GREAT BASIN ENVIRONMENTAL PROGRAM

A Multi-state Partnership to Improve Land Health and Ecosystem Productivity

NEVADA • UTAH • IDAHO • OREGON • CALIFORNIA
Summary

FOCUS: INVASIVE PLANT SPECIES
- Wildfires
- Water Resources and Conservation
- Land Use and Health
- Urban, Rural Wildlands Mosaic
- Sustainable Communities and Their Cultures
- Biodiversity

FUNDING
- Initiated by a coalition of land grant universities and state agencies of the Great Basin states and has been funded by these institutions and a special $200,000 grant from the National Institute of Food and Agriculture (NIFA), USDA.
- First stage additional funding is being requested at $2 million per year to culminate the structure and organization of the GBEP, and conduct innovative multi-state on the ground pilot projects.
- Second stage funding similar to the major estuarial initiatives, if attained and allocated as indicated below, will make the GBEP the vanguard of a new set of terrestrial environmental initiative in the US.

ALLOCATION
70% for on-the-ground projects to mitigate the impacts of invasive species, the projects will be multistate with state agencies and NGOs to address invasive species impacts in each of the focus areas outlined above.
25% for research and education, including monitoring, mapping, and metrics development will be addressed by the universities, state agencies and NGOs. It is critical to develop monitoring and metrics that are easily communicable to the public and to address difficult research issues related to on-the-ground work.
5% for administration and communication of metrics. The project will need to be effectively managed to assure that the partners are working together and the metrics will have to be communicated in ways that are understandable to the public.

ORGANIZATIONAL STRUCTURE

GREAT BASIN GOVERNORS’ COUNCIL
- Identify program priorities
- Evaluate and communicate program success
- Advise the Commission

THE COMMISSION
- Make decisions and recommendations on grant funding
- Manage the GBEP
- Work with the ad hoc technical committees and other groups
- Approve monitoring systems and metrics

MEMBERSHIP IN THE COMMISSION
- Land grant Universities
- State Coalitions and Agencies
- Non-Governmental Organizations
- Native American Tribes
- Federal Agencies
- Other Great Basin Organizations
- Private Sector Affiliates

ADVISORY COUNCIL
(initial membership appointed by the Commission)
- Membership from the same groups as the Commission
- Information dissemination and advice to the Commission
- Broaden the participation of the GBEP

AD HOC TECHNICAL COMMITTEES
(appointed by the Commission)
- Evaluating proposals
- Recommending projects to the Commission
- Developing monitoring systems
- Developing and managing the annual reports on metrics
We will produce performance metrics for each of the priority areas for research and on the ground implementation.

BACKGROUND

The proposed Great Basin Environmental Program is a bold and innovative environmental management initiative similar to 25 other estuarial environmental programs that have been operating in the United States since the approval of the Clean Water Act. It will be the first such program aimed at a terrestrial area, the Great Basin, designated as one of the most imperiled ecosystems in the United States. The proposal will provide new funding, establish partnerships and integrate efforts with federal agencies, state agencies, tribes, NGOs and the private sector to address critical environmental issues.

The environment must be everyone’s business and be viewed in the broadest sense if the general public is to be more fully engaged. The proposed Great Basin Environmental Program will support existing initiatives addressing the environmental issues in the Great Basin, to help assure that they are adequately funded and will encompass broader areas than covered by existing projects. This broadness will reach to communities and cultures and to other issues that are presently not traditionally seen as part of the environmental challenge of the Great Basin.

The Great Basin Environmental Program will feature involvement from the communities, federal and state agencies, academic institutions, NGOs, tribes and the private sector in a comprehensive effort to reverse the environmental damage that currently exists as a result of the increasing expansion of invasive plant species. It will also support policies and regulations that can provide an improved livelihood for the growing and changing distribution of the population and visitors to the Great Basin by developing metrics that communicate effectively with the public and can educate about factors affecting the environmental condition.

Efforts under way in the Great Basin include, but are not limited to, the Joint Fire Sciences Program, the Sage Steppe Project, USDA IFAFS Restoration of Cheat Grass Infested Range Lands, the New Collaborative Management and Research in the Great Basin Effort, and the state “Conservation Partnerships” that address environmental damages from invasive plant species.

It is anticipated that some of the projects in these efforts could be singled out by the governors and the commission for direct support by the Great Basin Environmental Program. In addition, the collaborative effort will provide necessary new funding and overall coordination of the projects and programs, thus making existing programs addressing the environmental condition more effective.
The Great Basin is wedged between the Sierra Nevada Mountain range on the West, the Wasatch Branch of the Rocky Mountains on the East, and the Snake River on the North. The rough size of the Great Basin is about 900 miles North to South and 570 miles East to West. It includes the fast growing urban communities including Salt Lake City, Ogden-Layton, Provo-Orem, Reno-Sparks, Boise, Nampa, Logan, Idaho Falls, Pocatello, Carson City, and Bend. Las Vegas, although not in the Great Basin if defined on a drainage basis, has a major and increasing influence on its ecosystems.

