Silverwood Lake State Recreation Area

Nature Center Interpretive Project Plan

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“ The mission of California State Parks is to provide for the health, inspiration and education of the people of California by helping to preserve the state’s extraordinary biological diversity, protecting its most valued natural and cultural resources, and creating opportunities for high-quality outdoor recreation. ”

1 Executive Summary

The Silverwood Lake State Recreation Area (SRA) Nature Center is located off of Highway 138, eleven miles east of 1-15 near Hesperia within the San Bernardino National Forest. At 3,350 feet, the lake is the highest reservoir in the State Water Project. The lake, trails, and campsites draw many visitors to this popular recreation destination. Bikers, picnickers, fishermen, boaters, swimmers, nature lovers, and campers from the greater Los Angeles, San Bernardino, and Riverside areas use this park.

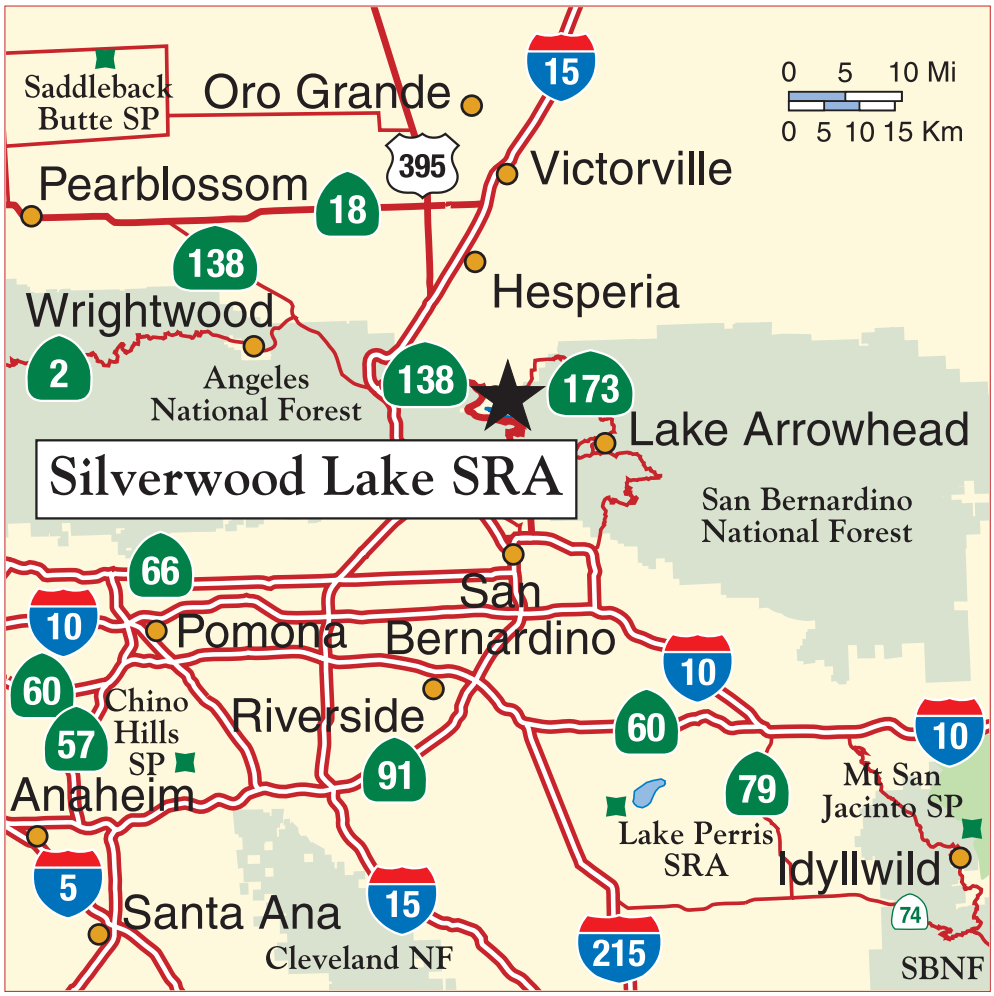
Visitors from the surrounding areas often seek refuge at Silverwood Lake, escaping the bustle of urban life. Visitation to Silverwood Lake has risen significantly since 1986, when the first Visitor Center was constructed near Mesa Campground as a temporary structure.[1] This building soon became too small to support the large groups visiting the area, did not meet standards for accessibility, and was removed in 2008 to make room for the new, modern, accessible Nature Center discussed within this document. Constructed within the footprint of the former facility, the Silverwood Lake State Recreation Area Nature Center will better support the needs of a larger number of visitors and the park's educational and interpretive mission.

