Final Interim Strategies and Targets for National Fish Habitat Action Plan
November 8, 2007

<u>Introduction</u> – The following are revised draft interim strategies and targets for the National Fish Habitat Action Plan (NFHAP) that could be implemented prior to completion of the first national fish habitat assessment in 2010. The draft interim strategies and targets were initially presented to the Board at its March 2007 meeting. Subsequent to the March Board meeting, the Committee leadership worked closely with NFHAP Board Liaisons (Mike Andrews and Kelly Hepler) to further develop the initial draft of interim strategies. The draft interim strategies and targets have been reviewed by the Science and Data Committee (Committee), the NFHAP Board Staff, the Pilot and Candidate Fish Habitat Partnerships, and were broadly presented to the NFHAP Federal Caucus on June 26, 2007, for input. The interim targets were revised based on the strategies approved by the National Fish Habitat Board (Board) at its June 2007 meeting, and approved with amendments shown below by the Board during a conference call on November 2, 2007.

Although our charge suggested we should not set numeric targets, we have provided possible numeric targets for each goal for each partnership to achieve as an option for the Board's consideration. The numeric targets are based on "best" professional judgment and should be multiplied by the number of approved partnerships to achieve the national numeric target for each strategy. We have also provided a set of measures for each goal to allow success tracking to be done by the Board.

The described numeric targets are proposed for the interim time period before the national fish habitat assessment is completed in 2010. Partnerships should strive to meet the targets that are most relevant for meeting their strategic priorities, during this interim time period. Partnerships are not expected to meet the numeric goal under every target.

The terms "protection," "restore," and "enhance" are defined in Attachment A.

To conserve (protect, restore, and enhance) the habitats of the nation's marine and freshwater fish populations, **to support a broad natural diversity of fish and other aquatic species, to promote self-sustaining fish populations, and to provide successful fishing opportunities,** we adopt the following strategies:

1. Strategy 1 – Identify and protect intact and healthy waters
    a. Protection targets for each Partnership, as applicable
        i. Identify all intact and healthy waters along with key target fish and aquatic species for each
        ii. Protect 1000 miles of intact and healthy river and stream habitat including natural stream flows
        iii. Protect 10,000 acres of intact lake habitat including natural lake levels
        iv. Protect 10,000 acres of intact coastal (freshwater, estuarine, or marine) habitat
    b. Success measures for each Partnership, as applicable
        i. Miles of intact and healthy river and stream habitat protected
        ii. Acreage of intact lake habitat protected
        iii. Acreage of intact coastal (freshwater, estuarine, or marine) habitat protected
        iv. Optional measure - For each of the above, document whether the key target fish or invertebrate population remained constant or increased in distribution or relative abundance.

2. Strategy 2- Restore natural variability in river and stream flows and water surface elevations in natural lakes and reservoirs.
    a. River and stream flow and natural lake water surface elevation rehabilitation targets for each Partnership
        i. Identify key degraded rivers, streams, and lakes whose flows and elevations have been modified from the natural pattern along with the key target fish or invertebrate species for each.
        ii. Work to restore degraded systems with these as targets:
            1. Restore river and streams flows to within 10% of the natural flow variation on 200 miles of degraded rivers and streams
            2. Restore lake elevations to within 10% of the natural water levels on 1000 acres of lake and reservoir habitat.
            3. Enhance degraded reservoir fisheries habitat through water level manipulations to improve fish production on 10,000 acres of reservoir habitat.
    b. Success measures for each Partnership, as applicable
        i. Miles of river and stream habitat with flows rehabilitated to within 10% of the natural flow pattern.
        ii. Acreage of lakes with water levels rehabilitated to within 10% of the

natural pattern.

  iii. Acreages of reservoirs with enhanced habitat.

  iv. Optional measure - For each of the above, document whether the key target fish or invertebrate populations remained constant or increased in distribution or relative abundance abundance.

