

NATIONAL FISH HABITAT PARTNERSHIP



Meeting support provided by:



Meeting Book for The National Fish Habitat Board

October 23-24, 2019
Board Meeting

National Fish Habitat Board Meeting

Park Place Hotel & Conference Center

300 E State Street

Traverse City, MI 49684

October 23 -24, 2019

Agenda and Board Book Tabs

Conference line: 646-558-8656 (both days)

Zoom link Wednesday: <https://zoom.us/j/529576978>, meeting ID: 529576978

Zoom link Thursday: <https://zoom.us/j/555798340>, meeting ID: 555798340

Wednesday, October 23, 2019

9:00 – 9:15 AM	<u>Welcome</u>		Shannon Hanna (<i>Deputy Director, Michigan Department of Natural Resources</i>)
9:15 – 10:00 AM	<u>Welcome, Attendance, Introductions, and Housekeeping</u> <i>Desired outcomes:</i> <ul style="list-style-type: none">• Board Chair to welcome new AFS member• Board action to approve the agenda and notes from the June Meeting.• Board awareness of future meeting schedule and locations.• Board discussion of upcoming Board member terms and the approach for Vice Chair nomination.• Board vote on whether AFWA shall host and manage the NFHP trademark and application.		Ed Schriever (<i>Board Chair – Director, Idaho Department of Fish and Game</i>)
10:00 – 11:30 AM	<u>Around the Room</u> <i>Desired outcomes:</i> <ul style="list-style-type: none">• Relevant updates from member organizations.• Update from Board members on past (since last Board meeting), present, and future activities to support NFHP and the Fish Habitat Partnerships.		All Board Members
11:30 – 11:45 AM	<u>BREAK</u>		
11:45 – 12:00 PM	<u>Update from USFWS</u> <i>Desired outcome:</i> <ul style="list-style-type: none">• Board awareness of anticipated timing and process for FY2020 funding.	Tab 1	David Hoskins (<i>US Fish and Wildlife Service</i>)

12:00 – 1:15 PM	<u>LUNCH on your own (list of restaurants provided)</u>		
1:15 – 1:45 PM	<u>Ohio River Basin Fish Habitat Partnership</u> <i>Desired outcome:</i> <ul style="list-style-type: none"> • Board awareness of how this FHP used the “spark” of NFHP funds to fuel a restoration “blaze” and have an enormous impact on the watershed. 		Donovan Henry (<i>Ohio River Basin FHP Coordinator</i>) & Dr. Jerry Sweeten (<i>Manchester University Professor Emeritus of Biology and Environmental Studies</i>)
1:45 – 2:00 PM	<u>NOAA Announcement</u> <i>Desired outcome:</i> <ul style="list-style-type: none"> • Board awareness of FY20 NOAA funding available for projects in Coastal FHPs. 		Pat Montanio (<i>NOAA Fisheries Board member proxy for Sam Rauch</i>)
2:00 – 3:00 PM	<u>Update on NFHP Action Plan</u> <i>Desired outcome:</i> <ul style="list-style-type: none"> • Board awareness of the status of the NFHP Action Plan revision process and projected timeline of completed revisions. 		Gary Whelan (<i>NFHP SDC Co-chair</i>)
3:00 – 3:15 PM	<u>Break</u>		
3:15 – 4:00 PM	<u>Legislative Team Update</u> <i>Desired outcome:</i> <ul style="list-style-type: none"> • Board awareness of the status of the National Fish Habitat Conservation through Partnership Act. 	Tab 2	Andrew Wilkins (<i>TRCP Board member proxy for Christy Plumer</i>)
4:00 – 4:30 PM	<u>Legislative Working Group Update</u> <i>Desired outcome:</i> <ul style="list-style-type: none"> • Board awareness of Working Group progress since the October 2018 workshop and meeting as well as future plans. 	Tab 3	Bryan Moore (<i>Board Member, Trout Unlimited</i>)
4:30 – 5:00 PM	<u>Great Lakes Basin Fish Habitat Partnership</u> <i>Desired outcome:</i> <ul style="list-style-type: none"> • Board awareness of Great Lakes Basin FHP’s new steering committee, next steps, and Partner perspective on the Partnership. 	Tab 4	Rick Westerhof (<i>Great Lakes FHP Coordinator</i>) & Amy Beyer (<i>Conservation Resource Alliance, Director</i>)
5:00 PM	<u>Adjourn</u>		
6:00 PM	<u>Happy Hour at Seven Monks Tap Room (128 S. Union Street Traverse City, MI)</u>		

Thursday, October 24, 2019

9:00 – 9:15 AM	<u>Welcome & Housekeeping</u>	Ed Schriever (<i>Board Chair – Director, Idaho Department of Fish and Game</i>)
9:15 – 9:45 AM	<u>Midwest Glacial Lakes Fish Habitat Partnership</u> <i>Desired outcome:</i> <ul style="list-style-type: none">• Board awareness of Midwest Glacial Lakes Partnership’s efforts to conserve glacial lakes fish habitats through assessment, outreach, & habitat conservation.	Joe Nohner (<i>Midwest Glacial Lakes FHP Coordinator</i>)
9:45 – 10:00 AM	<u>Beyond the Pond Update</u> <i>Desired outcome:</i> <ul style="list-style-type: none">• Board awareness of FHP survey results regarding funding for a Beyond the Pond development director.	Tab 5 Ryan Roberts (<i>NFHP Board Staff, AFWA</i>)
10:00 – 10:15 AM	<u>Partnerships Committee Update</u> <i>Desired outcome:</i> <ul style="list-style-type: none">• Board awareness of the overall results from the FHP Evaluation results and committee’s 2019 priorities.	Tab 6 Stan Allen (<i>Board Member, Pacific States Marine Fisheries Commission</i>)
10:15 – 10:30 AM	<u>Communications Committee Update</u> <i>Desired outcome:</i> <ul style="list-style-type: none">• Board awareness of new Communications Committee products developed and shared with FHPs.	Tab 7 Ryan Roberts (<i>NFHP Board Staff, AFWA</i>)
10:30 – 10:45 AM	<u>BREAK</u>	
10:45 – 11:15 AM	<u>NFHP at American Fisheries Society Meeting</u> <i>Desired outcome:</i> <ul style="list-style-type: none">• Board awareness of outcomes from the Stan Moberly award ceremony and AFS film festival at AFS in Reno, NV.	Ryan Roberts (<i>NFHP Board Staff, AFWA</i>) & Kim Dibble (<i>Board Member, American Fisheries Society</i>)
11:15 – 11:45 AM	<u>Time for carryover agenda items</u>	
11:45 – 1:00 PM	<u>LUNCH provided with site visit preview presentation</u>	
1:00 – 4:30 PM	<u>Site visit to the Boardman River</u>	



United States Department of the Interior



FISH AND WILDLIFE SERVICE

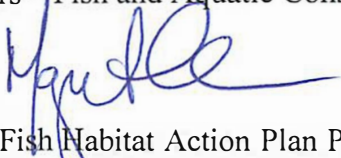
Washington, D.C. 20240

AUG 20 2019

In Reply Refer to:
FWS/AFAC/FAC DCN 070838

Memorandum

To: Regional Directors
Assistant Regional Directors – Fish and Aquatic Conservation

From: Principal Deputy Director 

Subject: Fiscal Year 2019 National Fish Habitat Action Plan Project Funding

Working with others to protect, conserve, and enhance fish and their habitats is an essential component of the U.S. Fish and Wildlife Service's (Service) mission. To help achieve this, the Service is committed to supporting the National Fish Habitat Action Plan (NFHAP) and the Fish Habitat Partnerships (FHPs) that implement it. The NFHAP is a science-based, voluntary effort to address fish and aquatic habitat issues across the United States. In Fiscal Year (FY) 2019, the Service is providing \$4,141,000 to support cost-shared, strategic fish and aquatic habitat projects that address the goals of the Action Plan.

The Service is making concerted efforts to increase funding to the FHPs by reducing Service costs, even though the NFHAP budget has not increased. In FY 2018, the Service provided an additional \$794,125 to the FHPs. In FY 2019, the Service increased operational support from \$75,000 to \$85,000 for each eligible FHP. All twenty FHPs received operational support this year, totaling \$1,700,000.

