



TIME ZERO MONITORING REPORT

FOR

MARYSVILLE CORPORATE CENTER

156TH STREET NE EXTENSION

Wetland Resources, Inc. Project #21159
City of Marysville File Number #PA20-052

For:
PacTrust
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1.0 PROJECT OVERVIEW

Wetland Resources, Inc. (WRI) is contracted by PacTrust to perform monitoring for the buffer mitigation measures at Marysville Corporate Center. The development includes an extension to 156th Street NE over Hayho Creek and warehouse buildings with associated access roads, parking, and stormwater management infrastructure. The site is located at 15908 47th Avenue NE, north of 152nd Street NE, between 39th Avenue NE and 51st Avenue NE, in the city limits of Marysville, Washington (Section 28, Township 31N, Range 5E, W.M.). Several site visits were conducted to ensure the mitigation was installed correctly and an as-built letter for the development was prepared on February 19, 2024. This Time Zero Monitoring Report represents the state of the mitigation measures at the beginning of the monitoring period.

2.0 PROJECT REQUIREMENTS

2.1 APPROVED MITIGATION MEASURES

The mitigation measures are described in the Final Buffer Mitigation Plan for the 156th Street NE Extension, prepared by WRI, dated January 5, 2022 (Rev. 1), and revised April 16, 2022 (Rev. 3). The plans included 6.2 acres of buffer enhancement and 0.2 acres of buffer restoration between the development and Hayho Creek, large woody material placement, critical area fencing along the buffer edge, and critical area signage.

Specifications for the planting area included 2,750 trees and 8,525 shrubs.

2.2 PROJECT MONITORING PROGRAM

According to the approved final mitigation plan and Marysville Municipal Code (MMC) 22E.010.260, monitoring will be required for five years, beginning after the as-built and time-zero reports have been submitted and approved by the City. The following sections describing the monitoring protocol are adapted from the mitigation plan.

2.2.1 Monitoring Schedule

1. Initial compliance/as-built report at completion of construction
2. Inspection and brief status report 30 days after planting
3. Inspection and brief status report early in the first growing season
4. Inspection and brief status report and the end of the first growing season
5. Inspection and brief status report early in the second growing season
6. Inspection and brief status report and the end of the second growing season
7. Annual site inspection (once per year in the fall) in years 3-5
8. Annual reports (one report submitted in the fall of each monitored year) for years 3-5

2.2.2 Monitoring Reports

During Years 1 and 2 of the monitoring period, brief status reports shall be prepared in accordance with the Monitoring Schedule describing the current status of the mitigation areas. The reports shall include:

1. General description of the mitigation areas
2. Health status of the installed plants
3. Analysis of Year 1 and 2 performance standards
4. Recommended maintenance measures and status of completion
5. Analysis of the temporary irrigation system
6. Status of fencing and signage
7. Identification of any potential problems that could prevent a successful outcome

During Years 3 through 5, monitoring reports shall be submitted by October 31 of each year. As applicable, monitoring reports must include descriptions / data for:

1. Site plan and vicinity map
2. Historic description of project, including date of installation, current year of monitoring, restatement of mitigation / restoration goals, and performance standards
3. Plant survival, vigor, and areal coverage for every plant community (transect or sampling point data), and explanation of monitoring methodology in the context of assessing performance standards
4. Wetland and buffer conditions, e.g., surrounding land use, use by humans, and/or wild and domestic creatures
5. Observed wildlife, including amphibians, avians, and others
6. Assessment of nuisance / exotic biota and recommendations for management
7. Descriptions of any structural repair or replacement (i.e. fencing, signs, etc.)
8. Color photographs taken from permanent photo-points that shall be depicted on the monitoring report map

2.2.3 Monitoring Methods

Sampling points or transects will be established for vegetation monitoring and photo points will be established from which photos will be taken throughout the monitoring period. Permanent sampling points shall be identified in the field and on the monitoring map in the first monitoring report. Each sampling point or transect shall detail tree, shrub, and herbaceous aerial coverage. During Years 3 through 5, vegetation monitoring shall occur between May 15 and September 30 (prior to leaf drop), unless otherwise specified.

2.2.4 Photo Documentation

At least one photo point shall be established in each buffer restoration area and at least four permanent photo points shall be established within each buffer enhancement area. Photographs will be taken from these points to visually record the condition of the restoration/enhancement area. Photos shall be taken between May 15 and September 30 (prior to leaf drop), unless otherwise specified. Photo points shall be identified on the monitoring map in the first monitoring report.

2.2.5 Mitigation Goal, Objectives, and Performance Standards

Goal

To mitigate the impacts to functions and values from the proposed development.

Objectives

Objective 1: To establish a diverse, native plant community in the buffer that will persist and create an appropriate vegetative matrix.

Objective 2: To have significant native vegetative cover throughout the buffer.

Objective 3: To remove and replace existing invasive species and limit the establishment and spread of those species in the buffer.

Definition of Success

The mitigation project goal will be deemed successful when objectives are met, as evidenced through the observation of set performance standards.

Performance Standards

The objectives will be considered successfully met when the following performance standards are observed in all enhancement and restoration areas:

Performance Standard 1

End of Year 1: 100 percent survival of installed species and no more than 5 percent cover by invasive woody plant species.

Performance Standard 2

End of Year 2: at least 90 percent survival of installed plant species and no more than 10 percent cover by invasive plant species.

