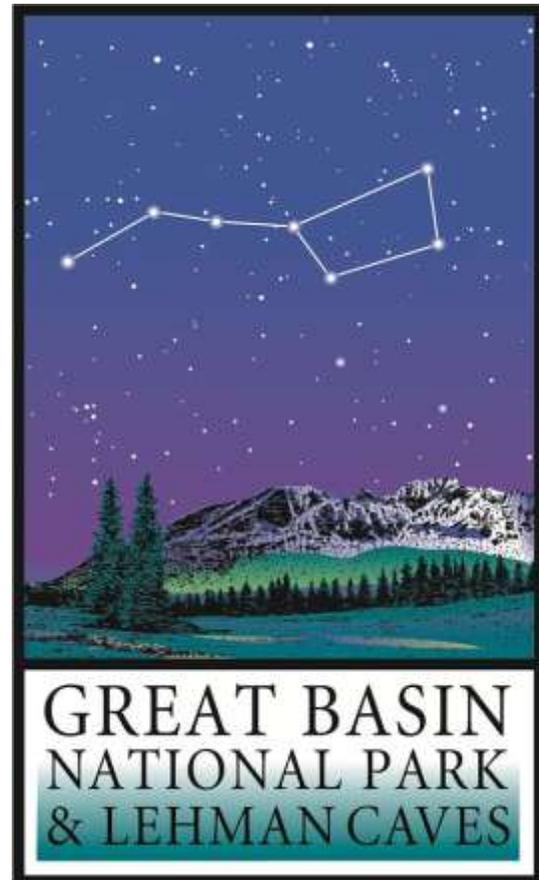


SNPLMA Capital
Improvement
Submittal

Round 15

Great Basin
National Park



Stargazing Theater, Science Camp, and
Day Use Area Refurbishment

November 7, 2014

Executive Summary

Great Basin National Park proposes to enhance existing facilities by modifying their day-use picnic area to include an outdoor amphitheater dedicated to astronomy viewing and as a gathering area for a science camp, to centralize and augment outreach programs involving youth and academic research endeavors. The aging day-use picnic area in this same area will be refurbished and updated to modern accessibility standards. In addition, multimodal trails will be developed to connect the existing camping areas to the Lehman Caves Visitor Center, whose functions and programs are currently only accessible by car.

Purpose Statement

- Who: Great Basin National Park (GRBA)
- What: GRBA will protect, refurbish, and where appropriate enhance the existing facilities. The area includes an existing day-use picnic area, astronomical viewing area, administrative camping facility, and trails connecting these to the greater Park amenities.
- Where: The project area is located immediately north of the Lehman Caves Visitor Center, within Great Basin National Park, in White Pine County, Nevada.
- Why: This project will provide improved visitor safety by utilizing barrier-free and accessible design, protect natural resources by centralizing the majority of activities in areas previously disturbed, and expand the Park's community outreach by facilitating educational & interpretative opportunities for the visitors through expanded programs and rejuvenated facilities, and promote connectivity by offering alternative modes of transportation between existing and newly enhanced park venues.

Phases

None. This project is not related to anticipated future phases.

Background & Need

On a clear, moonless night in Great Basin National Park (GRBA), thousands of stars, five of our solar system's eight planets, star clusters, meteors, manmade satellites, the Andromeda Galaxy, and the Milky Way can be seen with the naked eye. GRBA is one of the last true dark skies and boasts some of the darkest night skies left in the United States. Low humidity and minimal light pollution, combined with high elevation create a unique window to the universe. Great Basin conducts Ranger-led weekly astronomy programs, full-moon programs, an annual Astronomy Festival with over 340 volunteer hours logged by avid stargazers from not only Nevada, Utah, and California, but also attracting participants from the east coast, and beyond. An often-repeated phrase by our interpretive rangers to Park visitors is that, "Half the Park is after dark."

The day use picnic area north of Lehman Caves and Park headquarters is a vestige of when Great Basin National Park was a monument, enveloped by the greater Toiyabe National Forest, later incorporated into GRBA, and developed over time. The aging facility now houses eighteen scattered picnic sites and water spigots with a centrally located “Mission 66” style bathroom. This picnic area and parking lot and adjacent Visitor Center are used for Great Basin’s annual Astronomy Festival.

The popular summer evening astronomy program is currently held in the Lehman Caves Visitor Center’s upper parking lot. A larger, dedicated program venue is needed for increased safety of Park staff and visitors, within a site with better control of grade changes, increased accessibility, and expandability, as the popularity of Great Basin’s dark sky program increases over time.

In addition, Great Basin facilitates budding scientific endeavors of youth from schools as far away as St. George, UT and Las Vegas, but also University groups of geology, biology and natural resources undergraduate and graduate students on educational or research trips that can last a day, a week, or a semester, some traveling across several states.

The Park hosts annual Bio-blitz events that are educational, informative, and further the Park’s catalog of biological diversity with the help of local and visiting participants. Average attendance is approximately 60 to 80 for this event.

Project Description

The astronomy programs have been growing in popularity over the last four years to a point where the visitors attending the program are sitting on curbs, steps, and high stonewalls not intended as seating. Parking for this evening program occurs in the lower portion of the visitor center parking lot oval, with staircase access to the program area. Participants coming and going by car at night increase the distraction and light pollution that is detrimental to night-sky viewing. Currently the viewing area has tripping hazards and the evening sky-viewing program was suspended due to a volunteer’s unfortunate and severe trip/fall injury. Other trip hazards include raised curbing, stairs to the restroom, and temporary power chords that run along the edge of the viewing area that must be navigated by participants at night, and in the dark.

The goal is to provide an outdoor theater and classroom of a quality, size, and durability that can accommodate relevant activities and programs to engage the public in a rural community that serves visitors from both rural and urban origins. A dedicated astronomy viewing area will provide safe and accessible access for the nearly 3,000 visitors that attend these programs each year.

