June 2016

Kings Beach State Recreation Area

Issues, Opportunities, and Constraints Report











Prepared for:

California Department of Parks and Recreation California Tahoe Conservancy

Kings Beach State Recreation Area

Issues, Opportunities, and Constraints Report

PREPARED FOR

California Department of Parks and Recreation



1416 9th Street Sacramento, CA 95814

and

California Tahoe Conservancy



1061 Third Street
South Lake Tahoe, California 96150

PREPARED BY

Ascent Environmental, Inc.



455 Capitol Mall, Suite 300 Sacramento, CA 95814

TABLE OF CONTENTS

Secti	on		Page
ACR	ONYMS	AND ABBREVIATIONS	II
1	INTR	ODUCTION	
	1.1	Planning Assumptions	1
2	RECE	REATIONAL OPPORTUNITIES AND VISITOR EXPERIENCE	2
	2.1	Issue: Relationship Between KBSRA and the Surrounding Community	2
	2.2	Issue: Coordination with the North Tahoe Event Center	3
	2.3	Issue: Providing an Appropriate Variety of Lake Access Opportunities	4
	2.4	Issue: Providing Information Appropriate for a Variety of Visitor Types	
3	FACI	LITIES AND OPERATIONS	6
	3.1	Issue: Pier Rebuild	6
	3.2	Issue: Kings Beach Promenade	8
	3.3	Issue: Use of the Boat Ramp Area	8
	3.4	Issue: Developed Recreation Facilities	10
	3.5	Issue: Parking and Access	11
	3.6	Issue: Expanding Partnerships	12
	3.7	Issue: Enhancing Mission-Appropriate Revenue Generation	13
	3.8	Issue: Access for Visitors with Disabilities	14
	3.9	Issue: Sand Management	15
4	RESC	DURCE MANAGEMENT	16
	4.1	Issue: Scenic Mitigation and Enhancement	16
	4.2	Issue: Aquatic Invasive Species	
	4.3	Issue: Stormwater Management	18
	4.4	Issue: Adapting to Climate Change	18
Г:			
Figu		/O	A
\it_	Analysis	Opportunities Man	Attached

ACRONYMS AND ABBREVIATIONS

°F degrees Fahrenheit	degrees Fahrenheit
AIS	aquatic invasive species
ВМР	best management practice
CSP	California Department of Parks and Recreation
EC Report	Existing Conditions Report
GP	General Plan Revision
IOC	Issues, Opportunities, and Constraints
KBSRA	Kings Beach State Recreation Area
NTPUD	North Tahoe Public Utility District
SRA	State Recreation Area
TMPO	Tahoe Metropolitan Planning Organization
TRPA	Tahoe Regional Planning Agency

1 INTRODUCTION

This report provides an analysis of Issues, Opportunities, and Constraints (IOCs) in support of the preparation of the Kings Beach State Recreation Area (KBSRA) General Plan Revision (GP). Consistent with direction in the 2010 California Department of Parks and Recreation (CSP) Planning Handbook, this IOC report addresses issues of primary importance that are driving the planning effort. In most cases an issue will include both opportunities to improve management actions or resolve a problem, and constraints that limit the potential to address the issue.

The CSP general planning process, as described in the 2010 Planning Handbook, directs CSP to "Analyze Issues, Challenges, and Opportunities." This IOC report has been developed to support this step and is intended to inform the development of concept alternatives for the KBSRA GP, including goals and guidelines for KBSRA as a whole; inform the intent of management zones; and support evaluation of alternatives and the selection of a proposed alternative. In most cases the issues identified are best addressed through development and evaluation of alternative goals, guidelines, management zones, or site design features during the planning process. Issues of primary importance identified herein will also serve as the basis for Chapter 3, Issues and Analysis, of the GP.

This effort draws upon input gathered at a public workshop held on January 12, 2016, and the public scoping hearing at the TRPA Advisory Planning Commission on April 13, 2016. It also reflects public comments submitted prior to, and following the workshop; input received at informal stakeholder meetings; and expert knowledge from CSP and California Tahoe Conservancy (Conservancy) staff. This report also incorporates information from the 2016 Resources Inventory and Existing Conditions Report (EC Report). The 2016 EC Report and its supporting references serve as a repository of information on current conditions in KBSRA. This IOC report briefly summarizes background information, as needed to understand an issue, but does not repeat existing conditions descriptions or citations included in the EC Report.

Issues are organized into one of three major topic areas. Some issues apply to KBSRA as a whole and others apply to specific sites within KBSRA. However, due to the small size of KBSRA, issues are organized by topic area, rather than geographically. The three major topic areas include:

- Recreation Opportunities and Visitor Experience,
- Resource Management, and
- Infrastructure and Facilities.

A site analysis/opportunities map is attached to this report and graphically displays existing conditions, and where possible, the location of issues, opportunities, or constraints discussed in this report. In addition to graphically displaying IOCs, the site analysis map can function as a starting point for site design and alternatives development.

1.1 PLANNING ASSUMPTIONS

The following assumptions are based on current state and federal laws, regulations, and CSP policy, which form the basis for planning and set the parameters for addressing planning issues.

CSP and the Conservancy will:

Manage CSP and Conservancy lands within the KBSRA GP area as one management unit consistent with this GP, subject to the terms of the Operating Agreement (OA) between CSP and the Conservancy, dated May 2014, as amended. Roles and responsibilities related to special uses and concessions, access for people with disabilities, law enforcement, and revenue and expenses will remain consistent with those specified in the OA.

- Collaborate with Placer County, North Tahoe Public Utility District (NTPUD), Tahoe Regional Planning Agency (TRPA), and other agencies, non-profit organizations, volunteers, and other regional partners to assist KBSRA management planning.
- Manage KBSRA in a manner consistent with federal and state laws, the Lake Tahoe Regional Plan, the CSP Department Operations Manual, and other applicable laws and regulations.
- Coordinate the planning and management of KBSRA with the planning and management of other CSP and Conservancy lands surrounding KBSRA. Coordinate with planning efforts related to the community of Kings Beach and other recreation sites and public land to consider connectivity and compatibility of recreational, interpretive, and resource management programs.
- Consult with federally recognized Indian tribes and California Native American tribes and obtain a respectful understanding of the long-term needs for protection and treatment of Native American cultural resources, heritage and sacred sites, objects, cultural landscapes, or human remains; and to determine future consultations that would be required during the subsequent planning, design, and implementation of projects.
- Maintain and increase the overall amount and variety of recreational opportunities, access for visitors with physical limitations, and events within KBSRA, to the extent possible without conflicting with the missions of CSP or the Conservancy.
- Consider the issues and concerns of all citizens of California, including adjacent land owners and nearby residents during the planning and implementation process. Seek input from local, regional, and statewide interests.
- Maintain the approximate size and configuration of KBSRA.