The 2,700 square foot facility will provide interpretive media and programs focusing on the significance of Silverwood Lake and its resources.[2] The Nature Center will also be a central meeting point and a venue for special events. As a result of exploring the Nature Center, visitors will learn how to better balance human needs with the natural world, engage in positive environmental activities (both at home and at the park), and have a desire to learn more about Silverwood Lake. This plan outlines potential interpretive methods which include exhibits, an audio-visual component, and educational and interpretive programming.

The development of these concepts evolved from the input of Silverwood Lake SRA staff, other California State Parks resource and interpretive specialists, and members of the Mojave River Natural History Association. This plan is a blueprint for interpretation at the Nature Center for the next seven to twelve years, analyzing the current status of park interpretation, defining goals and objectives, special concerns and opportunities, and preliminary interpretive concepts. This document also provides supplementary information for staff or volunteers who may operate the facility.

1 California State Parks, *Initial Study and Mitigated Negative Declaration Silverwood Lake State Recreation Area Campground and Day Use Improvements* (Inland Empire and Silverwood Lake Sector: Southern Service Center, 2002), 4-5.

2 Touraine and Richmond Architects, "Visitors' Center and Recreation Area: 50% SD Package," (Venice: Touraine and Richmond Architects, April 2002).


Saddleback Butte SP
Oro Grande
15
0 5 10 Mi
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395
Victorville
Pearblossom
18
138
Hesperia
Wrightwood
2
Angeles National Forest
138
173
Lake Arrowhead
Silverwood Lake SRA
San Bernardino National Forest
66
San Bernardino
10
Pomona
60
Chino Hills SP
Riverside
10
57
60
10
91
79
Mt San Jacinto SP
Anaheim
Lake Perris SRA
Idyllwild
5
Santa Ana
15
74
Cleveland NF
215
SBNF

2 Overview of Silverwood Lake SRA

Abbreviated Timeline of Silverwood Lake SRA History

1000 BP-1819	The Serrano occupied the northern and southern faces of the San Bernardino Mountains (in the area near Silverwood Lake), living stable and traditional lives before being drawn into the mission system.
1771	Mission San Gabriel is established, relocating to its current location in 1776.
1819	The Mission San Gabriel's Rancho San Bernardino, the original Asistencia (or more correctly, Estancia) was established, and functioned as an outpost for cattle grazing activities.
1850	California joins the Union as the 31st state.
1855	Gold was discovered in the San Bernardino Mountains. Over the second half of the 19th century, mining, timber, and grazing grew quickly, taking a heavy toll on the land.
1891	The Forest Reserve Act was passed, giving the president authority to "set apart and reserve, in any state or territory having public land bearing forests . . . as public reservations."
1897	The federal government establishes the San Bernardino Forest Reserve (renamed as a National Forest in 1907).
1912	Homesteading in Cedar Springs begins when the U.S. Government begins granting 160-acre parcels in the area.
1914	Cedar Springs become the locale of an enterprising Seventh Day Adventist Colony.
1919	Carl Hewitt developed the Cedar Springs Health Resort to care for TB patients.
1935-1936	Miller Canyon Campground is built by the Civilian Conservation Corps (CCC).
1960	Voters of California approve the Water Bond Act.

1961	Plans for a reservoir within the Cedar Springs area begin.
1971	Cedar Springs Dam is completed.
1973	Silverwood Lake SRA opened for public use.
1986	A temporary Visitor Center is erected near Mesa Campground.
2003	Fire and floods damage or destroy many facilities within Silverwood Lake SRA.
2008	The Silverwood Lake SRA Nature Center begins construction.

