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## **Education in the Environment: A Strategy for Continued** Interagency Outdoor Education Programming: Quarterly Progress Report, Period Ending November 30, 2007

**Environmental Education Strategy for Nevada** 

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#### **OUARTERLY PROGRESS REPORT**

University of Nevada, Las Vegas Period Ending November 30, 2007

#### Cooperative Agreement Number <u>H8R07060001</u> Task Agreement Number J8R07070004

# **Education in the Environment:**A Strategy for Continued Interagency Outdoor Education Programming

#### **Executive Summary**

During the past three months, the focus of the university's efforts has included the following highlights:

- Progress was made on three projects to meet SNAP strategic messaging needs: an antilitter exhibit; a volunteer restoration program with educational components; and activity stations to tell the story of Lee Meadows restoration efforts.
- Interpretive planning is underway for Mountain's Edge Explorer's Interpretive Trail.
- A Spanish class tailored to meet the communication needs of environmental educators and interpreters will be offered January 2008.
- Forever Earth was scheduled for 15 days and benefited 411 individuals.
- Eight Discover Mojave Outdoor World events were conducted for 102 participants.

#### CONSERVATION EDUCATION AND INTERPRETATION

The following progress has been made toward CE&I project objectives in this quarter.

Project 1 - Task 1. Assist CI teams in the implementation of at least three educational projects. a. Identify at least one project each year to focus on from the following areas of strategic importance to SNAP: litter prevention, responsible OHV recreation, wilderness, and/or restoration. Agency personnel, including SNAP CI teams, will assist in the identification these educational projects, providing necessary information and guidance. Project identification will be completed by August 31 of each year.

This task was completed during the first quarter. Three projects were identified: one in litter prevention and two in restoration.

b. SNAP Executive Director and PLI staff will work with SNAP Board of Directors to determine focus areas and context of delivery of messages for these focus areas.

This task was completed during the first quarter.

- c. PLI staff, appropriate agency staff, and other experts will determine the best set of delivery systems for each area of strategic importance. Possible delivery systems include brochures, kiosks, multi-media products, billboards, electronic devices such as MP3 players etc.
  - 1. Anti-Litter Exhibit. The Interagency Anti-Litter and Desert Dumping Team, PLI Project Managers Allison Brody and Daphne Sewing, and Las Vegas Natural History Museum staff have completed exhibit planning for the anti-litter exhibit to be installed in the Las Vegas Natural History Museum, including exhibit text, graphics, and multimedia components.
  - 2. Restoration, Education, Volunteerism (REV). Current Get Outdoors Nevada volunteers were surveyed at two events during September 2007 to help determine if a drop-in program format is the best delivery system for this restoration program, as well as the appropriate schedule for delivery (see Survey Results). The survey results do not indicate a strong desire to have a drop-in program. As well, for planning purposes, the interagency Restoration team expressed a need to have advanced knowledge about the number of volunteers likely to attend any given REV event. It was therefore decided to modify the delivery system of the REV drop-in program to consist of two components: an education day, and a volunteer restoration day. The education day will be "drop-in" -- that is, no pre-registration will be required. At the conclusion of this education day, participants will be given the option of signing up to participate in the restoration day.
  - 3. <u>Lee Meadows Interpretive Project</u> Five activity stations have been planned to engage families in a guided discovery of the natural world and foster a desire to help care for it (see Interpretive Project Details). Additional signs located throughout the Meadows will incorporate behavioral modification theory to relay anti-litter messages.
- d. Key user groups and best educational methodologies will be identified for each project, drawing upon the expertise of university faculty and staff. This will be completed by October 31 of each year.

This task was completed during the first quarter.

- e. CE&I products and services for the focus project will be created and implemented by PI/Project Manager Allison Brody with assistance from the UNLV graduate student, Curriculum Development Personnel, Media Relations, and Web Communications. UNLV fiscal and clerical personnel will assist the PI/Project Manager with ordering, tracking, and documenting the purchase and delivery of required materials, supplies, and equipment. Agency personnel will assist in product development, review, and execution within their agency educational programs. Examples of possible projects include brochures, interpretive signs, web site content, multi-media products, curricula, and/or programs delivered by CE&I staff. Each project will be completed by May 31 of each year.
  - 1. **Anti-Litter Exhibit.** Exhibit design has been completed.
  - 2. <u>REV</u>. SNAP Restoration team members, SNAP Science and Research team members, UNLV faculty, and PLI staff will complete syllabi and activities for the REV education days by January 2008.

#### 3. <u>Lee Meadows Interpretive Project</u>

Lee Meadows interpretive signs and activities will be pilot-tested by PLI staff prior to implementation. The purpose of this pilot will be to assess the effectiveness of sign text at relating knowledge, explaining how to do the activities, and motivating children and families to participate in the activities. Pilot participants will be observed reading and responding to the signs (see Observation Forms and Focus Group Guide).

### Project 1 – Task 2. Produce assessment proposals and reports for at least two CE&I products or services.

- a) PI/Project Manager has participated in the on-line Applied Environmental Education Program Evaluation course offered through University of Wisconsin/Stevens Point.
- b) An evaluation plan has been completed for the Lee Meadows Interpretive Project (*see Evaluation Plan*).
- c) Activity mock-ups will be pilot tested with fifth grade students enrolled in the Discover Mojave After-School Science Club (*see Activity Stations*).

# Project 1 – Task 3. Document number of people reached by CE&I programs and services of the four federal agencies and cooperating partners.

This task refers to subsequent years. No progress has been made this quarter.

Project 1 – Task 4. Work with at least one private sector group to implement at least two educational projects.

a. Identify two or more projects for delivering SNAP priority focus area messages to at least one private sector group. Examples of private sector groups interfacing with public lands include tour companies, concierge associations, and housing developers. Examples of projects that incorporate SNAP messages could be the development of a training program for a tour company or an interpretive plan for a trail system through a housing development. Agency personnel, including SNAP CI team members, will provide necessary information and guidance. SNAP Executive Director will work with PLI to develop concepts for private sector educational programs. At least one project will be identified by August 31, 2008, and an additional project will be identified by August 31, 2009.

One project has been identified: Mountain's Edge Explorer's Interpretive Trail.

Mountain's Edge is a Focus Property housing development located at the interface between Las Vegas and Southern Nevada public lands.

b. CE&I products and services for the focus project will be created and implemented by PI/Project Manager, with assistance from the Curriculum Development Personnel, the UNLV graduate student, and Media Relations. UNLV fiscal and clerical personnel will assist the PI/Project Manager with ordering, tracking, and documenting the purchase and delivery of required materials, supplies, and equipment. Agency personnel will assist in project execution. Each project will be completed by May 31 of each year (2008 and 2009, respectively).

The Mountain's Edge development encompasses a natural feature called Explorer's Peak. PI/Project Manager Allison Brody has met weekly with the Mountain's Edge Explorer's Club to

develop an interpretive plan for four trails leading up Explorer's Peak. A draft plan has been completed (http://groups.yahoo.com/group/MountainsEdgeExplorers/).

c. SNAP Executive Director will provide briefings to the SNAP Board of Directors on proposed private sector educational projects.

The final interpretive plan will be presented to the SNAP Executive Director.

Project 1 – Task 5. Work with the Hispanic community to implement at least two educational projects.

a. PLI staff, in coordination with the appropriate agency staff, will identify at least one project for delivering SNAP priority focus area messages to Hispanic community by convening one or more stakeholder meetings. Examples of potential projects include interpretive projects and educational programs delivered at community events. Project identification will be completed by January 31, 2009.

Partners for Environmental Cultural Connectedness (PECC) has been selected to participate in a collaborative planning team coordinated by the University of Wisconsin-Stevens Point (UW-SP) and Intercambios, a bi-national, bicultural consulting group that assists EE and health professionals make their training and delivery of other program services more culturally relevant. PI/Project Manager Allison Brody and Athena Cole (NPS) met with Planning Team members September 7-10 in Minnesota. Various planning tools received during this meeting should enable PECC to identify a project for delivering priority focus messages.

b. CE&I products and services for the focus project will be created and implemented by PI/Project Manager, with assistance from the Curriculum Development Personnel, the UNLV graduate student, and Media Relations. UNLV fiscal and clerical personnel will assist the PI/Project Manager with ordering, tracking, and documenting the purchase and delivery of required materials, supplies, and equipment. Agency personnel will assist in project execution.

No progress has been made this quarter.

c. PLI staff, in collaboration with agency staff, will identify additional potential projects or services suggested by follow-up stakeholder meetings.

No progress has been made this quarter.

d. PI/Project Manager, with assistance from the Curriculum Development Personnel, the UNLV graduate student, Media Relations, general clerical support, and agency personnel will create and implement one additional program or service for the Hispanic community, evaluating success and documenting milestones in a written report.

No progress has been made this quarter.

Project 1 – Task 6. Maintain and participate in area-wide cooperative CE&I effort.

a. Administer educators' listserv on a monthly basis, with assistance of Media Relations and Web Communications personnel and input from agency staff.

Two listserv postings were administered this quarter. Information from these postings can be viewed at www.enviroedexchange.org.

b. Facilitate bi-monthly meetings for Partners for Education about the Environment, a collaborative group of informal educators from more than 20 informal education organizations in the Las Vegas area, including representatives from each of the four federal agencies.

Two meetings were held this quarter on September 13, 2007 and November 2, 2007. Meeting notes are available on <a href="http://grovesite.com">http://grovesite.com</a>.

c. Appropriate agency staff will attend Partners for Education about the Environment meetings and work to collaboratively identify regional education focus and efforts.

Meetings were attended by agency staff from Lake Mead National Recreation Area.

d. Implement stated goals (see overview section) for Partners for Education about the Environment with assistance from Media Relations, general clerical support, agency personnel, and the UNLV graduate student.

Progress was made on several fronts:

- Best Practices Review Evaluating programs overview was developed (see <u>www.enviroedexchange.org</u>) and presented to nearly 40 educators attending Partners for Education about the Environment and CHOLLA (Connecting Hands Over Life Long Learning Adventures) meetings.
- 2. Our Places Tell Stories Conference 2008 a planning team has been meeting on a regular basis. The conference, planned for March 4-6, 2008, will address the theme: Designing for Our Community (meeting notes available on http://grovesite.com).
- 3. Agency staff and other professionals working on the statewide development team for the Nevada State Certification Program for Environmental Education and Interpretation (facilitated by PI/Project Manager Allison Brody) have developed core competencies; an internship and mentor training program; and curricula for three of four courses to be offered. Several components of these courses will be piloted at the 2008 Our Places Tell Stories conference.
- 4. PI/Project Manager Allison Brody, working in cooperation with Friends of Red Rock, has organized ¡Bienvenido Amigos! Spanish for Our Environment, a course that will provide customized language tools to foster effective linguistic and cultural communication in our workplaces, giving course participants skills to be more successful in visitor interactions and have more confidence in the workplace when interacting with Spanish speakers. This course, originally planned for September 2007, was rescheduled for January 2008 due to insufficient enrollment.

