

Wild Fish Habitat Initiative
Panel Review of Web Site
February 14, 2005

Invited panel participants:

1. Dr. Al Zale, director, Montana Cooperative Fishery Research Unit
2. Dr. Tom McMahon, professor, Montana State University
3. Hannibal Bolton, chief, US Fish and Wildlife Service
4. Brad Shepard, PhD student, Montana State University, and American Fisheries Society
5. Chuck Dalby, geomorphologist, Montana Department of Natural Resources and Conservation
6. Dale Miller, private consultant
7. Joel Tohtz and Pat Clancey, fisheries biologists, Montana Fish Wildlife and Parks
8. Kate Walker, fisheries program leader, US Forest Service, and American Fisheries Society

Questions Posed to the Panel:

1. What is your overall impression of the Wild Fish Habitat Initiative web site?
2. Is the Montana Water Center conveying the message that you wanted us to convey? If yes, how? If no, why not?
3. Is the information presented:
Clearly conveyed?
Well written?
User friendly/well organized?
Helpful to your company/agency/organization/constituency?
Helpful to other audience(s)? Which ones?
Scientifically sound?
Please give specific examples of how we have or have not addressed the above-stated questions. Please do not simply respond "yes" or "no".
4. What do you like about the web site?
5. What do you feel needs to be changed and why?
6. How could we improve the product(s) presented?
7. Do you have anything else that you would like to share with us?

Instructions to Panel:

1. Visit the Initiative web site at: <http://wildfish.montana.edu/>
2. View the information/products presented and answer the questions outlined above.
3. E-mail your responses to Liz Galli-Noble (lgnoble@montana.edu) or Kristin Keith (kkeith@montana.edu) no later than **March 28, 2005**.

Please feel free to have other interested parties review the Initiative web site as well.

Summary of Panel Feedback and Recommendations:

1. What is your overall impression of the Wild Fish Habitat Initiative web site?

Hannibal Bolton: The web site is engaging, visually attractive, and easily navigable. The design, content, and ease of use match or exceed that of any equivalent site. It is an impressive, powerful, and highly practical web site.

Pat Clancey: Good - it is comprehensive, covers major areas of habitat concern.

Chuck Dalby: It is well organized, attractive, easy to use and fairly complete.

Tom McMahon: It is very well designed and user friendly. He likes the format with basic information presented in a short format, but readily linked to more detailed information if so desired.

Dale Miller: The web site is well constructed—clean graphics, simple presentation, in-depth case studies and sources of information. Its overall “feel” is comfortable—easy to navigate, yet allows one to explore fairly deeply into case histories and outside resources. It is understated and low-key—clearly a site developed by scientists rather than those with business interests.

Brad Shepard: It is well organized and informative.

Joel Tohtz: Overall the website is very nice: easy to navigate, visually appealing, well organized, very informative.

Kate Walker: Good—The site is easy to navigate—clear links etc. Colors are a little dark—would be nice to something a little lighter and bold.

Al Zale: It is nicely laid out, aesthetically pleasing, comprehensive, and informative.

2. Is the Montana Water Center (Water Center) conveying the message that you wanted us to convey? If yes, how? If no, why not?

Hannibal Bolton: The web site is conveying the message and content expected and supported by the U.S. Fish and Wildlife Service. See attached full review for details.

Pat Clancey: The message is important and informative, and provides specific examples of actions undertaken.

Chuck Dalby: Based on the annual report, there is significant progress on the research, technology transfer, and outreach aspects of the effort.

Tom McMahon: A very good start at fulfilling the intent of having a clearinghouse for restoration information. What the web site is exactly trying to do is not articulated well in the opening page. The need for such a clearinghouse is conveyed, but not what the web site objectives and approaches are.

Dale Miller: The mission that drove the development of the web site is unclear.

Brad Shepard: The web site does not clearly differentiate between conservation and management of native fish species versus introduced exotic species for recreation and economic gain. The site needs to do a better job of informing the public about the differences.

Joel Tohtz: He didn't have a message for the MWC to convey, but the habitat message is good.

Kate Walker: It seems very wordy. There should be less text and a more direct message on restoration and the focus of the Water Center.

Al Zale: The primary message to biologists and landowners is about proven techniques that they might want to implement to better manage fish habitat and restoration projects. A secondary message is that few such examples exist. The messages are conveyed very clearly.

3. Is the information presented:

Clearly conveyed?