2 RECREATIONAL OPPORTUNITIES AND VISITOR EXPERIENCE

2.1 ISSUE: RELATIONSHIP BETWEEN KBSRA AND THE SURROUNDING COMMUNITY

Background and Analysis: Visitors to KBSRA include local residents who use KBSRA as a community park, and visitors from outside the region who visit KBSRA as part of a visit to the Lake Tahoe area. While detailed information on the proportion of local versus out-of-area visitors does not exist, CSP staff observe that local residents and repeat visitors comprise a substantial proportion of the visitors to KBSRA. Public comments received during the planning process and the previous Kings Beach vision planning effort have highlighted the importance of KBSRA to the local community. Many of the comments focused on KBSRA's role as a community park and gathering space, and an important quality of life asset for local residents.

KBSRA is also valued by visitors from throughout the state and beyond. A visitor survey conducted in summer 2014 on behalf of the North Lake Tahoe Resort Association found that one third of visitors to the north shore of Lake Tahoe visited KBSRA during their stay. These results point to the regional and statewide significance of KBSRA as a recreational asset.

As a State Recreation Area (SRA), KBSRA includes resources of statewide significance. Consistent with CSP's mission, KBSRA must be managed to protect these resource values and provide outdoor recreation opportunities to provide for the health, inspiration, and education of the people of California. At the same time, KBSRA will continue to be heavily used by local residents as a community park and gathering spot. The GP revision must provide for the management of KBSRA as a resource of statewide significance for the benefit of all the residents of California, while acknowledging KBSRA's function in the local community.

Opportunities: KBSRA consists of parcels that were previously managed by different entities (Conservancy, Boating and Waterways, CSP). As a result, the facilities do not reflect a consistent character that clearly identifies KBSRA as a resource of statewide significance. The GP revision and associated site design provides an opportunity to plan for facilities that clearly identify KBSRA as a statewide resource, rather than a local park, but that still serve the local community. KBSRA's role as an amenity to visitors from throughout the state can also provide economic benefits to the surrounding community by attracting visitors to the commercial area of Kings Beach that would otherwise recreate elsewhere.

Constraints: Some local residents will likely be opposed to any changes that they perceive as reducing the amenities available for local residents. Visitors at KBSRA can also have negative impacts on surrounding businesses and residents by creating parking congestion, noise, or other nuisances.

Recommendations: The GP could address this issue with the following recommendations:

- Include a goal that provides clear direction on the role of KBSRA as a resource of statewide significance that implements CSP's mission while also serving as an amenity to the local community.
- Create a site design that:
 - 1) provides for facilities, landscaping, and signage that clearly identify KBSRA as an SRA,
 - 2) includes amenities for the local community (e.g., playground and basketball court) to the extent that they are consistent with CSP's mission and the purpose and vision of KBSRA,
 - 3) integrates interpretive information into facilities and signage to provide education as well as recreation opportunities,
 - 4) minimizes noise-generating uses adjacent to private property and reduces the potential for trespass onto private properties,
 - 5) integrates pedestrian and bicycle access within KBSRA with surrounding mobility plans so residents and visitors can seamlessly move between KBSRA and the surrounding community, and
 - 6) coordinates parking management with Placer County and surrounding properties to minimize impacts of visitor parking on surrounding areas.

2.2 ISSUE: COORDINATION WITH THE NORTH TAHOE EVENT CENTER

Background and Analysis: NTPUD manages the North Tahoe Event Center, which is surrounded on three sides by KBSRA. The event center serves as a community center, and accommodates a variety of events that often carry over onto the beaches and facilities of KBSRA. The event center hosts community meetings, classes, and weddings and other private events. While the event center is owned by NTPUD, it

is accessed through KBSRA. The north side of the events center (facing SR 28) is not visually inviting to pedestrians or other visitors.

Parking for the event center is shared with KBSRA. In exchange for two administrative parking spaces in the parking lot, NTPUD plows the KBSRA parking lot in winter. The remaining parking spaces are available on a first-come, first-served basis to visitors of both KBSRA and the event center. During off-peak seasons at KBSRA, the shared parking arrangement provides adequate parking for the event center and efficiently uses the available parking lots. During peak use periods, such as summer weekends and holidays, parking demand exceeds availability, and visitors to KBSRA and the event center often cannot find on-site parking.

NTPUD is in the early stages of evaluating redevelopment opportunities at the event center. It has expressed interest in acquiring fee title ownership from CSP of additional lands adjacent to the North Tahoe Event Center that would allow for more independent management of the event center or additional redevelopment possibilities. NTPUD has also suggested that the existing agreement between NTPUD and CSP could be revised to streamline operations of the event center. In particular, NTPUD staff have indicated that allowing for pre-paid reserved parking for special events at the center would improve its operation.

Opportunities: Redevelopment of the event center could help to alleviate parking issues by promoting direct access from SR 28. The agreement between NTPUD and CSP could be revised to provide incentives to encourage scheduling of events during periods when demand for parking at KBSRA is lower (e.g., evenings, weekdays, winter). A deed restriction on the events center parcel limits uses of the site to those uses that support parks and recreation.

Constraints: Redevelopment of the event center could result in buildings that are less consistent with the character of KBSRA and the CSP and Conservancy missions. An expansion of the event center or an intensification of uses at the site could increase parking conflicts.

Recommendations: The GP could address this issue with the following recommendations:

- Include a goal and guideline that provides direction on the desired long-term relationship between KBSRA and the event center.
- Call for a review of the agreement between NTPUD and CSP to consider improvements to operations including options for reserved parking and/or discounted parking for events during lower-use periods of KBSRA.
- Consider transfer of the lands between the event center and SR 28 to NTPUD in exchange for improvements that support KBSRA operations. Such transfer would provide CSP with an opportunity to include conditions on the transfer to ensure future redevelopment of the event center site is compatible with KBSRA and reduces parking and other conflicts.

2.3 ISSUE: PROVIDING AN APPROPRIATE VARIETY OF LAKE ACCESS OPPORTUNITIES

Background and Analysis: Access to Lake Tahoe is the primary attraction at KBSRA. Passive beach use (e.g., swimming, sunbathing) is the most common activity, and during summer weekends the beach can be very full. Boating and other watersports are also very popular. A concessionaire provides watersport rentals, including a variety of kayaks, paddleboards, paddle boats, and jet skis. During periods of high lake levels, the boat ramp provides access for private motorized watercraft. The capacity for boat launching is limited by available boat trailer parking (22 spaces) at KBSRA.

