



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

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September 16, 2011

Mary Harenda  
Mary Harenda Environmental Consulting  
11104 320<sup>th</sup> Ave NE  
Carnation, Washington 98014

**RE: Skykomish Habitat Mitigation Bank Monitoring Plan**

Dear Ms. Harenda:

Ecology received your most recent response to IRT questions on the Skykomish Habitat Mitigation Bank (SHMB) Monitoring Plan on July 25, 2011 and the information to support the requested design change. Thank you for submitting this additional information. At this time, given limited staffing at the Corps, Ecology is responding for the Co-Chairs.

The Co-Chairs received the letter from Mr. Peter Ojala with Adams & Duncan, Inc. P.S. on August 22, 2011. We would like to clarify that the IRT letter dated June 27, 2011 did not suspend any of the credits released to date. All of the credits awarded for Phase 1A are still in good standing with the IRT. The June 27, 2011 letter provided notice that the IRT will not be releasing future credits until the actions outlined in that letter have been completed.

**MONITORING PLAN CHANGES**

Based on our review, the Co-Chairs understand that the SHMB team requests the following items for approval:

- Expansion of hydrological monitoring methodology.
- Change in vegetation monitoring for emergent areas on the site that are transitioning to shrub or forested communities.
- Revised vegetation monitoring plot locations.
- Change in monitoring years and reporting years for percent cover of reed canarygrass at the site.

- Change in the method of measuring and monitoring percent cover of reed canarygrass at the site.
- Description of method for measuring and reporting percent cover of invasive species for Performance Standard 5C.

### Hydrology Monitoring

The Co-Chairs understand that the SHMB site has a complicated hydrologic regime. We agree that all methods that you and the SHMB team feel are necessary to adequately capture hydrology on the site should be used. The information gathered at the site needs to document and clearly demonstrate that the site is meeting Objective 2<sup>1</sup> in the Mitigation Bank Instrument (MBI). The data gathered on the site also needs to be able to support any requests for changes or remedial action proposals in the future.

### Vegetation Monitoring

The Co-Chairs agree with your approach for capturing the change from emergent data to woody vegetation on the site. The Co-Chairs accept the following change for monitoring:

- If  $\geq 30\%$  cover of trees and/or shrubs is present in the general area of a plot designated as Emergent, both a woody vegetation plot (60-foot diameter plot) and a nested emergent plot (6-foot diameter plot) will be sampled.

The Co-Chairs also agree to the revised vegetation plot locations shown in Figures B and C attached to your July 2011 monitoring plan response document.

### Invasive Species Monitoring

The Co-Chairs understand that reed canarygrass is intermixed with native vegetation on the site. The MBI performance standard 5A requires that in Years 3 and 5 the cover of invasive species be compared to the pre-construction baseline cover<sup>2</sup>. The IRT approved the baseline

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<sup>1</sup> Objective 2 in the SHMB MBI states: Create and rehabilitate 46.2 acres of wetlands in Phase 1A and 40.3 acres of wetlands in Phase 1B.

<sup>2</sup> SHMB MBI Performance Standard 5A states: In year 3, the cover of invasive species in each area of Phase 1 of the Bank will be no more than 50% of the pre-construction baseline cover, and the Year 5 cover of invasive species will be no more than 25% of the pre-construction baseline. For the purpose of performance standard 5A invasive species are Himalayan blackberry, reed canarygrass, and Scot's broom. Baseline mapping of invasive species cover will be conducted prior to construction. The size and location of each patch/colony of invasive species larger than 30 square feet will be mapped. The areal extent of invasive species will be remapped during June-August of Years 3 and 5 and reported to the signatories. The reports will document changes in the cover of invasive species relative to baseline conditions and describe the status and results of invasive species management activities.

cover of reed canarygrass in 2008 for Phase 1A<sup>3</sup>. The SHMB team now proposes to change the Phase 1A baseline for reed canarygrass to the data collected in 2011. The Co-Chairs agree to this change. The data collected in Years 5 and 7 of Phase 1A will be compared back to the data collected in 2011 to demonstrate the required reduction of 50% and 25%, respectively. The Co-Chairs understand that this would then delay the credit release request for the Phase 1A portion of performance standard 5A to Year 5 and 7 (at this time 2013 and 2015, respectively). The Co-Chairs agree to this change in reporting and credit release request timeline for Phase 1A.

The SHMB team requests a change in the method of monitoring reed canarygrass and how to determine the percent cover for Phase 1A. The Co-Chairs agree to collecting the percent cover of reed canarygrass in every vegetation plot monitored on the site. The Co-Chairs also agree determining the percent cover for the entire site can be done by taking the percent cover of reed canarygrass in each plot sampled, then averaging those results over each vegetation community and using this number to determine a weighted average in each phase using the relative acreage for each vegetation community. The IRT will require that you show the math for each of these steps in each monitoring report where you report the percent cover of reed canarygrass. This will allow the IRT to understand how you determine the total percent cover for each report and address questions and concerns early on in the review process. The IRT also understands that based on the results from the Year 3 monitoring that we may need to discuss the applicability and achievability of performance standard 5A for reed canarygrass in the future.