#### SUMMARY OF YEAR 4 DELIVERABLES - CE&I

Year Four Deliverables (June 2007 – May 2008)	Percent Complete as of November 30, 2007	Plan for Completion
Project 1 – Task 1		
a. Identify at least one project each year to focus efforts.	100% for Year 4	Three projects have been identified: 1. Anti-Litter Exhibit, 2. Restoration, Education, Volunteerism (REV), and 3.Lee Meadows Interpretive Project.
b. SNAP Executive Director and PLI staff will work with SNAP	100% for Year 4	

Board of Directors to determine focus areas and context of delivery of messages for these focus areas.		
c. Determine the best set of delivery systems for each project.	100% for Year 4	
d. Key user groups and best educational methodologies will be identified for each project.	100% for Year 4	
e. CE&I products and services for the focus project will be created and implemented.	20%	<ul> <li>a. Anti-Litter Exhibit Exhibit planning has been completed.</li> <li>b. REV The REV program will be piloted by spring 2008.</li> <li>c. Lee Meadows Interpretive Project Activity stations and anti-litter signs will be installed before 2010.</li> </ul>
Project 1 – Task 2		
a. Produce assessment proposals and reports for at least two CE&I products or services.	25%	Evaluation plan for the Lee Meadows Interpretive project has been completed.
Project 1—Task 4		
a. Identify projects for delivering SNAP priority focus area messages to at least one private sector group.	100% for Year 4	One project has been identified: The Mountain's Edge Explorer's Interpretive Trail.
b. Implement project.	25% for Year 4	Draft interpretive plan is complete.
c. SNAP Executive Director will provide briefings to the SNAP Board of Directors on proposed private sector educational projects.	0%	This will happen by January 2008.
Project 1 – Task 5		
a. PLI staff, in coordination with the appropriate agency staff, will identify at least one project for delivering SNAP priority focus area messages to Hispanic community by convening one or more stakeholder meetings.	20%	Planning is underway with guidance from EETAP and Intercambios.
b. CE&I products and services for the focus project will be created and implemented.	0%	Modification has been submitted to fund the creation and implementation of focus project.
Project 1 – Task 6		
a. Administer educators' listserv.	50% for Year 4	Five listserv postings have been completed.
b. Facilitate bi-monthly meetings for Partners for Education about the Environment.	50% for Year 4	Meetings were held September and November 2007.
c. Appropriate agency staff will attend Partners for Education about the Environment meetings.	50% for Year 4	Staff attended from USFWS, NPS, and Red Rock Interpretive Association.
d. Implement stated goals (see overview section) for Partners for	50% for Year 4	Our Places Tell Stories conference being planned for spring 2008.

Education about the Environment.	2.	Nevada State Certification Program for
		Environmental Education and Interpretation scheduled for pilot in March 2008.
	3.	¡Bienvenido Amigos! Spanish for Our Environment to be offered January 2008.

#### FOREVER EARTH PROGRAM

The following progress has been made toward Forever Earth project objectives in this quarter.

Project 2 – Task 1. Coordinate and schedule Forever Earth uses.

a. Revise Forever Earth Standard Operating Procedures (SOPs; Sewing et. al., 2006) and produce revised SOP edition.

This activity is on-schedule to be completed by August 31 of each year, beginning in 2008.

b. Provide training on revised SOPs for boat captains and deckhands. This activity will be completed by September 30 of each year.

Training was conducted on September 6, 2007 for Forever Earth boat crew, Project Manager Daphne Sewing, and Graduate Assistant Michelle Weibel. Drills were conducted for man overboard and fire situations. Captain Larry Mund facilitated review of the station bill, and Ms. Sewing provided an overview of the SOPs.

c. Maintain Forever website and update content.

This activity is on-schedule to be completed by May 31 of each year, as needed.

Project 2 – Task 2. Schedule and deliver educational programming for a minimum of 25 trips.

a. Coordinate with Clark County School District teachers as well as private school teachers and home school educators to schedule a minimum of 25 educational trips on Forever Earth. This will be completed by May 31 of each year.

In the second quarter, 362 passengers benefited from educational programming during 12 trips aboard Forever Earth. These are detailed in the following table. Highlights of Forever Earth educational use included:

- Forever Earth was used as a field trip opportunity during the State Conference for Art Teachers on October 13, 2007. Conference participants used the natural landscape for inspiration for their artwork while learning about Lake Mead.
- On October 16 and 18, 2007, seventh-grade students from Garrett Junior High School learned about Lake Mead's geology while participating in the "GSI: Geo-Scene Investigation" program.
- Sixth-grade students from Bailey Middle School (October 23 and 24, 2007) learned about invasive species and quagga mussels during activities in the "Alien Invaders" program.
- On October 30, fourth-grade students from Lunt Elementary and UNLV pre-service teachers learned about Lake Mead's water use cycle during activities aboard Forever Earth and participated in shore activities.

- Members of the Las Vegas Wash Coordination Committee facilitated a program of activities with fifth-grade students from Mabel Hoggard Elementary on November 2, 2007.
- Environmental Science Club members from Paradise Elementary participated in an Art Adventure, a Discover Mojave Outdoor World event, aboard Forever Earth on November 3, 2007. This was the culminating event for the group's fall activities.
- On November 6, 2007, high school students from Burk Horizon High School learned about invasive species and quagga mussels during activities in the "Alien Invaders" program.
- Seventh-grade students participating in Roy Martin Middle School's Gear-up Program learned about Lake Mead's geology while participating in the "GSI: Geo-Scene Investigation" program.
- Staff from the Public Lands Institute and the National Park Service participated in two days of facilitators' training on September 18 and 19, 2007. The purpose of the training was to familiarize staff with the Forever Earth curriculum and operating procedures.

(NOTE: See <u>List of all Forever Earth trips</u> conducted during the 2<sup>nd</sup> Quarter.)

#### Forever Earth Education Trips – Round 6 Year 1, 2nd Quarter

Date(s)	Group	Group Type	Trip Purpose	Trip Length	# of Adults	# of Students	Total # Pass.
18-Sep	Public Lands Institute	Education	Facilitators training	4 hrs.	10	0	10
19-Sep	Public Lands Institute	Education	Facilitators training	4 hrs.	9	0	9
13-Oct	Art Teachers Conference	Education	Conference field trip	6 hrs. (2 trips)	31	0	31
16-Oct	Garrett Jr. H.S. (7th grade)	Education	Student Field Trip	3.5 hrs. (2 trips)	9	30	39
18-Oct	Garrett Jr. H.S. (7th grade)	Education	Student Field Trip	3.5 hrs. (2 trips)	10	30	40
23-Oct	Bailey Middle School (6th grade)	Education	Student Field Trip	4 hrs. (2 trips)	8	39	47
24-Oct	Bailey Middle School (6th grade)	Education	Student Field Trip	4 hrs. (2 trips)	8	40	48
30-Oct	Lunt Elementary (4th grade)	Education	Student Field Trip	3 hrs. (2 trips)	13	20	33
2-Nov	Mabel Hoggard Elementary (5th grade)	Education	Student Field Trip	7 hrs. (2 trips)	8	28	36
3-Nov	Environmental Science Club, Paradise Elementary	Education	Outdoor World event	3 hrs.	4	6	10
6-Nov	Burk Horizon H.S.)	Education	Student Field Trip	4 hrs. (2 trips)	8	30	38
19-Nov	Roy Martin Middle School (7th grade)	Education	Student Field Trip	3.5 hrs.	5	16	21
TOTALS for 2 <sup>nd</sup> quarter		Education - 12 groups		Education 49.5 hrs.	123	239	362
TOTALS for Year 4		Education - 20 groups		Education 91.75 hrs.	228	425	653

b. Review and revise existing Forever Earth curricula (Sewing et. al, 2006) and produce 2007-2008 Edition. This will be completed by May 31 of each year, beginning in 2008.

Ms. Sewing is taking the lead on revising the shore activities as identified by the Forever Earth Curriculum Team during the 1<sup>st</sup> quarter; the revisions will be incorporated into the 2007/2008 edition. This task is on schedule for completion by May 31, 2008.

c. Drawing upon the expertise of university faculty and staff, develop and produce one additional curriculum module for sixth-grade students.

This activity will be completed by February 28, 2008.

d. Identify and purchase any needed program materials, supplies, equipment, and/or visual aids required for delivering the curriculum. This will be completed by May 31, 2008.

A prioritized list of desired visual aids was developed during the first quarter. Other program materials and supplies have been purchased as warranted by program needs. This activity will be completed by May 31, 2008.

e. Develop a partnership with one of the agencies responsible for water quality monitoring for integrating data collection performed by high school students into an ongoing research database.

This will be completed by May 31, 2008.

f. Develop one additional curriculum module for fifth grade students.

This will be completed by February 28, 2009.

g. Identify and purchase any needed program materials, supplies, equipment, and/or visual aids required for delivering the curriculum.

This will be completed by May 31, 2009.

h. Develop one additional curriculum module for fourth grade students.

This will be completed by February 28, 2010.

i. Identify and purchase any needed program materials, supplies, equipment, and/or visual aids required for delivering the curriculum.

This will be completed May 31, 2010.

j. Working with agency personnel and drawing upon the expertise of university faculty and staff, produce a written assessment report that summarizes changes in student and teacher knowledge, attitudes, and performance and includes recommendations for program improvement. Utilize UNLV research assistants and faculty as needed to collect and analyze data.

This will be completed by August 31 of each year.

Project 2 – Task 3. Schedule a minimum of three trips per year for research purposes. a. Develop and distribute a letter of introduction and a program brochure to university, state, and federal researchers in Nevada, Arizona, and Utah to inform them of Forever Earth and its purpose. This will be completed by August 31, 2007.

A more complete mailing list and/or email list is desired to make this a more effective marketing activity. A draft letter was developed during the first quarter. Distribution will occur by January 31, 2008.

b. Coordinate with university, state, and federal researchers to schedule Forever Earth for a minimum of three scientific research trips.

This will be completed by May 31 of each year.

c. Identify and purchase any needed research supplies and/or equipment.

This will be completed by May 31 of each year.

d. Revise Forever Earth program brochure (Sewing and Miller, 2006) as necessary. Distribute a letter of introduction and program brochure to university, state, and federal researchers in Nevada, Arizona, and Utah to inform them of Forever Earth and its purpose.