High in the heart of the San Bernardino National Forest, Silverwood Lake State Recreation Area captures the eye and the imagination with vistas of snow-capped peaks and the surrounding mountains reflected on the lake.[3]

Thirty miles from San Bernardino, Silverwood Lake was formed by the 249-foot tall Cedar Springs Dam, which holds back the waters of the west fork of the Mojave River where it passes through the San Bernardino Mountains. Warm, dry breezes prevail during summer—with the highest temperatures averaging between 90 and 100 degrees from June to September. From December through March, rainy winter temperatures reach from the low 30s to the low 60s.

NATIVE PEOPLE

For some 2,500 years, the Serrano (Spanish for "mountain people") occupied Yahaviat (pine place) on the northern and southern faces of the San Bernardino Mountains, as far north as the flat desert bounded by the Tehachapi Mountains. The Serrano hunted large and small game with bows and arrows, throwing sticks, traps, nets, and snares. They supplemented their diet with acorns, piñon nuts, various berries, roots, seeds, and tubers.

Alongside rivers and streams, the Serrano people lived in small settlements of 10 to 20 dwellings. Their circular-shaped homes were usually of willow frames covered in brush or tule reeds and tied with various fibers or rawhide. Several of these settlements, including Yucaipa and Cucamonga, are recalled today by modern towns that bear their names. Trade with the Mojave people to the east and the Gabrielino to the west brought the Serrano goods and, later, horses.

The Serrano used ritual, including songs and storytelling, to pass on the knowledge necessary to maintain the earth's natural order. Skilled artisans, the Serrano were known for their delicate, ornate pottery and woven baskets.

The stable lives and traditions of the Serrano changed drastically around 1790, when they were drawn into the San Gabriel Mission. Hard labor and European diseases took their toll. By the early 20th century, a group of approximately 1,500 Serrano people had dwindled to 119. Today some Serrano descendents live on or near the San Manuel and Morongo Reservations.

3 This section is partially extracted from California State Parks,"Silverwood Lake State Recreation Area brochure," http://www.parks.ca.gov/pages/650/files/silverwood2008.pdf .

CEDAR SPRINGS

Prior to the construction of Silverwood Lake, the town of Cedar Springs was located here. The area became a popular destination for mountain recreationists and vacation home developers. The community of Cedar Springs, first settled by homesteaders during the early 1900s, slowly developed on the surrounding terraces of today's reservoir.[4]

Cedar Springs was located at the junction of Cleghorn and Miller Gulch. By 1912, there were around a hundred families living and farming in Cedar Springs, lower Sawpit Canyon, the upper west fork, and Miller Canyon. Potatoes, onions, corn, and strawberries were the main crops grown.[5] The area was said to be named by Carl Hewitt because of the large cedars that once grew in the area.[6]

According to historian John Robinson: "The persons most closely associated with the development of Cedar Springs were Carl and Ella Hewitt. In 1914, the Hewitts homesteaded 160 acres in lower Sawpit Canyon. Here they built their Cedar Springs Ranch and grew strawberries.

In 1919, Carl Hewitt developed the Cedar Springs Health Resort to care for TB patients. The Hewitts envisioned a large medical complex, complete with a sanitarium, convalescent hospital, and resort playground with an artificial lake, but the depression and lack of outside support prevented this from becoming a reality.

Seventh Day Adventists followed the Hewitts (who were also Adventists) into the Cedar Springs area, and by the early 1920s, there was a thriving Adventist colony there. By 1925, the community boasted a store, a church, and a schoolhouse built from creek boulders. The economy was based on farming; strawberries, corn, sorghum, chickens, and eggs were produced and sold to desert and foothill residents.

The community remained relatively isolated until San Bernardino County built a paved road up Miller Canyon to Crestline in the 1930s. Although the 1930s were depression years, Cedar Springs continued to grow as new settlers sought weekend retreats and the Miller Canyon Campground, built by the CCC in 1935-1936, brought in more people.

The quiet, bucolic village of Cedar Springs was designed not to last. The community's demise would be caused by water: the waters of man-made Silverwood Lake to be exact.