The remaining \$2,441,000 of the NFHAP project funds will be distributed based on each FHP's FY 2019 performance level (PL) score. In FY 2019, 17 of the 18 FHPs that were eligible to apply for performance-based project funds submitted work plans and accomplishments reports for consideration of these funds. Each FHP's PL score was determined by applying the Service's NFHAP Allocation Methodology, initially adopted in December 2013, and revised in November 2015 and May 2019. The resulting PL scores and respective funding amounts for each FHP can be found in the attachment.

Funds will be used to support FHP operations, conduct aquatic habitat assessments, and implement on-the-ground conservation projects that address the goals of the NFHAP and align with the mission of the Service. Specifically, the FHPs will use the funds to implement proposed

projects identified in their Work Plan and Accomplishments Reports. All projects will be tracked and project accomplishments will be reported in the Service's Fisheries Information System – Accomplishments Module.

The Service looks forward to continuing its support of the NFHAP and partnering with the FHPs. If you have questions regarding FY 2019 NFHAP allocations, please contact Mr. David Hoskins, the Service's Assistant Director for Fish and Aquatic Conservation, at 703-358-2250 or David_Hoskins@fws.gov.

Attachment

Table 1. Number of Fish Habitat Partnerships (FHPs) at each performance level and respective project funding amount for fiscal year 2019.

Performance Level	Number of FHPs at each PL	Project Funding at each PL
1	1	\$41,373
2	11	\$124,118
3	5	\$206,864

Table 2. Fiscal year 2019 performance levels and the corresponding funding amount for each Fish Habitat Partnership (FHP). The total funding for each FHP includes both stable operational funds and competitive, performance based funds.

Lead Service Region	Fish Habitat Partnership	Performance Level	Total FY19 FHP Funding
1	Hawaii Fish Habitat Partnership	2	\$209,118
	Pacific Marine and Estuarine Fish Habitat Partnership	2	\$209,118
	Pacific Lamprey Fish Habitat Partnership	N/A	\$85,000
2	Desert Fish Habitat Partnership	3	\$291,864
	Reservoir Fish Habitat Partnership	2	\$209,118
3	Driftless Area Restoration Effort	2	\$209,118
	Ohio River Basin Fish Habitat Partnership	2	\$209,118
	Midwest Glacial Lakes Partnership	2	\$209,118
	Fishers and Farmers Partnership for the Upper Mississippi River Basin	1	\$126,373
	Great Lakes Basin Fish Habitat Partnership	N/A	\$85,000
4	Southeast Aquatic Resources Partnership	2	\$209,118
5	Atlantic Coastal Fish Habitat Partnership	3	\$291,864
	Eastern Brook Trout Joint Venture	2	\$209,118
6	Great Plains Fish Habitat Partnership	2	\$209,118
7	Southeast Alaska Fish Habitat Partnership	N/A	\$85,000
	Kenai Peninsula Fish Habitat Partnership	2	\$209,118
	Mat-Su Basin Salmon Habitat Partnership	3	\$291,864
	Southwest Alaska Salmon Habitat Partnership	2	\$209,118
8	California Fish Passage Forum	3	\$291,864
	Western Native Trout Initiative	3	\$291,864
Total Funding			\$4,140,991

Title: Legislative Update

Desired outcome: Board awareness of and engagement on the National Fish Habitat Conservation Through Partnership Act

Background:

Since the inception of the National Fish Habitat Partnership, a NFHP legislative coalition has been working to craft a legislative proposal that would achieve the goals of the Board and establish an organic statute for the Partnership and the National Fish Habitat Action Plan. The NFHP legislative team includes representatives from The Nature Conservancy, Trout Unlimited, the Association of Fish and Wildlife Agencies, the American Sportfishing Association, the Theodore Roosevelt Conservation Partnership, American Fisheries Society, the Coastal Conservation Association and the Congressional Sportsmen's Foundation. Since 2006, this team has worked closely together to advance this legislative proposal – now known as the National Fish Habitat Conservation Through Partnerships Act (NFHCTPA).

Previous versions of NFHCTPA have enjoyed broad bipartisan support in Congress, including bipartisan approval by the Senate Environment and Public Works (EPW) Committee (the Senate Committee of jurisdiction) and the Senate Energy and Natural Resources (ENR) Committee. Until this Congress, the legislation had not been introduced in the House of Representatives since 2009, and instead the legislative team had focused on the Senate as the most likely body in which to advance the bill. For several reasons, Congressional approval of NFHCTPA has been complicated, with leadership shifts, initial concerns about the scope and extent of the program, a general distaste for new federal programs and the cost of the legislation among the primary obstacles.

In recent years, smaller pieces of legislation such as NFHCTPA are often unsuccessful as stand-alone bills and must move forward on larger legislative packages such as comprehensive energy legislation or public lands packages. For several Congresses now, the legislative team has worked to ensure NFHCTPA language is an integral component of any sportsmen's package.

2019 Legislative Priority and Accomplishments:

Board Priority Task A: *Continue coordination with legislative affairs team in supporting developments of the National Fish Habitat Conservation Act; (assign to eligible Board members and legislative team)*

Accomplishments: The shift in House Majority from Republicans to Democrats marks the first time Democrats have taken control of the chamber since the 111th Congress. With this change, we are hoping to push NFHCTPA through both chambers and get it signed into law before the end of the 116th Congress. The National Fish Habitat Conservation Through Partnership Act was introduced as a standalone bill in both the House and Senate, as H.R. 1747 introduced by Reps. Wittman (R-VA, 1st) and Veasey (D-TX, 33rd) and S. 754 introduced by Sens. Crapo (R-ID) and Cardin (D-MD) respectively.

With Chairman Grijalva (D-AZ, 3rd) now at the helm of the House Committee on Natural Resources, replacing Rob Bishop (R-UT, 1st), our legislative coalition has been focusing much of our attention on the Water, Oceans, and Wildlife (WOW) Subcommittee. Subcommittee majority staff are generally supportive of the program, but as of late, have been focusing on codifying NFHCTPA through the passage of the ACCESS Act and not as an independent, stand-alone bill. The ACCESS Act received a hearing in the WOW Subcommittee on March 26, 2019 which highlighted the Subcommittee

minority's discontent with several of its provisions. With NFHCTPA needing to move as expeditiously as possible this Congress, we are concerned the broader ACCESS Act may have too much baggage to easily pass out of Committee and the full House. We have similar issues in the Senate with focused interest by the Senate EPW Committee – the Senate Committee of jurisdiction – on a similar package introduced in the 115th Congress called the *HELP for Wildlife Act*. Not yet introduced in this new Congress, EPW Committee Chairman Barrasso staff has indicated their preference for this package to move first before advancing stand-alone bills such as NFHCTPA.

After a coordinated advocacy campaign on Capitol Hill organized and executed by the American Sportfishing Association, Trout Unlimited, the Theodore Roosevelt Conservation Partnership, the Association of Fish and Wildlife Agencies, the Congressional Sportsmen's Foundation, and many more, H.R. 1747 was featured in a Water, Oceans, and Wildlife Subcommittee Hearing on Tuesday, September 24th. Stephen Guertin, Deputy Director for Policy of the U.S. Fish and Wildlife Service served as the agency witness. In his verbal testimony he only acknowledged the legislation and signaled he would entertain questions about its affect. During the hearing H.R. 1747 received little to no attention. H.R. 1747 was then scheduled for a Full Committee Markup the following day, Wednesday September 25th. During the markup Bill Sponsor Representative Wittman highlighted the need for the legislation and the impact it would have on the Program and Action Plan. Jared Huffman, Chair of the Water, Oceans, and Wildlife Subcommittee also spoke highly of the bill and highlighted its bipartisan support. An amendment, offered by Representative González-Colon of Puerto Rico, added the territories to the list of States applicable under the program. Representative Case of Hawaii and Representative Wittman of Virginia spoke in favor of this amendment. Ultimately, the amendment was adopted, and H.R. 1747 was favorably reported to the House of Representatives by voice vote.