An underutilized, cleared area, just north of the picnic/day-use facility, would be a suitable and safe alternative for night sky viewing and would provide for better foot and handicap access. A hardened pathway would allow for individuals with variable abilities to access the viewing area. Dedicated seating would eliminate the need to visitors to sit in unsafe areas, with no stairs to negotiate in order to get to

the existing restroom. Solar power, brought in from a dedicated area behind the screen of the viewing theater would eliminate the tripping hazards associated with temporary power cords.

Even in rural Nevada, night skies are in danger of disappearing in the light. Visitors to Great Basin National Park increasingly are specifically coming to view the dark night skies, as indicated through comments from the 2014 annual visitor survey. Connecting these visitors through night sky programs at a dedicated facility will be sustainable, as rangers already provide interpretive programs to visitors.

In addition, there is need to accommodate our on-going citizen-science programs, trail access from camping areas to Park venues and activities in a centralized and revitalized existing day-use area with overnight camping capabilities. By providing an improved and dedicated venue, the Park would be better able to track and serve the diverse groups that seek out Great Basin as a living classroom, both day and night.

Modifications to GRBA's existing group camping facilities would further the ability of educational groups and Great Basin National Park staff to better engage and serve the needs of learners, educators, and visitors to the Great Basin.

Timeframe

This five-year program will accomplish the following:

Year 1: Project award, and finalization of design concept. Components identified that are to be contracted for, that are outside of regular Park maintenance staff activities. Develop Scope(s) of Work for these discrete components and elements.

Year 2: Contracting activities for implementation of these discrete components. Work by Park staff that facilitates these SOW efforts (site clearing, trail layout, martialing of Government supplies materials, etc.) Construction of the stargazing area site with seating, retaining walls, program area, screen, fire ring and solar power initially.

Year 3: Construction implementation of outdoor classroom & day-use area. Hire one seasonal GS-07 seasonal Park Ranger to plan, implement and refine a community campout and night sky-viewing program over the next three years. Develop a curriculum for a campout and special night sky-viewing programs. Identify & purchase camp supplies. Coordinate the hosting of a Family camp for the communities in the Snake Valley and/or outlying areas.

Year 4: Construction implementation of outdoor classroom & day-use area. Refine the previously developed curriculum. Purchase additional Camp supplies and devices for social media posts and distance learning programs, inventory and add to checkout system for the camp. Provide Family campout program for Snake Valley Communities. Provide and organize an astronomy program for the gateway Communities of Ely, NV in Ely and/or a program in Delta, UT, in Delta. Organize transportation for Ely Shoshone Tribal youth and chaperones from Ely to the park for a Family campout program and

astronomy program. Write curriculum for a target audience of sixth grade students, to engage with park ranger and park resources virtually, allowing the ranger to inspire and connect with visitors who may not have experienced the park and dark night skies first hand. Develop a social media program for families and youth to share their experiences with the dark night skies.

Year 5: Construction implementation of outdoor classroom & day-use area, construction finalization, and conduct project closeout activities for the last 2 months of the program. Finalize curriculum for park staff to be able to continue to offer the programs without the GS-07 seasonal after the third year. Continue to provide Family campout program for local communities, provide and organize an astronomy program for the gateway communities. Provide and organize transportation for Ely Shoshone Tribal youth and chaperones from Ely to the park for a Family campout program and astronomy program. Implement the social media program with the families and youth. Provide two distance-learning programs with a school and the general public. Finalize selection and purchase of portable, wireless audio-visual equipment necessary to compliment the space and its programs. Apply for grants to continue to fund these programmatic efforts into the future after this project is complete.

Project Location

The project area is located in the Nevada Congressional District 4 at the following Latitude and Longitude: 39° 00' 28.83" N/114° 13'06.00"W (elevation 6,782'). See Figure 1 for a map of the project location.

Project Primary Deliverables

I. Stargazing Theater (STINT) /Science Theater (SETI)

- Amphitheater large enough to seat 80-100, and overflow area to accommodate 150, within the existing open area that is north of the day-use loop and incorporating the adjacent loop road
- Provide a permanent screen/screen structure (the program is currently using the side of trailer)
- Construct site-specific seating, low retaining walls, a program area, screen, fire ring
- Construct a pathway from the parking/drop-off to the theater area that is firm & stable, with no obstacles that would make navigation at night hazardous
- Purchase and install portable, wireless camera, tripods, microphones, safety red lights, etc. in conjunction with developing a social media program for families and youth to share their experiences with the dark night skies.
- Provide a dedicated, green energy driven, outdoor audio-visual equipment with a dedicated, solar power source, together with a secured solar array & insulated battery storage facility.

- Battery storage facility would be dual-purpose, also functioning as secure storage for A/V and telescope equipment.
- Provide a permanent static display for Park visitors when Ranger-led programs are not being conducted

II. Science Camp Administrative campsite rebuild (SCAMP)

- Level and expand the existing stepped-pad camping area, and increase the facility's capacity, and provide the camping units with added mobility features, per outdoor accessible guidelines.
- Add a central outdoor classroom with a quality, shaded outdoor activities/program area
- Target class size to teacher ratio is 20:4, 30:5 with a maximum of 50.
- Add these features eastward with 3-4 group sites and the main pavilion between the day-use area and current administrative campsite
- Replace the re-locatable wood picnic tables with cement tables on hardened pads, two per sub-site
- Reconstruct the existing sites with a dedicated daytime instructional/educational area
- Add tread to the existing social-pedestrian access trail to the east, and provide a clear tread width minimum of 36" per accessible guidelines & recommended rest intervals per current Outdoor Accessibility (AGODA) guidelines.
- Add additional parking to the existing, undersized pull-off parking area
- Add retaining walls to accommodate grades for this additional/expanded parking
- Leave largest Pinyon pines and shadiest Junipers within this Pinyon-Juniper habitat

III. Campground and Visitor Center Multimodal Trail (CAVEAT)

- Provide an alternative pedestrian connector from the campgrounds to Visitor Center, as requested on visitor surveys for many years. Access currently requires a vehicle to access and participate in program areas.
- Those portions as appropriate for and identified as multimodal, travel-ways shall be designed using recommended travel widths per AGODA, AASHTO, & Federal Highway Administration (FHWA) Best Practices guidelines & standards.

