

Final Programmatic Report: Eastern Brook Trout Joint Venture (2007-0071-001)

Introduction

This report was compiled to summarize the accomplishments of the Eastern Brook Trout Joint Venture (EBTJV) achieved over the course of completing this project. Overall, this grant has permitted the EBTJV to solidify our partnership across the range of the eastern brook trout (*Salvelinus fontinalis*), enhance our outreach, and develop our long term funding plan.

Over the course of this project, we attempted to achieve several specific objectives. These included:

1. Sponsor 7 meetings to coordinate EBTJV partnership actions and to identify EBTJV project priorities
2. Sponsor a brook trout symposium at a meeting of the American Fisheries Society
3. Print and disburse brochures and pamphlets
4. Finalize a long-term funding plan for the EBTJV partnership and its brook trout conservation actions
5. Update the EBTJV website, including brook trout status and threats database

In the following section, we provide greater detail on the actions taken to achieve these objectives and their continuing impact on the EBTJV.

1. Coordination of meetings and project prioritization

The EBTJV hosted several meetings to develop and coordinate the partnership as well as set priorities for supporting restoration projects. The details of these meetings are:

- EBTJV Full Partnership Meeting
 - o A full partnership meeting was held at the National Conservation Training Center in Shepherdstown, West Virginia on April 21-23, 2008. The primary purpose of the meeting was to coordinate and develop the EBTJV. The subsequent meetings of the Regional Workgroups were to prioritize habitat restoration projects. The meeting was attended by 44 people representing 13 state agencies, 5 federal agencies and 4 university/non-governmental organizations (total 22). The EBTJV awarded 10 travel grants to attendees of this meeting. The meeting summary is attached in Appendix A at the end of this report.
- EBTJV Steering Committee Meeting
 - o The Steering Committee Meeting was held at the National Conservation Training Center in Shepherdstown, West Virginia on April 22, 2008. There were approximately 22 participants. The Steering Committee heard updates from each Subcommittee. They also discussed how to improve communication tools and defined the 2009 project proposal and review cycle. The summary from the Steering Committee is attached in Appendix B.
- 5 EBTJV Subcommittee Meetings

- Five subcommittee meetings (conservation strategy, data, science & research, outreach, grants & development) were held at the National Conservation Training Center in Shepherdstown, West Virginia on April 21, 2008. The purpose of each of the subcommittee meetings was to review workgroup charges, develop strategies to achieve work group goals, and to maximize effectiveness and outputs.
- EBTJV Northern Regional Workgroup Meeting
 - This meeting was held on April 22-23, 2008 in Shepherdstown, West Virginia. Approximately 10 participants attended this regional workgroup meeting. The purpose of the meeting was to revise regional habitat objectives, develop action items / plans for the habitat objectives, develop cost estimates for the action plans, and review and rank research projects. A summary of the meeting can be found in Appendix A.
- Southern Regional Workgroup Meeting
 - The Southern Regional Workgroup met on April 22, 2008 in Shepherdstown, West Virginia. Approximately 10 partnership members attended the Southern Workgroup Meeting. The action items addressed include seeking grant funds to support staff to complete annual monitoring and population status work, establishing funds for land acquisition and protection, developing a process to identify subwatersheds and provide non-federal match for projects. A summary of the meeting can be found in Appendix A.
- Mid-Atlantic Regional Workgroup Meeting¹
 - Approximately 14 members of the Mid-Atlantic Regional Workgroup met on April 22, 2008 in Shepherdstown, West Virginia. The action items discussed and addressed in that meeting include reviewing and revising the action strategies for the mid-Atlantic region, developing a regional budget for restoration and research through 2012, and reviewing the EBTJV scoring sheet. A summary of the meeting can be found in Appendix A.
- EBTJV Northern Regional Workgroup Meeting
 - The Northern Workgroup met on April 6, 2009 in Concord, New Hampshire to review and update the regional habitat objectives and progress made towards those objectives to date.
- Southern Regional Workgroup Meeting
 - The workgroup met on April 2009 in Warm Springs, Virginia to update their regional habitat objectives and to document progress made towards those objectives to date.

2. *Sponsor a brook trout symposium at a meeting of the American Fisheries Society*

A special brook trout symposium planned by the EBTJV members was offered at the 2010 Southern Division AFS Meeting held in Asheville, North Carolina on February 27, 2010. Funds from this grant were

¹ The Mid-Atlantic Workgroup was subsequently divided into the Northern and Southern workgroup

used to support the symposium which consisted of 13 presentations on brook trout research, restoration projects and potential population effects of climate change. Podcasts of the presentations are available online on the Southern Division AFS website. The meeting program is attached in Appendix D at the end of this report.

3. Print and Disburse Brochures and Pamphlets

The EBTJV has spent a great deal of time and energy to design and publish high quality materials to promote the successful habitat management for brook trout in the eastern US. Funding from this grant allowed for additional distribution of the “Brook Trout: Status and Threats” (2006) to project partners for distribution to interested parties within their area. These publications were provided to non-federal members of the partnership for distribution. A copy of the cover page for this publication is included in Appendix F.

4. Finalize a long-term funding plan for the EBTJV partnership and its brook trout conservation actions

One of the principal goals for the EBTJV is to develop strong support for program actions that perpetuate and restore brook trout populations. To accomplish this goal there is a need to fund priority on-the-ground projects as well as strategic communication, outreach, operational obligations, and education efforts. To meet its programmatic and operational needs, the EBTJV completed an interim long-term funding plan for the continued operation and management of the partnership. This strategy outlines 18 strategies aimed at securing consistent, reliable funding that will allow the partnership to be successful. The interim funding strategy is supplied in Appendix C at the end of this report.

5. Update the EBTJV website, including brook trout status and threats database

The EBTJV website is maintained as the primary repository of information and dissemination tool for the partnership. This site has been updated continuously over the grant period to accommodate the growth and strength of the partnership and now includes announcements, publications, meeting information, and other items. A new online project submittal feature was added in 2009. This allows project applicants to directly upload all application materials and immediately makes the materials available to the review and ranking team. This improvement significantly improves the efficiency of project application, review and selection. In addition, the conservation strategies created at the various partnership meetings are available via this website. There is also a mapping tool that allows users to identify the priority score for every watershed within the partnership’s boundary. A communication tool for the public or agencies to join the partnership was added in the “Find Your Niche” section. A newsletter section was added to the website and contains all newsletters to date. Eight email listserves were developed to assist subcommittees and working groups to communicate more efficiently and effectively. The news and information section is updated regularly with announcements, publications, press releases, etc.

