



Oregon

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MEMORANDUM

TO: Oregon Watershed Enhancement Board

FROM: Greg Sieglitz, Monitoring and Reporting Program Manager

SUBJECT: **Agenda Item E: Monitoring and Research Subcommittee Update
May 20-21, 2008 OWEB Board Meeting**

I. Introduction

This report provides an update to the Board on the progress made to date by the Monitoring and Research Subcommittee and requests action on some alternative grant offerings for the October grant cycle and for early 2009.

II. Background

OWEB has funded Monitoring projects through competitive grant offerings and direct Board awards for many years. The first Research solicitation was offered last year following approval of the OWEB Budget by the 2007 Legislature. In prior biennia, Research projects were funded directly by the Legislature.

At the Board's planning session held July 18-19, 2007 in Maupin, Board members expressed an intent to consider targeted solicitations for a variety of OWEB grant offerings. There was an explicit recognition that the Monitoring and Research grants can and do fill a niche of providing scientific evaluation and discovery that assists in characterizing past accomplishments and describing progress toward goals and objectives of OWEB's programs. Particular interest was expressed by the Board to establish a Monitoring and Research Subcommittee that would develop a set of recommendations for the full Board to consider prior to the 2008 grant solicitation for these two grant types.

At the planning session, it was established that monitoring projects have the inherent capacity to provide data and information that are useful in describing accomplishments undertaken to further the objectives of Measure 66, the Oregon Plan, Recovery Plans, the Pacific Coastal Salmon Recovery Fund, and other large initiatives. It was recognized that without clear targets for prospective grantees to design their work towards, the agency is not likely to have all of its objectives met through these grants. Similarly, with the potential Board offering of an additional Research solicitation this biennium, and the often long term nature of both monitoring and research investments, it is important to act soon in establishing priorities and targets for future grant offerings. These themes have been used to guide the work of the Subcommittee.

III. Subcommittee Activity

The Subcommittee consists of Board members Meta Loftsgaarden, Ken Williamson, and Bobby Brunoe, and is staffed by Greg Sieglitz and Courtney Shaff. The Subcommittee's meetings focused on several topics:

1. Reflecting on the Board Planning Session outcomes.
2. Developing a common understanding of the investments made to date in Restoration and Monitoring.
3. An evaluation of the current Effectiveness Monitoring Program and Procedures.
4. Discussion of alignment of current Monitoring and Research investments and the ability to capture data and information relevant to the objectives expressed by the Board at the planning session.
5. Consideration of alternative targeted grant offerings for Monitoring and Research.

The Subcommittee met on two occasions in February and March this year. Staff provided the Board members background materials about the investments made in restoration and monitoring projects funded by both GWEB and OWEB since 1992. The materials and subsequent discussions were used to formulate an understanding of the types and total number of restoration projects and monitoring projects funded through grants and other agreements.

IV. Summary of Board Subcommittee Discussions

The following lists the variety of topics that the Subcommittee discussed during their meetings:

- Monitoring and Restoration Grant Administration
- Rogue and Grande Ronde Basins
- Fish and Water Quality Monitoring
- Intensively Monitored Watersheds
- Small Dam Removal
- Wetlands
- Juniper
- Urban
- Research
- Monitoring Projects and Outcomes

For each topic, the Subcommittee identified specific areas that would provide progress toward meeting the Board's objectives expressed in Maupin, either through modification to existing processes or the addition of new opportunities. The following sections identify the areas of discussion and any Subcommittee recommendation to staff.

A. Monitoring and Restoration Grant Administration

1. Discussion

Not unlike restoration projects, monitoring projects are often successful or not based on the methods used and the clear articulation of the problems or questions that are attempting to be addressed with the action. In restoration grants, guidelines and prescriptions are often established after years of testing and analysis to determine the methods most appropriate and successful for given circumstances and conditions.