NOTE: Because bicycles typically travel at higher speeds than pedestrians do & those in assisted devices, trail geometrics are a major consideration. Sight distances shall apply to vertical curves as well as horizontal curves, and must be considered in the corridor layout.

- Provide a pedestrian bridge across Lehman Creek to replace user-created creek ford(s) at the Lower Lehman Campground, and connecting to the multimodal trail.
- Provide at a minimum, a clear tread width of 36" to 48", per accessible guidelines for pedestrian, trail, and route access in between facility areas.

IV. Refurbish Picnic-Day Use area (PANDA)

- Upgrade eighteen (18) day-use sites installed around in 1970, with movable picnic tables
- Upgrade a minimum of four (4) accessible sites from among these existing recreational features, to achieve 20% accessible, per new accessibility guidelines.
- Upgrade portions of the existing bathroom by adding low-voltage LED electrical lighting using existing panel wiring where no lights currently exist
- Upgrade aging spigots with sanitary campground water spigots
- Replace site amenities with modern grill and concrete immobile picnic tables

Project Anticipated Deliverables:

I. Safety & Environmental upgrades

- Low-voltage, evening lighting for existing bathroom, and immediate area, and for safe access to program areas while not developing light pollution that would disturb night-sky viewing programs and activities.
- Low-voltage low band amber/LED foot lighting in night sky program areas for safety as well as night vision protection and are wildlife friendly
- Improve accessibility for outdoor activities by eliminating hazardous conditions, and generally brought to current standards. Where public use areas serve camping units with mobility features, at least 20 percent, but not less than one of each type of outdoor constructed feature provided at each location shall comply with current accessibility standards.
- Separation for pedestrian, bicycle, & vehicular travel in the roadway that connects to this day-use areas and leads to Lehman Caves Visitor Center
- Replace portions of the aging water lines from isolation valve at the roadway "Y" to the exterior of existing, plumbed bathroom.
- Solar power for lighting and program AV equipment

- Restoration funding for development impact mitigation and monitoring, that shall be performed after initial capital improvement activities have been completed.

II. Program Development

- After the initial installation of the physical improvements, Great Basin further proposes to:
 - Provide a seasonal, term Park Ranger to plan, implement, and refine a community campout and night sky-viewing program over three years. Their task would be to develop a family-oriented curriculum for a science campout program and special night sky-viewing program.

These developed programs could include (but not limited to) such activities as:

- A Family campout program for Snake Valley Communities
 - An astronomy program specific for Great Basin's two gateway communities, and presented in Ely, NV & Delta, UT
 - Provide and organize for Ely Shoshone Tribal youth and chaperones from Ely to the Park for campout and astronomy program.
 - Write curriculum for sixth grade students to engage with Great Basin park ranger and park resources virtually, allowing the ranger to inspire and connect with visitors who may never get to experience the park and dark night skies first hand.
 - Develop a social media program for families and youth to share their experiences with the dark night skies.
 - This could include an inventory of and checkout system for limited camping supplies, tents, canopies, cook stoves, large water coolers, reusable cookware, plates, cups, bowls, (for zero waste meals), wash basin, storage bins and other general camp supplies for visiting school, youth, and educational scientific endeavors.
- Provide for the perpetuation of this program by applying for grants to fund these endeavors beyond the initial Capital Improvement investment, and beyond project completion
 - Programmatically, The project implementation process would involve:
 - The Term Park Ranger completes the written curriculum each year and posts it to the National Park Service Education Portal for use by other communities in Nevada, and across the nation to use in their own dark night sky area.
 - Supplies would be purchased only after the curriculum is developed, to make sure only needed supplies are acquired each year.
 - Programming input will be provided in the spring or summer of each year, during peak usage.

Standard Deliverables:

- NEPA review of improvement components as listed above. It is anticipated that this expanded project will require the following activities:
 - Complete public scoping
 - NEPA & Section 106 compliance
 - Develop scopes of work for contracts for work
 - Prepare written request(s) for bids
 - Submitting and obtaining Park-level management approval(s) of the project & project specific implementation documents

SNPLMA Performance Measures:

Outcome: Increase visitor awareness and appreciation for Great Basin National Park's access to remote, dark, night sky and GRBA's unique flora & fauna through educational displays, programs, events, and products, and increase the connectivity within the Park. Achieving the following outputs will accomplish this outcome:

- **Output: Developing a Stargazing/Science Theater -**
 - Performance Measure R2 – 1 acre of constructed/improved Park area for use by interpretive rangers, teachers, lecturers, and park visitors.
 - Performance Measure R3 – 6 recreational facilities/structures constructed or improved including new solar structures, park amenities, retaining walls, screen, amphitheater, pedestrian access.
 - Performance Measure O2 – 1 amenity constructed to improve access, functionality and/or health and safety for employees and the public, concentrating development in order to facilitate the integrity of resource values. This amenity includes park/trail lighting, fencing around the solar power area, seat/ retaining walls, and accessibility signing.
 - Performance Measure O5 - 20,000 participant outreach contacts made through interpretation and environmental education by presenting a minimum of 300 the Night Sky evening programs, 3 times a week, for 7 months, over a 3-year period. (100 programs per year, with an average of 9,000 participants/year)
 - Performance Measure O6 – 1 Interpretive or Educational display produced and installed.
 - Performance Measure O7 – A schedule of educational or interpretive presentations given and/or community events developed each year, at a minimum of 3 times a week, for 7 months during the camping season, resulting it at least 100 programs per year.
 - Performance Measure O8 - 1 facility that supports Green Sustainable Design and 1 Construction Report supporting the percent reduction in the carbon footprint accomplished through green design, water conservation, energy independence, etc. with a LEED certification goal of silver.
 - Performance Measure O10 - 4 volunteers used in educational or Night-Sky interpretive programs