Approach: Since the start of the 116th Congress, the NFHP legislative coalition has advanced as our top priority the education of key Congressional members on the importance of enacting NFHCTPA. Specifically, the legislative coalition has been busy setting up co-sponsor meeting requests in both the House and Senate for H.R. 1474 and S. 754. While much of our focus has been on members of the House Natural Resource and Senate EPW Committees, lack of a legislative schedule for the bills has recently stifled some of our momentum. Noticing this as an obstacle the legislative coalition repositioned ourselves in June and adopted a new action plan focused on redoubling our educational efforts and engaging with key decision makers who ultimately decide the fate of the bill. Working closely with Staff on the House Natural Resources Committee and Members on the Committee the legislative coalition got H.R. 1747 scheduled for a hearing in the Water, Oceans, and Wildlife Subcommittee on September 24th and a subsequent Full Committee Markup the following day. This ultimately resulted in the Bill being favorably reported out of the Committee. Ideally, the bill will be placed on the suspension calendar allowing the House to vote to suspend the rules and pass the bill by voice. The legislative coalition is currently employing a similar tactic used in the House in the Senate and hopes to find success. During our Hill visits, we have been making use of the newly updated toolkit and the various one-pagers that were distributed on April 22, 2019. We encourage Board Members to look at these materials if you have not yet and make use of them during your outreach and Hill visits.

Title: Legislation Working Group Update**Desired outcomes:**

- Board awareness of Working Group progress since the March 2019 Board meeting as well as future plans.
- Ask for Board feedback and approval of two draft documents (to be shared at the meeting) regarding the legislation:
 - Draft letter to member organizations
 - Draft Board transition guidance

Background:

At the March 2019 NFHP Board meeting the Legislation Working Group updated the Board regarding meetings and gathering of information since October 2019. More detailed plans for moving forward were established with the help of the Board, specifically to work on the idea of a “roadmap” to guide the reconstitute the Board following the possible passage of the enabling legislation.

The working group representative, Lisa Havel, developed a survey for FHPs to identify specifically the level and type of support offered by the US Fish and Wildlife Service. The results of this survey were shared with the Board to better understand the potential impacts of the changes proposed by the legislation and to better position the NFHP Board and FHPs to adapt to those changes if the legislation is enacted.

Following the March 2019 Board meeting there have been two calls held with the Legislative Working Group for updates as the legislation is being tracked in this Congress. We have also worked to address some of the questions and concerns related to the board composition and FHP requirements following the passage of the legislation.

A draft letter has been developed with the intent of sending to the member groups of NFHP to check in and confirm that they want to continue with their current representative as their representative. A strawman guidance has also been developed for discussion with the Board to determine what the parts of the legislation mean and the best approach to addressing changes if the legislation passes. These two draft documents will be presented to the full Board at the October 2019 Board meeting.

Finally, with input from the Legislation Committee, the Working Group will continue to stay up-to-date on potential paths forward for the legislation in the 116th Congress.

Boardman River Dam Removals and River Restoration Highlights

as of June 11, 2019

National Fish Habitat Board Meeting
October 23-24, 2019
Tab 4



Brown Bridge Dam (owner - City of Traverse City)

- Brown Bridge built in 1921, 33' head, pond was 190 acres
- 1.4M cubic yards of sediment impounded during 90 years of dam operation
- Dam removal in 2012 for \$4.4M in design/construction/construction engineering
- 2.5 miles of river daylighted and restored
- 277,000 cubic yards sediment collectively managed during dam removal and Supplemental Environmental Project (SEP)
- 6,500 linear feet of instream wood added during dam removal and in 2013/2014

Robbins (Cass Road) Bridge (owner - Grand Traverse County Road Commission)

- Built in 2016 for \$3.31M in construction/construction engineering (design included in Boardman Dam removal costs because bridge was designed in combination with the dam removal)
- 252.5' span with 134.5' center span, 26' high, 2 vehicle lanes with 6' wide shoulders
- Adjacent Keystone Road intersection improvement work completed by GTCRC for \$154,000

Boardman Dam (owner - Grand Traverse County)

- Built in 1894 and rebuilt/relocated in 1931, 43' head, 650' long core wall, pond 104 acres
- 788,000 cubic yards of sediment impounded during 119 years of dam operation
- Decommissioned in 2006, pond lowered 16' in 2007 reducing pond to 78 acres
- Dam removed in 2017, \$10.5M in design/construction/construction engineering
- 292,000 cubic yards sediment managed, 1.8 miles of river daylighted and restored
- 2,274 linear feet of fabric encapsulated soil (FES) lifts installed up and downstream of Robbins Bridge for streambank protection near this important infrastructure
- 43 log piles, 104 logs, and 111 logs with rootwads placed for instream habitat and streambank protection (more will be placed in summer 2019)
- 50 habitat boulders placed to break up river current and provide habitat

Sabin Dam (owner – Grand Traverse County)

- Built in 1906, rebuilt/repared in 1914 and 1930, 32' head, 340' earthen embankment
- In early 1900s 4,200' of the river downstream of the dam was dredged, straightened and lowered 8'
- 322,000 cubic yards of sediment impounded during 107 years of dam operation
- Decommissioned in 2006, lowered 4' in 2011 reducing pond to 24 acres
- 105,084 cubic yards sediment have been managed, .76 mile of river was daylighted and restored
- 1,800 linear feet of fabric encapsulated soil (FES) lifts placed for streambank protection
- 152 log piles, 211 logs, and 370 rootwad logs placed for instream habitat and streambank protection
- 100 habitat boulders placed to break up river current and provide habitat
- 3 snake hibernaculum constructed in adjacent upland areas utilizing broken concrete from site
- \$6M in design/construction/construction engineering

All 3 dams have a variety of monitoring efforts including fishery surveys, aquatic insect collection, water temperature, stream morphology (channel dimensions & stability), and amphibian/snake surveys in adjacent upland/floodplain areas. Collectively, the dam removals reconnect 160 miles of the Boardman River.

www.TheBoardman.org - For more information - www.rivercare.org



The Boardman River Reborn

www.theboardman.org

Boardman Dam & Pond



Photo by Jim Anderson
October 2012

Core wall



Future bridge



Powerhouse



Boardman Dam Removal

July 2017

Relic
river
location



Boardman River Returned



October 2018

Post-restoration needs



Wood work



Timber piles



Root wads



Streambank protection & habitat



Root wads



Floodplain



Stabilizing creeks & seeps



Slope stabilization



Invasive species control



NER Streambank Stabilization



After



Sabin Dam & Pond



Photo provided by John Russel
October 2012

Sabin Dam Removal

October 2018



Historically, river bottom was dredged down 8' in this section



Channel construction and bank stabilization measures



River returned...



Wrap up in 2019



Project Overview

January 2019

Feasibility Study/Planning	\$3,000,000
Brown Bridge Dam Removal	\$4,400,000
Boardman Dam Removal	\$10,500,000 (est.)
Robbins Bridge (Cass Road)	\$3,310,000
Sabin Dam Removal	\$5,700,000 (est.)
<hr/>	
Total Construction/Engineering	\$26,910,000
 Non-Construction Tasks*	 \$300-350K per year

*Project management, grant and contract administration, monitoring, communications and outreach



Project Team

IT

- Grand Traverse Band
- City of Traverse City
- Grand Traverse County
- Michigan DEQ
- Michigan DNR
- Michigan Hydro Relicensing Coalition
- Traverse City Light & Power
- U.S. Fish & Wildlife Service

Ex-Officio IT & Partners

- Conservation Resource Alliance
- Grand Traverse Conservation District
- Grand Traverse County Road Commission
- US Army Corps of Engineers
- Natural Resources Conservation Service
- Watershed Center, Grand Traverse Bay
- Garfield Township



CRA Roles & Responsibilities

- Fund development & coordination
- Facilitation of IT & partners
- Serve as GT County's point of contact for engineer and USACE
- Project documentation & dissemination
- Post-restoration, monitoring & invasive species work outside USACE scope



Fund Development

- Total ~ \$27 million
- Army Corps \$11 million
- GTB grants \$3 million
- CRA grants \$8 million



Thank you to the Funders!