Plans for a dam at one end of the forks of the upper Mojave River go back to the turn of the century, as part of the Arrowhead Reservoir Company's desert water project. Nothing came of the project, and plans for a Mojave water storage reservoir were abandoned for good when the Arrowhead Company sold out to resort interests in 1921.

In the 1930s, flood control was the motive for damming the west fork. San Bernardino County built a low flood

4 California State Parks, *Initial Study and Mitigated Negative Declaration Silverwood Lake State Recreation Area: Campground and Day-Use Improvements* (Inland Empire District and Silverwood Lake Sector: California Department of Parks and Recreation, 2002).

5 John W. Robinson, The San Bernardinos (Arcadia: Big Santa Anita Historical Society, 1989), 155.

6 Mr. Carl Hewitt, interview with Arrowhead Ranger District of the San Bernardino National Forest, circa 1971.

control barrier a mile downstream from Cedar Springs.

It was the State of California that finally constructed the dam that changed the face of the land forever.

Cedar springs residents heard rumors of a possible dam on the upper west fork shortly after the voters of California approved the Water Bond Act of 1960. The great California Aqueduct project, to bring water from Northern California to thirsty farms and communities in the southern half of the state, was underway a few months later.

In October 1961, state water officials conducted a community meeting at the Cedar Springs firehouse. Residents were informed that one of two main reservoirs for the east branch of the aqueduct would be in their valley (the other would be Lake Perris). Cedar Springs would be underwater, the properties appraised, and owners would receive fair market value.

In 1966, the bulldozers came to Cedar Springs. The little country store became a supply center for construction crews. Before actual work began on the earth-filled dam, the highway was relocated and a rock separation plant was erected. Work on the north portal of the 13-mile tunnel through the San Bernardino Mountains commenced in 1967, and shortly thereafter work began on the San Bernardino side of the tunnel. Despite the big flood of March 1969, the project proceeded on schedule. Work on the 249-foot high earthfill dam across the west fork of the Mojave went rapidly, and was completed in late 1971.

Silverwood Lake SRA Photo Collection

Above: Building the Cedar Springs Dam.

Silverwood Lake SRA Photo Collection

Above: Dedication of Silverwood Lake on January 22, 1972.

The first waters from Northern California splashed into the basin behind the completed Cedar Springs Dam on January 22, 1972. Within a few weeks, the ghost site of Cedar Springs, bulldozed to the ground with only a few foundations showing, disappeared beneath the rising waters of Silverwood Lake.

Silverwood Lake reached its 75,000 acre-foot capacity in August 1973. It was then turned over to the California Department of Parks and Recreation. In the summer of 1973, Silverwood Lake State Recreation Area opened for public use. Recreational facilities for boating, swimming, fishing, picnicking, and camping were developed along the 13 1/2-mile shoreline."[7] Many of the present-day place names, such as Devil's Pit, derive from the Cedar Springs era.[8]

7 John W. Robinson, *The San Bernardinos* (Arcadia: Big Santa Anita Historical Society, 1989), 155-156. This information was extracted directly from this source and should be used as a starting point to further research the history of the area and confirm what has been written through primary reference materials including newspapers, oral histories, and census records from the Cedar Springs era.

8 Ronald Krueper, communication with author, January 27, 2009.

THE STATE WATER PROJECT

Silverwood Lake was named for W. E. "Ted" Silverwood, a Riverside County resident whose support for the State Water Project, and his unceasing work for water and soil conservation, helped to bring water to Southern California. Supplying water and power for California's agriculture, cities, and industry, the Water Project also provides flood control, recreation, and the protection and enhancement of fish and wildlife.

The lake's waters begin in California's upper Feather River Basin as rain or snowmelt. From the water storage facility at Lake Oroville, the water is released in regulated amounts, flowing down the Feather and Sacramento Rivers to the Sacramento-San Joaquin Delta and into the 444-mile California Aqueduct. The water is moved south to the foot of the Tehachapi Mountains. It enters Southern California on the south side of the Tehachapis, then splits into the west branch serving the Los Angeles Basin and Ventura County's coastal areas, and the east branch, which serves the Antelope Valley and San Bernardino, Riverside, Orange, and San Diego counties. In the Antelope Valley, the water level is pumped to a height of 3,480 feet above sea level, then downhill, under the Mojave River and Highway 173, and finally, it reaches Silverwood Lake.

