

**Portland Harbor Natural Resource Trustee Council Restoration Committee
Monitoring Report Review and Feedback
(June X, 2021)**

Project Name: Linnton

Project Contact: Andy Gregg

Year of Monitoring Report: 2020 (Year 1)

Date Submitted to Trustee Council: Revised Version received April 6, 2021

Have all required monitoring elements for the year been evaluated and reported, and are all supporting data provided? If no, please describe what is missing.

As a result of COVID complications, dissolved oxygen monitoring was not conducted with the frequency proposed in the habitat development plan.

Due to COVID-19 related restrictions, only two of the specified eight fish surveys were conducted, and were not conducted until May and June, respectively.

Does the Trustee Council have any concerns with monitoring methods used or calculations done to arrive at the reported metric values? If yes, please describe.

General. Between the draft and revised versions of the Year 1 Monitoring Report, Restorcap made unprompted changes that diverge from HDP requirements for performance standards and are instead based on language from the Trustee Council's Monitoring and Stewardship Framework (M&S Framework). The Restoration Committee would like to emphasize that Restorcap will be held to any performance standards agreed to per the HDP, which supersedes language from the M&S Framework.

Vegetation monitoring -

Due to the incorrect classifications assigned to *Melilotus officinalis* (which was identified as "non-native (listed)" but should be "non-native (not listed)") and *Trifolium arvense* (which was identified as "non-native (not listed)" but should be "non-native (listed)"), reported recalculated values for non-native cover are slightly off. Please correct the classifications and resulting calculations and include those updates when uploading data to the Access database.

Please provide the Restoration Committee with a revised version of Figure 6 that adds habitat types to the monitoring plot locations map to verify that the number of plots per habitat type corresponds to what was requested in the HDP.

Have any monitoring elements not met a performance standard for the year, or do any appear to be on a trajectory such that they will not meet a future performance standard? If yes, please describe.

At 2 of the 37 transects used to track elevation changes in the active channel margin and off-channel habitats, changes in elevation have exceeded the threshold of 20%. Additional individual locations with exceedances of the 20% threshold were also identified. Restorcap has explained that identified exceedances are a result of inaccuracies in the as-built data, and the Restoration Committee has agreed that this missed standard will be considered accepted for Year 1. In the Year 2 Monitoring Report, please provide a description of the identified inaccuracies in the as-built data.

The evolving berm at the south end of the off channel habitat and areas of dry channel pose a potential passage barrier and stranding hazard for fish that the Restoration Committee has requested be monitored closely.

Vegetation-

- Stem density performance standard was not met for forested habitat type. Language was added to the revised report that states woody stem density is not required by the Trustees' M&S Framework until Year 2. However, the HDP includes a performance standard for a minimum of 1,200 native woody stems per acre for Years 1-5, which supersedes language from the M&S Framework. Therefore, the Restoration Committee confirmed that this standard was not met.
- Shrub herbaceous cover standard of >10% native is not met when including unvegetated monitoring plots.
- Two of three vegetation performance standards were not met in the off channel emergent marsh habitat type (species diversity and native cover).
- Shrub diversity standard was not met. In the revised report, language was changed from this performance standard not being met to: "Five species were observed in the monitoring plots (Table 6). Performance standard C12 required at least five species. Thus, this performance standard was met." RestorCap incorrectly omitted the requirement regarding the percent cover required for a species to count towards the diversity standard, as agreed to in the HDP. The Year 2 report should reflect this requirement and only include species that are present with at least 5% cover in 10% of the plots.

If applicable, does the report provide a satisfactory status update on Adaptive Management actions taken in the past?

The report includes a description of ongoing vegetation management being conducted by Ash Creek Forest Management.

Do elements requiring Adaptive Management in the past appear to be on a positive/appropriate trajectory toward ultimately achieving Performance Standards?

N/A

If applicable, does the report identify and describe any issues that may require/have required new Adaptive Management actions?

Fish passage - The potential for adaptive management is discussed for fish passage/stranding in the off channel habitat. The project implementer's recommendation at this time is to wait to see how the site continues to develop in Year 2. The Trustee Council agrees with waiting to see if winter conditions result in elimination of the berm, but may consider requesting a removal action in the summer if conditions do not improve. In the interim, RestorCap is investigating whether additional photo monitoring is feasible so that the Restoration Committee can better understand the conditions in these areas, including the frequency with which full connectivity is being achieved on a daily basis during various seasons, flow conditions, and tides, and duration of ponding. According to Section 7.1 of the revised report, RestorCap has begun ponding monitoring actions (including water level and temperature monitoring) in March 2021. The Restoration Committee is looking forward to receiving an update on ponding in early summer 2021 via email or memo.

Forest stem count – The performance standard for Year 1 stem counts was failed. RestorCap installed supplemental plantings in January/February 2021 to encourage the establishment of native plants. The Restoration Committee will assess the success of the plantings during Year 2.

Off-channel shrub – The Committee agrees with RestorCap's proposal that we allow for an additional year of growth and establishment to see if vegetative cover standards can be met and existing less-represented species expand enough to be counted toward the diversity standard in Year 2.

Emergent habitat - As noted in the HDP, there was some uncertainty as to the elevation at which emergent habitat would be able to establish. Although RestorCap recommends continued monitoring of bare plots for the time being, the monitoring plan contains a discussion about the possibility of adjusting the monitoring elevation for emergent habitat to a minimum elevation of +10.5 ft NAVD88, which appears to be the minimum elevation at which emergent vegetation is establishing.

ACM calculations – Section 7.2 contains a recommendation to “use the “area above the curve” method for calculating 20% elevation increase rather than the elevation-specific table proposed in the Restoration Plan.” The Restoration Committee agrees with using a different approach than the elevation-specific table from the HDP, but notes that both the area above AND below the curve should be used to consider both erosion and aggradation in the ACM calculations from this point forward.

Have the monitoring data associated with this report been entered into the Access Database?

Yes

No

Are there any other comments you would like to share regarding this monitoring report that are not addressed by the questions above?

The Restoration Committee is not requesting any additional revisions to this Year 1 Monitoring Report. Please ensure that all remaining comments identified above are addressed in the Year 2 Monitoring Report. This includes requests for additional information, documentation, and explanations on certain topics, corrections of classifications for the above-noted species, and corrections to reflect that the project is being held to the performance standards and monitoring timing as agreed to in the HDP, rather than what is described in the Monitoring and Stewardship Framework.

Please use of the term “nonnative plants” as opposed to “noxious weeds” in future monitoring reports.

The Restoration Committee is looking forward to seeing updates in early summer 2021 regarding the ponding monitoring.

Is the Monitoring Report accepted by the Trustee Council?

Yes

No

If “No”, what actions need to be taken by the Project Developer for the report to be accepted?
