



PLI ACTIVITIES & ACHIEVEMENTS

MISSION:

The Public Lands Institute will be fully engaged in strengthening the national fabric that is essential for the protection, multiple use, sustainability, and management of public lands.

QUICK FACTS:

- Public Lands Initiative began January 2004.
- Public Lands Initiative became Public Lands Institute April 2005 with approval from the Nevada System of Higher Education Board of Regents.
- 62 permanent and temporary employees in four specialty areas: Environmental Education & Interpretation, Civic Engagement, Research & Support Services, and GIS/Database Management.
- \$16.3 million in SNMPLA funds from FY 04 to FY 10.
- 56 partners and friends from the university and public and private sectors.
- Association of Partners for Public Lands (APPL) awarded a Certificate of Achievement to PLI for its five years of exemplary service to the public lands community.
- Public Lands Institute also works in collaboration with the Southern Nevada Agency Partnership (SNAP), which includes the Bureau of Land Management, National Park Service, U.S. Fish & Wildlife Service, and U.S. Forest Service. SNAP has been working to coordinate the protection, conservation, and use of the federal lands of Southern Nevada.

ENVIRONMENTAL EDUCATION & INTERPRETATION

Issue:

The Las Vegas urban environment hinders personal connections with the natural environment and our public lands. The dramatic increase in litter, desert dumping, graffiti, and the destruction of cultural and natural resources illustrate this lack of understanding and responsibility. Research substantiates that regular contact with and play in the natural world as a child is critical to establishing an ethic of environmental stewardship as an adult (Bunting 1985, Schultz et al. 2004, and many other studies). Experiential education in outdoor learning situations can also have a positive impact on formal education. For example, Gerber et al. 2001 documented that informal learning environments positively impact students' scientific reasoning abilities.

CONSERVATION EDUCATION & INTERPRETATION STRATEGY/ FOREVER EARTH/DISCOVER MOJAVE

The CE&I strategy was originally identified as a tool that would help the four federal agencies make decisions about individual agency CE&I programming and services, and standardize messages about stewardship of the public lands.

Concurrent with strategy creation, the project also provided for the immediate operational, programmatic, and curricular development for two on-the-ground programs. The first was Forever Earth, a floating environmental laboratory and learning center at Lake Mead National Recreation Area. The second was Discover Mojave Outdoor World, a unique program that introduces at-risk urban youth (ages 8-10) to outdoor recreational experiences.

Results:

- Created and conducted the following as off-shoots of the CE&I Strategy:
 - Enviroedexchange.org Web site, an on-line field trip resource guide.
 - Education about the Environment Educators' Listserv.
 - *Our Places Tell Stories* Professional Conference.
 - Nevada Certification Program for Environmental Education and Interpretation. Twenty-four people from the summer and fall 2008 cohorts have successfully graduated.
- Designed, developed, and field tested an Off-Highway Vehicle Responsible Recreation curriculum for the Clark County School District (CCSD) high school driver education classes.
- Partnered with the Las Vegas Springs Preserve to create an on-line media/podcast project featuring a series of graphic stories featuring animals found in the Mojave Desert surrounding the Las Vegas Valley.
- Developed and implemented Families & Nature activities as part of Hispanic outreach strategy to connect people to the surrounding public lands and promote responsible use.

- Implemented the Discover Mojave Forever Earth program to benefit more than 4,985 students, teachers, researchers, agency personnel, and others.
- Raised funds and donations totaling approximately \$17,500 to enhance the program.
- Implemented the Discover Mojave Outdoor World program to benefit more than 1320 underserved children in Clark County.
- Partnered with Clark County School District so that its middle school physical education students participate in hiking, indoor rock climbing, and kayaking activities in the Outdoor World program.
- Partnerships with Hispanic community organizations resulting in successful cultural and outdoor recreation events.

CIVIC ENGAGEMENT

Issue:

Clark County has more than 7,000 documented archaeological sites, the third largest assortment of cultural sites in Nevada. In many cases, major sites such as Red Rock National Conservation Area (NCA), Sloan Canyon NCA, the Spring Mountains National Recreation Area (NRA), Lake Mead NRA, and the Las Vegas Wetlands are surrounded by or adjoin residential areas. Cultural sites, many of which have not been adequately documented, are in peril. Land managers have insufficient staffing and cannot act fast enough to impede the destruction.

CULTURAL SITE STEWARDSHIP PROGRAM

The agencies recognized that a volunteer-based, site-stewardship program is a potential solution to preserving Southern Nevada's irreplaceable cultural legacy. The objective of the Interagency Cultural Site Stewardship Program is to join local community organizations, tribes, and cultural and natural resource specialists to recruit and train specialized volunteers to monitor and protect sensitive cultural and natural resources.

Results:

- Created the Clark County Cultural Site Stewardship Relational Database, a secure data entry and query application for site stewards and cultural sites. A powerful feature is its ability to act as an accessible repository for hundreds of monitored sites which are imperiled as a product of population growth in Clark County.
- More than 400 site stewards and five regional coordinators are monitoring approximately 500 sites, and new sites are frequently submitted to land managers for monitoring consideration.
- Recognized with Department of the Interior Cooperative Conservation Service Award (2007).

Issue:

The continuous pressure on limited resources created an increased demand for volunteers to supplement federal staff on a regular basis, as well as to support special restoration and clean-up events. Because there are similarities between many of the activities volunteers perform on public lands, regardless of area or land agency, the recruiting, training, and recognition of volunteers by individual agency led to inefficiencies and duplication of effort.