Non-motorized boating is also very common at KBSRA and growing in popularity. In addition to the concessionaire, a private paddle board rental business operates adjacent to KBSRA and paddle board races, including the Ta-Hoe Nalu Paddle Festival, are hosted at KBSRA. Numerous visitors bring kayaks, paddle boards, and other non-motorized watercraft to KBSRA, with many of them launching near the boat ramp.

Opportunities: The GP and pier rebuild provides an opportunity to comprehensively consider the type of lake access provided at KBSRA. Relocating the pier from the center of the beach could reduce the potential for conflicts between motorized and non-motorized recreation. Converting the boat launch into a facility for non-motorized uses only could expand access opportunities for non-motorized watercraft and reduce conflicts. Alternately, maintaining and improving the boat ramp could provide for some continued motorized boat access. This could be combined with the establishment of a designated swim area marked by buoys to reduce the potential for conflicts between user types.

Constraints: Any decision to limit or continue motorized boat access would likely be opposed by some users.

Recommendations: The GP could address this issue with the following recommendations:

- Develop goal(s) and guidelines that provide direction on the desired mix of lake access opportunities and strategies to manage conflicts between user groups.
- Develop and evaluate alternatives with different levels of motorized and non-motorized lake access.

2.4 ISSUE: PROVIDING INFORMATION APPROPRIATE FOR A VARIETY OF VISITOR TYPES

Background and Analysis: A diverse array of visitors use KBSRA. As an easily accessible recreation area on Lake Tahoe, KBSRA is popular with visitors from throughout California and beyond. Many of these visitors may visit KBSRA as one of several destinations within the Lake Tahoe region, and many are likely not familiar with the area. Visitors that are unfamiliar with the area would benefit from wayfinding information to help them locate KBSRA and move between KBSRA and other area attractions. These visitors could also benefit from educational and interpretive information that provides basic information about KBSRA and the natural and cultural history of the surrounding region.

KBSRA is also popular with local residents. These visitors likely access KBSRA regularly, and are very familiar with the area. For these local visitors, KBSRA functions as a neighborhood park where they can picnic, use the playground, and play basketball. Wayfinding and general information about the surrounding area would be less useful for this group. Because these local visitors likely visit KBSRA regularly, any static educational or interpretive materials would likely be of limited use after multiple visits.

Approximately two-thirds of Kings Beach residents are Hispanic, many of which may not be fluent in English. Such visitors may have difficulty accessing useful interpretative and educational materials, and information on park regulations.

Opportunities: Improved wayfinding could help visitors locate recreational opportunities at KBSRA and move easily between KBSRA and other attractions in the area. In particular, a coordinated wayfinding and signage program that addresses bicycle and pedestrian connectivity between KBSRA, other beaches and recreation sites, commercial areas, and public parking could encourage bicycle and pedestrian circulation, which could improve visitor experiences and reduce parking congestion.

Interpretive and educational information on the natural and cultural history of the Lake Tahoe region would help visitors unfamiliar with the region to understand the significant values of KBSRA and foster environmental stewardship. Static educational materials, such as interpretive panels or signs would be effective to convey information to those who are not regular visitors to KBSRA.

There is also an opportunity to provide more in-depth information and education to regular visitors to KBSRA. Changeable signage, traveling interpretive stations, interpretive programs, classes, and other educational programming that can provide more in-depth and variable information would be appropriate for regular visitors. Information on park regulations, as well as educational programs could be provided in both English and Spanish to reach a broader audience of local residents.

Constraints: The mix of visitor types makes it difficult to identify educational materials and themes that would be relevant to both regular visitors, and visitors who may not be familiar with the site. Changeable information and programming would require greater resource commitments over the long-term. Wayfinding programs would need to be closely coordinated with other recreation providers and jurisdictions.

Recommendations: The GP could address this issue with the following recommendations:

- Develop interpretive themes that are relevant for visitors with varying levels of familiarity with the site.
- Develop goals and guidelines that provide direction on interpretive strategies targeted at repeat visitors. Strategies could include: 1) a mobile interpretive station, 2) changeable interpretive kiosks, 3) interpretive program series that address a variety of topics, or 4) providing opportunities for other organizations to provide classes or talks on topics that support the CSP and Conservancy missions.
- Call for the preparation of an improved bicycle and pedestrian wayfinding program in coordination with NTPUD, Placer County, Tahoe Metropolitan Planning Organization (TMPO), and other recreation or transportation providers.

3 FACILITIES AND OPERATIONS

3.1 ISSUE: PIER REBUILD

Background and Analysis: The GP revision is being developed concurrently with a proposed pier rebuild and relocation project. The existing pier is located near the center of the beach and extends to a lake bed elevation of approximately 6223 feet. During periods of low lake levels, this pier does not reach the water level and is unusable for motorized boat access. A rebuilt pier could extend into deeper water (lakebed elevation 6217 feet), and provide increased access for boaters. A rebuilt pier could also provide another option for visitors without boats to access and experience the lake. While not part of the GP or pier rebuild project, a rebuilt pier that accessed deep water could also make it possible for future publicly funded water shuttle services to access KBSRA and the community of Kings Beach.

The Conservancy and CSP commissioned a pier feasibility study that evaluated two pier rebuild alternatives: a rebuild of the pier just east of its current location (center pier alternative), and a rebuild of the pier to the east of KBSRA adjacent to the existing boat ramp (east pier option). A third pier location at the west end of KBSRA, near the North Tahoe Events Center, has been suggested by members of the public and Placer County, and will be evaluated in the GP revision process.

The pier feasibility study addressed regulatory and technical opportunities and constraints related to the pier rebuild. The feasibility study found that the pier could be engineered to function at the site and provide access to the desired water depth. The feasibility study noted that the eastern pier alternative and the central pier alternative would affect prime fish habitat (feeding and/or escape cover habitat). As such, regulations governing prime fish habitat inform the opportunities and constraints related to those pier rebuild alternatives.

Opportunities: Any rebuilt pier within KBSRA that extends to deeper water would provide additional access for boaters, and could improve visitor experience by offering additional ways to access and view the lake.

To minimize effects on prime fish habitat and maintain consistency with TRPA Code Section 84.5.1.C, the east pier location would need to be combined with the removal of the existing boat ramp. This could result in a net reduction in the area of prime fish habitat that would be disturbed. This could allow for modifications to the area around the boat ramp that benefit non-motorized access. This option would also separate motorized boats that access the pier from the swimming area in the center of KBSRA.

The central pier could be relocated slightly to the west, near the location of the existing pier. This location would avoid alteration of prime fish habitat. Relocating the central pier to the east would also avoid the need to alter the existing stormwater outfall, rocky swale, and riparian vegetation that is on the landward side of the current central pier alternative alignment. This central pier location would provide the most direct access to the pier from the heavily used central beach area.