This will be completed by August 31, 2008 and 2009.

Project 2 – Task 4. Schedule Forever Earth as a mobile visitor center.

a. Coordinate with the Interpretive Division at Lake Mead National Recreation Area on a continuous basis to schedule Forever Earth at least twice per month during peak visitation (June, July, August of each year).

Activities related to this task were conducted during the 1<sup>st</sup> quarter.

Project 2 – Task 5. Provide Forever Earth for agency purposes for a minimum of six trips per year.

a. Coordinate on a continuous basis with local, state, and federal agencies to schedule Forever Earth for a minimum of six trips per year. This will be completed by May 31 of each year.

In the second quarter, Forever Earth was utilized on three occasions for agency purposes. These are detailed in the following table. Highlights of Forever Earth agency use included:

- Forever Earth boat crew and UNLV Public Lands Institute staff practiced emergency drills on September 6, 2007. In addition, crew and staff became familiar with the station bill and standard operating procedures.
- On September 13, 2007, personnel from federal, state, regional, and local agencies with responsibilities for Lake Mead water quality used Forever Earth to standardize measuring instruments.
- Resource management staff and volunteers with U.S. Forest Service utilized Forever
  Earth to learn about Lake Mead and its natural and physical resources. The activity was
  also a culminating season event for their volunteers.

#### Forever Earth Agency Trips – Round 6 Year 1, 2nd Quarter

Date(s)	Group	Group Type	Trip Purpose	Trip Length	# of Adults	# of Students	Total # Pass.
6-Sep	Public Lands Institute	Agency	Emergency drills for boat operations	3 hrs.	2	0	2
13-Sep	National Park Service	Agency	Standardize water quality instruments	4 hrs.	28	0	28
20-Sep	U.S. Forest Service	Agency	Culminating season event	6 hrs.	19	0	19
TOTALS for 2 <sup>nd</sup> quarter		Agency - 3 groups		Agency - 13 hrs.	49	0	49
TOTALS for Year 4		Agency – 3 groups		Agency 13 hrs.	49	0	49

Project 2 – Task 6. Provide funding for student field trips to public land sites.

PI/Project Manager Daphne Sewing, with the assistance from the UNLV graduate student, will coordinate and disburse transportation funding for field trips to public lands by Clark County School District students.

a. Produce a written report on Transporting Students to Public Land Sites for Field Trips. The report will include recommendations for future implementation.

This will be done by May 31, 2008.

b. During the 2007-2008 school year, provide transportation funding for a minimum of 15 field trips to public lands.

This will be done by May 31, 2008.

c. During the 2008-2009 school year, provide transportation funding for a minimum of 35 field trips to public lands.

This will be done by May 31, 2009.

d. During the 2009-2010 school year, provide transportation funding for a minimum of 35 field trips to public lands.

This will be done by May 31, 2010.

#### Project 2 – Task 7. Implement additional program assistance.

PI/Project Manager Daphne Sewing, with assistance from the UNLV graduate student, will evaluate and, to the extent possible, implement a volunteer or other workforce structure to increase the scope of delivery and impact of the program.

a. Determine and, to the extent possible, implement the most efficient, high-quality delivery structure for the Forever Earth program.

This will be done by May 31, 2010.

#### ADDITIONAL WORK ACCOMPLISHED FOR THIS PROJECT

During the month of September, Ms. Sewing and Ms. Weibel participated in training sessions conducted by the National Park Service for its new Student Conservation Association volunteers. Sessions focused on Lake Mead's natural, cultural, and physical resources and their management.

#### DISCOVER MOJAVE OUTDOOR WORLD

The following progress has been made toward Outdoor World project objectives in this quarter.

Project 3 – Task 1. Conduct a minimum of 25 Outdoor World events annually.

a. Coordinate and develop a schedule of events for the year. This will be completed by September 30 of each year.

A draft schedule of activities for Round 6 Year 1 has been developed (<u>see Discover Mojave Outdoor World Schedule</u>). Interest from recreational and community centers to schedule additional activities will be reflected in subsequent revisions of this schedule.

# b. Utilize UNLV students and staff, volunteers, and federal agency personnel to conduct a minimum of 25 events. This will be completed by May 31 of each year.

In this quarter, 8 events were conducted for 102 participants (see table below). Participants in these events were members of the after-school Environmental Science Club from Paradise Elementary School. Club members were divided into two groups, Bobcats and Coyotes, and each group participated in rock climbing, fishing, bird watching, camping, and art adventure activities.

#### Discover Mojave Outdoor World Schedule Round 6 Year 1, 2<sup>nd</sup> Quarter

DATE	GROUP	# of PARTICIPANTS	ACTIVITY	LOCATION
Wed., Sept. 26	Bobcats Environmental Science Club, Paradise Elementary	18	Rock Climbing	Nevada Indoor Climbing Center
Wed., Oct. 3	Coyotes Environmental Science Club, Paradise Elementary	14	Rock Climbing	Nevada Indoor Climbing Center
Fri., Oct. 5	Bobcats and Coyotes Environmental Science Club, Paradise Elementary	16	Camping	Walking Box Ranch
Wed., Oct 10	Bobcats Environmental Science Club, Paradise Elementary	15	Bird Watching	Sunset Park
Wed., Oct. 17	Coyotes Environmental Science Club, Paradise Elementary	151	Fishing	Sunset Park
Wed., Oct. 24	Bobcats Environmental Science Club, Paradise Elementary	141	Fishing	Sunset Park
Wed., Oct. 31	Coyotes Environmental Science Club, Paradise Elementary	4 1	Bird Watching	Sunset Park

Sat., Nov. 3	Bobcats and Coyotes	6	Science and Art	Forever
	Environmental		Adventure	Earth/Lake Mead
	Science Club,			
	Paradise Elementary			
TOTALS for 2 <sup>nd</sup>	8 Events	102		
Quarter				
TOTALS for	20 Events	328		
Round 6 Yr. 1				

c. Draw upon the expertise of university faculty and staff to produce a written assessment report that summarizes changes in participant knowledge, attitudes, and performance and includes recommendations for program improvement. Utilize UNLV research assistants as needed to collect and analyze data.

This will be completed by August 31 of each year, beginning in 2008.

d. Maintain website to highlight program activities and partner contributions and update content as necessary. Website content will be evaluated regularly by agency staff.

This will be completed by May 31 of each year.

Project 3 – Task 2. Develop a minimum of one new Outdoor World activity each year.
a. UNLV and agency staff will work together to identify the type of recreational activity to develop into an additional event for targeted youth audience. This will be completed by August 31 of each year.

A camping event was developed and field tested on October 5-6, 2007. Members of the after-school Environmental Science Club from Paradise Elementary School participated in an overnight camp-out at Walking Box Ranch. Participants learned how to set up and take down tents, shared cooking and clean-up duties, learned about the ranch and its history, and took part in nature walks and other activities and games.

b. Develop curriculum (goals, objectives, programs, activities, locations, etc.) for the selected recreational activity.

This activity will be completed by January 31 of each year.

c. Field test new event curriculum, make changes, and finalize curriculum. This will be completed by May 31 of each year.

This activity will be completed by May 31 of each year.

Project 3 – Task 3. Develop a minimum of two partnerships that increase the impact of the program each year to assist in conducting Outdoor World events, providing financial assistance, or supplying the desired target audience of economically disadvantaged youth, ages 8-12.

a. UNLV, SNAP Executive Director, and SNAP Board of Directors work together to identify potential new partners.

No work was completed on this task during the second quarter.

b. UNLV and appropriate agency staff, including the SNAP Board of Directors, will contact potential partners for intended purposes. This will be completed by October 31 of each year.

This task was completed during the first quarter.

c. Formulate a minimum of one partnership. This will be completed by January 31 of each year.

This task was completed during the first quarter.

#### d. Highlight partner contributions on website.

This activity will be completed by May 31 of each year.

#### Project 3 – Task 4. Implement additional program assistance.

PI/Project Manager Daphne Sewing, with assistance from the UNLV graduate student, will evaluate and, to the extent possible, implement a volunteer or other workforce structure to increase the scope of delivery and impact of the program.

a. Determine and, to the extent possible, implement the most efficient, high quality delivery structure for the Outdoor World program.

This will be done by May 31, 2010.

#### ADDITIONAL WORK ACCOMPLISHED FOR THIS PROJECT

Two presentations focusing on the Outdoor World assessment tools and results were made at professional conferences during this quarter.

On November 8, 2007 at the 2007 National Conference for the American Evaluation Association in Baltimore, Maryland, Dr. Lori Olafson of the UNLV Department of Educational Psychology and Michelle Weibel, a doctoral student at the UNLV Public Lands Institute, co-presented a session titled "School District: Adding Teacher and Parent Assessment Measures."

Dr. Gregg Schraw, UNLV Department of Educational Psychology, presented a session titled "The Effect of Discover Mojave Outdoor World on Learning, Performance, and Attitudes" at the Research Symposium for the 2007 National Conference for the North American Association for Environmental Education, November 14, 2007, Virginia Beach, Virginia.

#### STATUS OF ROUND 6 YEAR 1 DELIVERABLES – FOREVER EARTH & OUTDOOR WORLD

Year Four Deliverables	Percent Complete as	Plan for Completion
(June 2007 – May 2008)	0f	
EODENED EADEH	November 30, 2007	
FOREVER EARTH		
Project 2 – Task 1	0.01	
a. Revise SOP.	0%	Operational changes will be identified during scheduled boat training and facilitators' training and incorporated into the SOP.
b. Provide training on SOP for boat crew.	100%	Training was conducted on September 6, 2007.
c. Update and maintain website.	0%	Upon completion of 4 <sup>th</sup> grade pre- and post-trip activities, all grade level pre- and post-trip activities will be posted on the Forever Earth website. This is anticipated to occur during the 2 <sup>nd</sup> quarter.
Project 2 – Task 2		
a. Schedule a minimum of 25 educational trips.	80%	Additional reservations will occur throughout the school year.
b. Produce 2007/2008 edition of FE curriculum.	30%	Plans for revising shore activities have been made; 6 <sup>th</sup> grade curriculum is being re-written to reflect quagga mussel discovery. The curriculum will be completed during the 3 <sup>rd</sup> quarter.
c. Develop additional 6 <sup>th</sup> grade curriculum.	0%	This is to be completed during the 3 <sup>rd</sup> quarter.
d. Purchase program materials, supplies, and visual aids.	40%	Visual aid and equipment needs have been identified for the 2007/2008 school year.
e. Develop partnership for integrating data collected by high school students into existing research data base.	0%	Craig Palmer and others will be working with the project manager to develop plan for this element.
Project 2 – Task 3		
a. Distribute information about Forever Earth to researchers in regional area.	75%	Program assistant is collecting email addresses and/or mail addresses for regional researchers.
b. Schedule 3 scientific research trips on Forever Earth.	50%	These will be scheduled throughout the year.
c. Purchase needed research supplies and equipment.	0%	Purchases will be made dependent on needs identified by researchers.
Project 2 – Task 4		
a. Schedule Forever Earth as a mobile visitor center twice per month during June, July, and August.	50%	NPS could only schedule three trips this summer due to staffing constraints.
Project 2 – Task 5		
a. Schedule a minimum of 6 trips for agency purposes.	50%	More trips will be scheduled throughout the year.
Project 2 – Task 6		
a. Produce report "Transporting Students to Public Lands for Field Trips.	0%	Graduate assistant and other Public Lands Institute personnel have started gathering information about transportation options.
b. Provide bus transportation funds for 15 student field trips.	0%	This will occur when money is transferred to the Public Lands Institute and as the school year progresses.
Project 2 – Task 7		
a. Determine delivery system.	25%	Currently working with Allyson Butler, Vista Volunteer, to analyze potential delivery systems.

