

The Great Basin Research and Management Partnership (GBRMP)

CHARTER

December 10, 2013

I. Background and Need

The Great Basin is considered to be one of the most endangered ecoregions in the United States. The human population is expanding at the highest rate in the nation, and major sociological and ecological changes are occurring across the region. These changes can be attributed to numerous interacting factors including urbanization, changing technology and land use, climate change, limited water resources, altered fire regimes, invasive species, insects, and disease. The consequences have been large-scale vegetation type conversions, losses of watershed function, and degradation of stream, riparian, and aquatic ecosystems. Biological diversity has decreased, and a high number of species are at risk of extinction or extirpation. Ecosystem services such as water resources for agriculture and fish, habitat for aquatic and terrestrial plants and animals, forage and browse for native herbivores and livestock, and recreational opportunities are being lost at a rapid rate. These losses have adverse social and economic impacts on urban, suburban and rural areas. Managers across the Great Basin are increasingly challenged to maintain or improve the ecological condition of these systems and the services that they provide while meeting the needs of a growing number of user groups with diverse and often opposing interests.

Sustaining the ecosystems, resources and human populations of the Great Basin (Figure 1) requires strong collaborative partnerships among research and management organizations in the region. In November, 2006, a workshop on “Collaborative Watershed Management and Research in the Great Basin” was held in Reno, Nevada. It was attended by nearly 200 individuals representing federal, state, tribal and local-government land and resource management agencies; non-governmental organizations; representatives of federal legislators; federal, state, university and non-governmental researchers; and other partners of interest. The results of the workshop are summarized in a US Forest Service General Technical Report which includes: (1) overviews of the critical research and management issues facing the Great Basin; and (2) a summary of the workshop sessions on developing collaborative management and research programs to address critical Great Basin issues and devise mechanisms for organizing and communicating (Chambers et al. 2008; http://www.fs.fed.us/rm/pubs/rmrs_gtr204.html). There was consensus among workshop participants that comprehensive and immediate action was needed to address the many urgent issues facing the Great Basin and that these actions required active collaboration among research and management organizations in the region.

The Great Basin Research and Management Partnership (GBRMP) was developed in response to the collaborative workshop. The desired outcome of GBRMP is to facilitate collaboration among researchers and managers to reverse current ecosystem losses, and to sustain long-term productivity, resource values and services of both natural and managed ecosystems. GBRMP provides an integrated organizational framework to promote comprehensive and complementary collaborations, and to provide leadership, commitment and guidance to ensure that the collaborations are effective.

The vision for GBRMP is inter-disciplinary, multi-organizational teams working together to develop solutions to the region's ecological and socio-economic issues using existing management and research frameworks. Many excellent collaborative research and management programs and projects already exist within the region. These include those associated with federal (USDI, USDA, DOD, DOE, EPA, NASA) and state research labs and management agencies, universities, local agencies, tribal governments and non-governmental organizations. They also include collaborations developed to address specific research and management needs in the Great Basin. GBRMP complements these collaborative efforts and builds upon their strengths by increasing coordination and communication within and external to these organizations. GBRMP provides a mechanism for facilitating diverse research and management groups working in the Great Basin to: (1) obtain consensus in identifying and prioritizing regional issues; (2) expand and bring focus to existing collaborative efforts; and (3) initiate new team efforts to address emerging issues. It also provides critical information sharing capacity for both existing collaborations and new teams.

GBRMP has partnered with several regional collaborative organizations through the Great Basin Consortium (<http://environment.unr.edu/consortium/>) to coordinate efforts, reduce duplication, and leverage resources. Members of the GBC include the Great Basin Cooperative Ecosystem Studies Unit (http://www.cesu.psu.edu/unit_portals/GRBA_portal.htm), Great Basin Landscape Conservation Cooperative (http://www.blm.gov/nv/st/en/prog/more_programs/GBLCC.html), Great Basin Restoration Initiative (http://www.blm.gov/wo/st/en/info/history/sidebars/ecosystems/great_basin_restoration.html), Great Basin Fire Science Delivery Project (<http://www.gbfiresci.org/>) and Great Basin Environmental Program (<http://greatbasinenvironmentalprogram.org/>).