Funding from this project was used to incorporate the “status and trends” database into the website materials. This database provides geospatial information on eastern brook trout at the watershed scale

throughout its range. The database can be accessed via an Internet GIS viewer through the following link: <http://www.farmapper.psu.edu/easternbrooktrout/>

Appendix A. All-Partners Meeting Summary April 2008

Eastern Brook Trout Joint Venture Partners Meeting
National Conservation Training Center, Shepherdstown, WV

April 21-23, 2008

Meeting Minutes

Monday, April 21

Welcome and goals for the meeting Steve Perry, EBTJV Chair
Steve gave a brief introduction about the EBTJV's history, status, and future plans. More details about the partnership will be revealed in the products and presentations to come.

Products of the EBTJV Dianne Timmins, NHFG
Products useful for management, research, outreach, development **[link to powerpoint]**

Abandoned Mine Lands, Fisheries, Impaired Waters Restoration: An Emerging Partnership

Fred Fox, OSM

Progress & Status of Subcommittees - See notes for each subcommittee later in document

Conservation Strategy **[link to powerpoint]** Doug Besler

Data **[link to powerpoint]** Shelaine Curd-Hetrick

Prioritizing watersheds **[link to powerpoint]** Mark Hudy

Science and Research

Doug Beard discussed the newly formed Science and Research Committee to allow for more research and applied projects to strengthen the partnerships brook trout conservation actions.

Outreach

[link to powerpoint] Dianne Timmins

Grants and Development

Tom Sadler discussed the formation of this subcommittee to better fulfill grant requests, requirements and engage in fundraising efforts via donations through private and corporate donations.

Breakout Session 1

Subcommittees: Outreach and Education, Grants and Development, Data, Science and Research, Conservation Strategy. Charges for each group included:

- (1) Assess charges to the subcommittee, i.e., expand, delete, modify, etc.
- (2) Develop strategies to achieve subcommittee goals
- (3) Determine how subcommittee can maximize effectiveness and outputs.

7:30 – 9:00 PM Informal Poster Session at NCTC

An informal poster session was arranged with partners to display projects and products relating to their agency's work on brook trout. There were 7 agencies that presented posters:

Meredith Barton, USFWS, Brook Trout genetics

Doug Besler, Trout friendly development

Steve Moore, fish eradication

Diana Timmins - prioritizing brook trout projects

Bill Sharpe - watershed liming

Larry Mohn - stream habitat restoration

Mark Hudy - prioritizing watershed

Tuesday, April 22

Breakout Session 1 Subcommittee Reports:

I. Education and Outreach Subcommittee:

#1-Develop a comprehensive work plan that:

- a) Raises public awareness about wild brook trout
- b) Fosters collaborative public and private stewardship interests
- c) Builds strong coalitions that support wild brook trout conservation actions
- d) Produces information on the significant threats to brook trout and their habitat
- e) Builds an understanding of and support for conserving brook trout habitat among policy makers with an educational and public awareness campaign

#2: Strategies and goals

Action Item #1: Hire 3 regional outreach liaisons/leaders for a 2 yr term

- a) Apply for Multistate Conservation Grant (MSCG)
- b) Continue to coordinate outreach efforts at this point with the thought that these folks would take over these tasks at the state and local level as well as communicate with the Subcommittee and Workgroup Chairs
- c) Get past the choir through newspapers, press releases, photos, distribution of EBTJV publications

The subcommittee recognizes it may need to shorten the time frame to reduce costs and get people in these three positions

Action Item #2: Insure website is easy to use

- a) Work with webmaster to make sure information is exciting and easy to use
- b) Add link to TU website (www.tu.org) for definitions of threats and explanations
- c) Add point and click maps and project information
- d) Make sure partners are linking to EBTJV for information relay
- e) Acquire higher resolution pdf logos and maps for partner press releases and printings
 - Coordinate with Data Subcommittee and webmaster, Jeff

Action Item #3: Copyright logo

- a) Investigate who we need to talk to
- b) How we do it
- c) Determine costs and mechanism for funding

Action Item #4: Produce a Documentary

Need to be sure we focus on the message of why EBT's are important on a social level not just biological!

- a) Determine audience and venues to play (National Geographic, public television)
- b) Design outline
- c) History (glaciation, EBT presence) link to social rationale and how people can be involved
- d) Partnership recruits

**Outreach will have conference call to discuss design and then present it to the partnership for comment

Action Item #5: Need to determine which states/partners need Outreach documents

Have states/partners inventory publications and determine what they need

- a) Determine if there is a need for modification
 - i) State brochures with conservation strategies
 - ii) Maybe have two formats: short term and long term goal
- b) Determine a distribution strategy (who's/how's)
 - i) Internal divisions (within agencies-Nongame Division)
 - ii) Other NGO's (TNC, Forest Society, Sierra, Audubon, etc.)
 - iii) Watershed Groups
 - iv) Educators
 - v) Conservation Commissions
 - vi) Local Government/Town Offices (i.e. Zoning Bd., Planning Bd)
 - vii) Transportation Agencies
- c) Determine costs
- d) Add to MSCG for funding

Action Item #6: Internal Communication

- a) Utilize website

- b) EBTJV projects
 - i) Whether funded or not
 - ii) All partners
- c) Table is example of format

Category	Gear	Project	Coordinates Location	stream miles or Pond	State	Time frame	Contact	Affilia tion	Comments
Migration	Radio tags	EBT in Dead D R.	x,y	13 mi	NH	3 yr	Dianne Timmins	NH FGD	Wild EBT, traveled 50+ miles for habitat seasonally
Exotics									
Passage									
Protocols									
Education	curriculum	Design educational material	School X	-	VA/T N	for- ever	Marcia Woolman	TU	MS and HS science class
Genetics	Fin clips	Strain documenta.	x,y	10 watersheds	NJ	3	Pat Hamilton	NJDF W	Sampled x # of wild EBT in 10 h ₂ osheds

VA curriculum was inspired by the Dominion Power video

TN curriculum is part of an Advanced Science class, initiated last year (Marcia will get feedback from them)

Both schools looked at board of Education requirements and designed a curriculum that met all of them

Action Item #7: Design template powerpoint slide show for general distribution

Generic so states could add their project photos and contacts to personalize it

- a) Layout
 - i) Maps historic then show rangewide status
 - ii) History of EBTJV-Partnership-initiative
 - (1) How's, Why's What's and Who's
 - (2) Needs
- b) Status & Threats
- c) Conservation Strategy
- d) Personalization
- e) What you can do: Why you should care!
 - By audience
 - Could have different endings for different audiences/levels of expertise

Action Item #8: Continue Newsletter

The need for this is high so apply in MSCG for paid position (40 hrs quarterly, so \$5-\$10k/yr should cover costs. Person needs Publishing Software.