Protocols established for monitoring activities are very similar to this. In the case of OWEB grants, the agency does not presently identify or endorse specific protocols for monitoring activities. Until 2006 when the grant application was modified to request information about protocols, the protocols being used by a prospective grantee were not known in many cases. Presently, OWEB does not specifically provide guidance on the use of any particular protocols for monitoring.

2. Recommendation

The Subcommittee recommended to OWEB staff:

- That guidance be given to grantees on using established protocols for certain types of monitoring projects.
- The establishment or identification of a single repository for collecting data under OWEB monitoring grants at the conclusion of the projects. The Subcommittee suggested that data that can be used to demonstrate agency accomplishments should not be hard to find and that we should use the opportunity to have data sent to a central location in order to make it accessible to OWEB staff, particularly as we approach 2014.
- That while collecting status reports for each restoration project is valuable, housing this information in paper reports in grant files is not the most useful for generating understanding of the big picture of what we have learned or gained as an organization from our collective investments.
- Establishing an electronic repository of at least some of the information obtained from the post-project monitoring of restoration projects. The Subcommittee suggests looking into the possibility of contracting for services to develop these databases and electronic means of information capture.

B. Rogue and Grande Ronde Basins

1. Discussion

The Rogue and Grande Ronde basins were selected as pilot projects in 1992 to establish locally based watershed council organizations designed to engage citizens in an effort to improve their understanding of the watershed they live in and to promote participation in activities to make improvements to their watershed. These early efforts under the Watershed Health Program were eventually merged with the Governor's Watershed Enhancement Board, which later evolved into OWEB, and watershed councils were established in every corner of the state.

2. Recommendation

The Subcommittee proposed that with the longevity of watershed improvement investments in these basins, and with the two largest categories of OWEB restoration investment areas (fish passage and riparian) represented in the basins (Attachments A and A1), a set of watershed improvement accomplishments from these basins could provide a strong basis for overall accomplishment under OWEB and Oregon Plan programs.

The Subcommittee would also like to establish some specific inquiries into the information that exists in the two basins particularly as it relates to fish passage improvements and riparian area restoration. Given the amount of likely information available for these areas, the Subcommittee is interested in a specific grant offering or

investment target within the October 2008 monitoring grant cycle designed to focus on collecting this information.

C. Fish and Water Quality Monitoring

1. Discussion

Fish and water quality monitoring are the two single largest investments the Board and GWEB have made since 1997. (Attachment B) In total, nearly \$13 million has been invested in fish monitoring and \$5 million in water quality projects. The Subcommittee felt strongly that with the top three restoration project investments (riparian, fish passage, and irrigation improvement) totaling approximately \$70 million, and with these investments having the principle objectives of improving fish passage and water quality, that the monitoring of these two parameters should be linked more closely in some cases. Currently, the monitoring of fish passage and water quality is not often linked to OWEB investments in restoration projects.

The Subcommittee believes that these monitoring projects could be more closely aligned with the restoration actions and thereby strengthen our understanding of the overall efficacy of the Board's investments. The Grande Ronde and Rogue basins were identified as possible case studies for this alignment given the maturation of some projects and the relative large number of riparian and fish passage projects located within these basins. They also agreed that fish monitoring should be quantitative in nature and focused in areas where fish passage has been modified.

2. Recommendation

The Subcommittee recommended that monitoring for fish and water quality be linked more closely, that this monitoring should be quantitative, and focused in areas where fish passage has been modified.

D. Intensively Monitored Watersheds

1. Discussion

The Subcommittee confirmed the importance of the Intensively Monitored Watersheds (IMWs), the role they play in a comprehensive effectiveness monitoring program at a scale larger than individual projects, and the ability they have in assembling the results from multiple actions on the landscape. The Subcommittee recognized the long-term nature of IMWs and that funding must be provided for extended periods to yield useful results. The Subcommittee supports the continued efforts of the IMWs around Oregon and staff efforts in securing additional funding for the work.

2. Recommendation

The Subcommittee recommended OWEB continue investments in IMWs.

