period of at least 20 years. Ongoing monitoring and maintenance will need to continue for the life of the landscape in order to ensure that the Schuster Slope will continue to thrive in a healthy and safe condition.

Implementation of this plan will generally be carried out in one of two ways: through City lead actions in accordance with the prioritization of the project area as described in Section 6.1 and shown on Figures 54 through 5J; and, through privately initiated actions as described in Section 6.2. City lead actions will be implemented as resources are available, and will specifically focus on slope stability, public health and safety, forest health and public views. The privately initiated actions (Section 6.2) are those which are driven by private citizen interests when a project proponent would like to make modifications to the Schuster Slope vegetation on a shorter timeframe than City resources can complete on its own.

### **6.1 CITY LEAD ACTIONS**

As previously discussed in this management plan, the restoration of the Schuster Slope project area to its ideal, sustainable target ecosystem can only be achieved through adaptive management techniques to address the best available science at the time of implementation. Section 6.1 is reflective of the known data, best available science, industry standard practices, and compliance with regulations at the time of publishing (2015).

#### **6.1.1 PRIORITIZATION**

In an effort to break up the entire project site into a series of manageable units, the City has compiled the mapped geotechnical and vegetation data (GeoEngineers 2000 and 2014; Landau 2015) for the Schuster Slope project area and evaluated them based on the following data sets:

- Historic encampment areas, illicit use and debris dump sites;
- Landslide susceptibility;
- Vegetation condition and invasive species presence;
- Public view improvement potential;
- Aquatic critical areas (wetlands/streams); and,
- Habitat edge susceptibility.

Based on geographic similarities of all of the above data sets, the site has been broken out into nine management units (MU#), each of about three to five acres  $\pm$  in size (refer to Appendices 5A-5J). Please

note management unit boundaries are approximate and may change as they enter into active management. Each management unit has been ranked for each of the above data sets based on its “criticality” or severity of the condition. The different data sets were then weighted against one another based on each categories’ relative criticality to one another, for instance, the need to address geologic hazard is more important than the need to address the susceptibility of the habitat edges, so the geologic hazard rating is weighted more heavily. This heavier weight is known as a “correction factor”.

After all of the nine management units were ranked, and the final scores summed, a clear prioritization of City work was determined based on the relative scores of each unit (see Section 6.1.2).

**6.1.1.1 Historic Encampment Areas, Illicit Use and Debris Dump Sites**

As discussed throughout this management plan, the Schuster Slope project area has a history of illicit use. The illicit use activities and associated debris, creates potential public safety concerns which has therefore made the cleanup of these sites the City’s number one priority with regard to management of the project area.

The rating index for the historic encampment areas, illicit use and debris dump sites is as follows:

0	No Encampments
1	Low Density
2	Medium Density
3	High Density

*The correction factor (relative weight) of the historic encampment areas, illicit use and debris dump sites category is 2.0.*

**6.1.1.2 Landslide Susceptibility**

Public safety and infrastructure protection is another top priority with regard to project site management; mitigating for erosion potential is a critical concern. The ranking of this category has taken into consideration landslide susceptibility based on the aggregate total of existing geologic conditions, bluffs, historic erosion and scarps.

The rating index for landslide susceptibility is as follows:

0	Medium Susceptibility/No Scarps
1	Medium Susceptibility/Scarps Present
2	High Susceptibility/No Scarps
3	High Susceptibility/Scarps Present

*The correction factor (relative weight) for the landslide susceptibility category is 1.75.*

#### **6.1.1.3 Vegetation Condition and Invasive Species Presence**

The condition of existing vegetation is critical to management considerations and the level of effort moving forward. If an area currently experiences native plants in poor condition with a large presence of invasive species, it will take much more effort to restore that area. Alternatively, if the vegetation in an area is generally in good health with low invasive species presence, it is more important to protect it from further decline.

The rating index for vegetation condition and invasive species presence is as follows:

0	High Invasive Presence
1	Medium Invasive Presence
2	Low Invasive Presence
3	No Invasives

*The correction factor (relative weight) for the vegetation condition and invasive species presence category is 1.5.*

#### **6.1.1.4 Public View Improvement Potential**

The City recognizes the benefits that views can provide to the public when achieved in a responsible manner. As such, the City is committed to performing work in compliance with this management plan in order to provide for improved public views in designated areas. Through the development of South Stadium Way, several areas have been constructed with seating opportunities. The City is considering these locations to be natural viewing locations and has weighted these areas as such.