60%	Draft schedule will be modified as more events are
000/	scheduled by partners.
80%	Current partners indicate they will schedule more events throughout the year.
0%	New partners will be highlighted on website. This is expected to occur during the second quarter.
100%	Completed. A camping experience will be developed.
20%	This is expected to occur during the third quarter.
100%	Completed.
100%	Completed.
100%	Completed.
200%	Two new partnerships were established in the first
	quarter.
0%	New partners will be highlighted on website. This
	is expected to occur during the second quarter.
20%	Will work with Allyson Butler, Vista Volunteer, to analyze potential delivery systems.
	80%  0%  100%  20%  100%  100%  200%  0%

Submitted by:

	November 30, 2007
Margaret N. Rees	Date
Principal Investigator	

# REV Survey Results for Efficacy of Drop-In Program

Survey results from two Get Outdoors Nevada events – Sloan Canyon (9/22, 8:00 a.m. – 9:00 a.m.) and Government Wash (9/29, 7:45 a.m. – 8:30 a.m.).

1.	Would you like regularly-scheduled volunteer days that you could "drop in" on without pre-registering? For example: "Every third Saturday go to this location to participate in a volunteer event."
	○ Yes
	O No
	O Don't know / Undecided 14
2.	If the idea of a Drop-In day appeals to you, do you have a preference for day of the week?
	O Weekend24 Day preference? Sat1 Sun1
	O Weekday5 Day preference? _1 M _0 _T1 W3 _T _2 _F
	O Doesn't matter 4
	O Don't know / Undecided1
3.	How often should these opportunities be offered?
	Once/month 25
	Once every two months5
	O Once every three months2
ımı	mary

#### Summary

The Government Wash event seemed to have a relatively large number of groups participating. These groups often volunteer to fulfill community volunteer service goals, and it is likely easier for the organizers to plan ahead and therefore not favor a drop-in program. Perhaps these folks have different viewpoints than individual volunteers.

#### The break-out:

Event	Desire drop-in program	Do not want drop-in program or do not care
Sloan Canyon	20	13
Government Wash	8	16
TOTALS	28	29

#### **Back**

# Lee Meadows Interpretive Project Details

#### Lee Meadows . . . Naturally

Interpretive area contains 5 Activity Stations. Stations are clustered; a single sign acts as entry points to the stations. This sign not only introduces the stations, but helps visitors organize their experience.

The five activity stations are:

#### Locomotion

Visitors participate in the Speed Challenge (can you run faster than a lizard?) and the Locomotion Challenge (can you walk like a spider?).

#### **Colors and Patterns**

Visitors sit in the Butterfly Blind to observe plants and animals. Visitors are encouraged to observe different ways that plants and animals use colors and patterns by participating in the Color Challenge and the Pattern Challenge.

#### **Interactions**

Visitors identify various animal tracks stamped into a concrete "tracking strip," interpreting stories of interactions among various plants and animals.

#### Sense of Place

Visitors learn historical uses of Lee Meadows and sight along a giant compass to find and identify various landscape features.

#### Restoration and Stewardship

Visitors observe a Restoration Exclosure to learn about restoration efforts and how they will help the plants and animals of Lee Meadows. Visitors also identify actions they can take to help.

#### Lee Meadows . . . . Naturally

**Theme**: Lee Meadows creates connections between families and nature in many ways.

**Sub-theme** – the plants and animals of Lee Meadows are connected in different ways. **Sub-theme** – You can connect to Lee Meadows and the surrounding area in different ways.

**Sub-theme** – Join the Forest Service in caring for this special place.

**Objectives:** visitors will engage in activity stations that:

- 1. are inviting, involving and accessible to all audiences, including Hispanic;
- 2. help parents learn with their children;
- 3. connect to the user intellectually and emotionally; provide choices, challenges, and opportunities to make use of different learning styles.

#### Layout

**Space** – 1' x 4'

#### **Activity Station Elements**

Sign	Description	Total Number
Introduction of activity	4'x6' sign cut into shape of a	1
stations; a way to organize	butterfly, mounted on steel frame (4'	
the experience, motivate	to center).	
people to participate, and	·	
know what to expect.		

#### Sign Details

<u>Introduction of theme, activities</u> introduces five activity stations: Locomotion, Interactions, Colors and Patterns, Sense of Place, and Stewardship. Bilingual text.

#### Text Story:

- 1. Discover Lee Meadows . . . Naturally.
  - Explore stories of connection at Lee Meadows find the Giant Field Guides to lead the way!
  - Along the way, you will track a bobcat; race a lizard; hide in a Butterfly Blind; work a
    giant compass; and much more.
- 2. Wayfinding: display map of activity stations

#### Graphics needed:

- Lee Meadows Activity Station identifying graphic
- Line drawings of children and families engaged in activities
- Map with icons for Field Guide locations

#### LOCOMOTION

Theme: Animals in Lee Meadows move in many different ways

**Objectives:** visitors who engage in this activity:

- 1. will be able to identify at least two different ways that animals move;
- 2. will mimic the way at least two different animals move;
- 3. will be able to cite at least two different ways that movement helps an animal survive in Lee Meadows

#### Layout

**Space** – 50' x 30' area

**Activity Station Elements** 

Sign	Description	Total Number
Giant Field Guide	Panel is 3' high, 4' wide	1
Introduction of theme, activities	mounted in a metal frame,	
	angled (bottom of sign is 3' from	
	ground). "Field Guide" format	
	contains 2 "pages" mounted via	
	spiral binding to panel (6 pages	
	total).	
Speed Challenge instructions –	Panel is 3' high, 2' wide,	1

Who will be fastest?	mounted in a metal frame, vertical (4' to center)	
Speed Challenge contenders	1-1.5' wide x 3' high (total height) cut-out in shape of animals mounted flush to the ground	4
Speed Challenge contender finish times	1' x 1' flip signs (spiral bound) cut out in shape of contenders mounted on post (3' to center)	5
Speed Challenge start and finish signs (if can't think of another way to indicate start and finish)	1' diameter circular sign, mounted on a post (2' to center)	2
Locomotion Challenge contenders	1'-1.5' wide, 3' high cut out in shape of animals mounted flush to the ground	5
OTHER		
Hollow log	10' long, 3' inside diameter	1
Hard-pack race track	5' wide, 50' long	1
Hard-pack area under log	15' long, 5' wide	1

#### Sign Details

<u>Giant Field Guide introduces theme, activities</u> introduces two activity areas: Locomotion Challenge and Distance Challenge. Bilingual text.

#### **Text Stories:**

- Locomotion Challenge animals use many different types of locomotion to move. Can you name some different ways that animals move? Walk, crawl, run, climb, swim, fly, slither, dig
  - Some animals move to search for food. How does a coyote move to hunt? An owl?
  - Some animals use movement to show off to others of their kind. Can you think of ways that humans do this (dancing)
  - Some animals use movement to escape danger. Where does a rabbit go to be safe?
     A mouse?
- 3. Speed Challenge Many animals move very fast as they hunt for food or escape danger. What do you think are the fastest animals in Lee Meadows? The slowest? Take the Speed Challenge to find out and compare how you measure up!

#### Graphics needed:

- Lee Meadows Activity Station identifying graphic
- Photographs of: Coyote running; rodent digging a burrow; great horned owl flying; golden eagle courtship; spider walking
- Colorful drawings of Speed Challenge contenders (probably: skink; spider; rabbit; elk; peregrine falcon; child)

#### Speed Challenge instructions introduces the Speed Challenge. Bilingual text.

- Race against these four contenders.
- Who will be fastest? Slowest?

• Start at the "start line" and see how many seconds it takes you to cross the finish line. Then see who you beat – and who beat you!

#### Graphics needed:

- Lee Meadows Activity Station identifying graphic
- Colorful drawings of Speed Challenge contenders (probably: skink; spider; rabbit; elk; peregrine falcon; child wearing a track suit)

**Speed Challenge contenders** are the individuals taking the Speed Challenge. Bilingual text.

 Cut-out of the same drawings used in the Introductory panel and the Speed Challenge instruction panel. Name of animal across the animals' chest in large, playful font (name written in Spanish and English). Contenders include the animals only (not the child).

Start and Finish lines are flush to the ground.

<u>Speed Challenge finishers</u> are small flip signs cut out in the shape of contender (with name) on front – bottom flip panel reveals the time it took the animal to complete the challenge. Flip panels include a human sprinter.

#### Graphics needed:

• Colorful drawings of Speed Challenge contenders (probably: skink; spider; rabbit; elk; peregrine falcon; child wearing a track suit)

Animal	Time to Finish (50 feet)
Lizard	15.2 seconds
Butterfly	5.2 seconds
Rabbit	31.7 seconds
Mountain Lion	.85 seconds
Cooper's Hawk	.57 seconds

<u>Locomotion Challenge contenders</u> are signs cut out in shape of contender and text describing locomotion style (very descriptive, e.g., detailing the movement of a spider's legs as it walks) and how this locomotion helps the animal.

#### Graphics needed:

 Colorful drawings of Locomotion Challenge contenders (probably: kangaroo rat (hop); chipmunk (hide in log); hummingbird (hover; fly backward); spider (walk); lizard (push-ups)

#### **Colors and Patterns**

**Theme**: Plants and animals in Lee Meadows use colors and patterns in different ways

**Objectives:** visitors who engage in this activity:

- 1. 75% will engage in color challenge and/or pattern search;
- 2. 75% will be able to cite at least two different ways that colors and patterns help plants and animals survive in Lee Meadows;

3. 75% will sit at the Butterfly Blind to observe nature – animals (including insects) and plants.

