2013 Multistate Conservation Grant Program

Part I: Grant Proposal

Executive Summary

- 1. **Project Title:** Promoting Strategic Fish Habitat Conservation through Regionally-coordinated Science and Collaboration
- **2. Full Legal Name of Organization:** National Fish Habitat Board. If awarded, the grant will be administered on behalf of the Board by the Association of Fish and Wildlife Agencies, 444 North Capitol Street NW, Washington DC, 20001

3. Organization Information:

- a. Applicant Classification: Non-governmental organization
- b. Nongovernmental Organization Classification (if applicable): NA

4. Lead Applicant's Contact Information:

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5. Name and Affiliation of Co-Investigator(s)/Partner(s) (if applicable):

Mr. Matt Menashes, Director of Operations Association of Fish & Wildlife Agencies 444 North Capitol Street NW, Suite 725 Washington DC, 20001

Tom Busiahn, U.S. Fish & Wildlife Service

Scott Robinson, Coordinator, Southeast Aquatic Resources Partnership Emily Greene, Coordinator, Atlantic Coastal Fish Habitat Partnership

Callie McMunigal, Appalachian Partnership Coordinator, U.S. Fish & Wildlife Service

Heidi Keuler, Coordinator, Fishers & Farmers Partnership

Robin Knox, Coordinator, Western Native Trout Initiative

Lisa DeBruyckere, Coordinator, Pacific Marine & Estuarine Partnership

Sue Rodman, Alaska Department of Fish & Game

6. Project Length: 3 years. This proposal requests first-year funding for a project that is projected to run for 3 years.

- 7. Funding Requested:
 - a. Total Amount: \$494,445b. Year 1 Amount: \$494,445
 - c. Year 2 Amount (if applicable): \$
 - **d.** Year 3 Amount (if applicable): \$
- 8. Estimate of Partnership Funds to be Leveraged (if applicable): \$419,198
- 9. Funding Source.
 - a. Funding Source: 100% SFR
 - **b.** Percent WR:
 - c. Percent SFR:
- **10. State Benefit Requirement:** Project benefits all 50 states. Currently, each State is engaged with one or more FHPs; therefore benefits will extend to fish habitats in all states.
- 11. **Primary National Conservation Need (NCN) Addressed:** Subject 1: Strengthening the National Fish Habitat Partnership
- **12. Summary Statement (200 words or less):** Through regional collaboration, Fish Habitat Partnerships will address the five objectives in the newly updated National Fish Habitat Action Plan (objectives abbreviated here):
 - 1) achieve measurable habitat conservation results,
 - 2) establish a consensus set of national conservation strategies,
 - 3) broaden the community of support for fish habitat conservation,
 - 4) fill gaps in the National Fish Habitat Assessment, and
 - 5) communicate conservation outcomes as well as new opportunities and voluntary approaches for conserving fish habitat.

Priority needs identified by Fish Habitat Partnerships vary across regions, and include improving hydrography data in Alaska, engaging landowners in the agricultural Midwest, and setting restoration and protection priorities for estuarine habitats on the Pacific coast by developing a spatial framework for nearshore and estuarine habitats. In broad swaths of the eastern and western U.S., Fish Habitat Partnerships seek resources for habitat data acquisition and analysis at both the local watershed and larger landscape level, increasing partner engagement and outreach, and identifying and facilitating on-the-ground projects that address conservation priorities. This proposal addresses each of those needs.

13. Terms and Conditions. Use of MSCGP Grants - All applicants must ensure that their proposed project does not fund, in whole or in part, an activity that promotes or encourages opposition to the regulated hunting or trapping of wildlife or taking of sport fish. □ I agree with the above terms and conditions.

Project Narrative

<u>Project Title:</u> Promoting Strategic Fish Habitat Conservation through Regionally-coordinated Science and Collaboration

Objective(s)

Through regional collaboration among FHPs,

- Collectively advance each FHP's habitat assessments through identification of mutual data needs, data acquisition and landscape-level analysis for the benefit of fish, mussels, and other aquatic animals.
- Provide region-specific fish population, habitat, and human impact data to fill regional data gaps and to assist the national Science & Data Committee in improving the 2015 national status report.
- Develop and demonstrate best management practices for habitat conservation, and methods to effectively engage local communities in fish habitat conservation projects.
- Develop and/or improve strategic plans of individual FHPs, and develop landscape-scale linkages among FHP priorities and those of other landscape conservation efforts.