Although good progress has been made in understanding Great Basin ecosystems and in developing effective management techniques, the diversity and magnitude of the issues currently facing the Great Basin require innovative approaches. Researchers and managers alike need to address both larger spatial scales and longer time scales than have typically been addressed in the past. Collaborative projects need to be developed that cross administrative boundaries, incorporate the many diverse public entities and address the underlying causes of undesirable ecosystem change. Specific areas that need research and management attention include:

- **Science-based information and large-scale assessments** on the interacting effects of primary ecosystem drivers, such as urbanization, changing land use, climate change, fire and invasive species, on Great Basin ecosystems (vegetation type conversion, watershed function, stream, riparian and aquatic systems, and biological diversity).
- **Prediction and modeling** of the rates and magnitude of change, areas affected, and consequences for the future.
- **Management tools** to address the ongoing and predicted changes in Great Basin ecosystems.
- **Demonstration projects and pilot projects** that illustrate science-based adaptive management using collaborative frameworks involving researchers, managers and stakeholders.

Close collaboration between managers and researchers is needed to identify and prioritize focal issues and to develop effective collaborative efforts. Large-scale management “experiments” and ongoing adaptive management that involve the public and other partners are proven approaches for answering science questions and for developing widely-accepted management techniques. Science information serves as a basis for management planning efforts, for meeting NEPA and regulatory requirements, and for inventories, assessments, and trend monitoring. Increased management and research collaboration will ensure that accurate and reliable information is available to managers and decision makers. Increased involvement of the public and other partners will ensure that these decisions are acceptable to the public.

Historically, both research and management activities in the Great Basin have been severely under-supported. Monitoring information, for example precipitation, ground water and stream gauging data, is the sparsest in the nation, and the Great Basin is the only major ecoregion in the nation that does not have a National Science Foundation sponsored Long-Term Ecological Research site. Emphasis on research and management collaboration through GBRMP makes it possible to leverage limited funds, reduce overlap, and increase efficiency. Having a mechanism in place for effective collaboration will facilitate efficient use of new funds that may become available.

Several well-defined outcomes are anticipated that are consistent with the mission, goals and organizational structure of GBRMP. These include:

- An organizational structure to facilitate research and management collaboration.
- A mechanism for identifying and obtaining consensus on priority research and management issues.
- Information on research and management groups and collaborative projects in the region, their mission and goals, and their relationships to one another.
- An information clearinghouse to expand information sharing among researchers, managers, the public and other partners.
- Science and technical working groups operating within the existing research and management structure that synthesize existing information, and obtain needed information in areas where gaps are identified.
- Data and information that can be used for science-based management and to develop recommendations for actions by participating agencies, NGOs and other partners.
- A mechanism to monitor and communicate the results of research and management collaborations to citizens, managers, and policy makers.

Since formal establishment by an inter-organizational MOU in 2010, GBRMP has sponsored and developed regional meetings and symposia, created and sustained a web-site (<http://greatbasin.wr.usgs.gov/gbrmp/>), facilitated science and management proposals for regional cooperative research and management projects, and initiated successful new projects in the area of science delivery (Joint Fire Science - Fire Science Delivery Project; <http://www.gbfiresci.org/>), annual weed biology and management (Bromus REE-net; <http://greatbasin.wr.usgs.gov/gbrmp/bromus/BromusREENET.html>) and climate change mitigation (review of BLM Central Basin Resource Environmental Assessment).

II. Mission and Goals

The Great Basin Research and Management Partnership promotes comprehensive and complementary research and management collaborations to sustain ecosystems, resources and communities across the Great Basin. The specific goals of the GBRMP are to:

1. Maximize integration of science and management through partnerships and enhanced science translation and delivery.
2. Provide leadership and commitment through an integrated organizational framework that links science and management to addresses priority natural resources issues in the Great Basin.
3. Expand and facilitate inter-disciplinary, multi-organizational teams focused on solving these issues through collaborative management and research.
4. Increase efficiency and leveraging of limited resources, minimize duplication, and support collaborative efforts in pursuit of shared goals.
5. Implement communication and information sharing that enhances problem solving, demonstrates measurable results, and increases public support for Great Basin sustainability.