From the intake towers at the south end of Silverwood Lake, the water continues south, where it plunges 1,600 feet to spin the turbines that generate electricity at Devil's Canyon power plant. Some of the water goes to contracting agencies, while the rest flows on to Lake Perris, the southern terminus of the aqueduct.

Department of Water Resources, http://www.publicaffairs.water.ca.gov/maps/state.cfm

WILDLIFE AND HABITAT

California mule deer, gray foxes, coyotes, cottontail and brush rabbits, jackrabbits, western gray and ground squirrels, ring-tailed cats, skunks, chipmunks, and wood rats thrive here. Mountain lions, black bears, bobcats, and eagles may be sighted along the Mojave River.

In the winter, bald eagles are occasionally seen gliding silently above the lake, fishing for their next meal. Water-oriented birds found here include great blue herons, snowy egrets, avocets, western grebes, loons, Canada geese, mergansers, and several varieties of ducks. Around Sawpit Canyon, birds of prey regularly include red-tailed hawks, Cooper's hawks, ospreys and roadrunners. This is also home to Clark's nutcrackers, Steller's and scrub jays, rock wrens, and mountain bluebirds.

Silverwood Lake habitats include ponderosa pine, incense cedar, white fir, and black oak. Along the shore, chamise, live oak, manzanita, ceanothus, and mountain mahogany grow. Alders, willows, and sycamores are found along streams.

Silverwood Lake SRA Photo Collection

In October 2003, wildfires claimed approximately 1,000 acres of Silverwood Lake State Recreation Area. After the fires, winter rains brought flooding. Much of the landscape and other features of the 13-mile shoreline have changed dramatically.

Copyright Jeff Milleer, 2002

RECREATIONAL ACTIVITIES

Camping

The Mesa Campground has 136 family sites, each with a paved vehicle parking pad, table, barbecue grill, and fire ring. Five of these campsites are ADA accessible. Restrooms and showers are nearby. Seven other campsites are available for bicyclists and hikers without vehicles. Additionally, there are six group campsites accommodating groups of 40 to 100 persons with up to 30 vehicles. They have barbecues, tables, restrooms, and showers.

Silverwood Lake SRA Photo Collection

Picnicking

The park has over 600 picnic tables located in several day-use areas located throughout the park. They are primarily located at Sawpit and Cleghorn beach areas, Black Oak area near the Marina, Serrano Beach, Miller Canyon, and Live Oak Boat Landings (available by boat only).

Bicycling

The park has 13 miles of paved hiking and bicycling trails. The Cleghorn Hike and Bike Trail, with vistas of the foothills, is accessible for .75 miles. Trailheads, parking, and usable restrooms are at lots #4 and #5. Bicyclists under 18 years of age must wear safety helmets. Riders should watch for sand and debris on the trail, slow down around blind curves, and carry plenty of drinking water.

Hiking

Along with the 13 miles of trails mentioned above, the park is connected to the Pacific Crest Trail and trails within the U.S. Forest Service's San Bernardino National Forest. The Pacific Crest Trail (PCT) spans 2,659 miles through the western States of California, Oregon, and Washington between the Canadian and Mexican borders and passes through the park. Also, there are several adjacent roads and trails connecting to the surrounding San Bernardino National Forest, which covers over 820,000 acres within San Bernardino and Riverside Counties.

Photo by Blythe Liles, 2009

Equestrian Trails
Equestrian use is allowed along the 3-mile Pacific Crest Trail section located inside the park. Arrangements can be made for equestrian water and camp facilities at one of the Park's group camps. This six-mile roundtrip trail section within Silverwood Lake offers good views of the lake and the surrounding San Bernardino National Forest, plus trail connections to the rest of the PCT and surrounding National Forest.

Boating/Personal Watercraft Use
The northern part of the lake has an area for waterskiing and high-speed boating (35 mph max) with a 90 slip marina, park store, fishing boat rentals, and two launch ramps (seven and two lanes wide) located at the southern end. During the summer season, paddleboats, jet skis, and kayaks are available for rental.