Problem Statement

The National Fish Habitat Board is responsible for overseeing and coordinating implementation of the National Fish Habitat Action Plan. As the primary work units of the Action Plan, Fish Habitat Partnerships are responsible for:

- Coordinating and compiling scientific assessment information on fish habitats within their partnership areas,
- Establishing strategic goals and objectives that define desired outcomes for fish species and habitats within their partnership areas,
- Identifying priority places and/or issues to focus conservation action, and prioritize fish habitat conservation projects to meet goals and objectives,
- Coordinating and compiling information on outputs (conservation actions) and outcomes (changes in habitat condition) for reporting to the Board and stakeholders, and
- Collaborating with other FHPs where appropriate to carry out these responsibilities.

Current funding is insufficient for FHPs to meet the above objectives, to develop strategic priorities for fish habitat conservation actions (protection, restoration, and enhancement), and to contribute regional data that addresses gaps in the 2011 National Fish Habitat Assessment.

The responsibilities of FHPs align closely with the needs documented in NCN #1. This project will provide resources to support broad regional collaboration among FHPs to carry out these responsibilities in an efficient manner.

Experience

The National Fish Habitat Board, organized in 2006, is responsible for developing policies and guidance for recognizing Fish Habitat Partnerships (FHPs), and for establishing national measures of success and evaluation criteria for FHPs. Since 2007, the Board has recognized 18

FHPs based on its policies and guidance, and in 2012 completed the first performance evaluation of FHPs. Kelly Hepler has chaired the Board since May 2008, supported by an interagency staff from state and federal agencies and the Association of Fish and Wildlife Agencies.

Fish Habitat Partnerships, the primary work units of the National Fish Habitat Action Plan, are supported by a variety of funding sources and in-kind contributions. The FHPs are dynamic, inclusive coalitions of public and private institutions, each with an established governance structure, a strategic plan identifying conservation priorities, and capabilities for scientific assessment. The National Fish Habitat Board's FHP recognition process ensures that the individual FHPs all have in place the diverse partners, governance structure, and planning capabilities needed to identify strategic priorities and to select projects that address their priorities.

FHPs themselves do not collect scientific information or conduct fish habitat conservation projects. State agencies or other partners involved with FHPs provide the personnel and other resources to do these jobs. FHPs add value to fish habitat conservation by assembling and analyzing information at a landscape scale, recruiting new partners, and providing strategic frameworks that focus resources on the highest priority conservation needs. In the near term, FHPs may place a burden on state agencies and other partners, which are already resource-limited. In the longer term, FHPs will help state agencies and other partners to be more efficient in achieving desired conservation outcomes.

While all of the FHPs have made significant accomplishments in their short histories, they operate under the Action Plan's tenet that conservation actions must be sustained and accountable. This project builds upon the capacity and experience of FHPs to achieve long-term conservation outcomes.

Approach

This proposal takes a regional approach to addressing the objectives of the National Fish Habitat Action Plan, and the needs identified in NCN 1: *Strengthening the National Fish Habitat Partnership*. Seventeen of the 18 FHPs have defined geographic boundaries; one, the Reservoir Fisheries Habitat Partnership, focuses on a *type* of aquatic system rather than a geographic area.

The National Fish Habitat Board has consistently urged the FHPs to cooperate with neighboring or overlapping FHPs, and with other partnerships and entities, to ensure that their goals and activities are complementary. Regional cooperation among FHPs (as well as Landscape Conservation Cooperatives and migratory bird Joint Ventures) has become routine, and continues to increase. This proposal builds upon the regional cooperation among FHPs.

Eastern United States

Three FHPs that engage 25 states in the eastern U.S. (Southeast Aquatic Resources Partnership, Eastern Brook Trout Joint Venture, and Atlantic Coastal FHP) will cooperate on coordinated scientific assessments, developing data sharing methodology, and collecting and analyzing aquatic data at the regional scale. The three FHPs will contribute data and participate in the development and refinement of the National Fish Habitat Assessment; collaboratively develop

methods of collecting, compiling, and managing regional data on fish populations and aquatic habitats; and produce refined conservation focus area maps and lists of priority criteria for each FHP.