E. Small Dam Removal

1. Discussion

The Subcommittee is pleased with the Board's investment in the dam removal monitoring on the Calapooia River and in maintaining a connection with the lessons learned from Marmot dam removal on the Sandy River. The Subcommittee suggested that the agency continue to act as a point of contact and delivery vehicle for technical information learned from dam removal projects around the Northwest. The Powerdale and Elwha dam

removal projects in the State of Washington, the Chiloquin Dam on the Sprague River (Klamath Basin), and Savage Rapids and Gold Hill dams on the Rogue River were identified specifically to track over the next several years. With the Klamath River dams projected for removal in 2015, Oregon could be a major contributor of technical information about dam removal through OWEB's actions over the next seven years.

2. Recommendation

The Subcommittee recommended the continued OWEB investment in small dam removal monitoring projects around the state.

F. Wetlands

1. Discussion

The Subcommittee recognized the importance of wetland projects as one of the top ten OWEB investments, and they supported OWEB's joint effort with The Xerces Society and Department of State Lands in submitting a Wetland Development Grant to the Environmental Protection Agency. (See Agenda Item K.) There was significant Subcommittee discussion about drilling deeper to focus effectiveness monitoring on overall wetland functions rather than just on the acreage lost and gained. Some typical outcomes proposed by the Subcommittee were reducing invasive species (plant and animal), enhancing native species diversity and extent, improving conditions for pollinators, and creating favorable habitat conditions for neo-tropical migratory birds.

2. Recommendation

The Subcommittee supported the pursuit of an EPA grant (Agenda Item K) and for staff to continue to develop a wetland restoration effectiveness monitoring module to the program.

G. Juniper

1. Discussion

The Subcommittee reaffirmed its desire to continue with the western juniper effectiveness monitoring program. With the vast expanse of central and eastern Oregon comprised of favorable or potentially favorable habitat for western juniper, the considerations of global climate change and effect on water availability, and the pivotal importance water plays in the watersheds of the eastern two thirds of the state, western juniper management within the context of rangeland ecosystem health is a top priority issue. Interest was also expressed for continuing the dialogue with organizations such as the Central Oregon Intergovernmental Council through Special Investments Partnership (SIP) on the possibilities for biomass utilization and western juniper management.

2. Recommendation

The Subcommittee recommended the continued investment in juniper removal effectiveness monitoring.

H. Urban

1. Discussion

The Subcommittee recognized that in some cases, the restoration of watershed functions and conditions is limited. Citizen relationships, community satisfaction, and community experience are important components of restoration projects in urban landscapes. These

community experiences and understandings may be an important aspect of future monitoring and could take the form of grants to survey local citizens in the area of restoration investments. The maps in Attachment C depict the current distribution of restoration projects in Urban Growth Boundaries from various cities around Oregon.

This work is clearly an opportunity to bridge the gap between OWEB Monitoring and Education and Outreach grants, and could provide a barometer of awareness by non-landowners about OWEB investments. The results could aid in focusing future agency investment in outreach strategies. Another important connection is with the SIP in the Willamette and Deschutes basins, both basins with large populations, but where many SIP investments may occur outside of metropolitan areas. The East Multnomah Soil and Water Conservation District and Salmon Safe were both identified as potential partners in the Portland Metropolitan area.

2. Recommendation

The Subcommittee suggested combining the Monitoring and Research Subcommittee with the Education and Outreach Subcommittee once the current monitoring and research topics are covered. The topic of surveying urban citizens could be raised in the joint committee.

I. Research

1. Discussion

The Subcommittee encouraged the continued collaboration and use of the U.S. Forest Service Pacific Northwest Research Stations around the region. The newly established Oregon Climate Change Research Institute under the Governor's Initiative on Climate Change and the Oregon Climate Change Commission are important entities to continue to be connected to through our Research Grant Program. Research on climate change should focus in part on addressing the scale issue and making it real for Oregonians.

