National Fish Habitat Assessment Strategy Development Process

To more effectively develop the National Fish Habitat Assessment Strategy (Strategy), we propose using an open process that provides ample opportunity for Science and Data Committee member, Board member, Fish Habitat Partnerships, and interested public input. Our expected completion date for a Final Draft of the Strategy is March 1, 2012 using the following process and timeline:

1. Complete initial working draft of the Strategy for initial Science and Data Committee review – Completed and attached
2. Revise draft Strategy based on initial Science and Data Committee review and input by October 28, 2011 and send to Committee for review and comment by October 31, 2011.
3. Complete additional round of Committee review on revised draft Strategy by December 1, 2011.
4. Incorporate Science and Data Committee comments and edits into a revised draft Strategy by January 1, 2012 and make available for broader review on that date.
5. Request Board member, Fish Habitat Partnership and interested public review and comment on revised draft Strategy on January 1, 2012.
    a. Setup public email box to receive comments.
6. Close public comment period on revised draft Strategy on January 31, 2012.
7. Review, reconcile and incorporate all comments, and finalize draft Strategy for Board approval by March 1, 2012.

Initial Working Draft of the National Fish Habitat Assessment Strategy for 2011-2020

Overall Assessment Goal: To have measureable process related data and true habitat condition scores for all habitats from the headwater streams and lakes to the continental shelf.

Background: Fish habitat is controlled by six key processes (Hydrology, Connectivity, Water Quality, Material Recruitment, Geomorphology, and Energy Flow) that are defined and discussed in the Science and Data Framework Document. Focusing the National Fish Habitat Assessment on measuring process condition will address the fundamental issues that concern the quality of aquatic habitat instead of continuing the practice of fixing degradation symptoms. Thus, it is critical that the National Fish Habitat Assessment measure processes which are directly related to fish habitat quality, maintenance, and development at a scale that can be directly affected by Fish Habitat Partnerships' actions.

The 2010 National Fish Habitat Assessment was a successful first attempt at examining fish habitat quality and the level of landscape stress on aquatic habitats on a truly national scale. It was successful in developing the NFH+ geospatial framework for Lower 48 states and Hawaii along with analytical approaches for condition assessment. The 2010 Assessment developed initial stressor analyses for rivers and watersheds in the lower 48 states, inland waters of Alaska and Hawaii, and for estuaries in the lower 48 states and southeastern Alaska. The 2010 Assessment was limited to national landscape level datasets that were consistently measured across the landscape. The analysis of these landscape variables reflect the effects these broad scale variables have on processes but do not provide a direct mechanism to affect change on them by operating at greater geographic and logical scale.

The 2010 Assessment was the correct starting place for any national assessment as it gathered all of the best existing information on large scale factors that influence components of fish habitat. More can and should be done to refine this initial habitat analysis to make it the best possible foundation analysis. This refinement provides key foundation data and will help transition the Assessment to the development of a true habitat condition assessment. The next generation of habitat condition assessment needs to measure and analyze actual process variables, some are listed in the Science and Data Framework Document, at a scale that can be directly affected by National Fish Habitat Board and Fish Habitat Partnership actions. To achieve this, we propose the following steps be implemented:

Strategy Summary

1. By 2014, refine 2010 Assessment to include: incorporation of Fish Habitat Partnership and other landscape and fisheries data; update current data layers and

incorporate key new information; develop inland-coastal connection; and add detailed stressor assessments for missing habitat components.

2. By 2016, incorporate initial process level variables into the Assessment to include: incorporation of selected detailed Fish Habitat Partnership and other process level and fisheries data; identification and incorporation of initial process variable datasets; and development of initial predictive relationships between fish and habitat quality variables.
3. By 2021, refine 2016 Assessment to include: refined systems to incorporate detailed process and fisheries data; incorporation of all possible process variable datasets; improved predictive relationships between fish and habitat quality variables.

Additional detail on the anticipated assessment strategy steps are contained in Appendix 1.

Appendix 1 – Initial Working Draft of the Detailed Assessment Strategy Steps

1. 2010 Assessment Refinement
    a. Key Tasks
        i. Develop methodology and protocols to incorporate Fish Habitat Partnership, other partners, and other publically available landscape and fisheries data into the Assessment Data System.
        ii. Update all current data layers with new data and improve fish
        iii. Add new information on fish communities, hydrology, connectivity, temperature, water quality, and energy development for assessment components.
        iv. Add detailed stressor assessments for Great Lakes, estuaries, inshore coastal, lakes, reservoirs, Alaska (if improved spatial and fish data become available), and Hawaii.
        v. Continue to develop the inland-estuary habitat scoring connection.
    b. Timeline – Complete tasks by 2014.
2. Initial Process Analysis
    a. Key Tasks
        i. Develop methodology and protocols to incorporate detailed Fish Habitat Partnership, other partners, and other publically available process and fisheries data into the Assessment Data System.
        ii. Identify at best variables from each process to fully develop as habitat quality indicators to include determining the appropriate scale for the selected process variables.
        iii. Develop fish community response relationships to selected fish habitat quality variables.
        iv. Develop fish habitat quality variable relationships to landscape level variables to allow for scoring transfer between 2010 and future assessments.
    b. Timeline – Complete tasks by 2016.
3. 2020 Assessment
    a. Key Tasks
        i. Continue to update and refine process and fisheries data from all sources into the Assessment Data System to include developing automated mechanisms to accomplish this task.
        ii. Continue updating landscape level datasets as new data is available.
        iii. Refine initial and incorporate as many process level variables into the assessment.
        iv. Refine fish community response relationships to process level variables.
        v. Refine fish habitat quality variable relationships to landscape level variables.
    b. Timeline – Complete tasks by 2021.