****ANYONE WITH IDEAS-email Dianne Timmins**

- a) Add to EBTJV website and individual partner websites
- b) Current layout
 - i) Request for information goes to all partners but usually ends up being rolling rocks studies. NEED to incorporate other projects!
 - ii) Space is limited so try to be brief. Give synopsis of project so other people can be represented as well.
 - iii) 4 components: Overall message, Regional info (3)
 - iv) Need to add Event Calendars: Currently MIA!!!

Action Item #9: Compile Go Green Guidelines for EBT

This includes Riparian Management/Protection (i.e. canopy maintenance-tree plantings), Stream Crossing Guidelines, Bioengineering Designs, Driveway Recommendations, Road Development BMP's, Farming BMP's, etc.

- a) Need to coordinate municipalities, landowners, resource agencies

- b) Deploy this information on our website in an easy, user-friendly manner so the public can access it
- c) Develop outline
- d) Develop layout for publication
- e) Determine how many are needed
- f) Determine costs
- g) Apply for grant

II. Grants and Development Subcommittee

Chair: Tom Sadler

Participants: Steve Perry, Lila Borge Wills, Hannibal Bolton, Todd Richards, Dave Schmid, Jarrad Kosa, Bob Carline

Revised Charge (strategies):

- I. Build long-term partnerships that will result in consistent, reliable funding for both long and short term partnership needs (requirements).
- II. Work with CMI and the Steering Committee to develop grant proposals to public and private entities
- III. Pursue financial support from private individuals, corporations and foundations

- 1. Long term project funding options:
 - 1.1. Existing federal programs
 - 1.1.1. USFWS
 - 1.1.2. USFS
 - 1.1.3. NOAA
 - 1.2. NFHAP Authorization legislation (\$75million/yr)
 - 1.3. Global Climate Change, natural resources adaptation funding (TBD millions)
 - 1.3.1. Federal programs and grants
 - 1.3.2. State fish and wildlife agencies
- 2. Fiscal Agent: VA Tech Foundation – CMI account
 - 2.1. Can legally receive funds
 - 2.2. VATechFnd can dedicate those funds to CMI
 - 2.3. CMI can administer those funds for EBTJV
 - 2.4. Costs: 10%: 7% to VA Tech Fnd., and 3% to CMI.
- 3. Funding categories
 - 3.1. Projects
 - 3.2. Products
 - 3.3. Research
 - 3.4. Admin support/services
- 4. Distributing the funds
 - 4.1. Restricted or Un-restricted funds
 - 4.2. Prioritization
 - 4.2.1. Scoring matrix
 - 4.3. Timing
 - 4.3.1. RFP's July and January

- 4.3.2. “immediate/urgent” requests
 - 4.4. Mechanism
 - 4.4.1. Projects
 - 4.4.1.1. State – Regional Work Group –Development Committee –Steering Committee
 - 4.4.2. Products/Research/Admin
 - 4.4.2.1. Committee - Development Committee – Steering Committee
 - 4.5. Ground Rules
 - 4.5.1. Flexible
 - 4.5.2. Accountable
 - 4.5.3. Transparent
 - 4.5.4. Leveraged
 - 4.5.5. Equitable
 - 5. Potential funding sources
 - 5.1. LL Bean
 - 5.2. Orvis
 - 5.3. AFFTA
 - 5.4. ASA
 - 5.5. SEP’s
 - 5.6. NE Patriots
 - 5.6.1. Dick Empie
 - 5.7. Bass Pro
 - 5.8. Cabellas
 - 5.9. Gander Mt.
 - 5.10. Foundations
 - 5.10.1. NFWF
 - 5.10.2. Forest Fnd.
 - 5.10.3. 1% for the planet
 - 5.10.4. Heinz
 - 5.10.5. Pew
 - 5.10.6. Doris Duke
 - 5.10.7. Hewlett
 - 5.10.8. Packard
 - 5.10.9. Wyss
 - 5.10.10. Turner
 - 5.11. Corporations
 - 5.11.1. FedEx
 - 5.11.2. Duke Power
 - 5.11.3. Dominion Power
 - 5.11.4. Dow
 - 5.11.5. Dupont
 - 5.11.6. Eastman
 - 5.11.7. Bridgestone
 - 5.11.8. Southern Companies
 - 5.11.9. Ford
 - 5.11.10. AMC
 - 5.11.11. REI
 - 5.12. Cause Related Marketing
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III. Data Subcommittee

Chair: Shelaine Curd-Hetrick

The Data Subcommittee met and made minor adjustments to the charges (as below):

Charges:

1. Engage brook trout management agencies to develop minimum data standards to facilitate data sharing and reporting.
2. Continue to assess current data gaps.
3. Create a centralized, web-based, data access system to query brook trout data owned and maintained by the management agency. This would permit biologists to access other organizations' data from a central location while allowing the state and federal data owners to maintain full ownership and control of their data.
4. Develop a web-based map server (ArcIMS) application to view brook trout distribution, abundance, and habitat information.
5. Continue to provide access to the www.easternbrook.net for the efficient dissemination of EBTJV related data, maps, reports and outreach materials.

Main aspects of "what we have completed to date"

1. ARCIMS application (with population status assessment information)'. Currently available on web.
2. Printable pdf maps that incorporate the 2006 prioritization assessment. Currently available on the web.
3. Provided at meeting printed maps for each state and 4 regional maps that included the ***prioritized*** watershed (composite), best for enhancement, best for restoration, best for protection.

Upcoming meetings need to focus on

1. Creation of a centralized web-based data access system. MARIS was briefly discussed during subcommittee meeting. (Scale of minimum data standards needs to be considered).
2. Working directly with Mark Hudy to provide a guidelines document and flow chart of "how to change colors" with clearly defined assumptions
3. Updates to the maps based on feedback from the meeting
4. Development of a feedback mechanism for information incorporated into the model.

During EBTJV meeting decided to join with the Science Committee meetings since these two groups are greatly linked and they need to be coordinated efforts.