- Performance Measure O11 - 2 databases, report, and /or other electronic means of documenting program development activities via the web site program designed to disseminate the lesson plans and materials pertinent to outdoor educational programmatic components including SNPLMA and/or LEED performance documentation.
- **Output: Developing an outdoor Science Camp venue -**
 - Performance Measure R2 - 1 acre of constructed/improved Park area for use by interpretive rangers, teachers, educational groups, lecturers/researchers, organized youth groups.
 - Performance Measure R3 – 5 new recreational facilities/structures constructed or improved. This includes shade shelter, camping area, and parking.
 - Performance Measure O5 - 4 education and/or outreach contacts made through interpretation and environmental education on-site.
 - Performance Measure O7 - A schedule of educational or interpretive presentations given and/or community events developed each year, at a minimum of 2 times a year, resulting in at least 6 programs over three years.
 - Performance Measure O10 - 2 volunteers used in educational or Night-Sky interpretive programs
 - Performance Measure O11 -
- **Output: Developing trails to connect these to the greater Park operations -**
 - Performance Measure R4 – 2 miles of recreational roads / trails constructed or improved. These miles include new recreational trails constructed as well as improved, and the improvement of the existing road to the visitor center with the addition of a pedestrian trail.
- **Output: Refurbishing day-use picnic area & bathroom -**
 - Performance Measure R2 - 2 acres of constructed/improved Park area for use by individuals, groups, organized youth groups, and general park visitors.
 - Performance Measure R3 - 3 recreational facilities/structures that are constructed or improved , which includes improvements to the existing bathroom, replacement of aging picnic equipment, and upgrading water system.
 - Performance Measure O2 – 1 picnic facility and/or amenity refurbished to improve access, functionality and/or health and safety for employees and the public.
 - Performance Measure O8 - 1 facility that supports Green Sustainable Design, together with 1 Construction Report supporting the percent reduction in the carbon footprint accomplished through green design, water conservation, energy independence, etc. with a LEED certification goal of silver.
- **Output: Conducting educational programs for under-served communities -**

- Performance Measure O5 – 4 educational and outreach opportunities through interpretation and environmental education with potential for tracking the distribution of materials on-line
- Performance Measure O6- 1 public informational website placement or other electronic media presentation designed and implemented over the course of three years.
- Performance Measure O7- Develop a schedule of educational or interpretive presentations given and/or community events developed each year, at a minimum of 2 times a year, resulting in at least 6 programs over the first three years.
- Performance Measure O11- 2 database, report, and /or other electronic means of documenting program development activities via the web site program designed to disseminate the lesson plans and materials pertinent to outdoor educational programmatic components including SNPLMA and/or LEED performance documentation.

Project Implementation Process:

In order to determine a level of successful implementation, minimum benchmarks of 80% of planned elements, components, and trails are to be constructed, together with 80% of the Dark Sky lesson plans posted and available by the construction approved target end date

Level of Readiness:

GRBA has the capability to plan, design, engineer, initiate & complete the project within the period of performance. Great Basin stands ready to implement the development of final conceptual planning and/or NEPA review in-house, utilizing current Park staff. Preparing and implementing the scope(s) of work for those portions of work to be performed by contracted labor will be prepared by GRBA's park-level project management team, which has been specifically organized for implementing SNPLMA-related Capital Improvement programs. This team consists of a landscape architect, interpretive media planner, recreational planner, and facility management service support staff.

Great Basin will utilize standard position descriptions (PDs) for recruitment of the seasonal Park ranger that will implement the educational & community outreach, and night sky viewing programs over the last three years of the project. This will streamline the process to bring the project staff onboard. Work would be completed in-house on curriculum development and for contracting for supplies and transportation.

Budget

Estimated needs are for the construction of these facilities, together with anticipated staff increase for the programmatic portion of the educational curriculum development. No non-SNPLMA sources of

funding or in-kind contributions will be utilized. Per Appendix B-2 of the SNPLMA Implementation Agreement, GRBA will pursue contracting with the private sector for completion of the project as the first choice of action, when doing so is the most efficient and cost effective way to complete the project. The leasing of project equipment as necessary for project completion will also be the guiding principle of action in providing “best value” overall.

The budget represents the best estimate of cost, based on Park-specific, new construction cost from recently implemented SNPLMA projects with similar components.