Performance Standard 3

End of Year 3: at least 80 percent survival of installed plant species and no more than 10 percent cover by invasive woody plant species.

Performance Standard 4

End of Year 4: at least 70 percent survival of installed plant species, at least 40 percent aerial coverage by native species and groundcover, and no more than 10 percent cover by invasive plant species.

Performance Standard 5

End of Year 5*: at least 60 percent survival of installed plant species, at least 50 percent aerial coverage by native species and groundcover, and no more than 10 percent cover by invasive plant species.

When assessing areal coverage, native volunteer plants may be included when making calculations. However, for the purpose of assessing survival of installed plant species, only installed plantings shall be considered. Installed plantings shall be clearly marked with flagging during installation.

In the event that a performance standard is not met by the time specified, maintenance and/or contingency actions shall be implemented promptly to work toward meeting the standard. Contingency measures shall be detailed in the next monitoring report.

*If Year 5 performance standards are met earlier than Year 5, the City may consider the project to be successful and terminate the monitoring period at that time.

3.0 MAINTENANCE AND CONTINGENCY PLANNING

3.1 MAINTENANCE

The mitigation areas will require periodic maintenance to remove undesirable species and replace vegetation mortality. Maintenance shall occur in accordance with the approved plans. Maintenance may include, but will not be limited to: removal of competing grasses (by hand if necessary), irrigation, fertilization (if necessary), replacement of plant mortality, and the replacement of mulch for each maintenance period. Chemical control, only if approved by City staff, shall be applied by a licensed applicator following all label instructions.

Duration and Extent

In order to achieve performance standards, the permittee shall be responsible for maintaining the mitigation area for the duration of the five-year monitoring period. Maintenance will include: watering, weeding around the base of installed plants, pruning, replacement, re-staking, removal of all classes of noxious weeds (see Washington State Noxious Weeds List, WAC 16-750-005) as well as Himalayan blackberry, cutting down competing grasses, and any other measures needed to ensure plant survival.

Survival

The permittee shall be responsible for the health of 100 percent of all newly installed plants for one growing season after installation has been accepted by the City of Marysville. A growing season for these purposes is defined as occurring from spring to spring (March 15 to March 14 of the following year). For fall installation (if required), the growing season will begin the following spring. The permittee shall replace any plants that are failing, weak, defective in manner of growth, dead, or missing during the first growing season.

Installation Timing for Replacement Plants

Replacement plants shall be installed between November 1 and March 15, unless otherwise determined.

Standards for Replacement Plants

Replacement plants shall meet the same standards for size and type as those specified for the original installation, unless otherwise directed by a qualified professional.

Replanting

Plants that have settled in their planting pits too deep, too shallow, loose, or crooked shall be replanted.

Herbicides / Pesticides

Unless deemed absolutely necessary by the consulting biologist and/or the City, chemical controls shall not be used in the mitigation area, critical areas, or their buffers. Any chemical controls used shall be applied by a licensed applicator following all label instructions.

Irrigation / Watering

Water shall be provided during the dry season (July 1 through October 15) for the first two years after installation to ensure plant survival and establishment. A temporary above-ground irrigation system shall provide water at a rate of one inch (1”) of water twice per week for year one and one inch (1”) per week during year two. Adjustments to this schedule may be recommended by the wetland professional during the monitoring period.

General

The permittee shall include in general maintenance activities the replacement of any vandalized or damaged signs, habitat features, fences, or other structural components of this mitigation site.

3.2 CONTINGENCY PLAN

If 20% of the plants are severely stressed during any of the inspections, or it appears 20% may not survive, contingency actions may be necessary. Elements of a contingency plan may include, but are not be limited to: replacing plants, more aggressive weed and invasive species control, pest control, mulching, replanting with larger plant material, species substitution, fertilization, soil amendments, and/or irrigation.

4.0 TIME ZERO MONITORING

The goal of this Time Zero Monitoring Report is to establish the beginning of the monitoring period for the mitigation measures. Sampling and photo points have yet to be established for this project and will be determined as part of Year One monitoring. Mitigation measures have been installed per the approved plans, as described in the compliance letter.

5.0 USE OF THIS REPORT

This Time Zero Monitoring Report is supplied to PacTrust as a means of determining the success of the subject mitigation project. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions. Reports may be adversely affected due to the physical condition of the site and the difficulty of access, which may lead to observation difficulties.

The laws applicable to wetlands are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect. The work for this report conforms to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work of this report and any implied representation or warranty is disclaimed.

Wetland Resources, Inc.



John Laufenberg, PWS
Principal Ecologist

**MARYSVILLE CORPORATE CENTER
AS-BUILT / TIME ZERO MONITORING PHOTOGRAPHS**



PHOTO 1: Looking south through the southern buffer enhancement area.



PHOTO 2: Looking north through the southern buffer enhancement area.



PHOTO 3: Looking north through the western portion of the northern buffer enhancement area.



PHOTO 4: Looking north through the eastern portion of the northern buffer enhancement area.

**MARYSVILLE CORPORATE CENTER
AS-BUILT / TIME ZERO MONITORING PHOTOGRAPHS**



PHOTO 5: Large woody material placement in the southern buffer enhancement area.



PHOTO 6: Large woody material placement along Hayho Creek in the southern buffer enhancement area.



PHOTO 7: Split-rail fence and NGPA sign along eastern side of the northern enhancement area.



PHOTO 8: 156th Street NE extension over Hayho Creek.