The FHPs will also coordinate partner engagement and outreach activities to strengthen and expand their already robust base of on-the-ground conservation partners. This activity is an implementation of strategies developed in 2012, supported by MSCG funds.

Requested funds will also enhance capacity to implement each FHP's strategic plan, through completion of prioritized on-the-ground partner-led fish habitat conservation projects. Funds will support communication within the FHPs' governance structure, allowing them to identify opportunities to implement each FHP's strategic plan, and prioritize actions to protect and restore functions of eastern aquatic habitats.

Outcomes will include improved habitat condition assessments and project selection criteria for the three FHPs and their member states and other partners. A more coordinated approach to developing assessments will result in reduced data requests to states and reduced variation in the products of the FHPs and LCCs. The work will provide an infrastructure that can be updated, added to, or improved upon, through use and as new information becomes available, allowing for extended use after the project is complete. Increased coordination among FHPs at the regional scale will also result in a strengthened approach towards promoting FHP scientific needs within LCCs.

Midwest United States

The Fishers and Farmers Partnership for the Upper Mississippi River Basin (FFP) brings agricultural interests to the table to find ways to conserve aquatic habitats while maintaining productivity and profits for agriculture across a 7-state area.

During a three-year period, the Fishers & Farmers Partnership will work with other FHPs to create landowner engagement opportunities in the Midwestern United States, enhancing the effectiveness of conservation through leveraging and community involvement, and providing a report of best management practices for potential use by other FHPs and partners. During the first year, funds will support up to four training workshops for land conservation employees from federal, state, and local agencies. During the first and second year, FFP and their partners will organize up to four landowner engagement activities, which could result in landowner committees in FFP watershed projects. This effort builds upon the work of the Missouri Department of Conservation (MDC), which has been very successful with landowner committees in the Bourbeuse/Meramec watershed, completing more restoration projects than was predicted based on prior experience. Landowner committees 1) have the capacity to identify and help protect healthy waters, 2) help choose target species using State Wildlife Action Plans, 3) work with partners to restore natural variability in streams and reconnect fragmented rivers, 4) help reduce sedimentation, phosphorus, and nitrogen runoff by promoting best management practices, and 5) organize community events that raise awareness.

Experience in Missouri has shown that when local watershed work is led by landowners, with organizational and technical assistance from conservation partners, more work is accomplished,

community resources are leveraged, costs are reduced through cooperative planning and purchasing, communities are strengthened through shared experiences and recreational opportunities, and habitat projects "sell themselves", spreading throughout the landscape. Landowners tend to also engage in citizen science, helping to monitor the effects of aquatic habitat improvement on their farms and associated watersheds around them. This work also provides opportunities to bring in Farm Bill funding for qualified projects.

During the second and third year, FFP will work with MDC, landowners, and other partners to develop a methodology report, which will undergo peer review prior to submission to the National Fish Habitat Board for potential application where appropriate in other areas of the U.S.

Western United States (inland)

The Western Native Trout Initiative (WNTI) focuses on coldwater habitat and native trout species in 12 states of the western U.S., including Alaska. In many locations these habitats are upstream from desert and prairie stream habitats that are the focus of the Desert Fish Habitat Partnership and the Great Plains Fish Habitat Partnership.

Requested funds will support cooperative efforts of WNTI and neighboring FHPs to conduct scientific watershed assessments, focus on cooperative planning, leverage resources among partners, and report on outcomes of past actions. WNTI will continue its "Campaign for Western Native Trout" to raise awareness about and generate funding for an increased level of conservation actions.

WNTI will coordinate and compile scientific assessment information through local partnerships and cooperative efforts, including, where appropriate, watersheds that are shared with the Desert FHP and the Great Plains FHP. Priority data needs for the Desert FHP are assessment of desert springs and cienegas and their hydrologic alteration. The Great Plains FHP has identified fish barriers (fragmentation) and water withdrawals (instream flow protection status) as primary data needs. WNTI has identified the need to complete habitat assessments for interior redband trout, coastal cutthroat trout, Dolly Varden and Arctic char to develop priority conservation actions.

Requested funds will also enhance capacity to implement WNTI's strategic plan, through completion of prioritized on-the-ground partner-led fish habitat conservation projects. Funds will support communication within WNTI's governance structure, allowing partners to identify opportunities to implement WNTI's strategic plan, and prioritize actions to protect and restore functions of western native trout habitats.