V. Proposed Project Pictures & Exhibits:

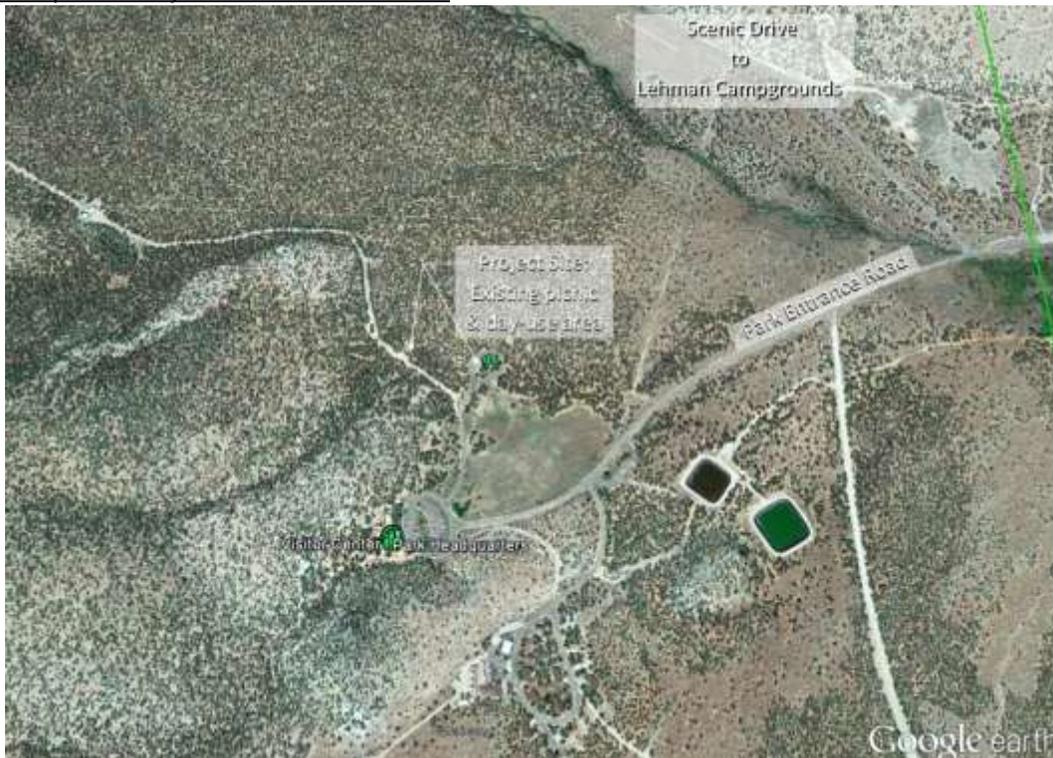


Figure 1: Project Location is Latitude/Longitude: 39° 00' 28.83" N/114° 13'06.00"W (elevation 6,782')



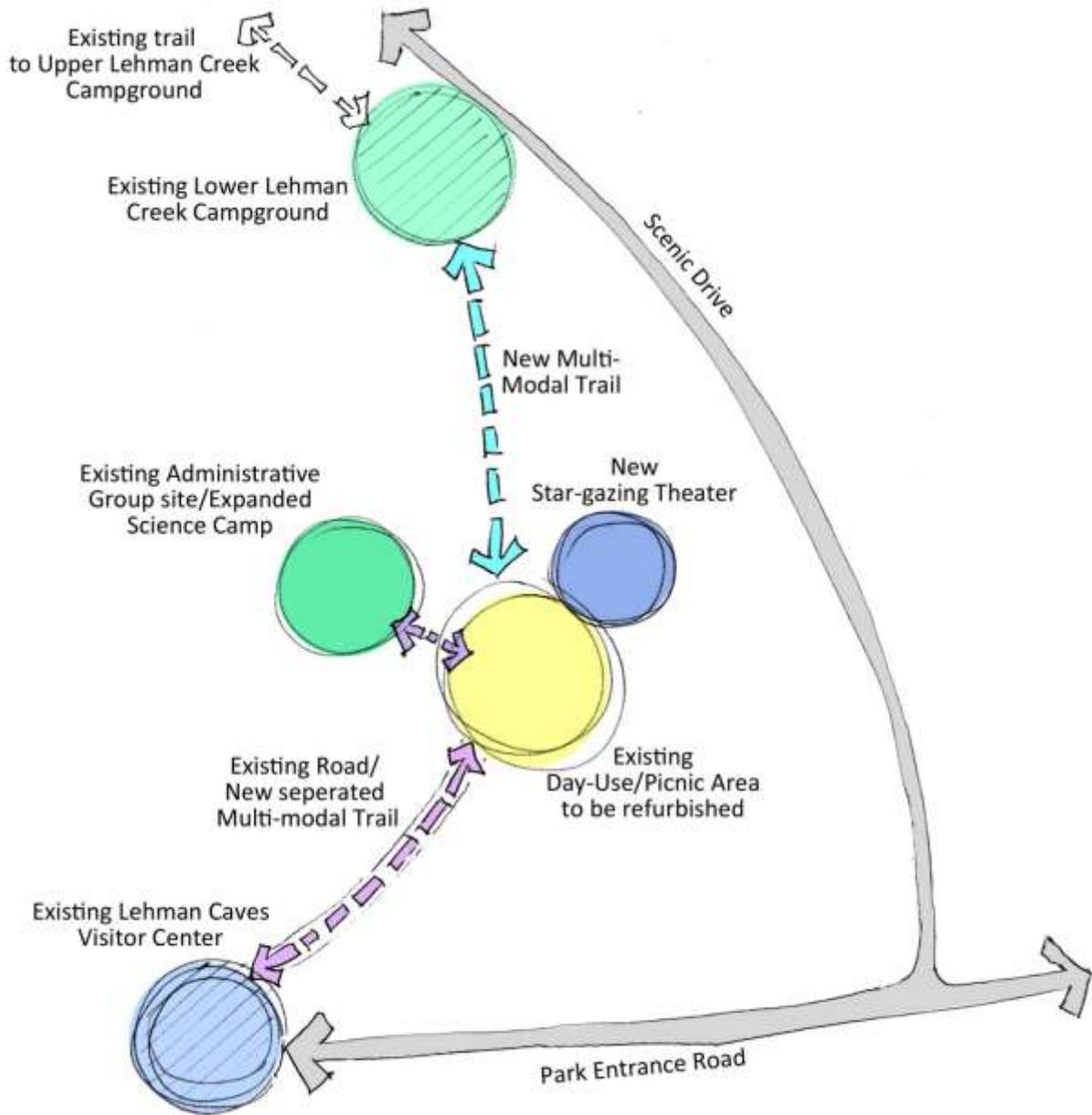
Figure 2: Project, relative to the adjacent communities served