#### Layout

**Space** – 16' x 20' area

**Activity Station Elements** 

Sign	Description	Total Number
Giant Field Guide Introduction of theme, activities	Panel is 3' high, 4' wide mounted in a metal frame, angled (bottom of sign is 3' from ground). "Field Guide" format contains 2 "pages" mounted via spiral binding to panel (6 pages total).	1
Introduction to Butterfly Blind – Why a Butterfly Blind?	1' x 2' panel mounted on back wall of butterfly blind	1
Mural	Panel is 7' wide x 4' high, mounted on Butterfly Blind wall	1
Nature ID Field Guide	Panel is 1' wide and 3' tall, mounted on either side of Butterfly Blind viewing window	2
OTHER		
Butterfly Blind	Structure is 5' x 9', 6' tall at back, 4.5' tall at front. Two walls (front and back) – front wall with large viewing window. Bench is rough wood, 1' high, 7'long and 2' high	1

#### Sign Details

Giant Field Guide introduces theme, activities introduces the Butterfly Blind. Bilingual text.

#### Text Stories:

- 1. Colors and patterns– plants and animals use colors and patterns to help them in different ways. Can you name some different ways that plants and animals might use colors and patterns?
  - Some animals use colors and patterns to hide (camouflage examples).
  - Some animals use colors and patterns to show off to others of their own kind. Can you think of ways that humans do this (dressing up)? Butterflies can use their wings one way to hide, then another way to show off!
  - Some plants use colors and patterns to attract animals. Flowers don't try to hide they want their pollinators to find them!
  - Some plants and animals use colors and patterns to warn that they are dangerous.
     Monarch butterflies are yellow and black, signaling that illness will befall anything that tries to eat it. Red, orange and yellow are warning colors. What color are school buses?

- 2. Patterns plants and animals use stripes, spots and other colorful patterns to help them. Photographs of various patterns what patterns do you see? Can you spot vertical (up and down) stripes; horizontal (side-to-side stripes); spots; stripes and spots? Which are using patterns to hide? To show off?
  - Take the Pattern Challenge! Which patterns do you think you will see most? Least? Find out! Gain one point for everything that you see that has:

#### Pattern

Vertical stripes Horizontal stripes

Spots

Spots and stripes

- Hint: assign one pattern per group member. Whoever accumulates the most points wins the challenge!
- 3. Colors how many different colors can be found throughout Lee Meadows? Which colors are most useful? Which colors are least useful? Why?
  - Take the Color Challenge! Gain one point for everything that you see that has:

Color	Points (per color		
Brown or black	1		
Blue or red	1		
Yellow or green	1		

• Hint: assign one color group per group member. Whoever accumulates the most points wins the challenge!

#### Graphics needed:

- Lee Meadows Activity Station identifying graphic
- Photographs of a camouflaged animal, a colorful displaying animal, a butterfly
  with wings folded and wings flat, a colorful flower with bee, a gila monster, and a
  butterfly, an organism with vertical stripes, an organism with horizontal stripes,
  one with spots, one with spots and stripes, organisms predominately
  brown/black, yellow; green, and organisms with at least some red and blue.

#### **Butterfly Blind Introduction** names the structure and explains Why a Butterfly Blind?

• Lee Meadows and the surrounding area provide a special home to butterflies – some are found nowhere else on earth.

#### Graphics needed:

- Fun title graphic
- Photographs of endemic butterfly species

**<u>Butterfly Blind Mural</u>** reproduction of mural found in Visitor Center. Color challenge and Pattern challenge instructions included along the side of the mural.

**Nature ID Field Guides** Line drawings of about 6 animals most likely to be spotted from the blind (including butterflies); and 3-4 plants that can be seen from the blind.

<u>Volunteer Corps</u>: Place simple attractants/feeders for birds, butterflies and hummingbirds. On special event days, volunteers can facilitate children's activities for creating attractants (e.g., pine cone bird feeders with peanut butter and seeds).

#### **Interactions**

**Theme**: There are many plants and animals that call Lee Meadows home. How do they live together?

**Objectives:** visitors who engage in this activity:

- 1. will be able to identify at least two interactions between animals, and at least two interactions between plants and animals;
- 2. 75% will be able to identify several animal tracks;
- 3. 75% will "read" the track strip and create a story about interactions.

#### Layout

**Space** – 15' x 15' area

**Activity Station Elements** 

Sign	Description	Total Number
Giant Field Guide Introduction of theme, activities	Panel is 3' high, 4' wide mounted in a metal frame, angled (bottom of sign is 3' from ground). "Field Guide" format contains 2 "pages" mounted via spiral binding to panel (6 pages total).	1
Tracking Story instructions	Panel is 3' high, 2' wide, mounted in a metal frame, vertical (4' to center)	1
OTHER		
Tracking Strip	Concrete (natural color, rough edges, slightly curved) 15' long and 5' wide	1

#### Sign Details

<u>Giant Field Guide introduces theme, activities</u> introduces plant and animal connections. Bilingual text.

#### Text Stories:

- 1. Types of connections— plants and animals depend on each other in different ways. Can you name some different ways that animals depend on other animals? On plants? Do plants depend on animals?
  - 1. Some animals survive by eating other animals (cougar and rabbit).
  - 2. Some animals can survive by eating only plants (elk and browse).
  - 3. Some animals eat both plants and animals (coyote and berries; mice).
  - 4. Some plants depend on animals to spread their pollen (flower and butterfly).
  - 5. Some plants depend on animals to spread their seeds (nutcracker and pine cones).
- 2. Natural Connections: Take the Challenge! What evidence of connections can you find in Lee Meadows? Try to find evidence of these:

	<u>Points</u>
An animal that depends on another animal	1
An animal that depends on a plant	1
A plant that depends on an animal	1
A small animal that depends on a larger animal	2

 Hint: You can gain some points by interpreting the Tracking Story. Whoever accumulates the most points wins the challenge!

#### Graphics needed:

- Lee Meadows Activity Station identifying graphic
- Photographs or drawings of bobcat chasing rabbit, elk eating browse, coyote eating berries and chasing mice, butterfly probing a flower, nutcracker burying pine cone seeds.

<u>Introduction of Tracking Story</u> you don't have to see wild animals to find evidence that they were there. What happened in Lee Meadows? Read the tracks to find stories of interactions among plants and animals. Bilingual text.

- ID prints found in the tracking strip. Possible stories include:
  - Bobcat prints overlay rabbit;
  - Squirrel eating an acorn;
  - Swoop of owl wings adjacent to mouse footprints adjacent to grass seeds;
  - Elk adjacent to twig prints;
  - Skunk;
  - Fox tracks that abruptly stop/skid at skunk tracks.

#### Graphics needed:

Animal tracks

#### **Sense of Place**

**Theme**: You can connect with Lee Meadows and the surrounding area in different ways

**Objectives:** visitors who engage in this activity:

- 1. 75% of visitors will be able to identify at least two different landforms
- 2. 75% will be able to cite at least one historic use of Lee Meadows;
- 3. 75% will feel that Lee Meadows has been a special place for families for many years.

#### Layout

**Space** – 10' x 10' area

#### **Activity Station Elements**

Sign	Description	Total Number
Giant Field Guide Introduction of theme, activities	Panel is 3' high, 4' wide mounted in a metal frame, angled (bottom of sign is 3' from ground). "Field Guide" format contains 2 "pages" mounted via spiral binding to panel (6 pages total).	1
OTHER		
Giant Compass	Compass consists of two circles	1

( 11 ' ( 11 ) ( 60	I
mounted horizontally, one on top of the	
other. Mounted on metal posts, 3' off	
ground. Upper circle is mounted so that	
it can be turned; lower circle is	
stationary. Lower circle is 3' in	
diameter; upper circle is 2.5' in	
diameter. "Sighting" daub is mounted	
on upper circle, 1.25' long and 8' high.	
Upper circle has pie-shaped cut-out, 6"	
at widest point.	

#### Sign Details

Giant Field Guide introduces theme, activities introduces sense of place. Bilingual text.

#### **Text Stories:**

- 1. Historical use of Lee Meadows– illustrating how people have used Lee Meadows over time: horse riding, wood, sledding, picnicking, Girl Scouts, and to enjoy plants and animals found nowhere else on earth.
- 2. Part of what makes Lee Meadows special is its location relative to Las Vegas and other areas. Lee Meadows is also special because of the distinctive geologic features surrounding it. Also, the steep hillsides and natural "bowls" create perfect areas for playing in the snow.
- 3. Challenge: where is Lee Meadows relative to Las Vegas? The ocean? What are the names of some of the geological features visible from the Meadows? Where do people ski?
  - Use the giant compass to find:

Mount Charleston (# degrees) Las Vegas (# degrees) The Sisters (# degrees) Mummy Mountain (# degrees) Ski Area (# degrees) The Ocean (# degrees) Other?

 Directions on how to use the compass: sight along the Daub to match the landform with the correct compass degree. What landforms can you find? Not all the geological features have proper names.

#### Graphics needed:

- Lee Meadows Activity Station identifying graphic
- Historical photographs of people, and of people interacting with the Meadows and with each other.
- Map of the area, including Las Vegas, Spring Mountains, and environs. Identify significant features, including Mount Charleston, the Sisters, Mummy Mountain, and the Ski Area.

**Giant Compass** used to find landforms.

**Volunteer Corps** also have compasses they can lend visitors and facilitate locating the landscape features.

#### **Stewardship through Restoration**

**Theme**: Join the Forest Service in caring for this special place.

**Objectives:** visitors who engage in this activity:

- 1. will leave 40% less litter (in conjunction with other anti-litter messages)
- 75% will be able to cite two ways that restoration projects are helping restore the health of Lee Meadows.
- 3. 100% will help restoration efforts (by using bridges, not picking wildflowers, etc.)

#### Layout

**Space** – 20' x 20' area

#### **Activity Station Elements**

Sign	Description	Total Number
Giant Field Guide Introduction of theme, activities	Panel is 3' high, 4' wide mounted in a metal frame, angled (bottom of sign is 3' from ground). "Field Guide" format contains 2 "pages" mounted via spiral binding to panel (6 pages total).	1
Restoration Area	Standard signage used to mark Restoration Area – mounted on fenced exclosure.	4
OTHER		
Restoration exclosure	Fenced area (20'x20') utilizing restoration protocols typical of other efforts taking place in the meadow.	1

#### Sign Details

<u>Giant Field Guide introduces theme, activities</u> introduces restoration efforts and stewardship activities. Bilingual text.