IV. Science and Research Subcommittee

Chair: Doug Beard

* Need coordination of current research projects, i.e. a clearinghouse of research (coordinate with outreach and education)

* Need list of case studies for restoration

- Break out lakes, rivers and sea run brook trout
- **Define what should a monitoring protocol include – Common Themes (need published guidelines, minimum standards). A high priority.**
- Scale of assessment vs. sampling scale vs. project scale. (similar to data group)
- Movement of trout in large lakes and rivers
- What determines spawning survival?
- Effectiveness of regulations for brook trout management
- Restoration & creation potential for brook trout fisheries
- Limiting factors on large river populations
- Effective population size –genetics
- Relationship of brook trout and exotics
- Heritage vs. mongrels (base level genetics), i.e. what is the management unit (evolutionary significant unit)?
- Incorporation of climate change into restoration potential at small scales
- Projected changes in land use in restoration potential?
- How do brook trout react to flow through an annual cycle?
- What is persistent population size?
- Ecosystem level changes brought on by invasive spp.
- What are accountability measures – robust measures of success?
- Research will be scaled at state and regional levels
- Biological control of bass
- Relationship between brook trout and production of ecosystem services?
- Relationship between brook trout and socio-economic benefits?
- How do we improve the management of fishable populations?
- Testing the effects of regulations?
- Elevate management to be a higher priority in the EBTJV research plan.
- Perhaps split them into regions, prioritize them in the regional work groups.

Fish-habitat relationships, including human impacts and their variation at different scales (focused on basic biology)

- Movement of trout in large lakes and rivers
- Relationship of brook trout and exotics
- How do brook trout react to flow through an annual cycle?
- Ecosystem level changes brought on by invasive spp.
- What determines spawning survival?

- Limiting factors on large river populations
- Effective population size –genetics
- What is persistent population size?

Identifying baselines and their current range, trajectories and gaps in knowledge (focus on baseline/existing data)

- Update baseline assessment of populations in HUC's
- Evaluate baseline assessment approach.
- Ground truth assessment (test models).

Appropriate standardization of sample design, methodology and monitoring for data analysis

- Heritage vs. mongrels (base level genetics), i.e. what is the management unit?
- Scale of assessment vs. sampling scale vs. project scale.
- What are accountability measures – robust measures of success?

Identifying and predicting impacts and their cumulative effects, and determining thresholds above which fish populations recover

- Incorporation of climate change into restoration potential at small scales
- Projected changes in land use in restoration potential?
- Restoration techniques – streams?

Evaluate socioeconomic value of habitat

- Effectiveness of regulations for brook trout management
- Restoration & creation potential for brook trout fisheries
- Biological control of bass
- Relationship between brook trout and production of ecosystem services?
- Relationship between brook trout and socio-economic benefits?
- How do we improve the management of fishable populations?
- Cost-effectiveness of restoration techniques?

** Decide what are cross-regional vs. regional issues.

V. Conservation Strategy Subcommittee

Chair: Doug Besler

Participants: Karl Hess, Pat Hamilton, Jim Habera, Mark Staley, Mike Shingleton, Mike Humphries, Mary Beth Charles, Mallory Martin, Mike Owen, Shawn Keeler, Fred Fox, Paul Pajack, Callie McMunigal

Monday, April 21st

-The subcommittee discussed the seven regional habitat objectives described in the Conservation Strategy to determine if they were clear, reasonable, and realistic to achieve in the next five years. A lengthy discussion was held to clarify the definition of the terms “maintain”, “strengthen”, and “healthy” used in the Conservation Strategy and other EBTJV documents. Consensus was eventually reached that the terms are used consistently and appropriately in the Conservation Strategy.

-Current staffing levels and funding sources were used by the Conservation Strategy / Habitat Subcommittee to determine the initial regional objectives in December 2007. Additional funding or staffing would likely change the amount or rate at which regional objectives could be met.

-Tracking Conservation Strategy regional objective accomplishments will be the role of the Conservation Strategy/Habitat Subcommittee chair. Those accomplishments will be tracked annually.

Tuesday, April 22nd

-The subcommittee revisited the discussion regarding the seven regional objectives. General consensus was that the regional objectives were too ambitious and possibly could not be achieved in the timeframe outlined in the Conservation Strategy. The subcommittee agreed to charge the regional work groups (northern, mid-Atlantic, and southern) with refining the regional habitat objectives and estimating completion costs. General guidelines were to keep the estimates general in scope and provide yearly cost estimates. The subcommittee will use this information to help direct future funding efforts.

-The scoring criteria sheet used to evaluate project proposals will be revised. The regional work groups will be charged with providing criteria change suggestions. A review panel will be created that will include two members from each regional work group and the committee chair. It was also agreed that the scoring criteria sheet should be more reflective of the State Wildlife Action Plans. The Conservation Strategy/Habitat Subcommittee chair will coordinate the effort to revise the scoring sheet and activities of the review panel in coordination with the USFWS.

Afternoon Session - Breakout Session 2 – Regional work groups meet

REGIONS: **Northern** - Jim Daly **Mid-Atlantic** - Alan Heft **Southern** – Steve Moore

Northern Region: ME, NH VT, NY, MA, RI, and CT

Mid-Atlantic Region: NJ, PA, WV, and MD

Southern Region: VA, NC, SC, GA, and TN

7:00 – 7:30 PM Steering Committee meeting

7:30 – 9:00 PM Fly-Fishing Lessons/Regional Competition - NCTC Gym

Tom Sadler and fly-fishing friend hosted an informal workshop to learn the fine art of fly-fishing. Most of the attendees participate. It was held in the NCTC gym area. Winners of the competition were given hand-tied flies and fly boxes. Mallory Martin (NC) won first place in the competition.

Wednesday, April 23

Reports from Regional Working Groups – Session 2

REGIONS: Northern - Jim Daly Mid-Atlantic - Alan Heft Southern – Steve Moore

- (1) Develop a work plan to address short-term (through 2012) habitat objectives
- (2) Outline a method for estimating costs of habitat projects for next 5 years

Northern Region: ME, NH VT, NY, MA, RI, and CT

Mid-Atlantic Region: NJ, PA, WV, and MD

Southern Region: VA, NC, SC, GA, and TN

I. Northern Region Workgroup Meeting Notes

Present: Mike Humphreys (CT), Merry Gallaher (ME), Joe Dembeck (ME), Todd Richards (MA), Dana Ohman (MA), Dianne Timmins (NH), Jim Daley (NY; Chairperson), Shaun Keeler (NY)

Not Present: Representatives from Rhode Island and Vermont.

Paul Pajak (USFWS) and Elizabeth Maclin (Trout Unlimited) also participated during portions of the session.

Each regional workgroup was charged with the following tasks:

1. Revise regional habitat objectives contained in the EBTJV Conservation Strategy document as needed.
2. Develop action items/action plans for each of the seven regional habitat objectives.
3. Develop cost estimates for action items/action plans.
4. Review and revise project scoring worksheet.
5. Review and rank research priorities.