Waterskiing
Only aquaplanes or waterskis are permitted. Tow lines must not exceed 90 feet. Inflatable equipment (such as rubber rafts and innertubes) cannot be towed.

Swimming
The Sawpit and Cleghorn swim beaches are located at the southern end of the lake. Lifeguards are on duty from Memorial Day weekend through Labor Day weekend.

Fishing
Spring, winter, and fall, when lake waterskiing activity is minimal, provide the best fishing conditions from shore or boat. From February through early June, trout fishing is good, and the lake also has largemouth bass, bluegill, crappie, catfish, and striped bass.

Off-Highway Vehicles (OHV)
Adjacent to Silverwood Lake on U.S. Forest Service land, several green and red sticker vehicles are permitted to operate on designated Forest Service roads outside the State Park. There are two OHV staging areas near Cedar Springs Dam, with trails connecting to Cajon Pass to the west and Lake Arrowhead to the east.

"Interpretation is a special form of communication that helps people understand, appreciate, and emotionally connect with the rich natural and cultural heritage preserved in parks. It is the mission of interpretation in California State Parks to convey messages that initially will help visitors value their experience, and that ultimately will foster a conservation ethic and promote a dedicated park constituency."

—California State Parks' Interpretive Mission Statement

3 Current Status of Interpretation

Photo by Blythe Liles, 2008.

Above: Interpretive wayside panels off of Highway 138. These signs introduce the park to visitors who stop and admire the view from this location. These panels were produced by Tim Watkins, Caltrans Community Liaison.

WHAT IS INTERPRETATION?[9]

A word often associated with translating languages, the term "interpretation" in California State Parks is associated with finding meaning in and becoming inspired by natural or cultural elements found within state parks. Although there are numerous definitions of interpretation, they all center around the idea of translating information from the scientist, the historian, and the resource manager to the visitor. Interpretation is an artful form of communication that stresses ideas and relationships, not simply isolated facts and figures. This is most frequently done through the use of hands-on approaches, firsthand experiences, and/or the use of physical objects. Interpretation communicates the science of the natural world, the stories of the cultural world, and the excitement of the recreational world to an audience in a manner that is provoking and interesting, and leaves visitors wanting to discover more.

There are two basic types of interpretive services provided in California State Parks, personal and nonpersonal. Personal interpretation involves some level of physical interaction with the visitor, such as leading visitors through the park. Nonpersonal interpretive services, such as brochures and exhibits, are available for visitors to use without the presence of staff. Interpretation is essential to the protection of Silverwood Lake State Recreation Area, one of Southern California's most popular water recreation destinations. The interpretive media section of this document outlines potential interpretive services at the Silverwood Lake SRA Nature Center.

9 Extracted from Carolyn J. Ward and Alan E. Wilkinson, *Basic Interpretation Learning System* (Sacramento: California State Parks, 2003).

Photo by Blythe Liles, 2008

> "The chief aim of interpretation is not instruction, but provocation."
>
> **—Freeman Tilden**

POTENTIAL AUDIENCE[10]

The proposed project is located within the unincorporated portion of San Bernardino County, within an hour's drive of population centers in San Bernardino, Orange, Los Angeles, and Riverside Counties. According to the *Silverwood Lake State Recreation Area General Development Plan*, "the climate and elevation, coupled with the scenic values inherent in the surrounding National Forest, provide a pleasant relief from the pollution factors of noise, smog, traffic and congestion plaguing the metropolitan centers. Public recreation facilities have been developed here to offer the urban dweller an environment which will bring him in contact with the clean air and native flora and fauna indigenous to this area."[11]

The rapidly growing high desert cities of Adelanto, Hesperia, and Victorville are located within a half-hour drive of the park. Population gain was over 600,000 in total for Riverside and San Bernardino counties between 1990 and 2000. Over 3,200,000 people live in these two counties alone. The project will also serve regional visitors from the Los Angeles and San Diego metropolitan areas. From 2002-07 an average of 338,184 people a year visited Silverwood Lake. Visitation is expected to continue to increase. The demographics of visitors is continually changing, becoming more urban and diverse.