The western pier alternative could provide an additional pier alternative that avoids prime fish habitat and is responsive to public comments. This alternative could allow the pier to be more integrated into the event center area, and it could maintain a motorized bot launch while also creating an open swimming beach through the center of KBSRA.

Constraints: In addition to fish habitat effects, any pier rebuild alternative could have environmental impacts that would require mitigation including, but not limited to, scenic impacts from the lake and from the TRPA-designated scenic viewpoint on the beach.

The east pier alternative would have the greatest effects on prime fish habitat. The central pier alternative could increase conflicts between motorized boats accessing the pier, and swimmers and other non-motorized use in the beach area. The central pier alternative could also have the greatest scenic impacts when viewed from the beach.

A western pier alternative was not evaluated in the pier feasibility study. Inclusion of a western pier alternative would require additional surveying and design work. Because it would be more remote, access to this location from the major use areas at KBSRA would also be more difficult for visitors. A pier in this location could appear to be a private pier, potentially affecting the visitor experience. A pier in this location could also impede the relatively unobstructed view from the event center towards Lake Tahoe.

- Evaluate a slightly modified central pier alternative that is in the location of the existing pier, which would avoid prime fish habitat and conflicts with the existing stormwater outfall.
- Combine the east pier alternative with removal and restoration of the boat ramp to result in a net decrease in impacts to prime fish habitat and maintain consistency with the TRPA Code.
- Evaluate a west pier alternative.

3.2 ISSUE: KINGS BEACH PROMENADE

Background and Analysis: The Kings Beach Vision Plan, created by Placer County through a public visioning process, included a proposal for a beach promenade. The beach promenade could create a prime east-west bicycle and pedestrian connection along KBSRA, which could connect area beaches and adjacent residential areas. The promenade was envisioned to follow the former Brockway Vista Avenue right-of-way through KBSRA. To the west of KBSRA, it would provide connections to Secline Beach and North Tahoe Beach. To the east, it would follow the existing Brockway Vista Avenue to Chipmunk Street, where it would connect with SR 28.

Through KBSRA, the promenade was envisioned as a boardwalk or similar elevated structure. It was intended to include gathering areas for visitors, and to serve as a major pedestrian and bicycle connection. The promenade could also serve as a beach sand retaining wall that could address maintenance needs discussed in Section 3.7, below. Along residential streets such as Brockway Vista Avenue, the promenade would be part of the street right-of-way where it could function as a shared street that allows for both slow vehicular use and bicycles and pedestrians.

Opportunities: A promenade through KBSRA could help to address parking congestion by providing additional non-motorized access to KBSRA from nearby areas. It could also improve visitor experiences by providing gathering spaces, and better integrating KBSRA's recreation opportunities with nearby beaches and surrounding amenities. The promenade could also serve as a sand wall to reduce sand deposition on parking lots, which could reduce ongoing maintenance needs.

Constraints: While the GP can address the portion of the promenade within KBSRA, portions of the proposed promenade to the east and west of KBSRA are outside the jurisdiction of CSP and the Conservancy. The benefits of the promenade within KBSRA would be limited if the portions outside KBSRA are not implemented. The promenade would also likely result in additional human-made structures that would be visible from Lake Tahoe, which would be subject to scenic regulations and mitigation requirements.

Recommendations: The GP could address this issue with the following recommendations:

- Include goals and/or guideline(s) that address the desired location and function of the promenade.
- Include a proposed promenade in at least one site design alternative.
- Coordinate with Placer County, NTPUD, and others to assess the viability of the promenade outside of KBSRA prior to committing to include the portion within KBSRA.

3.3 ISSUE: USE OF THE BOAT RAMP AREA

Background and Analysis: The boat ramp and surrounding areas near Coon Street provide unique uses and opportunities within KBSRA. The boat ramp itself provides a public launching site for motorized boats, although the ramp is only useable during periods of high lake levels (at or near a lake elevation of 6229.1 feet). During slightly lower lake levels, small- to medium-sized motorized watercraft can still be launched. However, public comments have indicated that launching conditions during lake levels of less than approximately 6228 feet can be hazardous due to the presence of large submerged rocks near the boat ramp.

When the boat ramp is useable, it provides a valuable recreational asset for motorized boaters. During periods of low water levels (i.e., lake levels below 6,227 feet msl), the boat launch ramp is not accessible for public use; however, commercial users can still access the ramp with specialized equipment. The last time the boat ramp was open for public use was Labor Day weekend, 2012. Since 2008, the ramp has been closed for 75 percent of the boating seasons, and was only open for two seasons, in 2011 and 2012. Based on revenue reporting by NTPUD, the boat ramp accommodated between 100 and 300 non-commercial boat launches per season, during the each of the last two seasons it operated.

Use of the boat ramp is restricted by the limited availability of boat trailer parking. The parking lot near Coon Street provides 22 parking spaces for boat trailers. Overflow boat trailer parking previously occurred off-site as roadside parking along SR 28 and on side streets in residential areas north of SR 28. With construction of the Kings Beach Commercial Core project, most of the roadside parking has been eliminated and use of the boat ramp will likely be limited by the approximately 22 trailers that can park at the Coon Street parking lot.

When the boat ramp is not operational, the area provides additional parking for beach users and other KBSRA visitors. The forest and beach area east of the boat ramp is open to dogs and the Coon Street parking area is popular with dog walkers. The area also contains restrooms and picnic tables. These facilities generally receive less use than the restrooms and picnic tables closer to the center of KBSRA. During peak use periods, the boat ramp area also serves as a drop-off point where visitors will unload passengers, non-motorized watercraft, and other recreational equipment before leaving to park off-site.

Public comments have indicated that residents along Brockway Vista Avenue are concerned about KBSRA visitors exiting through the neighborhood on Brockway Vista Avenue. Some comments have suggested making Brockway Vista Avenue one-way, or open to bicycle and pedestrian traffic only. Other comments on this area have suggested closing off the Coon Street entrance and providing access to the parking area from the western entrance; or expanding parking at the Coon Street lot.

Opportunities: Removal, closure, or conversion of the boat ramp into a non-motorized facility would provide opportunities for additional parking during peak use periods, additional space for active recreation facilities or picnic areas, and/or allow for the removal of pavement and creation of additional open space near the beach.

Alternatively, the boat ramp could be extended further into the length to improve make it usable during lower lake levels. This could occur in coordination with a reconfiguration or expansion of the parking lot to provide additional boat trailer parking. Whether or not the boat ramp is modified or removed, the area could support additional or relocated recreation facilities (e.g., playground, basketball court, stage).