The rating index for public view improvement potential is as follows:

0	No Viewing Area
1	Presence of Viewing Area

*The correction factor (relative weight) for the public view improvement potential category is 1.25.*

#### **6.1.1.5 Aquatic Critical Areas (Wetlands/Streams)**

Presence of aquatic critical areas, such as wetlands and streams, increases the need for management for both protection and enhancement of these sensitive waterbodies. At the time when this management plan

was produced, an official wetland delineation had not yet been completed. Wetland areas will be officially delineated and rated in 2015 and added as Appendix E to this management plan. The GeoEngineers 2014 report, identified areas where wetlands are likely present. This information was used to rate this aquatic critical areas category.

The rating index for aquatic critical areas is as follows:

0	No Wetlands Present
1	Wetlands Probable
2	High Density or Area of Probable Wetlands

*The correction factor (relative weight) for the aquatic critical areas category is 1.0 (no additional weight).*

#### **6.1.1.6 Habitat Edge Susceptibility**

As restoration work occurs, the edge where the restoration activities cease is typically bounded by unrestored areas, hard surfaces (such as a roadway or building) or previously restored areas. Edges that are most susceptible to the resurgence of invasive plants are those which are adjacent to an invasive species source, such as an unrestored area. Edges which are adjacent to hard surfaces are typically considered to be less susceptible to invasive resurgence. For this reason, management units with edges defined by a greater length of hard surfaces are considered to be a higher priority, as these areas are less likely to suffer additional maintenance burden.

The rating index for habitat edge susceptibility is as follows:

0	More Susceptible Edges
1	Less Susceptible Edges

*The correction factor (relative weight) for the habitat edge susceptibility category is 1.0 (no additional weight).*

### **6.1.2 CITY ACTION PLAN**

#### **6.1.2.1 Management Unit Progression**

Based on the criticality rating for each management unit with regard to the relative scores of each of the rating criteria discussed above, the following order of zone prioritization has been determined (refer to Figures 5A – 5J for the maps of each management unit):

	MU#								
	1	2	3	4	5	6	7	8	9
Illicit Use and Debris	3	1	3	3	3	1	0	0	0
Landslide Susceptibility	3	1	1	2	2	1	1	2	1
Vegetation Condition	0	0	1	0	0	2	1	2	2
Public Views	1	0	1	1	1	0	0	0	0
Aquatic Critical Areas	0	1	2	2	1	0	1	0	0
Edge Susceptibility	1	0	0	0	0	0	0	0	1
<b>TOTALS (with *CF)</b>	<b>13.5</b>	<b>4.75</b>	<b>12.5</b>	<b>12.75</b>	<b>11.75</b>	<b>6.75</b>	<b>4.25</b>	<b>6.5</b>	<b>5.75</b>

*\*CF indicates the Correction Factor, and the scores displayed in the table above have been corrected to include this relative weight of each category to one another as described in Section 6.1.1.*

#### **6.1.2.2 Management Level of Effort**

It is anticipated that work will start within the first management unit (MU 1) in 2015, and will continue to progress through each management unit (as resources allow) for the 20 year management timeframe outlined in this management plan. Each year after a management unit has been put into active management, that units acreage will be added to the maintenance list for the next year. This produces a compounding effect on resources that at some point may affect the City’s ability to add new acreage.

Monitoring will be conducted for each management unit in order to evaluate the effectiveness of the restoration strategies and techniques used. This monitoring information will be used to adaptively manage future restoration work.

## **6.2 PRIVATELY INITIATED ACTIONS**

One of the goals of the Schuster Landscape Management Plan is to allow for a transparent process for private citizens (project proponents) to perform work on this City-owned project area. The process defined in this section is intended to supplement the current Tacoma Municipal Code 9.20, Trees and Shrubs – View Blockage, process and requirements to remove and/or prune trees on City-owned property.

The entirety of the project site is located within Critical Areas as defined by Tacoma Municipal Code 13.11 Critical Areas Preservation, and all management actions are therefore governed by the requirements of this chapter of the Code. This document is intended to receive a development permit from the City of Tacoma’s Planning and Development Services (PDS) Department, in compliance with the requirements of the Critical Areas Preservation Code. This development permit will allow the City’s Environmental

Services Department (ES) and any other parties acting in compliance with this permitted management plan to perform work in areas up to 67 percent slope without having to obtain a separate permit for each and every proposed action.

Proposed projects located within areas above 67% slope will need additional geotechnical review, specific to the site and proposed work plan, and will need subsequent additional City staff review. Proposed projects located within streams, wetlands or associated buffers will also need additional City staff review.

This process and submittal requirements are further defined in the Privately Initiated Vegetation Modification Requests (Appendix C).