- Bureau of Indian Affairs
- Great Lakes Fishery Trust
- National Fish & Wildlife Foundation
- U.S. Fish & Wildlife Service
- U.S. Environmental Protection Agency
- U.S. Army Corps of Engineers
- MDEQ, MDNR & MDOT
- Grand Traverse Band
- NRCS
- Frey Foundation
- Brook by Foundation
- Oleson Foundation
- Traverse City Rotary
- City of Traverse City
- Grand Traverse County
- GT Road Commission
- Conservation Alliance
- DTE Energy Foundation
- Trout Unlimited
- Patagonia
- And more.....



City/County Contributions

~\$1.1 million

\$185,000 each consultant costs
(\$20K per year; \$25K in 2009)

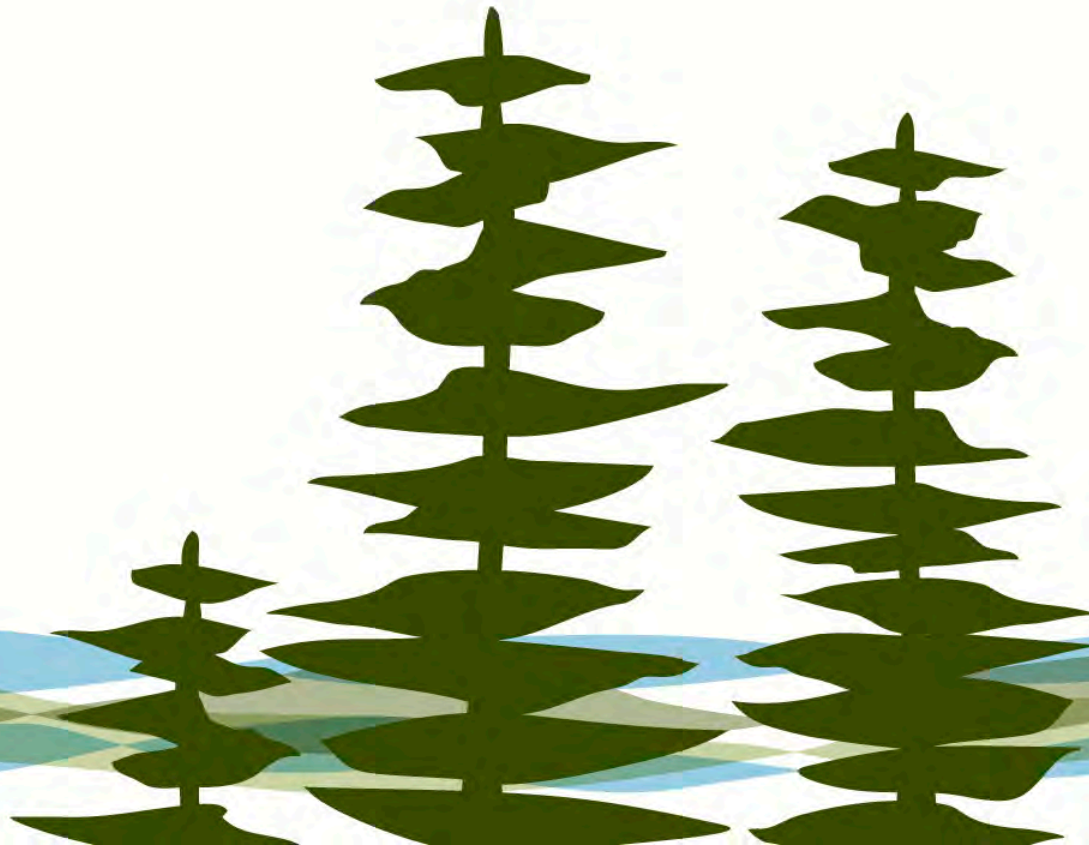
\$121,896 each additional funds for Sabin
Project Partnership Agreement, Grand
Traverse Band

\$500,000 Brownfield Authority



Information & Updates

www.theboardman.org





2018-2020 Road/Stream Crossing Improvments

1. Carp River & Gill Rd.
2. Carp River & Munger Rd.
3. Carp River & Reed Rd.
4. Van Creek & Bike Trail (#1)
5. Van Creek & Bike Trail (#2)
7. N. Platte & Dymond Rd.
8. N. Platte & Skinner Rd.
9. Little Platte Lake Creek & Saffron Rd.
11. Mason Creek & E. Duck Lake Rd.
12. Hinton Creek & 5 1/2 Rd.(#3)
13. Hinton Creek & 34 Rd.(#4)
14. Hinton Creek & 34 Rd. (#5)
18. Blood Creek & 72nd St.
19. Blood Creek & Broadway St.

2018-2020 Instream Habitat Restoration & Streambank Stabilization

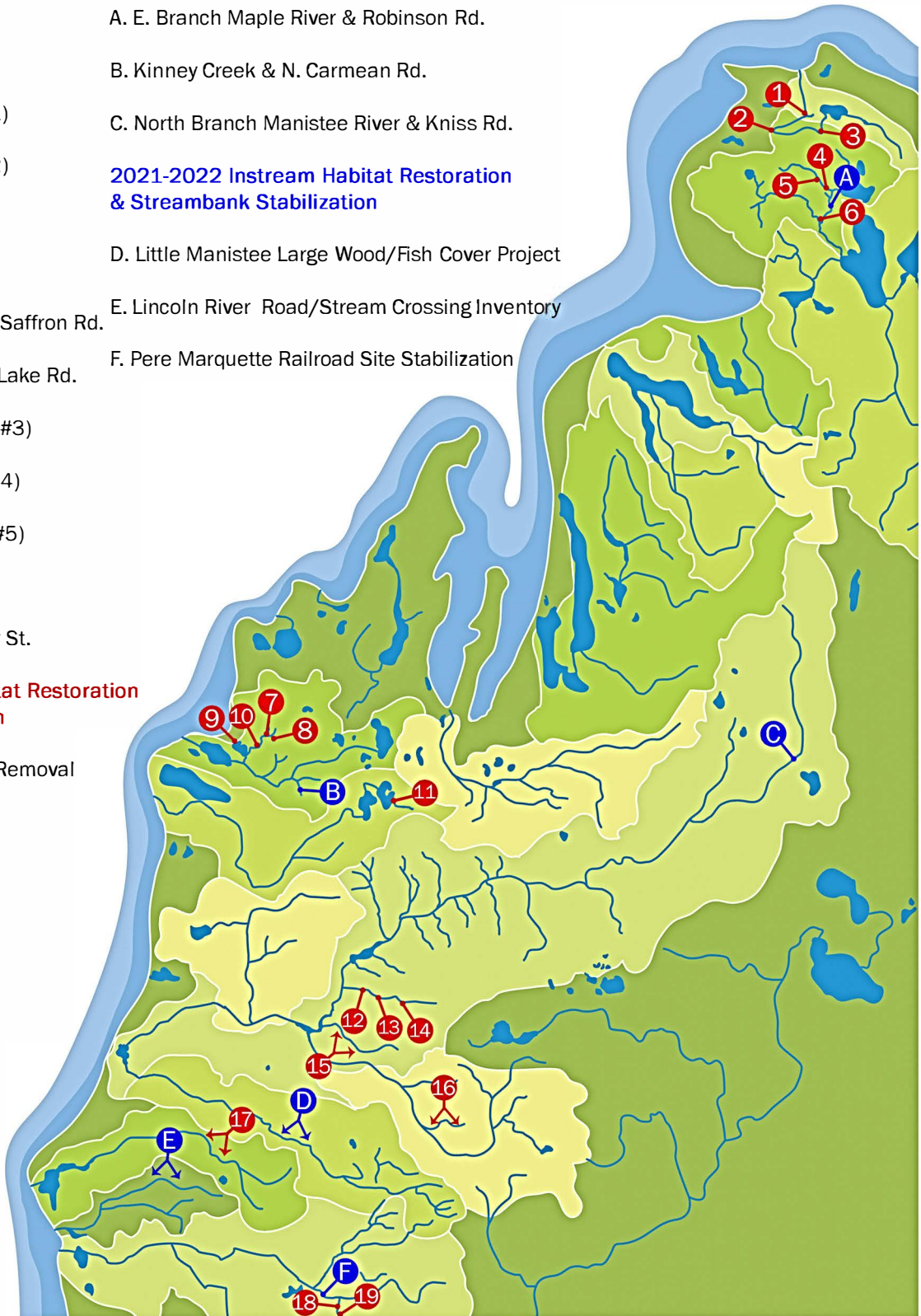
6. Lake Kathleen Post-Dam Removal Habitat and Restoration
10. Upper Platte River Woody Debris Project
15. Peterson Creek Woody Debris Project
16. Pine River/Silver Creek Stabilization & Habitat
17. Big Sable Woody Debris Phase III

2021-2022 Road/Stream Crossing Improvments

- A. E. Branch Maple River & Robinson Rd.
- B. Kinney Creek & N. Carmean Rd.
- C. North Branch Manistee River & Kniss Rd.