III. Outcomes

It is essential that the Partnership produce measurable and meaningful outcomes in support of its mission and goals. These are achieved through strategies and actions developed and coordinated by the GBRMP Coordinating Committee including:

- Contribute to agenda development through the annual meeting programs of GBC and GBRMP to directly address the issue of identifying and obtaining consensus on priority research and management issues.
- Maintain current list and web-tool for identifying research and management groups working in the region, their mission and goals, and their relationships to one another.
- Identify and implement ways to link existing collaborative efforts and programs, recognizing different levels of issues and solutions and the inter-connection among issues.
- Maintain a web-based clearing house for sharing information among researchers, managers, the public and other partners including: a research catalog and database; database of “expert” contacts working on regional problems; directory and links for information; funding source directory.
- Routinely communicate opportunities for collaboration, information sharing, and effective science delivery through the annual meeting program, website, and technical working group activities.
- Contribute expertise and organizational support for science-based management initiatives by participating agencies, NGOs, and other partners.
- Establish science and technical working groups within the existing research and management structure to synthesize existing information, obtain needed information in

areas where gaps are identified and develop recommendations that will provide a basis for action by participating agencies, NGOs, and other partners.

- Report annually on organizational progress and success, and communicate results to citizens, managers, and policy makers through the website and annual meetings.
- Promote ‘face to face’ time between managers, scientists, and other stakeholders through mechanisms such as workshops; regularly scheduled meetings; and support for focus-group activities, citizen science initiatives, and working-group activities.

IV. Organization and Operations

The organizational structure is comprised of an Executive Committee, Coordinating Committee and individual Working Groups. The envisioned composition and role of each group are described below:

Executive Committee

The Executive Committee provides guidance, oversight and authority for meeting the goals of this charter and works with the Coordinating Committee to meet those goals.

Major responsibilities of the Executive Committee:

- Provide leadership, commitment, and authority for the collaborative partnership and its projects and activities.
- Pursue and allocate internal resources (staff, facilities, funds) to facilitate effective participation of Member Organizations, create incentives for participation of personnel from Member Organizations, and develop strategies to generate support from Member Organizations for the collaborative partnership.
- Work with the Coordinating Committee to ensure that only high priority issues of regional importance are addressed by the Partnership.
- Work with the Coordinating Committee to evaluate progress in goal achievement and ensure a transparent reporting process.

Executive-Committee Membership. The Executive Committee is comprised of representatives from federal and State agencies, state universities, and non-governmental organizations that are signatory to the GBRMP Memorandum of Understanding. These members will be individuals who are administrative officials for their agency or organization with responsibility for science or management initiatives within the Great Basin and who have a desire to actively engage with the partnership.

Procedures. The Executive Committee will meet in conjunction with the Coordinating Committee at the annual GBC/GBRMP regional meeting and during conference call that will be held no less than quarterly. The Executive Committee leadership will consist of a Chair and Past-chair, each of whom will have a two-year term. A Chair-elect will be selected by vote of Executive-Committee members and will begin their term after the annual meeting.

The Executive Committee will pursue funding for a full-time Partnership Manager and necessary support staff to be recruited, appointed, and supervised by the Coordinating Committee to manage GBRMP activities and operations. The Partnership Manager will (1) assist the coordinating committee in development of Working Groups; (2) coordinate activities of the Working Groups and oversee day-to-day operations of the Partnership; (3) monitor performance and accomplishments of Partnership Working Groups and projects; (4) maintain program and project performance records; and (5) coordinate GBRMP meetings. The Partnership Manager will report to the Coordinating Committee and will be an integral part of annual reporting to the Executive Committee.

Coordinating Committee

The purpose of the Coordinating Committee will be to develop and execute GBRMP activities that meet the goals of this charter.

Major responsibilities of the Coordinating Committee:

- Develop and implement GBRMP projects and activities.
- Devise strategies to facilitate existing and new collaborations among Partnership participants.
- Identify and facilitate formation of Working Groups and oversee progress toward Working Group and Partnership goals.
- Ensure that progress toward achieving goals of the Partnership is monitored.
- Report annually at the GBC/GBRMP meeting on Partnership activities and progress toward goals.
- Identify needs, issues, and potential problems that need to be addressed by the Executive Committee.

Coordinating-Committee Membership. The Coordinating Committee will have the same potential organizational representation as the Executive Committee. Coordinating Committee members will be selected by the Coordinating Committee from each membership category. Membership on the Coordinating Committee will be limited to five years, and members will not serve more than two consecutive terms.