WNTI's Campaign for Western Native Trout was created to raise awareness of the importance of western native trout and the ecosystem services provided by healthy watersheds to western communities. WNTI will work to increase the size, scope, and investment of grassroots and new strategic partners to support and accomplish habitat conservation actions for western native trout habitats.

Outcomes will include an increase in the number of healthy, fishable western fish populations resulting from sharper focus and commitment to priority conservation actions. These populations will be supported by an increased number of stream miles or standing water acres

protected, restored, or enhanced. State fish and wildlife agencies and federal land management agencies will benefit from projects within their watersheds that improve the status of western native trout and their habitats. All of these outcomes will be supported by improved coordination among FHPs and other overlapping partnerships to address objectives of the National Fish Habitat Action Plan.

Pacific Coast

Fish habitats in Pacific coastal waters and estuaries only recently came under the purview of the Action Plan, with approval of the Pacific Marine and Estuarine Fish Habitat Partnership (PMEP) in January 2012. Their newly completed strategic framework focuses on nursery habitat for fish and shellfish. The PMEP is working to 1) prioritize conservation efforts at local spatial scales, 2) determine local threats to fish (including sport fish) habitats and their spatial extent, and 3) assess how threats to fish habitat as well as possible restoration and protection measures will affect fish and shellfish populations.

Requested funds will support a workshop to advance mutual multi-partnership, regional-scale goals in cooperation with the California Landscape Conservation Cooperative, North Pacific Landscape Conservation Cooperative, Pacific Coast Joint Venture, and California Fish Passage Forum. Representatives of these organizations will be invited to participate in a workshop with the PMEP Steering Committee to chart a course for future cooperation on fish habitat projects on the West Coast, to advance goals that align with all of these entities.

To date, PMEP has completed an initial review of the goals and objectives of each entity and identified particular areas of alignment. The workshop will chart a course to achieve specific deliverables, define a budget, and articulate key next steps that will improve fish habitat in estuarine and nearshore marine environments. PMEP is committed to moving the needle with large, landscape-scale conservation efforts, requiring coordination and planning across a significant geographic scale. A key deliverable from this workshop will be a report that summarizes common elements of the partnerships and defines criteria for a set of projects that could meet common goals among the entities. Specifically, the funding would provide for workshop planning and coordination, a workshop summary report, and travel support for meeting attendees. Matching contributions would be for participant salary and other administrative contributions.

Alaska

Alaska is unique among the 50 states in the extent of its fisheries and aquatic resources, with 3,000 rivers, 3 million lakes, and 46,882 miles of coastline, supporting recreational fisheries worth \$1.4 billion annually. Alaska is also unique in the lack of systematic information on its aquatic habitats. Alaska's hydrography data set is incomplete and inaccurate for most of the state. In the 48 conterminous states, digital geospatial data for surface waters are available through the National Hydrography Dataset Plus (NHD+), providing improved names, value-added attributes (such as stream order), incremental drainage areas with landscape characteristics, and flow volume and velocity estimates for pollutant dilution modeling. NHD+ is the base data layer used in the National Fish Habitat Assessment.

The lack of available NHD+ data for Alaska, and even the lack of an accurate NHD base layer, limits the ability of the National Fish Habitat Partnership to evaluate Alaska fish habitats and conservation efforts in a manner that is comparable to the rest of the nation. The 2015 National Fish Habitat Assessment will encounter these data gaps once more. Alaska seeks to advance the NHD to NHD+ for the entire state.

Through this proposal, the gaps would start to be addressed for south-central Alaska, with involvement of partners in the Kenai Peninsula Fish Habitat Partnership and the Mat-Su Basin Salmon Habitat Partnership. This effort supports the evaluation of fish habitat in Alaska with respect to the national standards established by the National Fish Habitat Partnership. Bringing Alaska toward NHD+ will support the incorporation of Alaska streams into the NFHP Habitat Assessment Decision Support Tool, enabling the prioritization of protection, restoration, and enhancement actions.