Revision of Regional Habitat Objectives

1. *Maintain the status of 746 subwatersheds (477 for the northern region) classified as healthy by 2012:* This objective should be rephrased to specify “no net loss” of healthy watersheds. No net loss is a reasonable objective; however it is likely that some watersheds will decline in status, especially in areas of increasing urbanization. As currently stated it is not clear if the objective is intended to mean no net loss, or if all of the watersheds originally classified as healthy each need to remain healthy.
2. *Strengthen brook trout populations in 45 subwatersheds (15 for the northern region) classified as healthy by 2012:* Increase to 20 subwatersheds for the northern region. Most projects undertaken in the northern region will strengthen the status of brook trout populations within subwatersheds, but will be unlikely to change the EBTJV status rankings of many watersheds.
3. *Establish self-sustaining brook trout populations in 44 subwatersheds (19 for the northern region) classified as extirpated by 2012:* None of the northern states present at the meeting expect to make progress on this objective. Given that the states in the northern region have a large number watersheds with healthy populations of brook trout, it was agreed that the cost in terms of dollars and manpower to reestablish brook trout populations in subwatersheds where brook trout have been extirpated - merely to meet a goal of changing watershed status - is prohibitive. Conditions in extirpated watersheds are likely no longer favorable for brook trout, and resources will be better spent protecting and strengthening healthy and reduced watersheds. It is possible that restoration work will over time reestablish self-sustaining populations in some extirpated subwatersheds. However, the driving force for that happening will not be to change the status of individual watersheds, but rather a combination of favorable factors that create an opportunity to restore individual brook trout populations.
4. *Improve 42 reduced subwatersheds (15 for the northern region) to healthy classification by 2012:* For similar reasons as those stated for Objective 3, none of the northern states expect to make progress on this objective. Changing reduced watersheds to healthy could be even more challenging than reestablishing brook trout in extirpated watersheds because a number of populations may need to be restored before the criteria for a healthy classification are met. Time and effort are better spent protecting and enhancing existing populations and watersheds where brook trout currently exist.
5. *Strengthen brook trout populations in 90 subwatersheds (30 for the northern region) classified as reduced by 2012:* Acceptable as is. Habitat improvement projects and other efforts are most likely going to be undertaken in reduced watersheds in the northern region.
6. *Maintain 1,372 reduced subwatersheds (505 for the northern region) in existing condition by 2012:* The objective is acceptable as is, although wide-scale monitoring to ensure that the goal is being met over time will be very difficult due to the cost and effort required.
7. *Validate the predictive brook trout status model by assessing 50% of predicted subwatersheds by 2012:* Acceptable as is. Extensive sampling of watersheds rated unknown or qualitative in the original status assessment is already underway in at least Maine and New York.
8. **NEW OBJECTIVE ADDED** – *For lake and pond watershed rankings, maintain no net loss in healthy and reduced watersheds, and assess the status of 50 unknown watersheds:* This new objective is only applicable to the northern region.

The northern workgroup also had the following general comments on the habitat objectives:

1. The target year for most objectives should be increased from 2012 to 2020. The 2012 target for objective 7 is realistic.
2. No net loss of healthy HUC's should be an overriding priority in the northern region.
3. Consider rephrasing objectives in terms of something finer-scale than HUC's, such as smaller drainages or catchments.
4. It may be difficult to "change the color" of many HUCs in a timeframe useful for lobbying for additional funding. Consider reporting the number of stream miles (or acres of lakes and ponds) that have been restored/protected. Over time, the HUC's will hopefully remain stable or change for the better, but that watershed metric will not be sensitive enough to measure short-term progress.

Action items/Strategies

In general, the primary focus of habitat-related actions taken in the northern region will be to:

1. Perform surveys to fill in data gaps and validate predictive models;
2. Maintain lake and pond population status;
3. Improve the status of populations in both reduced and healthy subwatersheds;
4. Address fish passage issues, such as culvert and dam replacement and removal;
5. Protect "the best of the best" watersheds via land acquisition and conservation easements.

Organized by objective, specific actions include the following:

1. *Maintain the status of 746 subwatersheds (477 for the northern region) classified as healthy by 2012.*
 - a. Purchasing land and easements is the best option for protection where possible.
 - b. Development of best management practices for forestry, culverts, storm water management, fish passage, etc.
 - c. Upgrading stream standards and classifications so that brook trout streams get full regulatory protection. In many states streams do not get protected unless trout are documented to be present. Initial EBTJV survey work in New York State has found brook trout in many streams not classified as trout streams.
 - d. Development of stream flow standards.
 - e. Land-use planning.
 - f. Outreach to conservation groups.
2. *Strengthen brook trout populations in 45 subwatersheds (15 for the northern region) classified as healthy by 2012.*
 - a. Address fish passage issues, such as dams and culverts.
 - b. Water quality standards (e.g., sedimentation).
 - c. Land-use planning.
 - d. Development of stream flow standards.
 - e. Angling regulations.

- f. Habitat restoration and enhancement, including pond reclamations and liming.
- 3. *Establish self-sustaining brook trout populations in 44 subwatersheds (19 for the northern region) classified as extirpated by 2012.*
 - a. Not a priority in the northern region.
- 4. *Improve 42 reduced subwatersheds (15 for the northern region) to healthy classification by 2012.*
 - a. Not a priority in the northern region
- 5. *Strengthen brook trout populations in 90 subwatersheds (30 for the northern region) classified as reduced by 2012.*
 - a. All strategies from objective 2 apply here.
- 6. *Maintain 1,372 reduced subwatersheds (505 for the northern region) in existing condition by 2012.*
 - a. All strategies from objective 1 apply here except for the purchasing of land and easements, which should primarily be focused on intact watersheds.
- 7. *Validate the predictive brook trout status model by assessing 50% of predicted subwatersheds by 2012.*
 - a. Survey work that can be used for validation is underway.
- 8. *NEW OBJECTIVE ADDED – For lake and pond watershed rankings, maintain no net loss in healthy and reduced watersheds, and assess the status of 50 unknown watersheds.*
 - a. Population assessments are ongoing in the northern region.

Project Scoring Worksheet Review

See marked up scoring worksheet attached. Northern workgroup comments are in red. Sent to Doug Besler for incorporation into the final scoring sheet.