Hannibal Bolton: The information is logically presented and readily accessible through well designed step-down links. The organization is uncluttered. The navigation is intuitive and readily grasped. All aspects of the web site are unambiguously conveyed in a succinct and understandable way.

Pat Clancey: The information is presented so that either a professional or lay reader can understand it, or at least find out enough to ask questions and pursue information or action if they wish.

Chuck Dalby: In general, yes. The information is well organized and the nested menus follow a logical sequence.

Tom McMahan: The information presented is very well conveyed.

Dale Miller: In most every aspect, the site is well organized and well written. The home page might benefit from some focus. It tends to be too wordy for a home page, and not so easy to get through.

Brad Shepard: Yes, but many areas have little or no information and the front-end user should be warned at the initial link that little information is currently available for a particular link.

Joel Tohtz: The information is very well presented.

Kate Walker: No response

Al Zale: The information is generally clearly conveyed. The font size and image size could be bigger.

Well written?

Hannibal Bolton: Yes - the quality is above average in its readability, clarity, and succinctness.

Home page text is very understandable language, avoiding excessively technical or specialized words. The case histories are well written in consistent and very accessible language.

Chuck Dalby: The case histories appear to be well written (style, grammar, acceptable use of technical terminology).

Tom McMahan: The case studies are informative and well written, with just the right blend of text and pictures, and more information (for the most part) is readily retrievable by the user if so desired.

Dale Miller: The project case histories are very well done, with apparent effort to provide consistency in the type of information presented. The maps are a plus.

Brad Shepard: Overall, the site is very well written.

Joel Tohtz: The web site is very well written.

Kate Walker: No response.

Al Zale: The writing is very good—clear, concise, and not overly technical.

User friendly/well organized?

Hannibal Bolton: One of the most notable aspects of this web page is its friendly and straightforward organization. Without any prior knowledge of the site, I was able to navigate its information layers and utilize its full information capability. I was able to get the information I wanted immediately.

Pat Clancey: I like the organization of the site - introduction, case histories and research, links.

Chuck Dalby: Yes - there are some modifications that should be considered for further organizing the web site. As the content grows and the regional (geomorph/climatic) diversity increases, more organization will be useful.

Tom McMahan: I found the links to be easily used and, unlike many web sites, to actually work and to be up to date.

Dale Miller: User friendly; well organized.

Brad Shepard: It would be nice to have a brief summary of what is located there and for specific types of projects have an automatically updated field that lists how many projects (for each type of project) are currently available at that link.

Kate Walker: No response.

Al Zale: Items are where I expect to find them and easy to get.

Helpful to your company/agency/organization/constituency?

Hannibal Bolton: The web page is very useful to the Service. The utility of the web site to the Service is mirrored by its usefulness to landowners and other conservation practitioners and researchers.

Pat Clancey: No response.

Chuck Dalby: Yes - various divisions of DNRC are likely to use this resource extensively. A wide variety of others including universities, consultants, and regulators will also find the information useful.

Tom McMahan: No response.

Dale Miller: No response.

Brad Shepard: Yes, but it could be more useful – see Shepard's comments below.

Joel Tohtz: I learned a lot about stream projects around the state. The site would be equally informative to many people.

Kate Walker: No response.

Al Zale: No response.

Helpful to other audiences?

Hannibal Bolton: This web page will prove useful to private landowners interested in conservation of fish habitat but they may be uncertain of how to start their own projects.

Pat Clancey: It would be useful to many audiences - fisheries and hydrology professionals, landowners, conservation groups, restorationists, students, etc.

Chuck Dalby: Yes - although this web site focuses on fish habitat "restoration," interdisciplinary aspects will serve a larger audience of practitioners involved in all aspects of stream and watershed management. One possible limitation of the web site is its necessary focus is on "wild fish habitat". This may fail to attract some users, who would benefit from information on the site, due to a mistaken sense of what is actually contained on the web site

Tom McMahan: No response.

Dale Miller: No response.

Brad Shepard: Yes, the general public, anglers, and conservation groups will use this site.

Joel Tohtz: This web site would be especially appreciated by individuals interested in fishing and other aquatic resource/environmental issues.

Kate Walker: No response.

Al Zale: No response.

Scientifically sound?

Hannibal Bolton: It is credible and sound. The research on the web site is current, significant, methodologically sound, and well presented. The documents listed in the resources page are scientifically up-to-date, technologically current and appropriate.