2021-2022 Instream Habitat Restoration & Streambank Stabilization

- D. Little Manistee Large Wood/Fish Cover Project
- E. Lincoln River Road/Stream Crossing Inventory
- F. Pere Marquette Railroad Site Stabilization



Conservation Resource Alliance

Tribal Stream and Fruit Belt Partnership Aquatic Connectivity in Northern Michigan

2017 - 2018 Projects

1. **Crossing Replacement**
Van Creek & Reed Road
2. **Timber Bridge**
Main Branch Maple & Woodland Road
3. **Timber Bridge**
E. Branch Maple & Two-track
4. **Clear Span Bridge**
Jordan River and Cokirs Creek & Old State Road
5. **Crossing Replacement**
Hinton Creek & 34 Road
6. **Crossing Replacement**
Hinton Creek & 3 3/4 Road
7. **Crossing Replacement**
Soper Creek & E. 14 Road
8. **Dam Removal**
Syers Creek Dam
9. **Crossing Replacement**
Sanborn Creek & Foreman Road
10. **Crossing Replacement**
Sanborn Creek & Broadway Street
11. **Crossing Replacement**
Sanborn Creek & Spruce Road
12. **Crossing Replacement**
Sanborn Creek & State Road

2019 - 2020 Projects

- A. **Crossing Replacement**
Carp River & Munger Road
- B. **Crossing Replacement**
Carp River & Gill Road
- C. **Crossing Replacement**
Carp River & Reed Road
- D. **Crossing Replacement**
Little Platte Lake Creek & Saffron Road
- E. **Crossing Replacement**
N. Platte & Hooker Road
- F. **Crossing Replacement**
N. Platte & Dymond Road
- G. **Crossing Replacement**
N. Platte & Skinner Road
- H. **Instream Restoration**
Upper Platte River
woody Debris Project
- I. **Crossing Replacement**
Mason Creek & E. Duck Lake Road
- J. **Streambank & Instream Restoration**
Silver Creek Stabilization Project
- K. **Crossing Replacement**
Pere Marquette Mainstem & MAC Road



CONSERVATION RESOURCE ALLIANCE

Free Span the Maple River Connectivity Initiative (AH15-514) & Lake Kathleen (Maple River) Dam Removal (DM17-017)



Conservation Resource Alliance

Telephone: 231-946-6817
www.rivercare.org
 Email: info@rivercare.org



RIVER CARE

Project Cost: \$2,250,000

The Maple River is a high-quality, predominantly cold-water stream that flows approximately 53 miles of main-stem and tributaries and drains an area of approximately 148,000 acres before flowing into Burt Lake and into the Cheboygan River watershed. The Woodland Road stream crossing, consisted of 3 undersized culverts that were critically failing to the extent that they were blocking fish passage, functioning as a dam and velocity barrier to aquatic species, and was the active spillway for the failing Lake Kathleen Dam.

Erosion from the roadbed and embankments contributed to excessive sedimentation entering into the river. Also the undersized and failing culverts were causing excessive channel scour and consequent warming of upstream waters. The project involved removing the existing culverts and installing a 70ft triple span timber bridge, which allowed for unrestricted passage of stream water and aquatic species reconnecting approximately 50 stream miles in conjunction with the Lake Kathleen Dam removal. In addition, Best Management Practices were conducted including: fieldstone installation, pavement/curbing, and re-vegetation of surrounding streambanks and upstream channel restoration and streambank stabilization.

Contributors:

- U.S Fish & Wildlife Service – Fish Passage Program, Great Lakes Fish and Wildlife Restoration Act, Great Lakes Basin Fish Habitat Partnership and Great Lakes Restoration Initiative
- National Fish and Wildlife Foundation – Sustain Our Great Lakes Program (SOGL)
- Michigan Department of Natural Resources (Aquatic Habitat Grant & Dams Management Grant Programs)
- Emmet County Road Commission
- Frey Foundation
- Baiardi Family Foundation
- Pat & Gill Clements Foundation
- James Family Foundation
- Henry and Consuelo Wenger Foundation
- USDA-NRCS-Regional Conservation Partnership Program
- Grand Traverse Band of Ottawa and Chippewa Indians
- Little Traverse Bay Bands of Odawa Indians
- CRA River Care Program- Supported by DTE Energy Foundation
- The George Fund
- The Conservation Alliance

Location:
 Maple River Twp.
 Section 10
 Emmet County, MI
 N 45.52936°
 W -84.77525°



Best Management Practices:

- 15' Dam Removed
- Timber bridge installation 32' x 70'
- Fieldstone placement for slope stabilization
- Grading & re-vegetation
- Pavement, curbing, & spillway construction
- Channel Restoration
- Sediment Management

Project Benefits:

- Restore natural flow and function of movement of woody debris, nutrient, & sediment
- Halt an estimated annual 5 tons of sediment loading into stream from roadbed and embankments
- Reduced temperature regime
- Reduced flooding potential & annual road maintenance
- 50 miles of enhanced unrestricted passage for migratory fish & other aquatic species (AOP) to additional spawning, juvenile, foraging, and nursery habitat

Partners involved:

Holton Family, Conservation Resource Alliance, Emmet County Road Commission, Michigan Department of Environmental Quality, Michigan Department of Natural Resources, U.S Fish & Wildlife Service, Natural Resources Conservation Service (NRCS), Grand Traverse Band of Ottawa & Chippewa Indians (GTB), Little Traverse Bay Bands of Odawa Indians (LTBB), Krenn Timber Bridge Inc., National Fish and Wildlife Foundation-SOGL, Little Traverse Conservancy, Team Elmer's, Spicer Group

Woodland Rd.



Before – The dam and inadequate culverts impeded fish passage and roadbed runoff contributed excessive sediment to the stream. The road prism began to fail during spring high water event 2014 (above); Perched outlet with extreme scour, over-widening the Maple River below crossing up to three times the natural surveyed cross sectional width (below).





**Woodland Rd. Project During Construction – pile driving, deck placement, and paving
2018 (above and below)**



Lake Kathleen Dam



Lake Kathleen Dam failure of 1952 (above)



Formation of sinkholes along the dam spillway and deteriorating concrete shows sign of excessive damage and failure potential (2018)



Drone photos of Lake Kathleen Impoundment, Dam, and Dewatering System (Sept 2018)



During Demolition



Lake Kathleen Dam Removed and Woodland Rd. over the Maple River Timber Bridge Project - completed and open to traffic (December 2018)



Title: Beyond the Pond Update

Desired Outcome:

- Provide background information on Beyond the Pond to new Board members and verbally present results of a survey distributed to FHPs regarding a potential model for the hiring of a Development Director for Beyond the Pond.

Background:

The National Fish Habitat Fund, which was approved by the IRS in June 2015 as a 501(c)(3) non-profit, was established to help partnerships seek additional funding for on-the-ground projects and activities. The National Fish Habitat Fund is marketed under the title and logo, Beyond the Pond. In 2016, a website was launched: <http://beyondthepondusa.com/>, along with securing a trademark, developing a fact sheet, and creation of an Amazon Smile account. In 2017 an online donation page was developed through Process Donation and several Fish Habitat Partnerships have created their own donation pages through the site. As we have new Board members coming on to the National Fish Habitat Board, we wanted to provide some background to them on the dual purposes of establishing Beyond the Pond. Of the two purposes, one was to establish an organization where the National Fish Habitat Partnerships could be established or considered 501c3 organizations, through establishment of chapters. Establishment of a chapter would provide that partnership an opportunity to raise funds independently and provide them with a banking infrastructure, which the partnerships have lacked in the past. The second purpose of Beyond the Pond, was to provide a fundraising foundation, both nationally and for the individual partnerships (chapters).