Cost Estimates for Action Plans

Much of this task will need to be completed following the meeting. Additional clarification will be needed on how encompassing the cost estimates should be - should totals include just actions undertaken by Fisheries Bureaus in each state, or include actions by other bureaus or agencies (e.g., land acquisition) that would help to protect brook trout. Rough estimates of current annual expenditures for brook trout work by the state fisheries bureaus represented at the meeting follow. These only include items such as surveys and management, planning, outreach, and propagation. Larger programs that are not the direct responsibility of fisheries units such as land acquisition are not included.

New York: \$1.3 million

New Hampshire: \$500,000

Maine: \$3 million

Connecticut: \$100,000

Massachusetts: \$500,000

II. Mid-Atlantic Region Workgroup Meeting Notes

Chair: Alan Heft

Participants: Bob Carline, Jason Detar, Nat Gillespie, Lisa Barno, Pat Hamilton, Karen Knotts, Callie McMunigal, Mike Owen, Mike Shingleton, Tom Oldham, Mark Staley, Hannibal Bolton, Fred Fox

Participants included staff from Maryland, Pennsylvania, West Virginia, and New Jersey natural resource agencies, the USFWS, the US Forest Service, Trout Unlimited, and the US Office of Surface Mining,

I. First Task, Review/Revise Action Strategies goals for the Mid-Atlantic Region

Regional workgroup revised 4 of the 7 Regional Habitat Objectives for the Mid-Atlantic Region as described in the “Conserving the Eastern Brook Trout Action Strategies” document. Additionally the group recommended that for Objectives 2 and 5 that a descriptive sentence be added after the current objectives that clarifies what the term “strengthen” means.

Objective 2. Strengthen brook trout populations in 45 subwatersheds classified as healthy by 2012.

ADD: Actions that strengthen populations include, but are not limited to, habitat enhancement, reducing excessive harvest, increasing distribution within a subwatershed, improving water quality, or reducing exotics.

Objective 5. Strengthen brook trout populations in 90 subwatersheds classified as reduced by 2012.

ADD: Actions that strengthen populations include, but are not limited to, habitat enhancement, reducing excessive harvest, increasing distribution within a subwatershed, improving water quality, or reducing exotics.

Changes adopted per objective were:

Objective 1. No Change

Objective 2. New goal = **14** (reduced from 20)

Objective 3. New goal = **5** (reduced from 10)

Objective 4. New goal = **4** (reduced from 15)

Objective 5. New goal = **45** (increased from 30)

Objective 6. No Change

Objective 7. No Change

II. Second Task, Develop a Mid-Atlantic regional budget for brook trout restoration and research needs thru 2012.

Roundtable discussion was used to facilitate the development of annual Mid-Atlantic budget requests for the years 2009-2012. ***Additional staff to administer/direct EBTJV funding was identified as a critical need, and a request for at least one contractual biologist was included for each state. Current staffing is not sufficient to utilize substantial increase in project funds.*** Funding requests were broken down into the four categories identified by the funding committee: Habitat, Outreach, Research, and Administration. The proposed budget for the Mid-Atlantic group was:

Habitat, \$13.8 million thru 2012

- Hire 4 contractual biologists to administer/direct EBTJV funding use, \$ 1 million (250 K/annually)
- National Forest Habitat restoration activities (Monongahela, George Washington National Forests), including culvert replacement, bridge repair, road crossing repair, etc., \$6.4 million (\$1.6 mill/annually)
- Trout Unlimited Initiatives/Partnerships, \$0.4 million (\$100K/annually)
- Acid Mine Drainage/Abandoned Mine Lands remediation, \$6 million (\$1.0, \$1.0, \$2.0, \$2.0 million/annually)

Outreach, \$0.25 million thru 2012

- Hire Regional Outreach coordinator for the Mid-Atlantic group, as recommended by the Outreach sub-committee, \$0.25 million (62.5K/annually)

Research, \$1.2 million thru 2012

- West Virginia, \$300 K (\$75 K/annually)
- Maryland, \$300 K (\$75 K/annually)
- Pennsylvania, \$300 K (\$75 K/annually)
- New Jersey, \$300 K (\$75 K/annually)

Administration, \$0.4 million thru 2012

- Administrative tasks regionally and by state, \$0.4 million (100 K/annually)

Total EBTJV funding requested by the Mid-Atlantic workgroup thru 2012, \$15.64 million:

2009 = \$3.41 million

2010 = \$3.41 million

2011 = \$4.41 million

2012 = \$4.41 million

III. Third Task, review the EBTJV proposal scoring sheet and make recommendations for changes.

A spirited roundtable discussion was held, resulting in numerous recommended changes to the scoring sheet. Also several points of concern were discussed and are included as topics for the Conservation

Strategy/Habitat Subcommittee to consider during revision of the EBTJV proposal and scoring documents. Comments were sent to Doug Besler for incorporation into the final scoring sheet.

Discussion points to be considered

1) Current priority ranking of subwatersheds within the 3 regions may put a state with little or no priority subwatersheds at an unfair disadvantage for EBTJV funding (i.e. New Jersey in the Mid-Atlantic). Consider reducing priority ranking point value, or creating an additional scoring category to recognize state priority even if not a regional priority.

2) Need to make sure we convey successes in a format that is easily understood and has value to stakeholders, rather than just trying to say we maintained or changed a color by subwatershed on the status map. Concern that we will miss chances to promote our successes as in many cases subwatershed color will not change, but a big improvement will have occurred.

IV. Fourth Task, select two Mid-Atlantic workgroup members as EBTJV proposal reviewers.

Mark Staley (MDDNR) and Lisa Barno (NJDEP) volunteered to be reviewers and are hereby designated as the Mid-Atlantic official EBTJV project reviewers!

III. Southern Region Workgroup Meeting Notes

Attendees: Doug Besler, Karl Hess, Jim Habera, Mallory Martin, Lee Keefer, Steve Moore, Lila Borge Wills, Larry Mohn, Dave Schmid

Tuesday, April 22nd

-Larry Mohn informed the group on how the southern regional habitat objectives were derived. The objectives were based on what each state within the region could accomplish within the time period stated with existing staff.

-The work group then went through each of the seven regional objectives. Several objectives were revised and yearly cost estimates were generated. The revisions will be incorporated into the Conservation Strategy by the Conservation Strategy / Habitat Subcommittee chair. Several action items were identified to help achieve regional objectives:

Action Item: Seek grant funds to support seasonal temporary staff to complete annual monitoring and population status work

Action Item: Need fund to facilitate purchase of conservation easements and fee simple purchases.

Action Item: Develop a process to identify candidate brook trout sub-watersheds and provide the non-federal match for livestock exclusion, habitat improvement, and riparian restoration projects with NRCS and USFWS partners

-A discussion was held regarding how to determine whether a sub-watershed has actually changed from one classification to another. There needs to be a monitoring or validation component to the process that is built-in to the costs of achieving each habitat objective.