The SHMB team has also outlined how you will collect data in Year 10 to show compliance with Performance Standard 5C<sup>4</sup>. The Co-Chairs agree with the approach outlined in your July 2011 response document. Please include this information in your revised monitoring plan.

## **DESIGN CHANGE**

The Co-Chairs also received the additional information and request for design change for Phase 1B and remedial action for Phase 1A. The Co-Chairs are currently reviewing this request. Based on the amount of grading change in Phase 1B, the request to change elevations of the blind channels in Phase 1B, and change in planting, the Co-Chairs do not view this request as a minor change to the design plans. Based on the 2007 Construction Oversight Plan this level of change

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<sup>3</sup> Data was collected in 2005 for pre-construction invasive species cover and in 2007, the same year of construction completion, for Year 0 invasive species cover.

<sup>4</sup> SHMB MBI Performance Standard 5C states: In Year 10 invasive species, as a group, do not cover more than 20% of the Phase 1 site. Submit a report on the results of a statistically valid survey of the vegetative cover of the bank site. At each survey site (e.g. transect), the areal cover of each invasive species present shall be combined into a single "invasive species" group.

would be considered significant and will need the full review of the Co-Chairs. Also, the Phase 1A remedial action request and additional information submitted to support this request will also need full IRT review. We will be reviewing this information as soon as possible.

#### **NEXT STEPS**

Please collect data in Phase 1A for 2011 as detailed in the communications between the IRT and the SHMB team between February 2011 and this letter. Please also revise the overall site monitoring plan incorporating all the changes agreed upon.

In your July 2011 monitoring plan response document you request advice on the current procedure for updating the vegetation performance standards in the MBI. Updating the performance standards in the MBI may be done via an exchange of letters between the sponsor and the IRT. The Co-Chairs sent you revised language for performance standards 4B, 4C, 4D, 4E, 4F, 4G, 4H, and 4I in February 2011. Based on your July 2011 response, you agree to these new performance standards. The revised performance standards are included in this letter as Attachment 1 and take effect immediately as of the date of this letter.

Also, the IRT will respond to your request for remedial action on Phase 1A and design change of Phase 1B as soon as we have completed our review of the submitted information.

If you have any questions or concerns about revising your monitoring plan or the information contained in this letter, please feel free to contact Christina Merten at 425-649-7007 or [christina.merten@ecy.wa.gov](mailto:christina.merten@ecy.wa.gov).

Thank you,



Lauren Driscoll  
IRT Co-Chair  
Shorelands and Environmental Assistance Program  
Washington State Department of Ecology

cc: Christina Merten, Ecology  
Dave Remlinger, SHMB, LLC  
Gail Terzi, Corps of Engineers  
Krista Rave-Perkins, EPA  
Randy Middaugh, Snohomish County  
Kristen Swenddal, WA DNR

**Attachment 1:**  
**Modification to Appendix 1: *Establishment and Operation of Phase one of the Skykomish  
Habitat Mitigation Bank***  
**Revised Skykomish Habitat Mitigation Bank Vegetation Performance Standards**  
**September 2011**

Section 9 is modified by replacing the existing text for performance standards 4B through 4I with the following language:

4B. PFO Wetlands – At years 3, 5, and 7 forested wetlands will have a minimum density of 350 living native trees, at least one meter in height, per acre. Two native tree species shall each comprise at least 10% of the average tree density per acre.

4C. PSS Wetlands – At years 3, 5, and 7 scrub-shrub wetland areas will have a minimum density of 350 living shrubs per acre. A minimum of two native shrub species shall each comprise at least 10% of the average shrub density per acre.

4D. PEM and PAB Wetlands – At years 3, 5, and 7 emergent and aquatic bed wetland areas will have a total of at least five native facultative or wetter species. At least three native facultative or wetter species will each have a minimum of 5% areal cover in these areas combined.

4E. PEM and PAB Wetlands – At years 3, 5, and 7 emergent and aquatic bed wetland areas will exhibit at least 70% areal cover of native facultative or wetter species.

4F. Riparian Upland Forest – At years 3, 5, and 7 woody species in the Riparian Upland Forest will have a minimum density of 350 living native trees, at least one meter in height, and/or shrubs per acre. A minimum of two native tree species shall each comprise at least 10% of the average woody density per acre. A minimum of two native shrub species shall each comprise at least 10% of the average woody density per acre.

4G. Uplands - At years 3, 5, and 7 uplands will have a minimum density of 350 living native trees, at least one meter in height, per acre. A minimum of two native tree species shall each comprise at least 10% of the average tree density per acre.

4H. PFO and PSS Wetlands – At year 10 forested wetlands will exhibit an average density of at least 250 living native trees, at least two meters in height, per acre and scrub-shrub wetlands will exhibit an average density of at least 250 living native shrubs per acre.

4I. PEM and PAB Wetlands – At year 10 there will be at least three native facultative or wetter species in emergent and aquatic bed wetland areas. At least three native facultative or wetter species will each have a minimum of 5% areal cover in these areas combined.

4J. PEM and PAB Wetlands – At year 10 emergent and aquatic bed wetland areas will have at least 75% areal cover of native facultative or wetter species.

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