

**Response to Comment in Letter USS1 from
Jeannie Summerhays, Washington State Department of Ecology**

*Note: The response listed below is numbered to correspond to the number shown
in the right-hand margin of the preceding comment letter.*

1. The wetland mitigation analysis presented in the Draft SEIS (and Appendix A of the Draft SEIS) was based on information provided by the applicant and previous communications between the applicant and Ecology representatives serving as EFSEC's 401 water quality certification consultant, prior to Jones & Stokes assuming that role. The mitigation analysis presented in the Draft SEIS was based on the applicant's use of ratios, and not a functional assessment methodology to determine whether the mitigation acreage as presented adequately compensates for lost wetland functions.

The response below addresses the following comments provided by SE2:

- Downward adjustment of recommended mitigation ratios
- Enhancement credit for the PFO/SS
- Required mitigation acreage based on adjusted ratios
- Mitigation ratios based on the Washington Function Assessment Method
- Adequacy of mitigation presented by the applicant

Downward Adjustment of Recommended Mitigation Ratios. Ratios presented in the Draft SEIS mitigation analysis represent the *minimum replacement ratios* commonly recommended by the state of Washington regarding the management of the state's wetland resources. The 1.25:1 and 2.5:1 mitigation ratios for creation and enhancement, respectively, are typically associated with Category 4 wetlands. Ratios of 2:1 and 4:1 for creation and enhancement, respectively, are typically recommended by the state of Washington for Category 2 and 3 emergent wetlands. Therefore, the mitigation ratios of 1.25:1 and 2.5:1 discussed in the Draft SEIS do represent a downward adjustment from the state's guidelines for Category 3 wetlands. The Final SEIS continues to evaluate the mitigation analysis using the 1.25:1 and 2.5:1 ratios for the farmed upland and wetland areas.

Enhancement Credit for the PFO/SS. The Draft SEIS (see Appendix A) used a 6:1 enhancement ratio credit for a portion of the 8.8-acre PFO/SS wetland. The Final SEIS has been revised to identify a 4:1 enhancement ratio for the 4.0-acre forested portion of the wetland and a 2.5:1 enhancement ratio for the 4.8-acre scrub-shrub wetland area. This revision is based on a review of historic aerial photographs (1965, 1981, 1984) that shows the site developing from scattered trees, shrubs, and open ground to the current deciduous tree and shrub cover. In addition, information provided by the applicant's consultant (URS) confirms that large patches of Himalayan blackberry are present in the scrub-shrub wetland.

The SEIS has been revised to state that the PFO/SS wetland can continue to be enhanced by (1) removing Himalayan blackberry, (2) planting native shrubs in reduced patches of Himalayan blackberry, (3) planting coniferous trees to increase the coniferous tree cover over time, and (4) planting a variety of native shrubs and trees around monocultures of Douglas' spiraea. Implementing these four activities would enhance the development of this deciduous forested/scrub-shrub wetland into a coniferous forested wetland. However, all planting and weed clearing should be done with hand-held tools and without vehicles to minimize disturbance to native plants and soils in the wetland.

The 4:1 and 2.5:1 enhancement ratios identified in the Final SEIS represent a downward adjustment of the state's recommended enhancement ratio of 6:1 for Category 2 forested wetlands and a 4:1 ratio for Category 3 scrub-shrub wetlands. This downward adjustment is appropriate considering the extent of Himalayan blackberry in the scrub-shrub portion of the wetland and the fact that the deciduous forested portion of the wetland can be enhanced in species diversity and habitat complexity by introducing conifers to the system. More conifers can also extend the potential life of the forested wetland component. The conifers are generally longer living trees than deciduous trees such as the paper birch and cottonwoods that are present in the wetland. Although conifers may naturally establish in the wetland over the long term via vegetative succession, planting conifers would accelerate this process.

Required Mitigation Acreage Based on Adjusted Ratios. The SEIS has been revised to reflect the ratios for the PFO/SS enhancement and resultant mitigation acreage credit. Based on the 1.25:1 ratio for creation, 2.5:1 ratio for enhancement of farmed wetlands, 4:1 ratio for enhancement of forested wetlands, and 2.5:1 ratio for enhancement of scrub-shrub wetlands, the total mitigation acreage credit for the 8.8-acre PFO/SS wetland is 2.92 acres. This acreage combined with the 3.61 acres of enhancement credit and 2.98 acres of creation credit totals 9.51 acres of mitigation credit. The 9.51 acres are sufficient to compensate for the 9.45 acres of impact.

Mitigation Acreage Based on Washington Function Assessment Method. The applicant's comments also include a discussion of how the mitigation as proposed adequately compensates for the wetland functions that would be lost at the proposed plant site. Jones & Stokes has reviewed the September 20, 2001 summary of wetland impacts and mitigation prepared by the applicant's consultant, URS Corporation, which Jones & Stokes received after publication of the Draft SEIS. This document includes a summary of the results of the Washington Function Assessment Method (WFAM) URS Corporation conducted to (1) assess the wetland functions to be served by the proposed S2GF site and (2) demonstrate that wetland functions lost by the proposed plant site would be compensated at a ratio greater than 1:1 under the proposed mitigation plan.

URS used the WFAM to individually evaluate 13 wetland functions and then calculate a total wetland function performance for the farmed wetland. This was done for the wetland under current conditions as well as a predicted functional performance for the mitigation wetlands 20 years after construction/enhancement. However, based on guidance presented in Chapter 2 of the WFAM, the WFAM appears to be designed to

provide performance indices for individual functions and does not provide a single summary performance index for the wetland area being assessed. The WFAM was not designed to lump functions into group scores (Ecology 1999).

Jones & Stokes acknowledges other similar function assessment methods do use an approach of rating individual functions and summarizing the evaluation to develop an overall performance of the wetland (e.g., Montana State Method). Applying other function assessments to the proposed plant site could potentially result in the same conclusions as the applicant's – i.e., the functions can be replaced with the proposed mitigation.

In addition, under a separate process from EFSEC's evaluation of the project for 401 water quality certification, Ecology has stipulated to the WFAM approach and that the mitigation acreage presented by the applicant sufficiently compensates for lost wetland functions from the proposed S2GF plant site. The function assessment method used by the applicant, although different from the ratio method to identify needed wetland mitigation acres, could be a reasonable approach to determine the required mitigation acreage, and one that is consistent with functional assessment methods developed by other entities. However, since it has been determined in the analysis for the Final SEIS that the mitigation acreage is sufficient based on mitigation ratios, it is unnecessary to conduct any additional WFAM evaluations.

Mitigation Adequacy. The SEIS has been revised to acknowledge the mitigation as proposed could potentially compensate (and if successful, would compensate) for the loss of wetland functions from the proposed plant site based on the WFAM analysis.

The Final SEIS also concludes that the mitigation as presented by the applicant, using the mitigation ratios discussed above in this comment response, provides adequate mitigation for the loss of 9.45 acres of wetland from the proposed plant site.