This project will develop a methodology for editing stream geometry and location by using LiDAR (digital ortho-imagery). University of Alaska-Southeast staff and the GIS technician at the Kenai Watershed Forum will determine how to edit stream information by applying LiDAR instead of field surveys. This pilot project will be applied to the Anchor River on the Kenai Peninsula, where LiDAR was attained in 2008 by the Kenai Peninsula Borough. The Kenai Peninsula Fish Habitat Partnership set the Anchor River as a high priority for improving hydrography data. Once established, this methodology will be applicable to the entire Cook Inlet drainage as more LiDAR imagery becomes available.

Expected Results or Benefits

In general, this project will support activities of the Fish Habitat Partnerships that will help to achieve the objectives in the National Fish Habitat Action Plan, 2nd Edition, recently approved by the National Fish Habitat Board. The five objectives are:

- 1. Achieve measurable habitat conservation results through strategic actions of Fish Habitat Partnerships that improve ecological condition, restore natural processes, or prevent the decline of intact and healthy systems leading to better fish habitat conditions and increased fishing opportunities.
- 2. Establish a consensus set of national conservation strategies as a framework to guide future actions and investment by the Fish Habitat Partnerships by 2013.
- 3. Broaden the community of support for fish habitat conservation by increasing fishing opportunities, fostering the participation of local communities especially young people in conservation activities, and raising public awareness of the role healthy fish habitats play in the quality of life and economic well-being of local communities.
- 4. *Fill gaps in the National Fish Habitat Assessment* and its associated database to empower strategic conservation action supported by broadly available scientific information, and integrate socio-economic data in the analysis to improve people's lives in a manner consistent with fish habitat conservation goals.
- 5. Communicate the conservation outcomes produced collectively by Fish Habitat Partnerships, as well as new opportunities and voluntary approaches for conserving fish habitat, to the public and conservation partners.

More specifically, the project will:

- Enhance regional aquatic habitat condition assessments and landscape-scale conservation design for coastal habitats on the Atlantic and Pacific coasts, coldwater habitats in the Appalachians and interior west, and the southeastern United States through cooperative efforts of FHPs.
- Improve strategic prioritization of conservation actions and reporting of outcomes by FHPs across the eastern and western United States.
- Create landowner engagement opportunities in the Midwestern United States, enhancing the effectiveness of conservation through leveraging and community involvement, and providing a report of best management practices for use by other FHPs and partners.
- Lay the necessary foundation for creating a complete and accurate hydrography dataset for aquatic systems of Alaska.

Certification regarding fishing/hunting

"By submitting this proposal, the organization's primary contact and/or authorized representative identified in this grant application certifies that the (insert name of organization) (1) will not use the grant funds to fund, in whole or in part, any activity of the organization that promotes or encourages opposition to the regulated hunting or trapping of wildlife or the regulated taking of fish; and (2) that the grant funds will not be used, in whole or in part, for an activity, project, or program that promotes or encourages opposition to the regulated hunting and trapping of wildlife or the regulated taking of fish."

<u>Certification regarding partnership funds (if applicable)</u>

"By submitting this proposal, the organization's primary contact and/or authorized representative identified in this grant application certifies that the (insert name of organization): 1) understands that partnership fund contributions are assessed in the Association's review and selection of its priority list of MSCGP projects, but are not considered by the USFWS to be an official non-federal match/cost-share; 2) will provide the partnership funds identified in order to complete the proposed project; 3) understands that if the promised partnership funds are not provided, and there is not a sufficient explanation, potential consequences could include a poor "quality assurance" evaluation by the National Grants Committee for the organization's future MSCGP applications; the imposition of "special award conditions" on this proposed grant and/or future grants (pursuant to 43 CFR 12); and if the failure to provide partnership funds affects the scope/objective or deliverables or other terms and conditions of the grant, then the USFWS could take necessary enforcement and termination actions (pursuant to 43 CFR 12)."

Budget

Region	Fish Habitat Partnerships	MSCPG		Partner funds
Eastern U.S.	Atlantic Coastal FHP, Eastern Brook Trout Joint Venture, Southeast Aquatic Resources Partnership	\$195,000		\$255,600
Midwest U.S.	Fishers & Farmers Partnership, Driftless Area Restoration Effort	\$50,000		\$30,000
Western U.S.	Western Native Trout Initiative, Desert FHP, Great Plains FHP	\$100,000		\$28,875
Pacific Coast	Pacific Marine & Estuarine Partnership	\$50,000		\$32,000
Alaska	Kenai Peninsula FHP, Mat-Su Basin Salmon Habitat Partnership	\$51,015	\$38,750 staff time (5 months GIS analyst) \$6,000 software \$6,265 indirect	\$7,750 (1 month GIS analyst)
Total direct costs		\$446,015		
Indirect costs (10%)		\$49,557		
Waiver of 14% IDC by AFWA				\$69,380
Total expenses		\$495,572		\$423,605

Total MSCGP for Year 1 of the 3-year project is \$495,572; Total partnership funds for Year 1 of the 3-year project are \$423,605.