The Subcommittee recognized that the recent research grant solicitation and the current OWEB Research Priorities (Attachment D) are significantly focused on anadromous salmonid research needs and that a broader suite of topics was likely necessary for future grant solicitations. Given the strong connection between OWEB actions and salmon health it was agreed that a continued focus, for a portion of the research funds, on salmon was important. Focusing on climate change, ocean conditions, and salmon health are important areas to establish a role for OWEB research investments. Of significant concern is the general lack of connection between fish management processes, especially predicting fish returns, and marine ecosystem research. Better predictive models could be used in concert with better coordination and the use of leading indicators rather than lagging indicators. It was recognized by the Subcommittee that effectiveness monitoring could add value to and highlight certain research needs over time. Again, the idea of using the Grande Ronde and Rogue basins as pilots was discussed. It was suggested that some research needs may require a direct investment or non-competitive award process to focus on the Planning Session comments and desires to link to 2014 needs.

2. Recommendation

The Subcommittee recommended development of a Research solicitation in early 2009.

J. Overarching Considerations

1. Discussion

Monitoring projects and their outcomes (i.e. data and information) have significance and relevance to Education and Outreach projects supported by the Board. There are several ways that OWEB could capitalize on this and improve that relationship:

- **Requiring consistent information** from grantees and requiring that information to end up in a place (repository) that is easily accessible to others is an important first step to making data and information readily available for analysis and story building.
- **Monitoring should be connected to restoration projects** whenever possible when the primary objective of the project is educational monitoring. When the logistics and conditions are favorable, OWEB should encourage grantees to site educational monitoring projects on OWEB funded restoration projects. This could provide better exposure to other OWEB investments for the participants and could provide more project monitoring and potentially at a reduced cost.
- **Better linkage to Total Maximum Daily Loads (TMDLs)** will enhance the ability to characterize the value of OWEB investments. A stronger assessment of the value provided by riparian projects through the contributions to the prevention of warming of streams is one example. Modeling the British Thermal Units (BTUs) saved through exiting or future riparian projects as compared to pre-project conditions could provide interesting information about the value and relevance of projects to other agency programs.
- **Reporting results needs to span multiple years** in order to establish trends and provide meaningful information to the public. Year-to-year variation is not likely to reveal compelling information nor be a touchstone for citizens. The Subcommittee suggests combining the Monitoring and Research Subcommittee with the Education and Outreach Subcommittee once the current monitoring and research topics are covered.

V. Next Steps

The Subcommittee identified five types of Monitoring investment principles and strategies for future grant offerings, including the October 2008 grant cycle. These are:

- A. Continue local need-based grant offerings for monitoring projects.
- B. Continue the practice of funding some effectiveness monitoring through restoration grants.
- C. Provide targeted monitoring grant opportunities for specific data needs (eg. Rogue basin fish passage evaluation).
- D. Continue direct funding of contracts for specific monitoring services.
- E. Entertain a research grant offering in early 2009 when enough interest accrues in the Research Fund to warrant a new offering.

While this set of actions accomplishes the tasks outlined at the July 2007 Board Planning Session in Maupin, and provides advance notice of potential changes to the October 2008 monitoring grant solicitation, there is still a need to share these concepts and solicit feedback from local

constituents. There is adequate time to take the above principles and ideas and share them with local groups to refine the October grant offering. Staff would like to undertake efforts to solicit feedback on the strategies and principles over the summer and report back to the Board at the September meeting.

VI. Recommendation

Staff recommend that the Board:

- A. Adopt the principles and strategies for the October 2008 Monitoring grant cycle contained in Section V of this staff report.
- B. Support soliciting feedback on the strategies and principles over the course of the summer from local groups with a report back to the Board in September.
- C. Approve development of an early 2009 Research Grant Offering.

Attachments:

- A. Grande Ronde and Rogue basins restoration investments
- B. Restoration and Monitoring investments
- C. Restoration Projects in Urban Growth Boundaries
- D. Restoration Projects in selected cities in Oregon
- E. OWEB Research Priorities