SOUTHERN NEVADA INTERAGENCY VOLUNTEER PROGRAM

The agencies recognized that creation of a joint program would improve the efficiency and effectiveness of their individual activities and created the Southern Nevada Interagency Volunteer Program. Through PLI, the Interagency Volunteer Program is provided with a dynamic, centrally located operation that allows access to university resources that help facilitate campus and community awareness and meet volunteer recruitment objectives.

Results:

- Created a central clearinghouse for Southern Nevada public lands volunteers, including:
 - an online volunteer data-management application (Volgistics) adopted and customized for the program and populated with 4,957 active volunteer records.
 - a community outreach Web site that currently averages 68,086 hits per month.
 - branding development and marketing and outreach tool creation.
- Recognized with two consecutive National Take Pride in America Awards (2005 and 2006) in the Federal Program category.

Issue:

Illegal dumping and litter affect the environmental health and public safety in many ways. Illegally dumped materials and litter create areas that are more susceptible to flooding when waste blocks washes, channels, and other flood control devices. Burning of waste causes wildfires and contributes pollutants to the land. Dumped appliances are not only an eyesore but may release CFC to the environment. Economic impacts include the obvious problem of the cost of clean-up, with recent efforts having an estimated cost of over \$1.8 million.

TAKE PRIDE IN AMERICA IN SOUTHERN NEVADA

This program has developed and maintains a comprehensive and coordinated campaign to encourage clean-up and discourage littering and illegal dumping on public lands in Southern Nevada. Its Don't Trash Nevada messaging campaign informs the public about the issue and hopefully will lead to behavior change.

Results:

- Recognized with National Take Pride in America Award for best state program (2008).
- Conducted 65 clean-up events from March 2006 through March 2009.
- Total number of volunteers participating in clean-up events was 3537.
- Economic impact of volunteers was an estimated \$290,424.
- 1,697 cubic yards of waste removed by volunteers.
- Don't Trash Nevada messaging campaign generated website traffic totaling 841,742 server requests and 115,520 page requests from October 2006 to March 2009.

RESEARCH & SUPPORT SERVICES

Issue:

Clark County previously was known as one of the fastest growing metropolitan areas in the nation as well as populations of at least 142 species of mammals, 392 species of birds, 54 species of reptiles, 9 species of amphibians, 41 species of fish, and 775 species of plants. The unprecedented human population growth and development in Southern Nevada and the surrounding region – including portions of southwestern Utah, northwestern Arizona, and southeastern California – have resulted in the decline of numerous native populations of plants and animals, and fears of species extinction. Other stressors on public lands include invasive terrestrial and aquatic species and habitat destruction and fragmentation.

MULTI-DISCIPLINARY RESEARCH

PLI provides a unique blend of professional and research staff and collaborations with university research faculty and graduate students. PLI designs, facilitates, and conducts multi-disciplinary research, and provides support services to agency researchers and resource managers. Our local position allows the development of inclusive and responsive collaborations with agency personnel.

Our researchers, collaborative faculty, and students have the value-added component of native knowledge, and home-born concern for the regional environment and quality of life. PLI focuses on projects that will further our understanding of natural resources and systems, enhance decision making and adaptive management, inform the public, and improve public land stewardship.

Results:

- More than 11,700 acres were inventoried or monitored and 248 newly discovered archaeological sites were documented on Lake Mead National Recreation Area and Parashant National Monument.

- The Weed Sentry program surveyed more than 1,273 miles of federal lands in Clark County for invasive, exotic plant species. Weed Sentry also removed 623,168 individual invasive plants from federal lands. These removals represent pro-active efforts that may have forestalled large infestations difficult and costly to eradicate.
- Received a nationally competitive Joint Fire Science grant to identify native species that will help improve the restoration of arid lands following uncontrolled wildfires.
- Conducted monitoring and evaluation of Relict leopard frog, bald eagle, peregrine falcon, aquatic birds, shorebirds, and raptors.
- Providing technical assistance and developing best practices for the sampling and monitoring of quagga mussels at Lake Mead National Recreation Area.
- Implemented the inaugural peer review process for selection of science proposals for adaptive management on public lands.
- Planned and implemented Lake Mead Science Symposium with 150 attendees.
- 14 peer-reviewed research publications and 48 conference/poster presentations in 2008.
- Historic Walking Box Ranch listed on the National Register of Historic Places.

GIS/DATABASE MANAGEMENT

Issue:

As the focal point of the region's growth, Clark County covers approximately 7,880 square miles, or about 7 percent of Nevada's total area, and is by far the region's most populated county. The challenge is how to more efficiently manage and protect the most remarkable and rugged natural landscapes and realize healthier and more productive public lands through shared spatial and tabular data, images, documents and maps. The GIS/Data Management area works to increase technical support and services to integrate knowledge and data about natural and cultural resources across geographic landscapes.

GIS/DATABASE MANAGEMENT

PLI designs, develops, and analyzes geographic information systems and database management tools to facilitate multi-agency data sharing. We also provide expert services on natural and cultural resource data management issues.

Results:

- Coordinated the establishment of the UNLV GIS/Remote Sensing Core Laboratory.
- Implemented a database designed to manage and record stewardship involvement, agency information, and cultural site status.