Constraints: Removal or closure of the boat ramp would likely face strong opposition from a core group of local boaters. It would also reduce the variety of recreation opportunities available at KBSRA and the North Shore region. Traffic and noise impacts on adjacent residents could increase with improved facilities and associated increased visitor use in this area.

Recommendations: The GP could address this issue with the following recommendations:

■ Develop and evaluate alternatives that include a range of different proposals for the boat ramp area. Alternatives could include: 1) closure of the boat ramp and redesign of the parking and launch area for better integration with other uses at KBSRA, 2) modification of the boat ramp to improve safety during moderate lake levels in combination with a reconfiguration of the parking area to provide additional boat trailer parking, and/or 3) some combination of elements from each of those alternatives.

3.4 ISSUE: DEVELOPED RECREATION FACILITIES

Background and Analysis: While lake access and passive beach recreation are the primary attractions at KBSRA, there are a number of developed recreation facilities that are popular with visitors and that diversify recreational opportunities at KBSRA. These include numerous picnic tables, as well as more active facilities including a playground, basketball court, and a removable stage used for concerts on the beach. These facilities are used by a wide variety of visitors, but they may be especially important to local residents because they function similar to a community park.

Public comments have noted the importance of these features and have expressed interest in additional or expanded developed recreation facilities. Specific suggestions include: a skatepark, splashpad, amphitheater or improved concert area, mini disc golf course, pavilion, additional picnic tables and grills, boardwalks, and other improved or expanded pedestrian facilities. The Kings Beach Vision Plan included proposals for a beach center at KBSRA. The proposed beach center included outdoor pools and shallow water play areas designed to reflect the surrounding natural environment. It also included a proposed indoor heated pool with views of the lake, to offer a desirable winter activity at KBSRA.

Opportunities: Additional developed recreation facilities, similar to those suggested in public comments or the Kings Beach Vision Plan, would provide a greater diversity of recreation opportunities at KBSRA, which could enhance visitor experiences. Many of the facilities suggested by members of the public would require little ongoing maintenance or management commitments. Developed recreation facilities could be designed to include educational or interpretive features that could reflect the mission of CSP and the Conservancy. When special events are not underway, the Conservancy-owned plaza area may be underutilized. This space could be converted to provide additional active recreation facilities.

Constraints: The small size of KBSRA limits the amount of developed facilities that can reasonably be accommodated. KBSRA already exceeds the allowable coverage limits, so additional developed facilities could require off-setting mitigation or the removal of existing coverage. Additional facilities would reduce the space available for open space, passive recreation, stormwater treatment, and parking. Providing more developed recreational facilities could make KBSRA appear and function more like a local community park, rather than promoting KBSRA as a resource of statewide significance. More intensive facilities, such as the proposed beach center, would require an ongoing commitment of maintenance resources. Conversion of the plaza area into space for active recreation facilities would reduce the space available for special events.

- Include a goal that provides direction on the desired balance of developed and undeveloped recreation opportunities in KBSRA.
- Include a guideline(s) that provides design considerations for developed facilities that reflect the statewide significance of KBSRA and the mission of CSP.
- Develop and evaluate alternative site designs that dedicate different proportions of KBSRA to developed recreation facilities and other uses. The alternative designs could provide a range of new or expanded facilities.

3.5 ISSUE: PARKING AND ACCESS

Background and Analysis: A substantial portion of KBSRA (about 18%) is dedicated to parking. With the small size of KBSRA, the amount of parking limits the amount of space available for recreational use. However, the existing parking is not sufficient to meet demand during peak use periods.

During weekdays and periods of cooler weather, much of the parking lot is empty. Placer County has encouraged CSP to consider use of KBSRA for shared parking to utilize this space for public or local business parking during off-peak periods. During the summer season, and especially during holidays and weekends, the parking lot is often at capacity. During many of the peak-use periods the demand for parking at KBSRA exceeds available capacity. Parking for boat trailers near the existing boat ramp is particularly limited (see Issue 3.3, above). Visitor parking can spill over onto nearby roadways and parking lots outside of KBSRA when parking areas are at capacity, and as a result of visitors seeking free parking even when parking is available.

The recent construction of the Kings Beach Commercial Core Project reduced available roadside parking near KBSRA. While some public parking is available within Kings Beach, off-site parking areas within walking distance to KBSRA are limited and are often used by customers of businesses in Kings Beach. Off-site parking can displace parking for customers of nearby businesses, which could adversely affect those businesses. The use of off-site parking is further limited by the fact that many visitors bring recreation equipment (e.g., paddleboards, coolers, umbrellas) that may be difficult to carry from off-site parking areas.

The adjacent Kings Beach Event Center hosts numerous community meetings, classes, and private events, and KBSRA parking is shared, as described above. During off-peak periods, this shared parking scheme makes efficient use of the parking area and reduces the need for separate parking for the event center and KBSRA. During peak use periods, however, parking is inadequate to support both uses.

KBSRA's location makes it readily accessible to pedestrians from Kings Beach; it is within an easy walking distance from many residential areas. Recent streetscape improvements will likely make Kings Beach a more appealing destination for pedestrians, which could increase the proportion of visitors that access KBSRA on foot.

Opportunities: A realignment or expansion of the existing parking lots (particularly near Coon Street) could create some additional parking capacity to better accommodate peak parking demand. Improved wayfinding, transit information, and pedestrian connections between KBSRA and surrounding areas could encourage more visitors to access KBSRA using alternative transportation modes. Storage spaces for paddleboards, kayaks, or other equipment could encourage repeat visitors to store recreational equipment on-site and arrive by non-automobile modes. A designated drop off location or short-term parking spaces could promote better use of off-site parking areas. Incentives for carpooling such as reduced parking fees could help to reduce demand for vehicle parking during peak periods.

Improved coordination with NTPUD on the management of the event center could reduce parking conflicts between event center and KBSRA visitors (see Issue 2.1). KBSRA could benefit the surrounding community by offering adjusted fee structure for public parking during times when KBSRA parking lots are below capacity. Placer County or local business organizations might be willing to provide CSP with funding for adjusted fee structure for public parking at KBSRA to offset potential revenue loss. Redevelopment projects in Kings Beach or at the event center could offer opportunities to create off-site shared parking.

Constraints: Very little space exists to expand on-site parking, and expanded parking would reduce the already limited space available for recreational use. Facilities or programs to encourage reduced parking demand may have limited effectiveness because many visitors to the region use personal vehicles

as primary modes of transportation. Opportunities for improved coordination of shared parking with the event center may be limited since many events at the events center occur during KBSRA peak use periods. Providing an adjusted fee structure for parking during off-peak periods could result in loss of revenue, increased maintenance needs, and/or competition for parking spaces between KBSRA visitors and local business patrons.