Wednesday, April 23rd

-The work group completed revisions to the project scoring sheet criteria. Considerable discussion was held regarding how to rank projects that acquire conservation easements. It was suggested that project scoring sheets request a list of species in state Wildlife Action Plans that are affected by project proposals. There was also discussion that the priority watershed score model currently used in project ranking might not be accurate in all cases. The project scoring criteria sheet should also take local knowledge into consideration. Doug Besler will coordinate the southern work group revisions to the scoring criteria sheet.

-Jim Habera and Steve Moore will serve as the southern work group representatives on the project scoring review team.

Closing Remarks:

Steve Perry, EBTJV Chair

Steve Perry discussed a quick overview of the meeting and thanked the partners for attending and their participation. It was a very successful meeting and much was accomplished.

Regional workgroups will continue to work together to fulfill their charges and goals. Subcommittees will be encouraged to work more closely and rigorously on a plan for their groups. Using the recently acquired NFWF grant, the regional workgroups and subcommittees have administrative (conference calls, listserves, meetings) support available to them. Contact Lila Borge Wills for information.

The EBTJV is currently working on a Multistate Conservation Grant through the Association of Fish and Wildlife Association and will be submitted shortly. This grant will provide the regional workgroups with additional support and collaboration tools to strengthen the regional partnership.

The EBTJV is now an official National Fish Habitat Partnership project and has been recognized by the Board as a good model for other partnerships that are in the process of forming. Due to the hard work of many agencies, states, and individuals, the EBTJV has become an example of what works.

Summary:

The meeting was well attended ([link to participant list](#)) and represented most of the states in the region including: Virginia, West Virginia, Tennessee, North Carolina, New York, New Hampshire, New Jersey, Connecticut, Maine, Pennsylvania, Georgia, Maryland, and Massachusetts. Federal Agencies included US Geological Survey, US Forest Service, US Fish and Wildlife Service, Office of Surface Mining Reclamation and Enforcement, and the National Park Service. Meeting materials were provided to the participants which assisted the work sessions ([link to meeting packets](#)).

Appendix B. Steering Committee Meeting Summary April 2008

EBTJV Steering Committee Meeting Minutes

April 22, 2008

Ding Darling Lodge

6:15 pm – 7 pm

Attendees Steve Perry, Doug Beard, Shelaine Curd-Hetrick, Doug Besler, Fred Fox, Bob Carline, Hannibal Bolton, Lila Wills, Tom Sadler, Callie McMunigal, Andrea Ostroff, Mark Hudy, Paul Pajak, Dianne Timmins, Lisa Barno, Karen Knotts

The meeting was a brief informal meeting of the Steering Committee members between dinner and the fly fishing demo...

Subcommittee updates:

Science and Research:

- Develop “how to guidelines”

- Develop a draft plan for the subcommittee and send to partners

- Create a clearinghouse of projects and research

- Share case studies

Data:

- Create a flow chart for data updates

- Create a matrix of projects decision making

Conservation Strategies:

- Need to account for what all other subcommittees and groups are working on

Outreach and Education:

- Develop strategies

Grants and Development:

- Tom Sadler will lead this group using the needs listed by each regional workgroup. There are a lot of funds out there for our use. A VA Tech Foundation account will be set up to

use as a “banking tool” which CMI will manage; a total of 10% per donation will be taken by the University to cover its costs.

Communication Tools for Partners and Steering Committee:

Andrea Ostroff will develop an NBII portal, a tool to help the group share documents (check in and check out system) to prevent version changes and overwrites.

For email communication Lila will create a new listserve just for the Steering Committee on yahoo groups and rename the Steering Committee listserve to a partners list. All partners will then be invited to join to foster better communication.

For regional work groups and subcommittees: Lila will create separate yahoo listserves for each work group and subcommittee to foster more efficient communication amongst the members of each group. Chairs of each group need to let Lila know who is in their group and get contact info (mainly email) to her.

RFP for FWS Costshare grants:

Callie McMunigal has taken over in Maureen Gallagher’s position. The final project ranking done by the Steering Committee needs to be complete and delivered to the FWS by December 1 of each year. Deadlines were set for the RFP and rankings.

June 1, 2008 - RFP announced to partners

Sept 1, 2008 - proposals due to Callie

Dec 1, 2008 - final ranking to FWS via Callie.

Callie will prepare all of the documents needed for the website. CMI will post on the website.

Doug Besler and the Conservation Strategy group will update the ranking criteria form to incorporate suggestions and send to Lila for the website.

Project Tracking:

The Science and Research subcommittee will create a matrix (spreadsheet) of all brook trout projects that are being done currently in the recent past. Costshare projects that the EBTJV/FWS sponsors should be separated in some way.

Funding sources:

The EBTJV needs a database to list all funding sources that are potentially available (Federal, State, Foundations).

Federal sources – Hannibal agreed to compile these

State sources – Tom Sadler agreed to compile these

Appendix C. Funding Plan for the Eastern Brook Trout Joint Venture

**An Interim Funding Plan for the
Eastern Brook Joint Venture**

June, 2010



Eastern Brook Trout
JOINT VENTURE
A Fish Habitat Partnership

Introduction

The Eastern Brook Trout Joint Venture (EBTJV) is a partnership that was formed based on a consensus that a collaborative approach to brook trout management is justified because (1) brook trout are declining across their entire historic eastern U.S. range; (2) causes for these declines are similar; (3) an integrated approach would be cost effective; and, (4) watersheds of concern span state borders and agency jurisdictions. The EBTJV partners also agree that a broad-scale, range-wide conservation strategy is necessary to stop brook trout declines, improve technology transfer, and effectively prioritize funds and projects to restore this keystone species.

One of the principal goals for the EBTJV is to develop strong support for program actions that perpetuate and restore brook trout populations. To accomplish this goal there is a need to fund priority on-the-ground projects as well as strategic communication, outreach, and education efforts. As a Fish Habitat Partnership, recognized under the National Fish Habitat Action Plan, the EBTJV also needs to fund its operational obligations, which are described in the National Fish Habitat Board's Policies and Guidance for Fish Habitat Partnerships (adopted October 10, 2008). These operational obligations entail coordinating the functions of the partnership; conducting scientific assessment and research; establishing priorities through strategic planning processes; facilitating data management; and, measuring conservation success.

To meet its programmatic and operational needs, the EBTJV has developed a series of strategies aimed at securing consistent, reliable funding that will allow the partnership to be successful at conserving eastern brook trout.