Procedures. The Coordinating Committee will meet annually at the GBC/GBRMP regional meeting and will conduct additional meetings by conference call no less than quarterly. The Coordinating Committee leadership will consist of a Chair or Co-chairs and Past-chair, each of whom will serve a two-year term. A new Chair or Co-chairs will be selected by vote of Coordinating-Committee members at the annual meeting and will begin their term following the meeting. The Past-chair will assist the Chair or Co-chairs in planning and executing the agenda of the Coordinating-Committee. The Coordinating Committee Chair will organize GBRMP meetings and will coordinate with the Executive Committee chair on meeting agendas, priorities, and action items.

It is the goal that all decisions and recommendations of the Coordinating Committee will be made by consensus. When this is not feasible, a majority vote will be used as an alternate means of arriving at a decision.

Working Groups

Working Groups are comprised of researchers, managers, stakeholders and other interested parties who will work together to address specific research, management, organizational or implementation issues for the Partnership. New Working Groups can be suggested by the Executive Committee, Coordinating Committee members or Partnership participants to the Coordinating Committee. The Coordinating Committee will evaluate the need for Working Groups and will assign GBRMP partner members to lead further development of Working Group initiatives.

Working Groups will address priority issues and make recommendations to ensure sustainability of Great Basin ecosystems. An Information Management Working Group has been established and will be maintained to facilitate information sharing and communication to the Partnership and provide technical supervision of the GBRMP website. Other Working Groups will be established when needed.

Examples of projects developed by GBRMP Working Groups include:

- Bromus REEnet Working Group was formed to coordinate networking and increase understanding of the distribution and abundance, impacts, and management of exotic and invasive species in the genus *Bromus* (Poaceae). *Bromus* species include some of the most damaging exotics in arid and semiarid ecosystems of the western US. These species are tightly linked to fire frequency and size, watershed stability, native biological diversity and, ultimately, the conversion of diverse perennial communities into annual grasslands with reduced agronomic and ecological value. The purpose of this working group is to foster communication among the many *Bromus* specialists in the western US and generate ideas for transformative research and extension on understanding and controlling exotic *Bromus* in semiarid rangelands. More information can be obtained on the website (<http://greatbasin.wr.usgs.gov/GBRMP/bromus/BromusREENET.html>).
- Fire Science Delivery Working Group was formed to create mechanisms for technology transfer from scientists to managers by developing a science delivery website, synthesis products, workshops, webinars, and meetings. This working group wrote a funded proposal for a project that was implemented under the Joint Fire Science Program as a member of the nation-wide Knowledge Exchange Consortia. More information can be obtained on the Great Basin Fire Science Delivery Project from their website (<http://www.gbfiresci.org/>).
- Information Management Working Group was formed to facilitate communication and information sharing in support of Partnership goals. This Working Group developed and maintains a web-based clearinghouse and other communication tools that can be accessed through the GBRMP website (<http://greatbasin.wr.usgs.gov/gbrmp/>).

V. General Membership and Participation in GBRMP

The following membership categories have been established and are managed through the Partnership/Experts database on the GBRMP website:

- MOU-Signatory Membership

This category of membership requires participation in the GBRMP Memorandum of Understanding and assignment of an individual to participate on the GBRMP Executive or Coordinating Committee.

- Organizational Membership

This category of membership pertains to local, state, tribal and NGO entities that want to register their interest and participation by submitting their organizational information to the GBRMP Partnership Directory, and by identifying an organizational representative to serve as a point of contact. The organizational contact will be responsible for keeping their information up to date in the web directory, and will receive information from GBRMP for dissemination to other interested people within their organization.

- Individual Participants

This category of membership is open to any interested individual who wishes to post their contact information, expertise and interests in the GBRMP Participant/Experts Directory. Participant information will be available to all other members and non-members of GBRMP through a directory search engine on the website.

This Charter will be updated periodically by the Coordinating Committee to reflect the current status of GBRMP organizational structure and function. The most current version of all GBRMP information and documentation is available on the website at:

<http://greatbasin.wr.usgs.gov/gbrmp/>



Figure 1. The focus of GBRMP is on the Great Basin as defined by similar climatic and floristic relationships (Figure 1). This region encompasses a five state area that is experiencing similar sociological and ecological concerns and includes most of the state of Nevada and parts of California, Oregon, Idaho and Utah. Because issues that affect the region do not always follow map boundaries, the collaborative efforts of GBRMP extend to adjacent areas that influence ecosystem sustainability within the Great Basin.