Recommendations: The GP could address this issue with the following recommendations:

- Include a goal to increase the proportion of visitors that access KBSRA using transportation modes other than personal vehicles.
- Include a guideline that provides direction on coordinating event center parking with NTPUD. Specific changes could include:
 - Providing designated prepaid parking in a portion of the parking lot for events at the event center during off-peak times.
 - Encouraging the inclusion of designated event center parking as part of any future redevelopment of the event center.
 - Requiring off-site parking and shuttle service for large events during peak-use periods.
 - Improving access to the north side of the event center from SR 28.
- Include a goal and guideline that promotes coordination with Placer County to identify appropriate on- or off-site shared parking opportunities.
- Develop and evaluate an alternative that includes adjusted fee structure parking within KBSRA during non-peak-use periods.
- Include site design proposals that maximize pedestrian and bicycle connectivity with surrounding areas. This could include additional walkways connecting KBSRA and the commercial core of Kings Beach, as well as a promenade that provides access to KBSRA from other areas along the beach.
- Develop and evaluate an alternative that provides additional on-site parking, if feasible.
- Develop and evaluate at least one alternative that provides a designated drop off location or free short-term parking.
- Consider including a guideline that provides direction on an incentive programs to reduce parking demand.
- Include improved wayfinding and information on transit in KBSRA education materials and information to promote pedestrian, bicycle, and transit use.

3.6 ISSUE: EXPANDING PARTNERSHIPS

Background and Analysis: In its final recommendations, the California Parks Forward Commission recommended that CSP "increase the use of mission-based partnership and collaborative agreements, understanding these agreements should include ongoing Department oversight and collaboration to best achieve the mission". The Commission noted that expanded collaboration with existing and future park supporters is critical to helping CSP achieve its mission and meet the needs of the state.

Management of KBSRA is currently coordinated with several agencies and organizations. CSP and the Conservancy have entered into an agreement that details the operations and maintenance responsibilities of DPR and the Conservancy for the Kings Beach Plaza portion of KBSRA, the Coon Street Asset Parcel, the two adjacent beaches to the west of KBSRA and the four other non-contiguous Conservancy parcels along the north shore of Lake Tahoe. DPR provides law enforcement services and all necessary year round, and seasonal personnel, equipment, supplies, and outside services, including sewer and trash removal. The Conservancy pays for all site utilities and hazard tree removal. Additional provisions are included that cover extraordinary and non-routine maintenance needs.

The non-profit Sierra State Parks Foundation is another key partner at KBSRA that seeks to assist CSP in offering interpretive and educational programs. NTPUD, which formerly managed KBSRA, is also an active partner. NTPUD manages the North Tahoe Event Center and plows the KBSRA parking lot in winter in exchange for two administrative parking places. Other entities such as the North Lake Tahoe Resort Association (NLTRA), Placer County, and environmental organizations have a vested interest in the ongoing management of KBSRA.

Opportunities: When the goals of other organizations are aligned with those of CSP, partnerships can provide an efficient way to achieve the purpose and vision of KBSRA, while reducing the ongoing resource commitments needed by CSP. Partner organizations could expand the recreational or educational opportunities offered at KBSRA. Partner organizations can also support resource management or park improvement projects by providing funding or technical assistance. Potential opportunities could include partnerships with local agencies and organizations (e.g., Tahoe Institute for Natural Sciences, US Davis Environmental Research Center, League to Save Lake Tahoe) to provide expanded interpretive or education programs; a partnership with Placer County to provide shared-use parking during non-peak periods; and/or partnerships with local business interests and tourism organizations (e.g., NLTRA) to fund recreational improvements.

Constraints: Where the objectives of another organization do not align with CSP's objectives, partnerships may be infeasible.

Recommendations: The GP could address this issue with the following recommendations:

- Include a goal that promotes entering into partnerships with appropriate agencies and organizations such that the partnership furthers the achievement of the purpose and vision of KBSRA, and is consistent with other goals in the GP.
- Include a guideline that identifies specific opportunities for future partnerships.
- Prepare a site design that includes versatile facilities that could serve CSP and partner operations (e.g., concession building, stage, and/or storage areas).

3.7 ISSUE: ENHANCING MISSION-APPROPRIATE REVENUE GENERATION

Background and Analysis: Operation and management of KBSRA is funded through a combination of the State general fund and revenue collected at KBSRA. Funding available from the general fund can change from year to year, and this funding is also needed for a variety of other state programs and priorities. The California Parks Forward Commission recommended that effective mission-appropriate revenue generation improvements be expanded within the park system.

At KBSRA, revenue is currently generated from parking fees, permit fees for special events, and a lease fee from the concessionaire. Total revenue for 2014–2015 was \$304,983, and the annual cost of

operating KBSRA is approximately \$450,000. Parking fees comprise the majority of revenue collected at KBSRA, and accounted for \$216,443 in revenue in 2014–2015. Overall revenue is expected to increase in 2016–2017 when the closed parking lot at the Bear Street entrance is reopened for visitor use.

Opportunities: Providing additional parking capacity or revised parking fees during peak periods could provide additional revenue. The site design could include improved areas for special events, which could attract additional events and increase revenue. Concessions could be expanded to provide additional recreation opportunities and increased lease revenue. These revenue enhancements could also improve access to, and recreational opportunities at KBSRA.

Constraints: Parking revenue will be constrained by the limited availability of space within KBSRA, and the availability of free parking outside of KBSRA. In addition, changes to parking fees could be inconsistent with desires for improved shared parking. While some opportunity exists to expand special events and concessions, these services already exist at KBSRA and demand for additional events or concessions may be limited. Special events and concessions also require additional resources to manage the events and concessions.

Recommendations: The GP could address this issue with the following recommendations:

- Include a goal that promotes mission-appropriate revenue generation from parking enhancements, concessions, and special events.
- Include guidelines that provide criteria for mission-appropriate revenue enhancements.
- Develop a site design that includes an increase or no net loss of parking spaces, and improved facilities for special events and concessions.

3.8 ISSUE: ACCESS FOR VISITORS WITH DISABILITIES

Background and Analysis: KBSRA contains some generally accessible features such as the parking areas and routes of travel that meet current accessibility standards. However, improvements necessary to comply with accessibility requirements were identified by CSP in 2012 and are being implemented as funding allows. Needed accessibility improvements include modifications to the entrance station, parking lot, picnic areas, playground, benches, stairs, beach access, pier, walkways, restroom, and concessionaire building.

Opportunities: New facilities proposed in the GP would be designed to incorporate access for disabled visitors. The site design included in the GP can help to identify accessibility retrofits for facilities that are not proposed for replacement.

Constraints: The need for accessibility retrofits will need to be balanced with priorities for other facility investments identified in the GP.