Qualifications of Key Personnel

Eastern United States

Patrick Campfield, Science Director, Atlantic States Marine Fisheries Commission

Patrick is responsible for oversight of the Commission's Marine Science Program, including stock assessment activities, fisheries data collection programs, and scientific support to the Atlantic coastal states. In addition to the Science Program, Patrick also oversees the Atlantic Coastal Fish Habitat Partnership and the Commission's Habitat Program. He has a B.S. in Marine Biology and M.S. in Fisheries Science and Management from the University of Maryland Center for Environmental Science.

Scott Robinson, Coordinator, Southeast Aquatic Resources Partnership

Scott has served as SARP Coordinator since September 2005. Prior to that he was a Fisheries Biologist for the Georgia Department of Natural Resources for eleven years. He is currently managing the administration of several grants, including a Multi-State Conservation Grant, for SARP. He received a B.S. degree and M.S. in Fisheries and Wildlife Biology from Clemson University. He is a Certified Fisheries Professional and past President of the Georgia Chapter American Fisheries Society.

Emily Greene, Coordinator, Atlantic Coastal Fish Habitat Partnership

Emily coordinates all ACFHP activities, providing daily support to the development and operations of ACFHP by facilitating committee and working group activities, managing contracted projects, identifying funding opportunities, and developing outreach activities. Emily has a B.S. in Biology and Environmental Science from the College of William and Mary and an M.E.M from the Nicholas School of Environment at Duke University.

Callie McMunigal, Appalachian Partnership Coordinator, U.S. Fish & Wildlife Service

Callie currently serves as the EBTJV Coordinator. Since 2008, she has managed the \$600,000 of project funds that EBTJV receives each year. She also manages hundreds of thousands of dollars in grants and cooperative agreements each year for habitat projects. Callie has a B.S. and a M.S. in Hydrogeology and a minor in Geographic Information Systems from Florida Atlantic University and 15 years of experience working for state and federal government agencies on large scale partnership efforts.

Douglas Stang, Assistant Director – Division of Fish, Wildlife and Marine Resources, New York State Department of Environmental Conservation

Doug is currently the EBTJV Steering Committee Chair and has served on the EBTJV Steering Committee since the partnership's inception. With the DEC, Doug provides oversight for the agency's broad fish, wildlife, marine and habitat programs delivered by more than 350 staff with annual program expenditures of \$58 million. Doug has a B.S. in Forestry and Wildlife (Fisheries Science) from Virginia Tech and a M.S. in Fishery Biology from Iowa State University.

Midwest United States

Heidi Keuler, Fish Biologist, U.S. Fish and Wildlife Service

Heidi is the coordinator of the Fishers & Farmers Partnership for the Upper Mississippi River Basin. Heidi has experience with the multistate Upper Mississippi River Conservation Committee (UMRCC) and outreach.

Chris Vitello, Fisheries Division Chief, Missouri Department of Conservation

Chris is chair of FFP and is the State Representative for Missouri on the FFP Steering Committee. Chris initiated formal stakeholder training for biologists from different fields (fisheries, forestry, and wildlife) in MDC.

Rob Pulliam, Fisheries Management Biologist, Missouri Department of Conservation

Rob is experienced in working with multiple landowner committees and as project manager for projects at the watershed scale. Rob has worked on Theory and Application of Conservation Marketing.

Ange Corson, Fisheries Programs Coordinator, Missouri Department of Conservation Ange has led multiple MDC Stakeholder Training Workshops.

Landowners/dairy farmers are in the Lower Bourbeuse Conservation Opportunity Area (COA) Landowner Committee. Due to their efforts and the efforts of Kenda Flores, MDC, they received a 2010 NFHP award for extraordinary action in support of Fish Habitat Conservation.

Dr. Christopher Jones, Environmental Scientist, Iowa Soybean Association. Experience in technical assistance, project management, action plans and applied research.