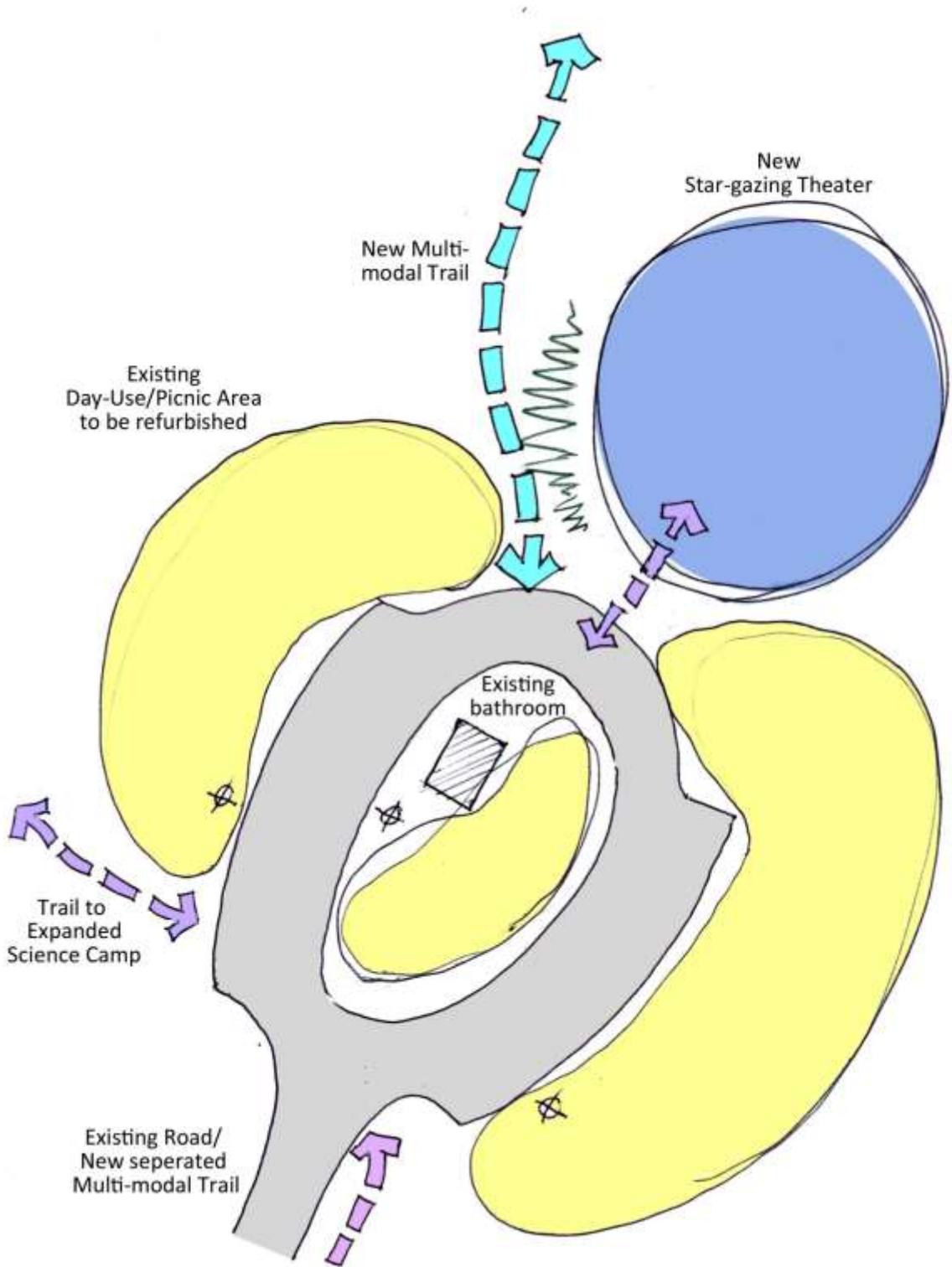
Day Use Area & project site, looking NORTH, with parking and roadway access



Day Use Area & project site, looking SOUTH, with parking and roadway access



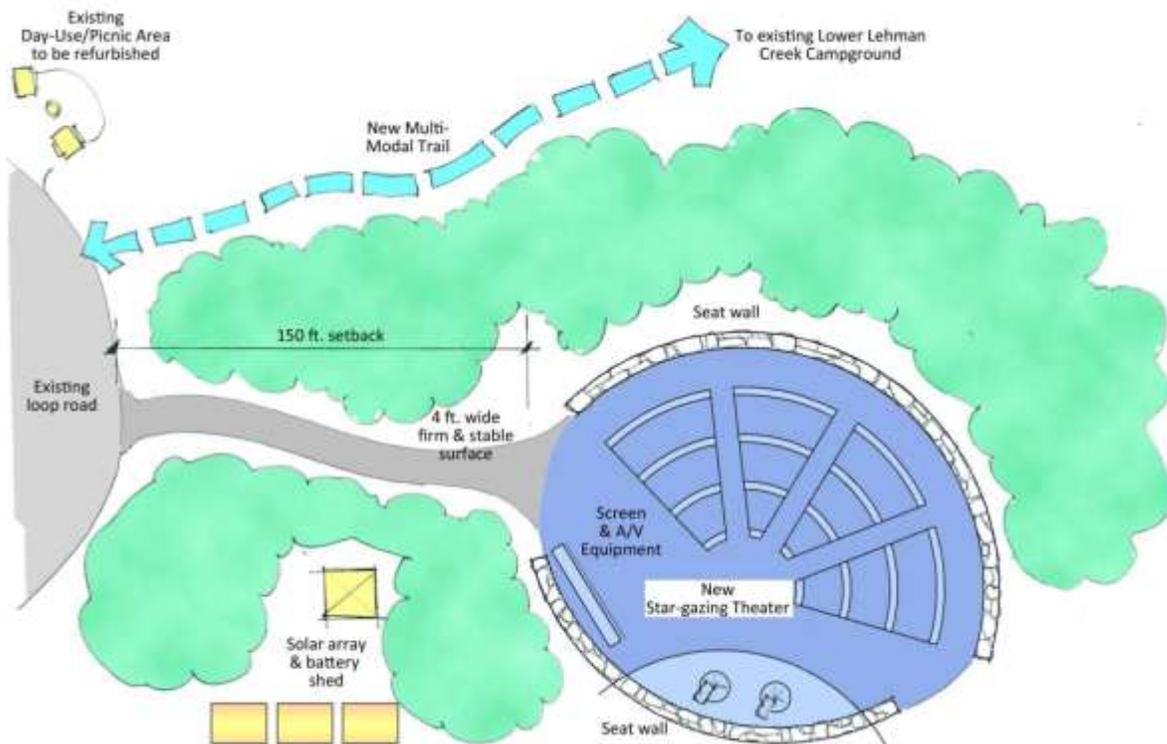
Relational Diagram of program areas to Visitor Center & Campgrounds