3. **Strategy 3 – Reconnect fragmented river, stream, reservoir, coastal, and lake habitat to allow access to historic spawning, nursery and rearing grounds.**

 a. Connectivity targets for each Partnership, as applicable

  i. Identify key systems where fish movement barriers are a key impediment to improved fish populations along with the key target fish species for those systems.

  ii. Restore full fish access to 500 miles of rivers and streams.

  iii. Restore full fish access to 10,000 acres of lake, reservoir, or coastal (freshwater, estuarine, or marine) habitat.

 b. Success measures for each Partnership, as applicable

  i. Miles of reconnected river and stream habitat with full fish movement restored.

  ii. Acreage of lakes, reservoirs, or coastal (freshwater, estuarine or marine) habitat with restored full fish movement.

  iii. Optional measure - For each of the above, document whether the key target fish or invertebrate population increased in distribution or relative abundance.

4. **Strategy 4 – Reduce and maintain sedimentation, phosphorus and nitrogen runoff to river, stream, reservoir, coastal, and lake habitats to a level within 25% of the expected natural variance in these factors or above numeric State Water Quality Criteria**

 a. Sedimentation, phosphorus and nitrogen targets for each Partnership

  i. Identify key degraded systems whose sediment, phosphorus or nitrogen inputs have been modified by more than 25% above numeric State Water Quality criteria or from the natural and expected inputs.

  ii. Reduce sediment, phosphorus or nitrogen inputs into 100 miles of degraded river and stream habitat degraded waters to a level within 25% of the natural rates or above numeric State Water Quality criteria.

  iii. Reduce sediment, phosphorus or nitrogen inputs into 1000 acres of degraded lake, reservoir, estuary, or bay habitat to a level within 25% of the natural rates or above numeric State Water Quality criteria.

 b. Success measures for each Partnership, as applicable

  i. Miles of river and stream habitat with sediment, phosphorus or nitrogen inputs rehabilitated to within 25% of natural or other desired levels such as numeric State Water Quality criteria.

  ii. Acreage of lakes, estuaries, or bays with sediment, phosphorus or nitrogen inputs rehabilitated to within 25% of the natural or other desired levels

such as numeric State Water Quality criteria.

iii. Optional measure - For each of the above, document whether the key target fish or invertebrate population remained constant or increased in distribution or relative abundances.

Attachment A
National Fish Habitat Action Plan
Science & Data Committee
Protect, Restore, Enhance Terminology

The definitions below are derived, in part, from the Federal Geographic Data Committee, Wetlands Subcommittee, composed of 15 federal agencies involved in wetland related activities. This Subcommittee developed definitions for restoration and related work to aid agencies in accurately reporting their program activities. These definitions also include a component of the "restoration" definition used by the Partners for Fish and Wildlife (U.S. Fish and Wildlife Service) and comments made by National Fish Habitat Board members at the June 2007 Board meeting.

Protection/: The removal of a threat to, or preventing the decline of, aquatic habitat by an action in or near a waterbody. Protection may include, but is not limited to:
- the purchase and monitoring of land or easement;
- repairing water control structures;
- ;
- assisting local units of government in zoning riparian corridors or saltwater marshes for non-development;
- establishing best management practices for agriculture and forestry;
- allocating water to protect ecological stream flows and lake/reservoir surface water elevations;
- acquisition and transfer of water rights; and
- riparian zone fencing;
- maintenance of structures.

Restoration: The manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic attributes or functions to degraded aquatic habitat. Habitat restoration includes, but is not limited to:

- practices conducted with the goal of returning a site, to the extent practicable, to the ecological condition that likely existed prior to loss or degradation, such as restoration of riparian area's aquatic vegetation or woody debris, restoration of channel sinuosity, re-creation of reefs and spawning shoals or recreation of freshwater inflows ;
- practices conducted when restoration of a site to its original ecological condition is not practicable, but which will partially repair original habitat functions, such as, dredging to reduce sedimentation or developing of new spawning shoals; and
- removal of the disturbing/degrading element to enable the native habitat to re-establish or become fully functional, such as removal of barriers to flow (such as dams or culverts), control of point and non-point source inputs or removal of breakwaters and bank armoring.

Enhancement: The manipulation of the physical, chemical, or biological characteristics of a waterbody that heighten, intensify, or improve specific function(s) or for a purpose such as water quality improvement, flood water retention or increased fish production/habitat.