Eileen Bader, Freshwater Specialist, The Nature Conservancy, IA. She has successfully worked with landowners on aquatic habitat projects including the listed species, Topeka shiner.

Steve Taylor, President and Executive Director, Missouri Agribusiness Association Co-Chairs the Fishers & Farmers Partnership Steering Committee.

Jeff Hastings, Trout Unlimited, Project Manager for Driftless Area Restoration Effort. He has prior experience in working with landowners as a county conservation department employee in Wisconsin.

Louise Mauldin, Fish Biologist, U.S. Fish and Wildlife Service, La Crosse Fish & Wildlife Conservation Office. She is the Service lead for the Driftless Area Restoration Effort fish habitat partnership.

Western United States (inland)

Robin Knox, Coordinator, Western Native Trout Initiative

Robin Knox has been the Coordinator of the WNTI for six years. He was the assistant Chief of Fisheries for the Colorado Division of Wildlife for 20 years, and the Instream-habitat Coordinator for the Indiana Department of Natural Resources for 4 years. He has a BS in

Zoology from the University of Illinois and a MA in Fisheries Biology from the University of Missouri.

Erica Stock, Director of Strategic Partnerships, Western Native Trout Initiative

Erica Stock has extensive background in developing strategic partnerships and has been involved in the conservation of aquatic freshwater and marine resources through her work with the Wild Salmon Center and Trout Unlimited. Erica has a B.A. degree in Psychology with an emphasis on quantitative research methods in social psychology and a minor in biology.

Charlie Corrarino, Chair, WNTI Steering Committee

Charlie Corrarino has worked for the Oregon Department of Fish and Wildlife 1985 to present in various capacities including Sport and Commercial fishery data base manager, Sport Fishing Regulations Coordinator, Salmon and Trout Enhancement Program Coordinator, Fish Restoration and Enhancement Coordinator, Fish Passage Coordinator and for the past 10 years Native Fish Conservation and Recovery Program Manager. He has a B.S. in Fishery Biology from Colorado State University and a M.S. in Entomology from the University of Idaho.

Julie Carter, Co-chair, WNTI Steering Committee

Julie Carter is the Co-chair of the WNTI Steering Committee and has been involved in WNTI since 2005. She has been the Native Trout Coordinator with the Arizona Game and Fish Department since 2005, serving as the Department's lead biologist for Apache trout and Gila trout recovery projects. Prior to working with southwest native trout, she was a research biologist with USGS in Alaska for eight years, working predominately with steelhead and resident rainbow trout life history projects. Julie has a B.S. in Biology with Emphasis in Wildlife and Fisheries Management from Northern Arizona University, and a M.S. in Fisheries Science from the University of Alaska Fairbanks.

Warren Colyer, Trout Unlimited

Warren Colyer has been involved with the WNTI from its founding in 2006. He is a member of the Initiative's Steering Committee. Warren has an extensive background as a Trout Unlimited representative in the scientific assessment of watersheds for habitat and species restoration projects in Utah and Wyoming over the past 6 years.

Shannon Albeke PhD., University of Wyoming

Shannon Albeke is a research scientist with the Wyoming Geographic Science Center. He was one of the co-developers of the Interstate Cutthroat Protocol, a GIS-based database protocol that has been used extensively across the West to develop status reviews of western native trout that result in the identification of priority watersheds for conservation actions that preserve, protect, and enhance the status of western native trout.

Pacific Coast

Lisa DeBruyckere, Coordinator, Pacific Marine & Estuarine Partnership

M.Sc. University of Maine at Orono. Experience administering the operations of two West-Coast partnership groups, the PMEP and the West Coast Governors Alliance on Ocean Health, and one state-based partnership, the Oregon Invasive Species Council.

Correigh Greene, NOAA Fisheries, Northwest Fisheries Science Center

Ph.D. University of California, Davis, M.Sc. University of Michigan, B.S. Tufts University. Population biologist/estuarine ecologist with 10+ years of expertise in biology of salmon and forage fish, pelagic food webs, and population modeling; helped lead the 2010 NFHP national effort to characterize threats to estuary systems. Chairs the PMEP Science & Data Committee.