The rapid progression of invasive plant species is influenced by three dominant factors:

• Population change and distribution
• Climate change, and
• Technology.

The urban and suburban populations are growing at a rate that will require different uses of water, create difficult urban rural interfaces, and are responsible for differing demands for environmental services by the population than in the past. Rural areas are experiencing changes as well, including depopulation, slowed economic growth and development, and an aging population.

Climate change is important and has the specter of increasing during this century. Estimates are that the climate has warmed by 0.6 to 1.1 degrees Fahrenheit during the past 100 years, and may warm from 3 to 6 degrees Fahrenheit by the end of the century (Environmental Protection Agency 1998 and Wagner 2003). With this change may come not only the gradual warming of the climate, but increased variability and severe storms.

Technology is the third feature identified to have an overarching influence on the environment. This embraces many positive and negative factors. Examples of positive factors include more water efficient residences, improved techniques of water management for mining and agriculture industries, new concepts of societal organization and action with the growth of NGOs, and capacities for added mapping and collection and organization of other information about the condition of the environment. Negative effects are present as well and include easier access to, and greater utilization of, wilderness areas, hunting and fishing pressures, improved roads, increased urban rural interface issues, and urban sprawl.

PUBLIC LANDS: A SPECIAL ISSUE FOR THE GREAT BASIN

Another unique feature of the Great Basin is the fact that the federal government owns most of the land; approximately 75 million acres, or 72 percent. Many of the industries that drive Great Basin economies are located on federal lands. Mining, agriculture and recreation industries are examples. These industries and resources are controlled by the federal government (Bureau of Land Management and the U.S. Forest Service) as well as various state agencies. With environmental degradation of the Great Basin there are conflicting pressures on these federal and
state agencies, and conflicting ideas about the best approaches to the management of these lands.

Other significant partners in the management of the Great Basin environment are the Native American Tribes. Reservations for these tribes occupy an important segment of the Great Basin and are at times located across states. Both public and private lands interface with Tribal Lands in the Great Basin, and for success of the environmental initiative, special consideration must be given both to the cultural heritage of the people, land conservation and natural resource restoration in the reservations. The present and future of the GBEP are rooted in the fact that the people on the reservations must be engaged as important stakeholders in the effort to improve the degrading environment of the Great Basin.

According to Noss et. al., 1995, and Wisdom 2005, the Great Basin is one of the most imperiled ecosystems in the United States. The Great Basin Environmental Program includes all organizations responsible for managing special problems in this ecosystem. The focal issue for the GBEP, which spans all areas of environmental management in the Great Basin, is the rapid growth and expansion of invasive plant species.

The proposed Great Basin Environmental Program will not only support pre-existing projects addressing environmental issues in the Great Basin, but will be more encompassing, involving consensus approaches to these difficult issues.
An initial organizational workshop for the Great Basin Environmental Program was held at the University of Nevada, Reno on October 26, 2006. In attendance at the workshop were forty representatives from the University of Nevada, Reno; the University of Idaho; the University of California, Davis; Oregon State University; Utah State University; the University of Nevada, Las Vegas; the Desert Research Institute; the Bureau of Land Management; the US Fish and Wildlife Service; the USDA Forest Service; the Nevada Department of Wildlife; and Resource Concepts Inc.

A major outcome from this workshop was the identification of, and agreement to support, the GBEP themes listed below. In addition, these themes were presented to selected representatives of state and federal agencies at a conference on Collaborative Watershed Management and Research in Reno on November 29, 2006. The agency leaders present agreed to sign a “Letter of Cooperation” endorsing the Great Basin Environmental Project.

At a meeting of the NGOs held in Reno on February 21 and 22, 2008 these themes were again endorsed by the approximately 200 participants. This endorsement is encouraging in terms of establishing the subject of a broad-based collaborative effort in the Great Basin.

As part of the 2009 $200,000 federal appropriation, the land grant universities and the state Conservation Partnerships formed to date (Utah and Nevada) again endorsed these themes and decided that invasive plant species are at the heart of Great Basin environmental problems. Invasive plant species became the focus of the GBEP as expressed within the six themes.

The six themes identified as GBEP priorities for attention in relation to invasive plant species are as follows.
Public understanding and appreciation of issues will be important for efforts to initiate regulatory and legal reforms, as well as changes in attitudes and individual behavior to improve the environmental quality of the Great Basin region.
It is well known that the public must be behind efforts to improve the environment and make it more sustainable, if these efforts are to succeed.