#### **Text Stories:**

- 1. This area is being restored by doing the following:
  - Plants
  - Soil
  - \_\_\_(?)
- 2. Restoration began in the summer of 2008. Although you may not be able to see dramatic differences, these are the types of things the Forest Service expects to happen:
  - Plants will get taller, lending more cover to animals and protecting the soil;
  - More different kinds of native plants will help meet the needs of different kinds of animals:
  - Fewer kinds of non-native plants (such as much of the short green grass you see here!) is healthier for the "wild side" of Lee Meadows;
  - There will be less erosion, meaning the soil will stay in place and provide a healthy habitat.
- 3. Challenge: What can you do to help?
  - Join others in keeping Lee Meadows clean and litter-free.

- Use the foot bridges.
- Leave the flowers and other plants for others to enjoy.
- Respect and protect areas that are being restored look for these signs: (icon of sign).
- Animals do better on natural diets please don't feed the wildlife!

#### Graphics needed:

- Lee Meadows Activity Station identifying graphic
- Restoration photographs especially before and after pictures. Photographs of erosion, non-native plants, and successful restoration efforts.
- Line drawings showing people practicing stewardship behaviors listed.

#### **Back**

# **Evaluation Plan for Lee Meadows Interpretive Project**

#### **Evaluation Plan for Lee Meadows**

The evaluation data collected will be used to determine the educational effectiveness of the Lee Meadows Activity Stations. The purpose of the evaluation is to determine how well the sign text and the station activities (including the Volunteer Corps, the website, and the Field Guide) perform. That is, we want to know (1) what aspects of the current design allow participants to achieve intended program objectives, and (2) how to improve sign text and station activities. Revisions to the sign text and station activities will be made based on the results of this evaluation.

Innuta	Outputs		Outcomes		
Inputs	Activities	Participants	Short	Medium	Long
Staff: PLI Ed Staff Lee Meadows Planning Team Region 4 Interpretive Permits PLI website, marketing team  Budget: Operating budget SNPLMA funding Partners: Paradise Elem. After-school Science Club (and families) Southern Nevada Agency Partnership Outside Las Vegas Get Outdoors Nevada Interagency Volunteer Team  Material: Signs, Activity station Lee Meadows Field Guide Handouts Website	Activity Stations:  • 5 activity stations, to include signs and interactive components  • signs with messages addressing responsible behavior (e.g., litter, fire, bathrooms)  Web site: Lee Meadows section to be created – to include place for people to post pictures, stories  Volunteer Corps:  • Recruitment and training for 10 volunteers  Publications: Lee Meadows Field Guide handouts (given by volunteers to family groups participating in activity stations)	Family groups recreating at Lee Meadows	<ul> <li>Increased ability to observe plants, animals, and the surrounding landscape</li> <li>Increased knowledge of plants and animals that live in Lee Meadows and what they need to survive</li> <li>Increased ability to identify interactions among plants and animals</li> <li>Increased understanding of expectations of behavior while recreating at Lee Meadows</li> <li>Increased understanding of skills needed and resources available to care for Lee Meadows and other natural areas</li> <li>Increased understanding of Forest Service restoration efforts</li> <li>Increased recognition of the importance of protecting and caring for Lee Meadows</li> </ul>	<ul> <li>Observations and knowledge are recorded in the Lee Meadows Field Guide, then submitted to a volunteer or ranger for a token of completion</li> <li>Increased number of visits to the Lee Meadows website, where participants choose pages to learn more, and submit photos and stories of their Lee Meadows visit and activities</li> <li>Increased volunteerism at Get Outdoors Nevada volunteer programs and events (these include restoration, litter removal, and trail maintenance)</li> <li>Decrease in litter, campfires, and harm to Lee Meadows plants, animals and habitats</li> <li>Restoration area boundaries are respected</li> <li>Increased support for and participation in Lee Meadows management efforts</li> </ul>	Responsible recreation evident throughout nearby natural areas Decrease in litter and other visitor impact problems Southern Nevada residents and visitors feel an increased connection with the environment (both local and global) Southern Nevada residents and visitors have the knowledge, awareness, skills and motivation to participate in the protection of the local and global environment

Focusing the evaluation				Collecting the information		Analyzing and Reporting	
Logic Model Link	Evaluation Questions	Indicators	Sources	Methods	Managing	Analysis	Reporting
	What do you want to know?	How will you know it?	Who will have the information?	How will you gather the data?	When will the information be collected?	How will the data be analyzed and displayed?	To whom and how will the results be communicated? How will you use the results?
Input (Staff)	How well does current available staff and partners recruit, train, and support Volunteer Corps members?	volunteers; 2. observation of volunteer activities, and	staff; Get Outdoors	Get Outdoors     Interagency     Volunteer Team     database     Observation     form     Anonymous     Questionnaire –	Monthly     Bi-annually     At each training workshop and annually	1. Number and status of volunteers will be displayed in tables arranged by month.  2. Percentages & means of quantitative data in tables & pie charts; content analysis of qualitative responses summarized as bullet points  3. Means, range & percentages will be calculated & displayed in tables & bar charts.  4. Qualitative information will be gathered from submissions to website (quotes, etc.)	Presentation and report of findings will be given to Forest Service Staff and SNAP Board.  1. Recruitment methods will be changed if fewer than 10 volunteers attend training workshops;  2. Workshop format and content will be changed if volunteers report they are unsatisfied or observations indicate knowledge and skills are lacking;  3. Staffing will be changed if volunteers indicate insufficient support.

Focusing the evaluation				Collecting the information		Analyzing and Reporting	
Logic Model Link	Evaluation Questions	Indicators	Sources	Methods	Managing	Analysis	Reporting
	What do you want to know?	How will you know it?	Who will have the information?	How will you gather the data?	When will the information be collected?	How will the data be analyzed and displayed?	To whom and how will the results be communicated? How will you use the results?
Output (Activity Stations)	How does the location and layout of the activity stations affect participation?	groups interacting with mock layout of	Lee Meadows Recreationists that agree to try activities and answer questions	Observation and Interview	Before plans are finalized	Content analysis of qualitative responses summarized as bullet points. Will be used to develop strategies for increasing participation.	Forest Service staff will get report with recommended strategies. Implications of locations and configurations will be discussed, and staff will agree to final layout.
Output (activity sign text)	How effective is activity station sign text at explaining activities, relating knowledge, and motivating participation?	Participant responses, ratings & openended comments	Paradise After School Science Club + their families will be invited to participate in focus groups	Focus groups and observation. Participants will relate their understanding of sign text, answer questions on a numerical scale, and provide additional feedback through open-ended questions.	Before plans are finalized	Bullet points & supporting quotes from participants on open-ended questions; counts, percentages, means, ranges & rankings will be calculated & displayed in tables & bar charts.	SNAP Board and Forest Service staff will get report summarizing results and actions taken. Results will be used by PLI staff to revise & improve sign text

	Focusing th	e evaluation		Collecting the information		Analyzing and Reporting	
Logic Model Link	Evaluation Questions	Indicators	Sources	Methods	Managing	Analysis	Reporting
	What do you want to know?	How will you know it?	Who will have the information?	How will you gather the data?	When will the information be collected?	How will the data be analyzed and displayed?	To whom and how will the results be communicated? How will you use the results?
Output (Activities)	What components of the station activities do the participants enjoy most?	Participant responses, ratings & open- ended comments	Paradise After School Science Club + their families will be invited to participate in focus groups	Focus groups and observation. Participants will be asked to rate activities on a numerical scale & provide additional feedback through open-ended questions.	Before plans are finalized	Bullet points & supporting quotes from participants on open-ended questions; counts, percentages, means, ranges & rankings will be calculated & displayed in tables & bar charts.	SNAP Board and Forest Service staff will get report summarizing results and actions taken. Results will be used by PLI staff to revise & improve station activities as needed.
,	How effective are the persuasive messages at changing behavior?	Visitor responses; amount of litter observed before and after signs, number of fire rings and other impacts before and after signs	PLI staff, Forest Service Staff, Lee Meadows recreationists	Observation and interview	Before signs are implemented; monthly once signs and stations are installed for a period of one year	Litter will be quantified using a scale developed by Keep America Beautiful; average quantity of garbage in dumpsters will be recorded; number of fire rings and impacts will be recorded and photographed. Content analysis of qualitative responses will be summarized as bullet points.	SNAP Board and Forest Service staff will get report summarizing results and actions taken. Results will be used by PLI staff to revise & improve messages as needed.

	Focusing the evaluation		Collecting the information		Analyzing and Reporting		
Logic Model Link	Evaluation Questions	Indicators	Sources	Methods	Managing	Analysis	Reporting
	What do you want to know?	How will you know it?	Who will have the information?	How will you gather the data?	When will the information be collected?	How will the data be analyzed and displayed?	To whom and how will the results be communicated? How will you use the results?
Outcome (medium term)	How well did the activity stations influence participants to visit the website and post stories and photos?	Number of website hits; number of photos and stories posted to the website	PLI staff, Forest Service Staff, Volunteer Corps	Web-based data collection tool	Monthly (after implementation)	Percentages, means & ranges will be displayed in tables & pie charts; bullet points, supporting quotes and photos from posts	SNAP Board and Forest Service staff will get report summarizing results and actions taken. Results will be used by PLI staff to revise & improve messages as needed
Outcome (medium term)	How well did the Volunteer Corps volunteers influence participants to use and submit the Field Guide?	Observation of participants at activity stations; number of Field Guides submitted	PLI staff, Forest Service Staff, Volunteer Corps	Number of Field Guides submitted; observation of participants at Activity Stations using Observation Form (a simple rubric); quality of Field Guides quantified using Field Guide review form (a simple rubric)		Data from Observation Forms and Field Guide Forms will be displayed as percentages and means in tables and charts; number of Field Guides/tokens of completions will be recorded.	SNAP Board and Forest Service staff will get report summarizing results and actions taken. Results will be used by PLI and Forest Service staff to revise & improve Volunteer Corps Training as needed

	Focusing the evaluation			Collecting the information		Analyzing and Reporting	
Logic Model Link	Evaluation Questions	Indicators	Sources	Methods	Managing	Analysis	Reporting
	What do you want to know?	How will you know it?	Who will have the information?	How will you gather the data?	When will the information be collected?	How will the data be analyzed and displayed?	To whom and how will the results be communicated? How will you use the results?
term)	Did Lee Meadows Activity Stations influence the knowledge, awareness, attitudes, and feelings of connection with the environment?	on the Lee Meadows	Lee Meadow recreationists visiting the website	Electronic survey with both numeric scales & open- ended questions	One year after implementation	supporting quotes from participants on open-ended questions; counts,	Written report and presentation to SNAP Board, staff & agency managers; future visitors. Results will be used inform future programs and projects.