Pat Clancey: I cannot judge scientific soundness without being pretty familiar with the project, which cannot be efficiently and effectively conveyed on a web page.

Chuck Dalby: Within limits, yes. Stream restoration projects carry considerable historic baggage regarding their efficacy, and the very definition of "success" in the context of restoration is somewhat controversial and varies with discipline.

Tom McMahan: There is a lack of fish response information from many of the case studies reported, and for many that did report it, the quality is poor. See details in his full review.

Dale Miller: Solid technical information is presented.

Brad Shepard: The actual research reports appear sound. However, there is no good way to evaluate the "Guides" and the "Restoration Projects". Hopefully, the upcoming research will help address those questions.

Joel Tohtz: The information seems to be presented accurately; the soundness of the science of individual research projects of course will stand on its own merit.

Kate Walker: No response.

Al Zale: Scientific soundness is better than I expected; as long as we remain skeptical and point out limitations in evaluations and confounding effects, we should be able to maintain our scientific credibility.

What do you like about the web site?

Hannibal Bolton: 1) The finely crafted case histories; and 2) the web site is developing a comprehensive set of links to other useful and complementary sites. Considerable work remains, however, on completing this task.

Pat Clancey: The introduction, case histories and research, links.

Chuck Dalby: It has an attractive, functional appearance but is not too "glitzy". The bibliography of restoration is sufficiently complete. It always worked!

Tom McMahan: The case studies, and the photo galleries. The diversity of projects throughout the West is also a strength.

Dale Miller: 1) solid technical information; 2) the technical literature and resources were annotated; and 3) individuals' names were listed so I could contact that person.

Joel Tohtz: 1) The web site highlights habitat concerns and on-the-ground activities in ways that are informative to people not usually involved in such projects; and 2) the message that rehabilitation work is occurring in many places.

Kate Walker: Access to the original reports.

Al Zale: 1) the straightforward and consistent format of the case histories; 2) the links to the various online manuals; and 3) it makes all of us here at MSU look good!

What do you feel needs to be changed, and why?

Hannibal Bolton:

- 1) A statement on the main page about the purpose of the web site, short-term and long-term purpose, and how it fits into the overall mission of the Initiative.
- 2) The "Defining Restoration" section is out of place on the home page.
- 3) The bibliographic entries could be grouped by topic and the page length for browsing purposes could be much extended – somewhat like your current "links page," which allows browsing for all entries on a single scrolled page.

Pat Clancey:

- 1) Implement an annual or bi-annual review of the entire web site to confirm and update projects and other information.
- 2) It would be valuable to explain stream channel form and function on the Introduction page - all this type of info may be available in the various Habitat Manuals and other Links, but it should be more obvious and accessible to someone when they first access the web site. I wonder how many 'hits' the site gets - knowing this may help evaluate its effectiveness.

Chuck Dalby: As the project expands, it would be useful to develop a hierarchical classification system for project case histories that factors in:

- a. type of project (already done to an extent),
- b. type of disturbance the project is applied to,
- c. magnitude of the disturbance the project is applied to,
- d. geographic region and climate.

You might want to consider facilitating the development of protocols for a variety of restoration related activities including:

- a. determining project type and defining project goals,
- b. designing and executing the correct resource-specific monitoring program to accompany restoration.

Tom McMahan: See comments below.

Dale Miller: There is nothing that absolutely should be changed. Nothing appears inaccurate or inappropriate. As mentioned, the home page would benefit from restructuring.

Brad Shepard:

- 1) The web site should explain the differences between native and non-native fishes and the respective intrinsic, recreational, and ecological values of these two classes of fish.
- 2) The front-end user should be warned at the initial link that little information is currently available for a particular link.
- 3) In the future, the links will have to be grouped, but a site-link search would be valuable that allows the user to select the topic to search for a group of links.
- 4) This site could be more helpful with cross-links that the user could search, rather than set "drop down" list that currently is available, to various other sites that might be useful.

Joel Tohtz: There is danger with the unintentional message that "habitat" can always be "fixed" – just throw enough money at the resource. Emphasize that it is best to prevent or avoid the need for the extreme rehabilitation projects presented as case histories.

Kate Walker: 1) Display more links to other relevant web site up front; and 2) there is too much text on the pages – just give a couple of short bullets to explain the site and then more on specific resources available.

Al Zale: Nothing needs to be changed other than the font and image size, they are too small.