Recommendations: The GP could address this issue with the following recommendations:

■ Include a goal and/or guideline that promote the timely implementation of accessibility improvements.

3.9 ISSUE: SAND MANAGEMENT

Background and Analysis: Management of beach sand that is blown onto the parking lot is an ongoing maintenance challenge at KBSRA. With prevailing onshore winds and limited windbreaks between the beach and parking lot, significant quantities of sand are regularly deposited onto the parking lots. The issue is most prevalent on the western side of KBSRA, where only a low (2- 3 foot-high) concrete wall separates the beach from parking areas and walkways. Near the center and eastern side of KBSRA, taller walls and groves of trees capture much of the blowing sand before it can be deposited on parking lots and other upland facilities.

The situation presents an ongoing maintenance challenge that requires a commitment of maintenance resources that could otherwise be devoted to other activities. Currently, CSP maintenance staff regularly remove sand that is deposited in front of the existing walls that separate the beach from upland facilities. The removed sand is then returned to the beach. While this ongoing sand removal reduces the amount of sand deposited onto upland facilities, it is only partially effective and requires an ongoing and sustained effort. Once on the parking lot, the beach sand can be contaminated with oil, grease, or other pollutants, and must be hauled offsite and disposed; it cannot be returned to the beach. Removal of sand from the parking lot requires extensive commitments of staff resources.

Opportunities: The GP provides an opportunity to incorporate a sand wall, vegetated buffer, or other features into the design of the site to reduce the amount of sand that accumulates on parking lots and other upland facilities. A sand wall could be incorporated into the design of a walkway of other site feature, and a vegetated windbreak could also improve visual screening of human-made features visible from the lake, which could also serve as scenic mitigation.

Constraints: A sand wall or vegetated buffer would not be completely effective, and some ongoing maintenance would still be required. Any feature that blocks the transport of beach sand to the parking areas could have scenic impacts. A sand wall could increase the visual mass of human-made features visible from the lake. A vegetated buffer (either by itself or in combination with a wall) could reduce visual impacts from the lake, but vegetation could block views of the lake from upland areas.

- Develop and evaluate alternative site designs that include a range of different features that could block sand transport onto parking areas and upland areas. Consider the following factors in the design:
 - Incorporate sand walls or other structural features into walkways to reduce the aesthetic impact
 of a separate sand wall;
 - Focus structural features in the areas where the problem is most prevalent; that is, where sand transport is not already impeded by existing structures or vegetation (e.g., west side of KBSRA);
 - Incorporate vegetation to visually screen sand walls, related features, and parking areas from Lake Tahoe; and
 - Design structural features and vegetation to minimize blocking views of Lake Tahoe from SR 28, designated scenic resources, and upland portions of KBSRA.

4 RESOURCE MANAGEMENT

4.1 ISSUE: SCENIC MITIGATION AND ENHANCEMENT

Background and Analysis: Views from KBSRA are dominated by Lake Tahoe and distant peaks and ridges to the south. Scenic views are a major asset of KBSRA, and likely a primary draw for many visitors. The aesthetic condition of facilities within KBSRA are varied. Some facilities, such as the plaza area and new restrooms are high quality and contribute to the character of KBSRA. Other facilities, such as the rock retaining walls and the concessionaire building are deteriorating and detract from the overall aesthetic quality.

KBSRA is located within TRPA-designated roadway and shoreline travel units, and it is a designated recreation area evaluated under the TRPA threshold monitoring program. KBSRA is also adjacent to SR 28, which is eligible for designation as a State Scenic Highway, although it has not officially been designated as such. Views into KBSRA from the roadway are generally high quality, as they provide relatively unobstructed views of Lake Tahoe and distant mountains. These views are important to visitors and residents of Kings Beach, because they provide the most unobstructed views of Lake Tahoe within Kings Beach.

Scenic views from Lake Tahoe are regulated by TRPA Code of Ordinances Section 66.3, which includes limits on the visual contrast and magnitude of human-made structures along the shoreline. These regulations require compensatory scenic mitigation when a project would exceed limits on the visual magnitude of human-made structures. In addition, any project that is visible from a TRPA-designated scenic roadway unit, shoreline unit, or scenic resource would be required to demonstrate that the project would not degrade the scenic score assigned to the unit or resource. Almost any new or modified facility in KBSRA would be visible from at least one of these designated scenic resources or units. As such, any facility development or alteration of the visible environment will be required to be developed in a way that minimizes degradation of views to Lake Tahoe or scenic vistas, and blends with the natural environment and character of the surrounding area.

Opportunities: Redevelopment or replacement of older or deteriorating facilities, such as the concessionaire building, entry kiosks, and the rock retaining walls and walkways could improve the aesthetics of KBSRA. Views from within KBSRA could also be improved by planting vegetative screening on the far east and west ends of the beach to screen views of the boat ramp area and events center, respectively. Vegetative screening of the existing elevated concrete walkway near west end of the beach, the parking lot, and/or the events center could improve views of KBSRA from Lake Tahoe, and serve as mitigation for increases in the visual magnitude of any facilities proposed in the GP.

Constraints: The size, scale, and location of potential new facilities in KBSRA will be limited by scenic regulations that limit the visible mass of structures visible from Lake Tahoe, and limit degradation of views from scenic roadways and designated scenic resources. Elements or features intended to screen development that is visible from Lake Tahoe could inadvertently block views of Lake Tahoe from the roadway or other upland locations. A reconstructed pier that extends further into the lake could degrade scenic views from KBSRA, including views from TRPA-designated scenic resources.

Recommendations: The GP could address this issue with the following recommendations:

Include a goal(s) that clarifies the importance of scenic views into and from within KBSRA.

- Develop a guideline that includes specific design guidelines for new or redeveloped facilities in KBSRA.
- Include a site design that proposes replacement or improvement of deteriorating facilities.
- Locate proposed new or expanded facilities in locations that are already screened from views from Lake Tahoe, and would not block views to Lake Tahoe.
- Include vegetative screening and/or improvements to the color and materials of existing structures visible from Lake Tahoe.
- Minimize the visible mass in the design of a reconstructed pier and other facilities.

4.2 ISSUE: AQUATIC INVASIVE SPECIES

Background and Analysis: Aquatic habitat in KBSRA and throughout Lake Tahoe can be degraded by the establishment of aquatic invasive species (AIS). Two invasive nonnative aquatic mussels – quagga mussel (*Dreissena bugensis*) and zebra mussel (*Dreissena polymorpha*) – and an invasive aquatic snail – New Zealand mudsnail (*Potamopyrgus antipodarum*) – are not present in the Tahoe Basin and are of particular concern due to their expanding range elsewhere, highly invasive nature, and potential to disrupt ecosystem functions. Aquatic invasive species of serious concern that are present in the Lake Tahoe area include Asian clam (*Corbicula fluminea*); bullfrog (*Rana catesbeiana*); Eurasian watermilfoil (*Myriophyllum spicatum*), an aquatic weed); and curlyleaf pondweed (*Potamogeton crispus*), an aquatic weed).