Update:

So far in 2019, we have had two FHPs utilize Beyond the Pond's non-profit status for grant applications. Utilization of Beyond the Pond for these grants is considered on a case-by-case basis, as the budget management and accounting for Beyond the Pond is done on a voluntary basis. In July, Kelly Hepler, Chairman of the Beyond the Pond Board, discussed with the FHPs a possible model for creating a Development Director position for Beyond the Pond. This model would seek contributions from FHPs to match with non-obligated funds that Beyond the Pond Board has in their bank account, which is approximately \$30,000.

The FHPs were Surveyed in September on the following questions.

1. Please provide your name and FHP represented.
2. How important is the development on Beyond the Pond to your FHP in terms of fundraising?
3. Would you be supportive of a funding model in which FHPs help to fund the position of a Development Director for Beyond the Pond in either a part-time or full-time capacity?
4. If you responded yes to question 3, how much would your FHP be willing to contribute?
5. Does your FHP have access to contribute non-federal funds for hiring a Development Director?

6. On the surface, it seems that a Development Director would be able to help some FHPs more than others, but what would be the best way a Development Director could help ALL FHPs? (fundraisers, banquets....etc.)
7. If a Development Director is hired, what would be the best way for them to help the FHPs raise funds?
8. Please list the three top job duties for the Development Director Position in your opinion?

Results of this survey will be summarized in-person at this Board meeting. Results will also be presented to the Beyond the Pond Board for consideration and further discussion in a conference call that will be scheduled for November 2019. Responses to the Beyond the Pond survey were requested from FHPs by October 11, 2019.

Title: Partnerships Committee October 2019 Update

Desired outcomes:

- **Board awareness** of Partnerships Committee 2019 planned and ongoing activities.

Background

The Partnerships Committee serves as a forum for preliminary discussions, fact-finding, and formulating recommendations for Board actions that affect Fish Habitat Partnerships.

Members:

Jeff Boxrucker (RFHP)

Tri-Chairs

Doug Boyd (SBPC)

Stan Allen (PSMFC)

Jessica Graham (SARP)

Bryan Moore (TU)

Debbie Hart (SEAK FHP)

Therese Thompson (WNTI)

Lisa Havel (ACFHP)

Heidi Keuler (F&F FHP)

Staff

Joe Nohner (MGLFHP)

Alex Atkinson (NMFS)

Steve Perry (EBTJV)

2019 Priorities

- **Priority A:** Develop an approach for future Multistate Conservation Grant Program submissions (in collaboration with the Budget and Finance Committee).

Update: Unfortunately, the joint NFHP application to the 2020 Multistate Conservation Grants, with a theme of outreach and communications, was unsuccessful and did not receive funding. The Partnerships Committee will meet to discuss feedback from the 2020 MSCG application and discuss potential recommendations for how the Partnerships could proceed in 2021.

- **Priority B:** Review the FHP Evaluation process and identify measures that can be further refined for the next FHP Evaluation in 2021.

Update: The Committee developed a lessons learned guidance document which outlines effective approaches used in 2018 and suggested revisions to measures that need adjusting. Some of the suggestions for improvement from the survey included:

- Providing more examples of good answers within the questions for added clarity.
- Clarifying measure #10 on engagement and communication with the NFHP Science and Data Committee.
- Making the overall process and formatting more streamlined.

- **Priority C:** Review and propose revisions or changes to the NFHP Document of Interdependence.

Update: The Partnerships Committee will review and identify areas within the Document of Interdependence that require updating or revising during 2019 in coordination with the Action Plan, Charter, and Member Guide revisions. This priority will not advance until the Action Plan review is underway since the two documents are inter-related. The Committee will likely present suggested revisions to the Board in March 2020.

- **Priority D:** Work with staff and FHPs to develop a purpose and agenda and implement a 2020 Fish Habitat Partnership workshop.

Update: On the May 6, 2019 full Committee call, the group reviewed the post-workshop survey results from the October 2018 FHP Workshop and began Committee discussions about the next FHP workshop in 2020. The Committee identified a small team to plan the 2020 FHP Workshop and discussed potential workshop topics with FHPs at the May 16 FHP bi-monthly call. The October 2020 Board meeting and workshop will be hosted by the NFHP Board Chair at the Southwest Regional Idaho Fish and Game office in Nampa, Idaho. The workshop planning team will meet after the October 2019 Board meeting to continue to discuss topics and agenda items for the FHP workshop.

- **Priority E:** Work with the Communications Committee to review the project nominations for the 2019 Waters to Watch campaign.

Update: The Committee reviewed 2019 Waters to Watch nominations. Board staff is in the process of reviewing the overall campaign via survey from the FHPs. Staff will work with the Partnerships Committee on revamping the campaign for 2020.

Title: Communications Committee Update

Desired Outcome:

- **Board awareness of** Communications Committee activities, timelines and discussion of results from an FHP Survey on the Waters to Watch Campaign. Communications Committee will seek input from the Board on partnership recommendations for the Waters to Watch Campaign.

Background:

The National Fish Habitat Board approved the following 2019 priorities for the Communications Committee in October (2018).

Task A - NFHP website revisions

Task B – Program coordination

Task C – NFHP Messaging

Task D – Waters to Watch Campaign*

Task E – Fish Habitat Legislation

Task F – Beyond the Pond Reports

*This Board update will focus on Fish Habitat Partnership (FHP) feedback from an August survey following the 2019 Waters to Watch campaign that asked the following questions:

- 1) On a scale of 1 – 10 (10 being the highest), please rate the effectiveness of the Waters to Watch Campaign in bringing attention to your FHP and project. Please provide a short justification for your rating.
- 2) On a scale of 1 – 10 (10 being the highest), please rate the effectiveness of the Waters to Watch Campaign in raising the visibility and support for NFHP as a program. Please provide a short justification for your rating.
- 3) On a scale of 1 – 10 (10 being the highest), please rate the effectiveness of the Waters to Watch Campaign in strengthening existing or developing new partnerships with collaborators. Please provide a short justification for your rating.
- 4) What benefits has your FHP received from having a project featured in the Waters to Watch Campaign?
- 5) If your FHP has not recently (past three years) submitted a project to be featured as part of the Waters to Watch Campaign, why? (If you have submitted a project within the last three years, please enter N/A)
- 6) Would you be supportive of featuring some projects (e.g., 2 or 3) in retrospect every year as part of the Waters to Watch campaign? These would be included in with the 10 projects named every year. The idea is that we could look back at past projects that were featured as part of Waters to Watch and tell a story of the benefits (i.e., from an ecological and socio-economic perspective) that have been seen through time as a result of the project being implemented.

- 7) What could limit your FHP's ability to submit a project to be featured retrospectively? Do you believe those limitations could be overcome?
- 8) Would you support adding a Waters to Watch selection criteria that requires an FHP to be able to track project progress and benefits through time once featured as a Waters to Watch project? This would allow selected projects to be featured retrospectively.
- 9) Rather than featuring individual projects, would you support the Waters to Watch Campaign focusing on groups of conservation efforts (e.g., a combination of on-the-ground restoration projects and assessments) within a priority watershed for an FHP (i.e., more of a "Watershed to Watch" idea)? FHPs could identify a priority watershed to be featured over a certain number of years (e.g., 5 years) and then provide information on new or different efforts/projects within that watershed each year.
- 10) What could limit your FHP's ability to feature activities in a priority watershed over a number of years? Do you believe those limitations could be overcome?
- 11) What are your thoughts on the best ways to do local media/newspaper outreach for projects?
- 12) What are your thoughts on doing a groundbreaking (e.g. event at the project site with local press and FHP/NFHP/governmental leaders), if funding were available, once a featured Waters to Watch project is just getting started or completed?
- 13) Would you be willing to participate in a small team to develop a plan, based on these survey results, to make improvements to the Waters to Watch Campaign?
- 14) Do you have any additional thoughts that you would like to share regarding the future of the Waters to Watch Campaign?