4. How could we improve the product(s) presented?

Hannibal Bolton:

- 1) Consider adding a search engine to the case histories that would allow users to identify certain types of projects and practices.
- 2) A search engine would allow the user – through the use of standardized key words – to identify projects of interest irrespective of their current categorization.
- 3) The use of keywords is available in bibliographic searches. Perhaps the use of key words might be extended to search engines for research and links?

Pat Clancey: No response.

Chuck Dalby: The following should be given consideration (some might be suitable for contract or graduate work):

- a. add more case histories and information to the databases,
- b. expand write-ups in case histories/consider on-site visits,
- c. add links to more sites in Montana and other states,
- d. develop/showcase protocols for monitoring and evaluating restoration success,
- e. consider facilitating a statewide (regionwide) study of "Effectiveness of Habitat Manipulation for Wild Salmonids" similar to that of Binns (2004). See Dalby's full review for details.

Dale Miller:

- 1) Expand the capabilities of the resources pages:
 - a. Include a link that allows a visitor to recommend one or two of their favorite or most useful publications, manuals, or technical articles;
 - b. Expand your web site search capabilities to allow Boolean search capabilities;
 - c. In searching for a manual or other resource, structure the response to include the title, date of publication (in some cases the date appears, in others it does not), author, and if possible the annotation;
2. The project search function could be improved so that when projects are searched or browsed they always show title *and* state.. As more projects are included, the search-by-state maps could be improved to show project locations on the expanded state maps.
3. Introduction page is too busy. It would be helpful to have a text box on the home page that states: "the goals of this web site are..." In that way, the casual visitor is quickly informed of the purpose of the site. Within the text box there could be a link to another page that more fully describes the overall project.
4. It would be nice to include the following information for each project:
 - a. List of design criteria to clarify project objectives;
 - b. Description of the design process employed, to give an understanding of the thought process that went into design (this is often glossed over, but is at the heart of what critical readers want to see), including whether there was any effort toward characterizing the geomorphology, hydrology, hydraulics, etc.;
 - c. Identification of the design discharges, which may differ for geomorphic function (say, bankfull flow), stability (say 10-year recurrent flow) and other aspects;
 - d. Some means to describe the general stream characteristics or type, such as the Rosgen stream classification (did I just say that?);
 - e. Some means to describe the stream size, such as the bankfull or effective discharge;
 - f. The length of the stream course affected; and
 - g. Unit costs, where applicable (although these can be garnered from total cost and stream length, if provided).

5. Consider including some feedback mechanism where site visitors are able to pose questions or comments about a specific project for other viewers to eventually see. See evaluation for details.

Tom McMahon:

- 1) Many of the case studies are repetitive under several of the 'restoration techniques' and it was often unclear why they ended up in a specific category. If the main goal is to illustrate how a particular tool is used within a particular framework, then perhaps case studies should be listed only under the category that is most appropriate for that particular site. See details in full review.
- 2) Have a brief overview of each category. For example, for the flow management category, a description of the types of issues and tools available for flow management could be provided, followed by specific examples that illustrate this tool being implemented.
- 3) It might also be overwhelming for a user trying to figure out what might work best in their situation, particularly if the number of case studies continues to grow.
- 4) The restoration bibliography is so large, that some direction in what categories to begin a search would be helpful. See details in full review.
- 5) Gauge site use with a survey of how many 'contactors' had been contacted for more information about their case study. This would gauge true 'use' of the web site.
- 6) Add links to reports for more detailed information on a project, beyond that of a contact person.

Brad Shepard: No response.

Joel Tohtz: Include caveats about our actual ability to reclaim and restore damaged resources.

Kate Walker: The databases are not very straightforward. It would be great to see more headings or categories rather than just a search or browse option.

Al Zale: The products could be improved by more and better evaluations, but other than our own research, we have no direct control over that.

5. Do you have anything else that you would like to share with us?

Hannibal Bolton:

- 1) The success of this web site will depend in the long term on its ability to provide users with access to case histories from all areas of the country. I would encourage the Water Center to begin to expand the repertoire of case histories beyond the Western region.
- 2) I also think it might be advantageous for the web site to include non-technical links that are no less important to conservation practitioners. For example, the Private Landowner Network (www.privatelandownernetnetwork.org) web page provides innumerable services to landowners, including agency contacts, grant sources and other information that private landowners engaging in conservation need but typically lack.