Region-wide AIS prevention and control efforts are underway, including a mandatory boat inspection program for motorized watercraft. The Tahoe Keepers program, administered by the Tahoe Resource Conservation District, TRPA, and U.S. Fish and Wildlife Service, seeks to provide information to non-motorized watercraft users to prevent the introduction of AIS.

Opportunities: Educational and interpretation programs at KBSRA can help prevent the introduction of AlS into Lake Tahoe. As a popular launching spot for non-motorized watercraft, KBSRA provides an opportunity to educate many non-motorized watercraft users about AlS prevention strategies. Regular monitoring for AlS in the vicinity of KBSRA could also provide an opportunity to detect and control AlS that are introduced at KBSRA before they become established and spread to other locations in the lake.

Constraints: While motorized boats are already required to be inspected and decontaminated, no mandatory requirement exists for non-motorized watercraft. Without a mandatory inspection program for non-motorized watercraft, educational programs cannot be completely effective in preventing the introductions of AIS. Monitoring programs require ongoing resource commitments and their effectiveness can be limited if they do not include other areas outside of KBSRA.

- Incorporating AIS prevention themes into educational materials and programs.
- Including a goal and/or guideline that provides direction on AIS early detection and control actions.

4.3 ISSUE: STORMWATER MANAGEMENT

Background and Analysis: KBSRA contains stormwater treatment infrastructure, including a detention basin and underground conveyance and treatment systems. Three outfalls release stormwater from this system onto the beach. This stormwater infrastructure primarily treats runoff from urban portions of Kings Beach outside KBSRA. Stormwater runoff from facilities within KBSRA generally flows off of impervious surfaces onto surrounding soil. The only stormwater management facilities that capture runoff generated in KBSRA are two storm drains in the parking lot near the boat ramp that collect runoff and convey it onto the nearby beach, and a cobble lined trench in the center of the western parking lot.

During site visits to KBSRA, no evidence of concentrated stormwater runoff or erosion was observed. This indicates that under normal precipitation patterns, stormwater runoff likely infiltrates into the well-drained soil surrounding impervious surfaces in KBSRA. However, during periods of heavy precipitation or snowmelt, stormwater runoff could cause erosion or carry pollutants from parking lots and other surfaces into Lake Tahoe. Any proposed new facilities within KBSRA that require a TRPA permit will be required to include BMPs that meet this infiltration standard.

Opportunities: The well-drained soil in KBSRA provides an opportunity to infiltrate stormwater runoff without substantial infrastructure. The existing stormwater infiltration basin and conveyance systems may be able to treat additional runoff from facilities in KBSRA.

Constraints: The proximity to Lake Tahoe reduces the opportunity to treat stormwater runoff before it enters Lake Tahoe. The small size of KBSRA and the relatively extensive impervious cover limits the ability to infiltrate stormwater onsite.

Recommendations: The GP could address this issue with the following recommendations:

- Incorporate stormwater infiltration and treatment elements into site design alternatives, rather than applying BMP treatments after the initial design.
- Evaluate the capacity of the onsite stormwater infiltration basin and other onsite infrastructure to determine if they could treat additional stormwater from facilities in KBSRA.

4.4 ISSUE: ADAPTING TO CLIMATE CHANGE

Background and Analysis: According to the International Panel on Climate Change global average temperature is expected to increase relative to the 1986-2005 period by 0.5-8.6 degrees Fahrenheit (°F) by the end of the 21st century, depending on future GHG emission scenarios. According to the California Natural Resources Agency, temperatures in California are projected to increase 2.7°F above 2000 averages by 2050 and, depending on emission levels, 4.1–8.6°F by 2100.

Physical conditions beyond average temperatures could be indirectly affected by climate change. According to Cal-Adapt, a climate change scenario planning tool developed by the California Energy Commission and California Natural Resources Agency, a reduction in April snowpack of 82.9 to 88.5 percent could occur in areas surrounding KBSRA. This substantial decrease in spring season snowpack could affect the water supply for the Tahoe Region and the state.

A decrease in total annual snowfall combined with an earlier snowmelt could deplete sources of water recharge for Lake Tahoe. Predicted changes in the total amount of precipitation show greater variability between the emission scenarios in Cal-Adapt climate models, but drought conditions are likely to become

more common, which could lead to a depletion in the water level for Lake Tahoe. These conditions may reduce access to water-related activities during the summer months. A reduction in water level may render historic docks inadequate for loading and unloading motorized watercraft for greater periods of time. At the same time, increased summer temperatures, particularly in surrounding lower-elevation areas, could increase demand for water-oriented recreation at KBSRA.

Opportunities: The GP provides the opportunity to adapt KBSRA to the effects of climate change, and to incorporate measures to mitigate the effects of climate change. A rebuild of the pier could provide increased access to Lake Tahoe during drought conditions, which are likely to become more common due to climate change. Vehicular or other forms of access to KBSRA could be expanded to accommodate likely increases in demand for access to Lake Tahoe that could result from higher temperatures and longer periods of warm weather. Planning for facilities and maintenance activities can consider measures to reduce greenhouse gas emissions (GHGs), where possible. Educational and interpretive efforts can influence public behavior by providing information on the effects of climate change and what visitors can do to mitigate or adapt to it.

Constraints: Uncertainty in the specific timing and magnitude of climate change effects makes it difficult to plan for long-term adaptation. Rebuilding the pier to extend further into the lake could result in adverse effects on scenic conditions, navigation, or other resources. Much of KBSRA is already dedicated to parking and there are limited opportunities to provide additional on-site parking to accommodate increases in vehicle access during periods of hot weather. Climate change could have indirect effects on nearshore water quality, including proliferation of algae and invasive species in Lake Tahoe, which could adversely affect visitor experience.

- Develop a goal that calls for the consideration of climate change effects in resource management, recreation planning, facilities development, and maintenance efforts.
- Develop a guideline that provides direction on approaches to accommodate increases in demand for lake access.
- Create and evaluate alternatives that consider multi-modal access to KBSRA.
- Evaluate alternative pier designs that can provide lake access in low water conditions.
- Develop a goal to reduce GHG emissions from park operations and visitor use.
- Develop a guideline(s) that provides direction on approaches to reduce GHG emissions from facility operation, construction and maintenance, travel, visitor activities, and other sources.
- Develop a goal and/or guideline that addresses incorporating climate change mitigation and adaptation themes into interpretive and education programs.