Results:

- 17 responses received out of a possible 20.
- Rating scale questions (For Questions: 1, 2, & 3, a score of (5) was the average given to those questions)

Recommendations for Board discussion:

- Develop criteria to have retrospective projects highlighted annually for the Waters to Watch Campaign.
- Develop a national project information template (fact sheet) for Waters to Watch projects for use by FHPs.
- Maintain a timeline for Waters to Watch announcement to be earlier in the year to avoid field season and take advantage of announcing our campaign during other related National summer campaigns.

Other Updates:

- NFHP accomplishments report – Will be released in December and include accomplishments of the FHPs and Board.
- Fact sheet template for FHPs – Communications Committee is looking at templates to use that would be easily modifiable for use by the FHPs.
- Fact sheet on the project tracking database – Develop a plan, working with the Pacific States Marine Fisheries Commission to include base information from Project Tracking database to include in a fact sheet that will highlight accomplishments and benefits of the on-the-ground conservation projects of the Fish Habitat Partnerships.
- NFHP Fact Sheet – Updating previous version used in 2018. Communications Committee is looking at alternative templates to use for the fact sheet.
- NFHP Science and Data Committee Fact Sheet – The Communications Committee will work with the Science and Data Committee to develop a fact sheet for our Science and Data Committee to promote developments of the inland and coastal National Fish Habitat Assessment.

Title: Science and Data Committee Report**Desired Outcome:**

- **Board understanding** of Science and Data Committee accomplishments as they relate to 2019 Board Priorities
- **Board approval** of Science and Data Committee 2020 work priorities.

2019 Priorities and Outcomes:**Priority L: Science and Data Committee Operations**

- Updating Science and Data Committee (SDC) membership following SDC Terms of Reference.
- The SDC will meet the week of October 28th via conference call to update SDC membership on NFHP progress and Board actions.
- The SDC held two webinars with the Northeast Coastal (Sept 19) and Chesapeake Bay (Sept 12) Assessment Teams to brief SDC members on current coastal assessment progress.
- Outreach
 - Overall Board National Fish Habitat Assessment strategy written up as a peer-reviewed book chapter in *Multispecies and Watershed Approaches to Freshwater Fish Conservation*, a now published American Fisheries Society book.
 - Assisted with the NFHP booth at the Joint AFS-TWS Meeting and fielded many inquiries about NFHP work from members of both societies with a large number coming from students.

Priority N: Planning and Initiation of Future Assessment Work.

- Inland
 - No progress has been made on the Board's new Inland Fish Habitat Assessment as funding is currently not available. New funding sources are being sought at this time. The delay in funding has created the following outcomes at this time:
 - No new work has done on improving and updating the inland component of the National Fish Habitat Assessment.
 - National Fish Habitat Assessment staff are not available to assist FHPs in their assessment work or to facilitate needed coordination between the National and FHP Assessment products. The loss of funding also will mean that new core staff would need to be hired.
 - The Board planned update to the 2015 National Fish Habitat Assessment will not be available until 2024 at the earliest assuming funding is available in the near term.
 - New hydrology information from USGS for the Lower 48 states that will support the approved National Inland Fish Habitat Assessment strategy was published in 2018. The SDC has requested funding through the Multi-States Conservation Grant

process to start incorporating these data into the National Assessment Data System using a select group of regions and watersheds but this request could not be accommodated by the grant proposal. This initial work would have greatly speed up the incorporation of the rest of this dataset into our data system. The dataset was published in:

- Miller, M.P., D.M. Carlisle, D.W. Wolock, and M. Wieczorek. 2018. A database of natural monthly streamflow estimates from 1950 to 2015 for the conterminous United States. *Journal of the American Water Resources Association* 54(6): 1258-1269.

- Coastal

- Work continues on the Northeast Regional Coastal Habitat Assessment using the Board approved assessment direction, and facilitation by the Mid-Atlantic Fishery Management Council (Jessica Coakley and Chris Moore). The overall assessment guidance document is completed, initial inshore and offshore project teams have been populated and making progress, potential model approaches are under review, and funding continues to be acquired to work on the assessment. Recent accomplishments are as follows:
 - On June 24, 2019, the Northeast Regional Marine Fish Habitat Assessment Steering Committee met to review progress on this assessment and a post-doc is now on board to facilitate the Assessment development.
 - Five actions were identified as necessary to describe and characterize estuarine, coastal, and offshore fish habitat distribution, abundance, and quality in the Northeast in the draft workplan. These actions will address: 1) abundance and trends in habitat types in the inshore area, 2) habitat vulnerability, 3) spatial descriptions of species habitat use in the offshore area, 4) oceanographic influences on offshore habitat; and 5) habitat data visualization and decision support tool development. The work to support these actions will be completed by April 2022.
 - The assessment covers the Northeast U.S. Shelf, and extends from the North Carolina/South Carolina boundary to the western end of the Scotian Shelf and includes the Mid-Atlantic Bight, Southern New England, Georges Bank, and the Gulf of Maine. The geographic scope of this workplan includes all waters extending from the inshore tidal boundary in state waters to the eastern-most boundary of the EEZ (200 miles offshore), and extends from the Canadian/US Border southwards to the North Carolina/South Carolina border. The Steering Committee identified 61+ focus fish species for this habitat assessment. All species are highly important to fisheries management organizations within the region.
- Work continues on the West Coast Assessment. Examples of these products are on the Pacific Marine & Estuarine Fish Habitat Partnership (PMEP, www.pacificfishhabitat.org) website with part of the West Coast Assessment work displayed as an estuary viewer and explorer that includes information on current and historical estuary extent, estuary points, biotic habitat, tidal wetland losses, and eelgrass habitat.

- The Great Lakes Assessment strategy using the Great Lakes Aquatic Habitat Framework (www.glahf.org/framework) is developing a long-term operation system in concert with the Great Lakes Fishery Commission and project partners.

Priority O: Continue work on the NFHP Project Tracking Database

- Kate Sherman (Pacific States Marine Fisheries Commission, PSMFC) continues to improve the NFHP Project Tracking Database using NOAA (FY2018) and MSCG (FY2019) funding. The following progress has been made:

Work Plan for July-December CY 2019:

- 1) Work directly with Partnership coordinators to assist with USFWS end of year reporting for projects funded FY 2016-2019.

Status update: Underway. Currently assisting FHP’s with updates to database using the online system and other workflows (for FHP’s who have their own project tracking databases).

- 2) Assist Partnerships with data management plans and maintain a help service for Partnerships working with their data on the system;

Status update: Ongoing.

- 3) Improve reporting capabilities of the system;

Status update: Created report requested by NFHP staff for NFHP funded projects in PA. Created a summary of all projects for partnerships as requested.

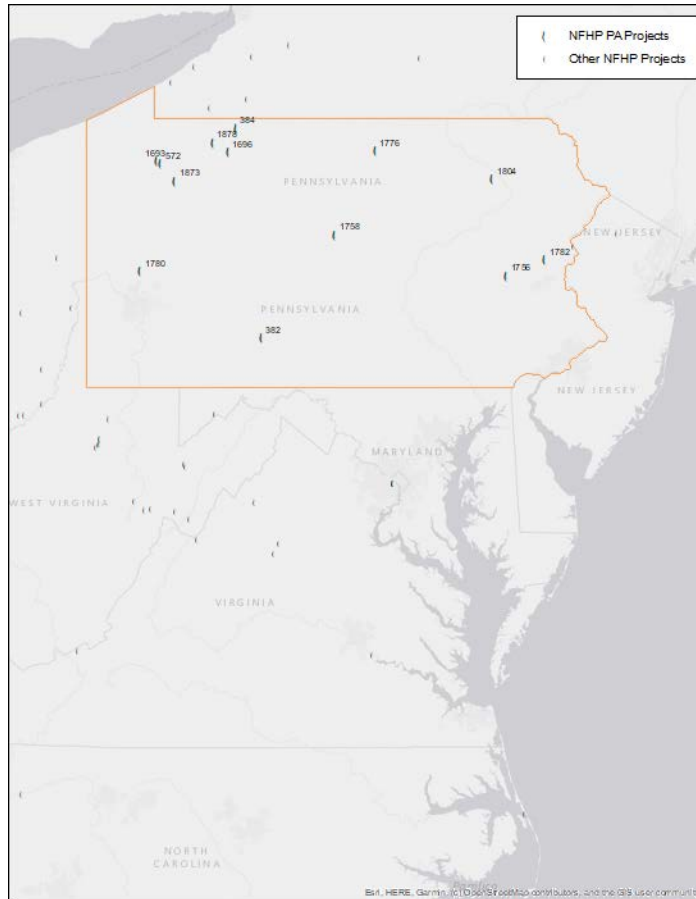
- 4) Maintain the database on PSMFC servers, including server maintenance, server updates, and data backups.