Van C. Hare, GIS Manager, Pacific States Marine Fisheries Commission

M.S., Natural Resources (GIS), Humboldt State University; B.A. Lewis & Clark College; Certified GIS Professional (GISP). Coordinates PSMFC's GIS program for West Coast fisheries data projects including StreamNet.

Laura Brophy, Institute for Applied Ecology

M.Sc. University of Minnesota, B.S. Carleton College. Principal, Green Point Point Consulting; Director, Estuary Technical Group, Institute for Applied Ecology; Courtesy Faculty, College of Oceanic and Atmospheric Sciences, Oregon State University. Certified Professional Wetland Scientist with 30+ years of field experience; leads teams on Oregon tidal wetland restoration projects.

Mary Gleason, The Nature Conservancy

Ph.D. U.C. Berkeley, B.A. U.C. Santa Barbara; Ecologist; Assoc. State Director of Science for TNC's California Coastal and Marine Program. Supports TNC's marine spatial planning activities, fisheries reform, and estuarine conservation activities; led an assessment of West Coast estuaries.

Eric Grossman, U.S. Geological Survey

Ph.D., M.Sc., U. Hawaii; B.A. U.C. Berkeley; Coastal and Marine Geologist; USGS Pacific Coastal and Marine Science Center and Western Fisheries Research Center; Adjunct Faculty U.C. Santa Cruz and Western Washington University; Addresses coastal and shelf sedimentation, nearshore hydrodynamics, habitat change, sea-level history, and vulnerabilities in coastal habitats. Supports DOI Coastal and Marine Spatial Planning efforts.

Mark Petrie, Ducks Unlimited, Pacific Coast Joint Venture

Ph.D., University of Missouri; M.Sc., University of Missouri; Manager of Conservation Planning; Research support for the Black Duck and Gulf Coast Joint Ventures.

Steve Rumrill, Shellfish Program Leader, Oregon Department of Fish and Wildlife

Ph.D. University of Alberta; M.Sc. University of California at Santa Cruz; Courtesy Faculty, University of Oregon–Oregon Institute of Marine Biology. Estuarine ecologist, invertebrate zoologist, and marine scientist; studied ecological interactions along the Pacific coast for 30+ years; 20+ years as Chief Research Scientist for South Slough NERR.

Randy Carman, Washington Department of Fish and Wildlife

B.S. University of Washington; Senior Marine Ecologist; Worked on marine shoreline issues in Puget Sound for 24+ years, leads the Nearshore Section at WDFW, works with the Puget Sound Nearshore Ecosystem Restoration Project on strategies that focus on nearshore processes.

Martha Sutula, Southern California Coastal Water Research Project

Ph.D., Louisiana State University; M.Sc., Tulane University; B.S., Purdue University; Principal Scientist at SCCWRP; leads Biogeochemistry Department and oversees projects in eutrophication and harmful algal blooms, estuaries and nearshore waters, monitoring of stormwater, watershed and water quality model development, and atmospheric deposition.

William Pinnix, U.S. Fish and Wildlife Service

Ph.D. Candidate Oregon State University, M.Sc. University of Washington, B.S. Humboldt State University. Fish biologist with 20 years of experience in fish ecology with emphasis on juvenile marine fish population dynamics in relation to large scale oceanic and atmospheric forcing.

Alaska

Sue Rodman, Program Coordinator, Alaska Department of Fish & Game

Since 1999, Sue Rodman has worked in Alaska's boreal forest serving to conserve natural and cultural resources from wildland fire. Her work in forestry and community preparedness has been important to the Municipality of Anchorage and its residents. During this time, she has managed the Anchorage Wildfire Program and administered grants and congressional appropriations totaling \$20 Million. Her work at ADF&G crosses interagency organizations with respect to Fish Habitat Partnerships and Landscape Conservation Cooperatives in addition to mapping wildlife on behalf of the Western Governor's Association Wildlife Council.

Mike Plivelich, SEAK Hydro Technical Steward, University of Alaska Southeast

Mike Plivelich is a staff member of the University of Alaska Southeast in Juneau. Along with faculty Sanjay Pyare, he received a Special Achievement in GIS award from ESRI in 2011. His work at UAS on the SEAK Hydro project supports collaboration among the USDA Forest Service, Alaska Dept. of Fish & Game, US Fish & Wildlife Service, US Geological Survey and University of Alaska Southeast to develop, standardize, and unify a mapping data relating to hydrography for better resource management across the region.