# Observation Form & Focus Group Guide for Piloting Lee Meadows Activity Stations

#### Lee Meadows Activity Station Pilot

#### **Observation Forms and Focus Group Guide**

Each Lee Meadows Activity Station will consist of signs and interactive activities. The purpose of this pilot is to assess the effectiveness of Lee Meadows activity station sign text at relating knowledge, explaining how to do the activities, and motivating children and families to participate in the activities. Participants will be observed reading and responding to the signs.

#### **Observation Protocol**

The Evaluator (overt, non-participant) will be known to the students through participation in the Discover Mojave After-School Science Club. During the Science Club, students will be invited to participate in this Pilot; their participation will be encouraged by being told they will receive posters and other rewards. If more than seven students volunteer to participate, they will be divided into two groups. Each group will be observed on separate days.

Participants will be given numbered name tags. This number will be the Participant ID number; each participant will be referred to using this number only. The Evaluator will sit in the back of the room and observe students as they read the signs and participate in the associated activities.

There are a total of three Lee Meadows Activity Stations that will be piloted. Each observation period will last one hour – participants will be observed interacting with three Activity Station signs and activities during this period (one observation form for each Activity Station).

First, participants will be observed reading and responding to the signs, using the Lee Meadows Activity Station Observation Form. Participants will then be asked to participate in a focus group interview.

#### **Focus Group Interview Protocol**

The Interviewer will be known to the students through participation in the Discover Mojave After-School Science Club. The Interviewer will use a semi-structured interview approach, using probing questions as appropriate to get more details about the experience and the reasons behind the responses. The interview session will be recorded; an assistant evaluator will also sit in the back and take written notes of the interview. The interview questions will be written out and posted on the wall where the participants and evaluator can easily refer to them.

Evaluator		<u></u>
Date		
Time (start)	(end)	
Participant Information	ր։	
Number of participants		
Location / Setting		
Comments		
Participant 1	Age (circle) 9 10 11	Gender (circle) M F
Participant 2	Age (circle) 9 10 11	Gender (circle) M F
Participant 3	Age (circle) 9 10 11	Gender (circle) M F
Participant 4	Age (circle) 9 10 11	Gender (circle) M F
Participant 5	Age (circle) 9 10 11	Gender (circle) M F
Participant 6	Age (circle) 9 10 11	Gender (circle) M F
Participant 7	Age (circle) 9 10 11	Gender (circle) M F

### Before the students engage in the activities or the observation begins, the following background information should be given:

Hi, my name is \_\_\_\_\_\_. You have been invited today to try out some activities about plants and animals that can be found around Las Vegas. We need your help to make these activities better. I'm going to give you a chance to do the activities as a group, and after you've tried all of them without adult help, I will talk with you about these signs and activities.

Now we would like you to try out this first activity. First, read the sign and then see if you can do the activity.

introductory sign for the Tracking Strip. Participants will use the provided tracking field guide to follow the five stories suggested by the Tracking Strip.
Describe participant behavior while reading the sign:
Number of students who read sign Comments:
# listening to the reader Comments:
# doing something other than reading or listening Comments:
Total time reading sign: seconds Total discussion time seconds
Illustrate the sequence of events taking place once the participants read the sign: (for example: Read sign → discuss what's required → do activity → finish)
# participants working alone
# participants working in groups
Comments:
Total amount of time doing activity seconds
Other comments:

Activity Station INTERACTIONS

Participants will interact with the Giant Field Guide, and then read the

**Activity Components/Tasks:** 

Indicate appropriate level of engagement for each participant:

ID	1	2	3	4
	Stays focused on the activity; asks questions pertinent to the tasks; talks with others about the activity.	Focuses on activity most (more than 75%) of the time; fidgets and engages in unrelated tasks the remainder of the time.	Focuses on activity some (50-75%) of the time. Fidgets and engages in unrelated tasks the remainder of the time.	Barely focuses on activity; fidgets and engages in unrelated tasks most of the time.
1				
2				
3				
4				
5				
6				
7				

#### **COMMENTS:**

Indicate ability to do activity (after reading sign) for each participant:

ID	1	2	3	4
	Completes all tasks associated with the activity.	Completes almost (75% or more) all tasks associated with the activity	Completes only half of activity tasks completed.	Completes virtually none of the tasks associated with the activity.
1				
2				
3				
4				
5				
6				
7				

#### COMMENTS:

Attitudes toward Activity:

ID	1	2	3	4
	Never is publicly critical of the sign or activity or the participation of others. Always has a positive attitude about the tasks.	Rarely is publicly critical of the activity or the participation of others. Often has a positive attitude about the tasks.	Occasionally is publicly critical of the activity or the participation of others. Usually has a positive attitude about the tasks.	Often is publicly critical of the activity or the participation of others. Often has a negative attitude about the tasks.
1				
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7				

#### COMMENTS

Observation Reflections What worked well in the Activity Station?
What should be changed/added/taken away?
Was anything observed that could be a problem or issue that needs to be addressed?

Activity Station	LOCOMOTION	
Activity Component	s/Tasks:	
Participants will intera	act with the Giant Field Guide, and then re	ad the
introductory sign for the	he Animal Speed Challenge. Participants	will role play
animal movements (a	as suggested by the five Contenders repre	sented on

different signs) then compare their own running speed against four animals

(speed results given on four different "race contender" signs).

Describe participant behavior while reading the sign: Number of students who read sign \_\_\_\_\_ Comments: \_\_\_\_\_ # listening to the reader \_\_\_\_ Comments: \_\_\_\_\_ # doing something other than reading or listening \_\_\_\_ Comments: Total time reading sign: \_\_\_\_ seconds Total discussion time seconds Illustrate the sequence of events taking place once the participants read the sign: (for example: Read sign  $\rightarrow$  discuss what's required  $\rightarrow$  do activity  $\rightarrow$  finish) # participants working alone # participants working in groups \_\_\_\_\_ Comments: Total amount of time doing activity \_\_\_\_ seconds Other comments:

Indicate appropriate level of engagement for each participant:

ID	1	2	3	4
	Stays focused on the activity; asks questions pertinent to the tasks; talks with others about the activity.	Focuses on activity most (more than 75%) of the time; fidgets and engages in unrelated tasks the remainder of the time.	Focuses on activity some (50-75%) of the time. Fidgets and engages in unrelated tasks the remainder of the time.	Barely focuses on activity; fidgets and engages in unrelated tasks most of the time.
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#### **COMMENTS:**

Indicate ability to do activity (after reading sign) for each participant:

ID	1	2	3	4
	Completes all tasks associated with the activity.	Completes almost (75% or more) all tasks associated with the activity	Completes only half of activity tasks.	Completes virtually none of the tasks associated with the activity.
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7				

#### COMMENTS:

Attitudes toward Activity:

ID	1	1 2 3		4
	Never is publicly critical of the sign or activity or the participation of others. Always has a positive attitude about the tasks.	Rarely is publicly critical of the activity or the participation of others. Often has a positive attitude about the tasks.	Occasionally is publicly critical of the activity or the participation of others. Usually has a positive attitude about the tasks.	Often is publicly critical of the activity or the participation of others. Often has a negative attitude about the tasks.
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#### COMMENTS

What worked well in the Activity Station?
What should be changed/added/taken away?
Was anything observed that could be a problem or issue that needs to be addressed?

**Observation Reflections** 

Activity Station	COLORS AND PATTERNS

#### **Activity Components/Tasks:**

Participants will interact with the Giant Field Guide, and then participate in the color challenge and pattern challenge using representational photographs, murals, and other appropriate material.

Describe participant behavior while reading the sign:
Number of students who read sign Comments:
# listening to the reader Comments:
# doing something other than reading or listening Comments:
Total time reading sign: seconds Total discussion time seconds
Illustrate the sequence of events taking place once the participants read the sign: (for example: Read sign → discuss what's required → do activity → finish)
# participants working alone
# participants working in groups
Comments:
Total amount of time doing activity seconds
Other comments:

Indicate appropriate level of engagement for each participant:

ID	1	2	3	4
	Stays focused on the activity; asks questions pertinent to the tasks; talks with others about the activity.	Focuses on activity most (more than 75%) of the time; fidgets and engages in unrelated tasks the remainder of the time.	Focuses on activity some (50-75%) of the time. Fidgets and engages in unrelated tasks the remainder of the time.	Barely focuses on activity; fidgets and engages in unrelated tasks most of the time.
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#### **COMMENTS:**

Indicate ability to do activity (after reading sign) for each participant:

ID	1	2	3	4
	Completes all tasks associated with the activity.	Completes almost (75% or more) all tasks associated with the activity.	Completes only half of activity tasks.	Completes virtually none of the tasks associated with the activity.
1				
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7				

#### **COMMENTS:**

Attitudes toward Activity:

ID	1	2	3	4
	Never is publicly critical of the sign or activity or the participation of others. Always has a positive attitude about the tasks.	Rarely is publicly critical of the activity or the participation of others. Often has a positive attitude about the tasks.	Occasionally is publicly critical of the activity or the participation of others. Usually has a positive attitude about the tasks.	Often is publicly critical of the activity or the participation of others. Often has a negative attitude about the tasks.
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#### **COMMENTS**

Observation Reflections What worked well in the Activity Station?
What should be changed/added/taken away?
Was anything observed that could be a problem or issue that needs to be addressed?
Back

Post Observation Interview Questions (after participants have completed the activities, the evaluator brings participants together sitting in a circle around the sign and activity so that participants can easily refer to and/or point to the sign or activity components.)

What did you think about these three activities as things you would do on a trip to the mountains?
What did you like about the activity?
What didn't you like about the activity?
What would you tell your friends about this activity? (Probe: how might you do this activity differently?)
What do you like about this sign? (Probing questions: can you tell me more?)
What don't you like about this sign? (Probing questions: can you tell me more?)
What is the most important thing you could learn from this sign? (Probing questions: what other things could help you learn this? Is there anything else that comes to mind about this topic?)

Evaluator will ask each participant to create a word map [concept map] of their experience. These word maps will be assessed for knowledge gained (as well as the participants' attitude about the Activity Station).