Funding Strategies

- 1.1 Obtain grants from public and private entities to assist in covering the costs of brook trout conservation at the local, state, regional, and range-wide levels.

- 2.1 Leverage brook trout being designated as a "species of greatest conservation need" in grant applications.

- 3.1 Incorporate climate change impacts into brook trout conservation actions when developing grant applications.

- 4.1 Assemble a list of priority projects that need funding and distribute to potential private donors with similar regional interests.
- 5.1 Solicit donations from private individuals, corporations and foundations by demonstrating the EBTJV is effective at directing funding towards its strategic priorities and obtaining measurable results from its conservation actions and use.
- 6.1 Recruit in-kind contributions from businesses and organizations.
- 7.1 Pursue partnership opportunities with organizations that share common goals with the EBTJV.
- 8.1 Create alliances with businesses for short-term support of specific EBTJV events and activities.
- 9.1 Develop strategic partnerships with corporations to garner long-term sponsorship for EBTJV conservation actions and operational functions.
- 10.1 Engage in personal visits to large private donors (e.g., Pew Foundation) and seek commitments for long term funding support.
- 11.1 Provide EBTJV partners a listing of federal and state funding available to support habitat restoration.
- 12.1 Establish a fiscal agent such as a foundation or “friends group” that can administer monetary donations made to the EBTJV.
- 13.1 Establish the EBTJV as a 501 C (3) Foundation so the partnership can accept and administer grants.
- 14.1 Institute a standing committee charged with: establishing and coordinating the implementation of fundraising strategies; setting up a process for disbursing funds; and, developing mechanisms to recognize donors.
- 15.1 Actively build support for passage of the Fish Habitat Conservation Act by congress.
- 16.1 Develop a brand identity for the EBTJV that is synonymous with executing high performance conservation actions.

- 17.1 If feasible, build brand equity and generate revenues through the sale of EBTJV merchandise.

- 18.1 Establish a network for recruiting volunteers to assist with implementing brook trout conservation actions.

Appendix D. Program for Eastern Brook Trout Research Symposium

The following entries are citations for presentations given at the Eastern Brook Trout Symposium at the 2010 Southern Division of AFS annual meeting in Asheville, North Carolina. The links provided are to online video clips of the presentation provided by the meeting organizers.

Assessing brook trout at various scales: lessons learned from the Eastern Brook Trout Joint Venture. M. Hudy, D. Beard (click here)

Fine-scale analysis of brook trout genetic population structure reveals the need for research and management paradigm shifts. T. King, et al. (click here)

Dispersal and within-stream spatial population structure of brook trout revealed by sibship and parentage analysis. M. Hudy, J. Coombs, K. Nislow, B. Letcher (click here)

Using antimycin to remove non-native fish species from lakes, ponds and streams: lessons, pitfalls and challenges. M. Kulp, S. Moore (click here)

Brook trout restoration, Great Smoky Mountains National Park: history and future. S. Moore, M. Kulp (click here)

Long-term population dynamics of a southern brook trout population. G. Grossman, R. Ratajczak, J. Petty, C. Wagner (click here)

Resiliency of brook trout habitat to climate change. B. Trumbo, M. Hudy (click here)

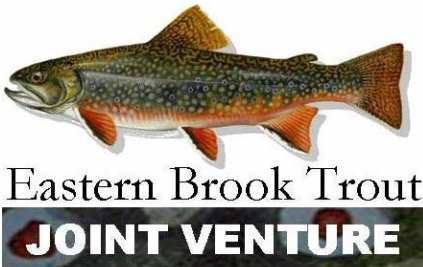
Restoration creates Tennessee's best brook trout stream. J. Habera (click here)

Brook trout population trends in Western Maryland 1988 – 2007. R. Hilderbrand, R. Morgan, A. Heft, M. Sell (click here)

North River, VA brook trout restoration project. L. Mohn (click here)

Georgia's brook trout restoration efforts. L. Brotherton (click here)

Appendix E. Steering Committee Meeting Summary November 2009



A Fish Habitat Partnership

Steering Committee Agenda

Cacapon State Park

November 11, 2009

1. Approval of EBTJV Projects for FY2010 FWS-NFHAP Funding

The Steering Committee approved the ranking of the 18 projects as proposed. Steve Perry will send approved project priority list to Callie McMunigal and she will submit it to Region 5 USFWS.

The process for reviewing projects has changed and improved over the years. This was the second year a review team- ranked all proposals instead of ranking projects regions, which is working out well.

2. Allocation of FY 2010 FWS-NFHAP

- o Discussion from members about how FWS_NHAP funding is being allocated between partnerships.

3. NFHAP Regional FWS Administrative Funding

- o Availability to cover EBTJV meeting costs and other operational expenses at the regional level.
- o Bob Carline will solicit regional funding needs. Subcommittees and regional workgroups need to review needs for this funding assistance.
- o Rachel Muir suggested: Science, Data, Outreach, Coordination – meeting/leadership

4. FWS-NFHAP Funding Cap for EBTJV Projects

- o \$50,000 maximum funding limit: per project year

5. Process for Substituting Approved FWS-NFHAP Funded EBTJV Projects

If a sponsor of an approved project doesn't enter into a funding agreement with the FWS then the available funding automatically goes to the highest ranked unfunded project.

6. NFHB Partnership Committee

- o Operational needs for FHPs over the long term are being identified
- o A process for the NFH Board to monitor and re-evaluate FHPs is being developed

7. Process for EBTJV Coordination with Other FHPs and Bird JVs

- o There may be some FWS funding for collaboration activities

8. Climate Change and the EBTJV

- o AFWA Recommendations for State Agencies
- o The Appalachian LCC
- o FWS 5-Year Action Plan

9. NFHAP Decision Support System

- o Steve Perry presented a white paper for comments.

10. Other Business

- o The SC voted to support and pursue a process to establish Native Fish Conservation Areas
- o The SC voted to support expanding brook trout assessment at the catchment scale
- o The SC voted to support brook trout stream resiliency analysis
- o The SC agreed to merging the partnerships Mid-Atlantic states into the Northern and Southern Regional Workgroups.
- o The SC agreed to merging the Data and Science Subcommittees for better coordination
- o Tom Sadler regrettably resigned from EBTJV SC Vice Chair position and Chair of the Grants and Development Subcommittee.
- o Fred Harris agreed to serving as interim Chair of the Grants and Development Subcommittee

Appendix F. Cover sheet of the “Eastern Brook Trout: Status and Threats” Publication