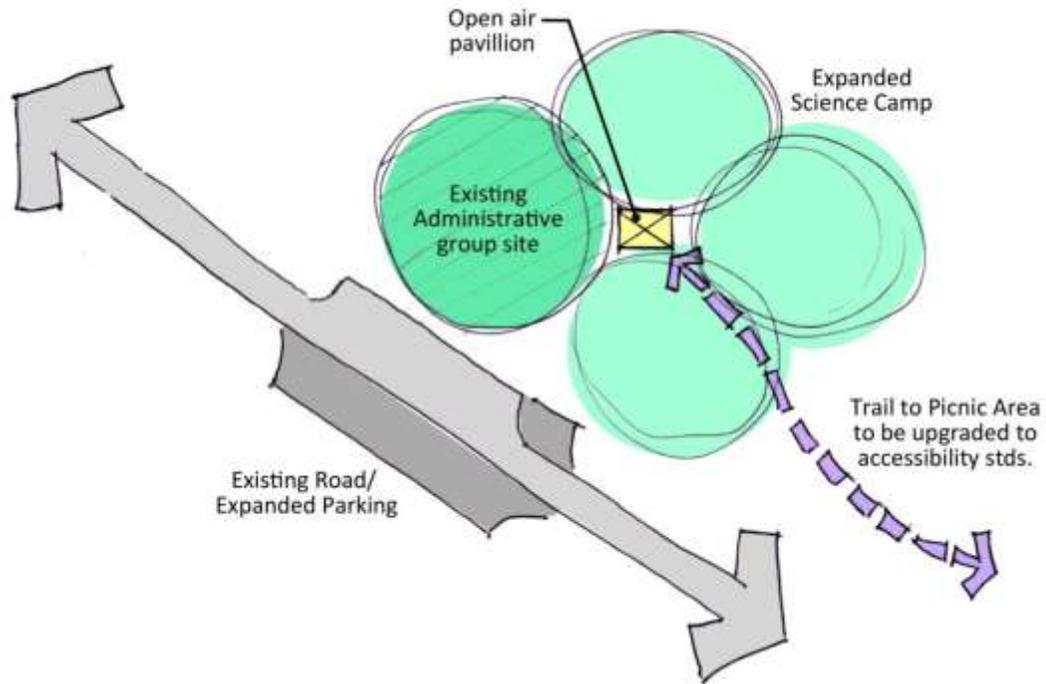
Day Use Area & Theater Diagram



Aging water system



Star-gazing/Science Theater Conceptual Site Plan

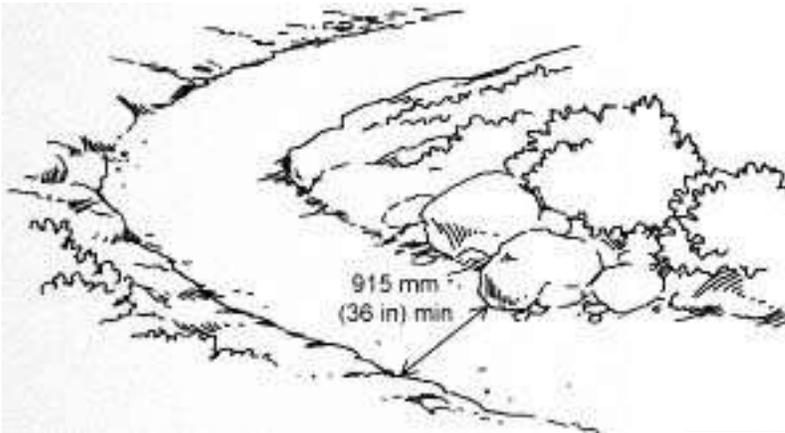
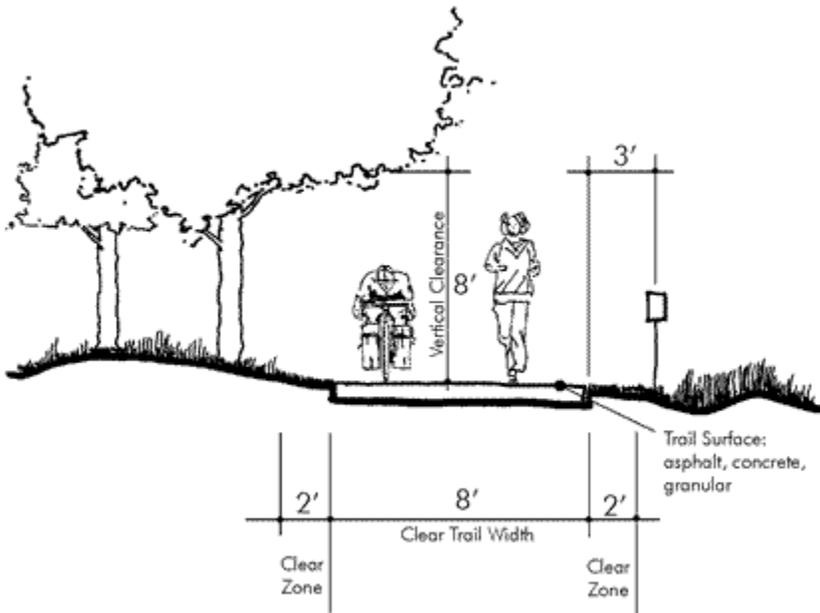


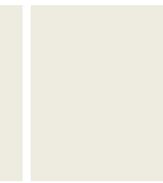
Science Camp Administrative campsite refurbishment Concept



Existing Administrative group campsite

Multimodal Trail Concepts:





Attachments:

- Budget, A-3
- Capital Improvement Ranking Criteria

Capital Improvements Ranking Criteria:

1. SUSTAINABILITY: Will the project provide benefits in the near & long term by emphasizing healthy and resilient landscapes?