# Forever Earth Schedule (draft)

Round 6 Year 1 (June 1, 2007 – May 31, 2008)

# Forever Earth Program (draft) Round 6 Year 1 (June 1, 2007 - May 31, 2008)

Date(s)	Group	Group Type	Trip Purpose	Trip Length	# of Adults	# of Students	Total # Pass.
7-Jun	Moore Elementary (5th Grade GATE)	Education	Student Field Trip	4.5 hrs.	4	20	24
14-Jun	Bendorf Elementary (4th grade)	Education	Student Field Trip	4 hrs.	6	19	25
21-Jun	Boulder City Boy Scout Day Camp	Education	Cub Scout program	10.5 hrs. (4 trips)	28	54	82
28-Jun	Bendorf Elementary (4th grade)	Education	Student Field Trip	4 hrs. (2 trips)	19	26	45
30-Jun	NPS	Agency	Mobile visitor center	7.5 hrs.	2	0	2
14-Jul	UNLV Educational Outreach	Education	Class offering	7.25 hrs.	20	0	20
18-Jul	Dondero Elementary (4th grade)	Education	Student Field Trip	3 hrs. (2 trips)	15	32	47
21-Jul	NPS	Agency	Mobile visitor center	8 hrs.	3	0	3
27-Jul	Valley View Community Center; Henderson Parks and Recreation	Education	Outdoor World event	4 hrs.	7	18	25
29-Jul	NPS	Agency	Mobile visitor center	7.5 hrs.	1	0	1
7-Aug	Silver Mesa Community Center; NLV Parks and Recreation	Education	Outdoor World event	4 hrs.	6	17	23
First Quarter Totals	11 groups	Education - 8 groups Agency - 3 groups		Education – 41.25 hrs. Agency – 23 hrs.	111	186	297
6-Sep	Public Lands Institute	Agency	Drills for boat operations	3 hrs.	2	0	2
13-Sep	National Park Service	Agency	Standardize water quality instruments	4 hrs.	28	0	28
18-Sep	Public Lands Institute	Education	Facilitators training	4 hrs.	10	0	10
19-Sep	Public Lands Institute	Education	Facilitators training	4 hrs.	9	0	9
20-Sep	Forest Service Resource Volunteers	Agency	Culminating season event	6 hrs.	19	0	19
13-Oct	Art Teachers Conference	Education	Conference field trip	6 hrs. (2 trips)	31	0	31
16-Oct	Garrett Jr. H.S. (7th grade)	Education	Student Field Trip	3.5 hrs. (2 trips)	9	30	39
18-Oct	Garrett Jr. H.S. (7th grade)	Education	Student Field Trip	3.5 hrs. (2 trips)	10	30	40
23-Oct	Bailey Middle School (6th grade)	Education	Student Field Trip	4 hrs. (2 trips)	8	39	47
24-Oct	Bailey Middle School (6th grade)	Education	Student Field Trip	4 hrs. (2 trips)	8	40	48
30-Oct	Lunt Elementary (4th grade)	Education	Student Field Trip	3 hrs. (2 trips)	13	20	33
2-Nov	Mabel Hoggard Elementary (5th grade)	Education	Student Field Trip	7 hrs. (2 trips)	8	28	36
3-Nov	Environmental Science Club, Paradise Elementary	Education	Outdoor World event	3 hrs. (2 trips)	4	6	10
6-Nov	Burk Horizon H.S. (High School)	Education	Student Field Trip	4 hrs. (2 trips)	8	30	38
19-Nov	Roy Martin Middle School (7th grade)	Education	Student Field Trip	3.5 hrs.	5	16	21

Second Quarter Totals	15 groups	Education - 12 groups Agency 3 groups		Education - 49.5 hrs. Agency - 13 hrs.	172	239	411
1-Dec	LV Boat owners Association	Education	Judges' boat for Parade of Lights				
8-Dec	J.D. Smith Middle School After school All Stars	Education	Outdoor World event				
11-Dec	Center for Academic Enrichment	Education	Student Field Trip				
15-Dec	CCSD Graduate Class	Education	Graduate class				
8-Jan	CHOLLA	Education	Familiarization Trip and Bimonthly Mtg.				
1-Feb	Mabel Hoggard Elementary (5th grade)	Education	Student Field Trip				
21-Feb	Goynes Elementary (5th grade GATE)	Education	Student Field Trip				
15-Mar	UNLV Geoscience	Education	Conference field trip				
8-Apr	Grant Sawyer Middle School (6 <sup>th</sup> grade)	Education	Student Field Trip				
10-Apr	Robert Taylor Elementary School (5 <sup>th</sup> grade)	Education	Student Field Trip				
11-Apr	Robert Taylor Elementary School (5 <sup>th</sup> grade)	Education	Student Field Trip				
12-Apr	UNLV Education Outreach	Education	Class offering				
15-Apr	Grant Bowler Elementary School (4 <sup>th</sup> grade)	Education	Student Field Trip				
17-Apr	Robert Taylor Elementary School (5 <sup>th</sup> grade)	Education	Student Field Trip				
18-Apr	Robert Taylor Elementary School (5th grade)	Education	Student Field Trip				
21-Apr	Grant Bowler Elementary School (4 <sup>th</sup> grade)	Education	Student Field Trip				
22-Apr	Garrett Jr. H.S. (7 <sup>th</sup> grade)	Education	Student Field Trip				
23-Apr	Garrett Jr. H.S. (7 <sup>th</sup> grade)	Education	Student Field Trip				
25-Apr	Mabel Hoggard Elementary School (5 <sup>th</sup> grade)	Education	Student Field Trip				
29-Apr	R.E. Tobler Elementary School (4 <sup>th</sup> and 5 <sup>th</sup> grades)	Education	Student Field Trip				
30-Apr	Hayden & Perkins Elementary GATE (4 <sup>th</sup> and 5 <sup>th</sup> grades)	Education	Student Field Trip				
6-May	Center for Academic Enrichment and Outreach	Education	Student Field Trip				
7-May	Hyde Park Middle School (6 <sup>th</sup> grade)	Education	Student Field Trip				
9-May	Hyde Park Middle School (6 <sup>th</sup> grade)	Education	Student Field Trip				
12-May	Hyde Park Middle School (6 <sup>th</sup> grade)	Education	Student Field Trip				
14-May	Hyde Park Middle	Education	Student Field Trip				

	School (6th grade)						
15-May	Bridger Middle School (6 <sup>th</sup> grade)	Education	Student Field Trip				
20-May	Foothill High School (High School)	Education	Student Field Trip				
Round 6 Year 1 Totals (to date)	26 groups	Education - 20 groups Agency - 6 groups Research - 0 groups		Education - 90.75 hrs. Agency - 36 hrs. Research - 0 trip days	283	425	708

# Discover Mojave Outdoor World (Draft) Schedule

Round 6 Year 1 (June 1, 2007 – May 31, 2008)

## Discover Mojave Outdoor World Schedule - Round 6 Year 1 (last updated November 21, 2007) DRAFT

DATE	GROUP	ACTIVITY	# of	LOCATION
			PARTICIPANTS	1
Fri., June 15	Valley View	Kayaking -	23	Wells Pool,
	Recreation Center,	Introduction		Henderson
	Henderson City			
Fui June 22	Parks and Recreation	Marraliina	20	Laka Masal
Fri., June 22	Valley View Recreation Center,	Kayaking	20	Lake Mead
	Henderson City			
	Parks and Recreation			
Mon., June 25	Valley View	Outdoor	21	Valley View
monn, june 23	Recreation Center,	Photography		Recreation
	Henderson City	i notograpiny		Center,
	Parks and Recreation			Henderson
Wed., June 27	Valley View	Fishing I	23	Valley View
	Recreation Center,			Recreation
	Henderson City			Center,
	Parks and Recreation			Henderson
Fri., June 29	Valley View	Birding I	20 x 2 = 40	Floyd Lamb State
	Recreation Center,	Fishing II		Park
	Henderson City			
T	Parks and Recreation	17 1 1	12	i
Tues., July 17	NLV Parks and	Kayaking	13	Forever Earth -
Fri., July 20	Recreation Valley View	Rock	22	Lake Mead Nevada Climbing
FII., July 20	Recreation Center,	Climbing I	22	Center
	Henderson City	Cillibilig		Center
	Parks and Recreation			
Tues., July 24	NLV Parks and	Kayaking	12	Forever Earth -
,,,,,	Recreation	, ,		Lake Mead
Fri., July 27	Valley View	Science and	18	Forever Earth -
	Recreation Center,	Art		Lake Mead
	Henderson City	Adventure		
	Parks and Recreation	_		
Tues., July 31	NLV Parks and	Rock	17	Red Rock
<b>T</b> • 7	Recreation	Climbing	20	Climbing Center
Tues., Aug. 7	NLV Parks and	Art	20	Forever Earth -
First Quarter	Recreation	Adventure	229	Lake Mead
First Quarter	2 groups	12 events		
Totals Wed., Sept. 26	Bobcats	Rock	participants 18	Nevada Indoor
weu., sept. 26	Environmental	Climbing	10	Climbing Center
	Science Club,	Cililibility		Cililianing Cellice
	Paradise Elementary			
Wed., Oct. 3	Coyotes	Rock	14	Nevada Indoor
	Environmental	Climbing		Climbing Center
	Science Club,			
	Paradise Elementary			
Fri., Oct. 5	Bobcats and Coyotes	Camping	16	Walking Box
	Environmental			Ranch
	Science Club,			

	Paradise Elementary			
Wed., Oct 10	Bobcats	Bird	15	Sunset Park
Wed., Oct 10	Environmental	Watching I		Sanserrank
	Science Club,	Watering		
	Paradise Elementary			
Wed., Oct. 17	Coyotes	Fishing I	15	Sunset Park
Wed., Oct. 17	Environmental	1 13111119 1		Sunserrank
	Science Club,			
	Paradise Elementary			
Wed., Oct. 24	Bobcats	Fishing I	14	Sunset Park
,	Environmental			
	Science Club,			
	Paradise Elementary			
Wed., Oct. 31	Coyotes	Bird	4	Sunset Park
	Environmental	Watching I		
	Science Club,			
	Paradise Elementary			
Sat., Nov. 3	Bobcats and Coyotes	Science and	6	Forever
	Environmental	Art		Earth/Lake Mead
	Science Club,	Adventure		
	Paradise Elementary			
Sat., Dec. 8	Afterschool All Stars	Science and		Forever
	J.D. Smith Middle	Art		Earth/Lake Mead
	School	Adventure		T00
TBD	Silver Mesa, NLV	TBD		TBD
	Parks and Recreation			
TDD	Department Department	TDD		TDD
TBD	Walnut Recreation	TBD		TBD
TBD	Center Whitney Recreation	TBD		TBD
טפו	Whitney Recreation Center	טפו		עמו
	Center			
Second	1 group	8 events	102	
Quarter	i gioup	o events	participants	
Totals			participants	
Round 6	3 groups targeted	20 events	331	
Year 1	groups largeled	20 events	participants	
Totals			participants	
(to date)				