Title: National Fish Habitat – Science and Data Committee Report – June 2014

Desired outcome(s): Board awareness of progress on 2014 Science and Data Priorities.

Background: 2014 Science and Data Priorities – Progress since the March 2014 Report:

a. Committee Operation – NFHP Science and Data Committee is now fully staffed and monthly calls were initiated in May 2014. The Science and Data Committee is planning on a full Committee meeting in 2014 depending on the availability of funding.

b. Examine, review and incorporate Assessment activities underway by FHPs, LCCs, and the National Assessment Teams – This task will be initiated in June 2014 with a call with the Joint Ventures to discuss their assessment work and data system. The 2014 meeting will focus on this area along with reviewing Assessment Team products.

c. Board Science and Data outreach efforts – Science and Data Committee co-chair and Wes Daniels attended and participated in the Midwest Fish Habitat Partnerships' assessment and decision support workshop in Minneapolis, MN in May 2014.

d. Continue development of attributed socioeconomic datasets along with a limited set of analytical tools – No progress has been made on this need as funding is not available to advance the development of these datasets.

e. Develop of project effectiveness tools – Foundations of Success (FOS) Contract work – The NFHP Board through AFWA issued a contract to FOS in 2013 (approximately $15,000) with an additional $6,000 available in 2014 as an initial analysis of the long-term investment by NFHP in measuring the results of--and ensuring adaptive management for--the projects the FHPs engage in. This effort is separate from the USFWS requirements for project performance. The goal of this project is to begin developing standard effectiveness measures for common actions taken in support of fish habitat conservation.

FOS helped develop the Conservation Measures Partnership's Open Standards for the Practice of Conservation and Miradi software. These are the same folks AFWA used to develop effectiveness measures for the State Wildlife Action Plans. Andrea Ostroff has been working with Nick Salafsky and Caroline Stem at FOS to have a small workgroup of folks to:

i. Understand effectiveness measures from the standpoint of developing a set of "common measures" for the FHPs.
ii. Develop a pilot test of those measures using representative conservation action.
iii. Finalize proposed measures for distribution and review and approval through the NFHP community.
iv. Develop a plan for operationalizing the effectiveness measures.

A more detailed briefing on this project will be provided at its fall meeting, and capacity to take this to the next stage should occur in late 2015 or 2016 after working with the FHPs to make sure the direction is correct.

Andrea Ostroff is working with her USGS team to complement this effort with work in the Pacific Northwest to establish the data system mechanisms to incorporate locations where "monitoring" is being conducted in the Northwest so that the west coast FHPs can increase or facilitate their interactions with existing monitoring programs. The increased information delivered in this Northwest focus area can be used to demonstrate effective leveraging and to potentially gain momentum to mobilize similar information in other areas of the country for the benefit of more FHPs.

f. Continue development of the 2015 inland and marine assessments

i. Marine Assessment Status (Kristan Blackhart, NOAA) – The new refined marine assessment methodology has been tested using Gulf of Mexico data and a full assessment has been funded with the team moving forward to get it completed for incorporation into the 2015 Assessment. Three assessments are underway on the Pacific Coast including: a NFHP Assessment; detailed nursery habitat assessment (TNC leading and mostly complete with some work being done on metrics by the University of Washington); and a forage fish and nearshore assessment. These will be summarized and included in the 2015 Assessment Report. Work by the NOAA team on East Coast assessments by the North Atlantic LCC and ACFHP is limited by funding to technical advisement by the Marine Assessment and only limited information will be included on this geographic area in the 2015 Report. This assessment targets specific species and is being done by Downstream Strategies. No work is planned for the South Atlantic, Hawaiian or Alaskan Coasts as resources are unavailable at this time. The Great Lakes assessment is in progress at this time by a group of Great Lakes researchers with guidance and direction from the Great Lakes Basin FHP and a spatial framework has been developed. Additional components including ecological classification of habitat units and data gathering is mostly in progress with some components awaiting the funding of proposals by the USFWS and the Great Lakes Fishery Trust. Available information from this assessment will be included in the 2015 Assessment Report.

ii. Inland Assessment Status (Dana Infante and Wesley Daniel, MSU) – An analysis of the appropriate spatial framework for the 2015 Inland Assessment was completed. The 2015 Assessment will continue to use NHD+ Version 1 (1:100,000 resolution) as a crosswalk between NHD+ Versions 1 and 2 (1:24,500 resolution) is not yet available, although a tool is in development. The 2020 Assessment will use the much higher resolution NHD+ Version 2 which will

require considerable reattribution of data. Analyses of rivers and streams now have a size component as different size waters react differently to stressors and have different fish communities. Sufficient fish survey data is now in hand to complete this analysis. Additional disturbance (new land cover NCLD 2006 and all surface mines) have been attributed to the spatial framework and analyses to include the effect of upstream dams has been included. The potential direction of how to update the Alaska and Hawaiian assessments are currently under consideration and a significant amount of new fisheries survey information has been added to the assessment dataset for these two areas. Evaluations are underway at this time on which additional county level datasets to include to the assessment including: atmospheric deposition of nutrients and pH; water withdrawals (USGS and USEPA datasets); groundwater; and Sparrow nutrient model outputs. The Science and Data Committee has been engaged to assist with the selection of variables and how to properly analyze them.

iii. Timeline
- Assessment products from the Teams ready by June or July 2015 for report development to include analyses to show habitat changes between the 2010 and 2015 Assessments
- Select writing team by June 2015
- Initial Draft National Assessment Report by Oct 2015
- Publication by January 2016

g. Update and improve the NFHP data system to improve usability by a broad range of partners

i. A new data theme "Projects and Monitoring" will be available in the NFHP Data System's Data Theme Viewer in July. The new theme will include an updated representation of the NFHP projects being implemented by the Fish Habitat Partnerships across the country as well as the Aquatic Monitoring Program Sites in the Pacific Northwest. The increased information of monitoring programs in the Northwest focus area may provide the west coast FHPs increased opportunity for organizational collaboration with other groups in the Northwest when implementing and evaluating projects, and could be expanded to other regions of the U.S.

ii. Inland and coastal fish occurrence data from the Ocean Biogeographic Information System (OBIS-USA) will be available through the Biological Theme of the NFHP Data System in July. OBIS-USA is a resource coordinated by the USGS which aggregates marine biological occurrence data and is part of an international data sharing network.

iii. Users will be able to view points of fish occurrence data, previously represented in the NFHP Data System as "heat maps" showing the gradient of data availability summarized at a coarser scale. The fish occurrence data are

currently available via the NFHP Data System. This enhancement will enable users to view data within the system prior to seeking to download the data, which is a desired feature by users.

Prepared by: Andrea Ostroff (Science and Data Committee Co-Chair, USGS)
Gary Whelan (Science and Data Committee Co-Chair, MI DNR)
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