Status update: Ongoing.

Figure 1. Example Q2 standardized table output from NFHP Project Tracking Database. Example from EBTJV.

Project Title	FHP Priority Species	FHP Priority Area	Brief project description (max. 250 characters)
Nash Stream Restoration & Columbia Road Culverts, Odell, Coos County, NH	Brook Trout		This Project restored the habitat for native fish in the Nash Stream watershed using well-established process-based restoration principles.
Upper Shavers Fork Instream and Riparian Habitat Restoration, WV	Brook Trout		Enhancement of aquatic habitat connectivity and genetic exchange within the Upper Shavers Fork fluvial metapopulation of wild Brook Trout.
Sparta Glen Brook Restoration, NJ	Brook Trout		This project restores critical instream habitat within Sparta Glen Brook, including natural pool regimes and spawning areas, restores toe of slope protection, and further stabilizes upland fringe areas, as well as the riparian corridor along a 0.68 mile s
Great Pond Tributary Culvert Replacement, Little Cards Brook, Franklin, ME	Brook Trout		This project will replace the existing multiple round culvert with an open bottom arch culvert, with span that exceeds 1.2 times the bank full width requirements.
Watershed Connectivity Project, Beebe River Watershed, Campton and Sandwich, NH	Brook Trout		This project removes and replaces five stream crossings in the Beebe River Watershed on a 5,435 acre parcel recently acquired by The Conservation Fund. These crossings are on five separate tributary streams that flow into the Beebe River.
Restoring a Brook Trout Metapopulation within the Little Cataloochee Creek & Anthony Creek Watersheds, Great Smoky Mountains National Park	Brook Trout		The purpose of this Project is to restore Brook Trout into 2.64 km of Little Cataloochee Creek and 2.8 km of Anthony Creek within its native range in Great Smoky Mountains National Park (GRSM) as identified in the GRSM Fishery Management Plan.
East Branch Passumpsic River Dam Removal, VT	Brook Trout		This Project removes a deteriorating dam, which will improve natural flow regimes, free-flowing river conditions, water quality and temperature, sediment release and transport, and connectivity resulting in the restoration of Aquatic Organism Passage.
Enhancing and Connecting Wild Brook Trout populations in the West Mountain Wildlife Management Area, VT	Brook Trout		This Project replaces one impassable culvert with a bridge, removes one culvert, and improves 1.25 miles of Brook Trout spawning and juvenile rearing habitat.

Figure 2. Example of map output for NFHP funded project locations in Pennsylvania, a custom output from the NFHP project tracking database.



ProjectID	ProjectName	FHP	FYFunded
382	Wallacks Branch of Bobb's Creek Fish Habitat Improvement, PA	EBTJV	2009
384	Restoring Habitat Connectivity in the Bobbs Creek Watershed, PA	EBTJV	2009
1804	Eastern Brook Trout Habitat Restoration in Bowman Creek, PA	EBTJV	2018
1693	Oil Creek Fish Habitat Restoration, PA	ORBFHP	2012
1696	Barrier removal, McKean County, Ludlow, PA	ORBFHP	2014
1873	Holeman Island Side Channel	ORBFHP	2018
1878	Dutchman Run Stream Barrier Removal	ORBFHP	2015
1756	Leaser Lake Large Scale Fish Habitat Project	RFHP	2011
1758	Large Scale Fish Habitat Management Project, FJ Sayers Reservoir	RFHP	2012
1776	Lake Nessmuk 2015 Project	RFHP	2014
1780	Glade Run Lake Fish Habitat Improvement Project, PA	RFHP	2015
1782	Improving the Fishery of Five PA Lakes by the Addition of Fish Habitat	RFHP	2015

Priority P: Maintain and improve the NFHP Data System (Daniel Wieferich, USGS In-kind support)

- As a result of other USGS priorities and staff assignments, limited effort has been made on the NFHP Data System and viewer since the last Board update.
 - USGS continues to develop a viewer to summarize and display NFHP assessment data in the National Biogeographic Map. USGS has been working on open source solutions to summarize habitat condition indices and disturbances (i.e. severe, pervasive and total lists) to ecological and jurisdictional areas. The viewer system will accept and process new areas of interest as they are identified and can be adapted to help drive the next generation of the NFHP data system.

Proposed Science and Data Priorities for FY2020:

- 1) Continue Outreach Efforts on the 2015 Assessment Products if funding is made available
 - a) Implemented recommendations made by assessment stakeholders as identified which will include:
 - i) Making it easier to drill down and retrieve the underlying data sets on which analyses are based – Initial work completed and very limited improvements continue to be made to allow better data downloads.
 - ii) Packaging and presenting results by state – This task remains to be completed.
 - iii) Continue to implement report versioning and revision history tracking – This task remains to be completed.
 - b) Continue to implement outreach and education efforts to improve understanding and use of 2015 Assessment products including developing new analyses using existing information.
 - c) **Budget needs** – Included as part of Future Assessment Work.
- 2) Planning and Initiation of Future Assessment Work if funding is made available.

- a) Implement NFHP Board approved National Fish Habitat Assessment direction by initializing scoping with FHPs and conduct trial work on selected watersheds.
 - i) Conduct initial scoping on hydrology and connectivity processes with FHP.
 - b) Update existing national data layers as new information is received.
 - c) **Budget Needs** – To fully implement the National Fish Habitat Inland Assessment development, \$160,000 for the inland assessment is needed annually. To facilitate coastal assessment development, NOAA is asked to continue to provide \$50,000 annually for development of regional coastal assessments along with technical support from NOAA staff. The National Inland Fish Habitat Assessment funding will also support efforts in Task 1. While unsuccessful in FY2019, SDC members will work to find additional new Inland Fish Habitat Assessment funding sources in FY2020.
- 3) Continue work to complete and implement the NFHP Project Tracking Database
- a) Work directly with Partnership coordinators to assist with USFWS end of year reporting for projects funded FY 2015-2018.
 - b) Assist Partnerships with data management plans and maintain a help service for Partnerships working with their data on the system.
 - c) Improve reporting capabilities of the system to support evaluations and other needs.
 - d) Maintain the database on PSMFC servers, including server maintenance, server updates, and data backups.
 - e) **Budget Need** – Funding has been secured through a FY2020 Multi-States Conservation Grant.
- 4) Maintain and improve the NFHP Data System
- a) Ongoing maintenance and hosting
 - b) Make data assets and other products from the 2015 Assessment available for downloading.
 - c) Add dynamic querying for FHP and state level data and this is in progress.
 - d) Continue to examine if we need to make substantial changes for FY2020. For example, continue aligning the NFHP data assets with the USGS Biogeographic Information System, allowing for greater flexibility and integration with other data assets being developed externally to NFHP work.
 - e) **Budget Need** – currently anticipating in-kind support from USGS. Science and Data Committee chairs will meet with USGS in late 2019 to fully define FY2020 level of support along with additional funding needs.
- 5) Science and Data Committee Operations
- a) Science and Data Committee will meet quarterly by conference call on Assessment direction, Board actions, and Board assignments.
 - b) Begin to review FHP science and data work with an emphasis on Assessment products as these are the core of current Board science efforts.
 - i) Target the review of an FHP assessment product each quarter and provide a written report to the Board and FHP on findings.
 - c) Allow one Science and Data Committee meeting to examine and review Assessment direction and work on other Board Science and Data assignments with an emphasis on FHP assessments.

- i) **Budget Need** - \$15,000 to support travel for members to attend.
- d) Allow Science and Data Committee Co-Chair to support Board work and provide outreach and education on Board Science and Data products.
 - i) **Budget Need** - \$12,000 to support travel expenses for Science and Data Committee Chair.

Report written by: Gary E. Whelan (MI DNR Fisheries Division) and Daniel Wieferich (USGS)
Board Science and Data Co-Chairs
October 9, 2019