A. Conserves the quality of the outdoor environment & mitigates future potential negative impacts by conserving, preserving, protecting project area resources

GRBA conserves the quality of the outdoor environment by utilizing existing and underperforming areas for enhancement and upgrading, through a program of community education and enlightenment, and by providing increased awareness of the area's resources through static displays, dynamic interpretive programs, and engaging presentations.

B. Restores the quality of the outdoor environment by reducing or eliminating existing impacts to the natural and/or cultural resources

GRBA restores the outdoor environmental quality by reducing impacts from car travel, inefficient and dangerous use of program spaces, reducing night sky light pollution with low wattage and LED technology, and by making Park visitors aware of man's impact on the land and sky.

C. Demonstrates shared support for the operations and maintenance over the life

The augmentation of this capital improvement project with programmatic element is unique. GRBA is not only committed to the maintenance and enhancement of the elements present in this proposed project by Maintenance staff with continued base-funded custodial efforts and cyclical maintenance, but also with input from the Resources division by way of presentations and educational opportunities as they arise. The "brain trust" of those dedicated to making the Park better understood is a passion that is best shared with others, in a dedicated venue focused on scientific discovery and learning

D. Employs sustainable or "green construction" practices using recycled or renewable materials, improves energy efficiency or utilizes low-maintenance products in construction. Conserves resources during the manufacture and life-cycle of the project

GRBA proposes to use solar-generated power to run the audio-visual components, building, safety, and footpath lighting, and evaluate the built components against sustainable benchmarks like the LEED certification evaluation checklist and Buy-Green programs. As practical as possible in construction, local sources will be sought and sustainable construction practices will be outlined in contracting documents, and used in project implementation.

2. CONNECTIVITY: Will it promote connecting people to nature & recreation opportunities, & important places on the public lands?

A. Provides access to previously undeveloped recreation areas and/or new recreation opportunities to enjoy the public lands.

GRBA is providing new opportunities of travel for park visitors that have chosen to enjoy, via the camping experience. The nature experience that they have chosen to place themselves within will be more accessible by foot or bicycle. The public land that will be opened up to exploration is now difficult to access, hidden from the average visitor, and will now be another attractive option in their camping experience and the exploration of this National Park.

B. Improves access to previously developed recreation areas and sites on the public lands.

GRBA proposed to improve the informal pathway that now connects the Administrative site to the bathroom and day use area, along with increasing the pedestrian connection to the Visitor Center to the south. In and among the picnic sites accessibility will increase for those with limited mobility as it is brought up to current accessibility standards.

C. Contains an outreach and education component to improve public awareness and engage the public in the conservation and protection of the surrounding natural environment through the use of resource interpretation (information signage, kiosks, educational programs etc.)

GRBA proposes to add wayside signage in the Stargazing Theater, so that even if no programs are available at the time of visit, there will be an opportunity to engage and educate the public about not only the daytime activities and interests, but an elevated awareness of the Park's evening & night-time resources.

3. COMMUNITY: Will it improve the quality of life for the human community & protects the integrity of biological communities?

A. Project provides new or enhances existing recreation opportunities for under-served or under-represented communities that cannot be addressed or met with current funding

GRBA's project provides new recreation opportunity for under-served or under-represented communities that cannot be addressed or met with current funding, by way of engaging in outreach to the gateway community of Ely, Nevada and home of the Shoshone Reservation or Delta, Utah, and creates new opportunity for urban and rural communities to access these public lands through these gateway communities.

B. Project has identified committed non-SNPLMA sources of funding or in-kind contribution for the development of the project.

GRBA has not relied on non-SNPLMA funding sources or in-kind contributions in the development of this project.

C. Project has identified committed non-SNPLMA sources of funding or in-kind contribution for the implementation of the project. (10 pts. For project, that engages the public in the conservation and protection of the surrounding natural environment through use of volunteer/stewardship resources)

GRBA has not relied on non-SNPLMA funding sources or in-kind contributions in the implementation of this project. However, its very existence may become a magnet for motivated individuals and groups to pursue the use of this venue in the future for purposes yet to be

imagined, nor does GRBA wish to preclude such a course of action, with appropriate oversight. Last year, the Astronomy Festival alone has experience over 340 hours of volunteer hours logged. With the development of an outdoor classroom, and the invitation to come and enjoy Great Basin extended to school children, students, researchers, families and the neighboring communities, volunteerism and resource stewardship will be an inevitable by-product.

4. OPERATIONS & MAINTENANCE: Has the project addressed current and future operation and maintenance (O&M) costs?

A. Operations and Maintenance costs will be reduced.

GRBA anticipates that with the consolidation of these activities in a centralized fashion that even though there is a net increase in overall components, the O&M costs will go down due to more robust amenities that are less susceptible to vandalism, have a longer wear & tear lifespan, and generally newer in character.

B. Operations and Maintenance costs will remain the same.

GRBA currently spends money on upkeep of the fire grills, which have reached their operational lifespan. The wooden picnic tables that populate the Administrative campsite and the picnic/day use area have been culled from an assortment of "best of the worst" cast-offs from previous campground renovation efforts.

C. Operations and Maintenance costs will increase, but the project will improve an existing situation or address an immediate health or safety issue.

GRBA is addressing immediate health and safety issues with this project, but this has little to no bearing on increasing O&M.

In addition:

PROJECT COST: Clearly and well-defined deliverables & completion dates. Has GRBA identified milestones within SNPLMA project performance timelines? (Y/N) **Yes.**

CAPACITY: Has GRBA demonstrated that they have the capability to plan, design, engineer, initiate & complete the project within the period of performance? (Y/N) **Yes.**