While visitors are increasing in diversity, they share some common motivations for coming to the park. Visitors may be divided into five groups: water day users, land day users, campers, casual sightseers, and school/special groups.[12] While most visitors engage in at least one of these activities, many visitors from the urban areas have limited experience with recreation in a non-urban environment.

Because the Nature Center will be located in close proximity to the Mesa Campground, campers may be one of the primary audiences utilizing the facility. A recent study conducted by the U.S. Forest Service found that most people using the San Bernardino Forest recreated as a family group, planned to stay at the site more than four hours, and were repeat visitors.[13] The Nature Center will fulfill the need to further accommodate larger groups and families as well as the growing audience from the surrounding urban areas.[14]

10 Ronald J. Dupuy and Sherrin N. Grout, *Interpretive Plan Silverwood Lake State Recreation Area* (Silverwood Lake SRA: California State Parks, 1976), 2-3.
11 California State Parks, *Silverwood Lake State Recreation Area General Development Plan 2nd Revision* (Sacramento: DPR Master Planning Branch, 1972), 6-7.

12 San Bernardino National Forest, *Silverwood Lake Interpretive Area Plan* (Arrowhead Ranger District, San Bernardino National Forest, 1971), 13.
13 USDA, *Recreation Visitor Research: Studies of Diversity* (Riverside: Pacific Southwest Research Station, 2008), 63.
14 California State Parks, *Final Initial Study and Mitigated Negative Declaration Silverwood Lake State Recreation Area Campground and Day Use Improvements* (San Diego and Inland Empire: California State Parks, 2002), 5.

EXISTING INTERPRETIVE PLANNING DOCUMENTS

Interpretive planning documents are used in California State Parks to evaluate and make recommendations for communicating with visitors. The process of planning challenges us to learn from past mistakes, to understand our audience, the resources at hand, and the ideas that must be communicated.[15] Several planning documents associated with Silverwood Lake have been written.

In 1972, the *Revised Silverwood Lake State Recreation Area General Development Plan* was drafted when the Department of Parks and Recreation took over operation of the area from the U.S. Forest Service. This document proposed stages of development and outlined visitation and carrying capacity, cost of development, and summarized facilities.

During the early 1970s, three planning documents specifically related to interpretation were drafted. These included the *Silverwood Lake Interpretive Area Plan* (1971), *Interpretive Prospectus for Silverwood Lake State Recreation Area* (1974), and the *Interpretive Plan for Silverwood State Recreation Area* (1976). The *Silverwood Lake Interpretive Area Plan* was written by the San Bernardino National Forest prior to the state operations of the area. These documents briefly outlined themes, audience needs, and potential methods and media. In 1991 the *Mojave River District Interpretive Plan* was developed. This plan further identified interpretive goals for Silverwood Lake.

This *Silverwood Lake SRA Nature Center Interpretive Project Plan* will integrate previously identified themes, goals, and recommendations with the specific issues related to the development of the Silverwood Lake SRA Nature Center.

For additional information related to more general interpretive planning in California State Parks, refer to the chapter on Interpretation within *Department Operations Manual (DOM)* and the resources available from the California State Parks Office of Interpretation and Education website at www.parks.ca.gov/interptools.

INTERPRETIVE COLLECTIONS

The department acquires and maintains collections for several reasons. First, to preserve elements of the natural and cultural environment that are original to the park; second, to document the people, events and cultural and natural features that are central to the park's purpose; and third, to support the interpretation of themes that are important to the park.[16]

Interpretive collections can be comprised of items, other than historic structures and museum collections, that contribute to a sense of place and to the visitor experience. They are either original to the site and interpretive period, are accurate substitutes for original objects (period antiques or modern reproduction museum collections), or otherwise support the park's interpretive themes.

Within the California State Park Photographic Archives, there are 438 photographs related to recreation, plant

15 California State Parks, *Workbook for Planning Interpretive Projects in California State Parks* (Sacramento: California State Parks, 1997), 3-4.

16 California State Parks, *Guidelines for Writing a Scope of Collections Statement* (Sacramento: Museum Services Section, 2000), Appendix C.

and animal life, and the history of Cedar Springs and Silverwood that were either taken within the current park boundaries or relate directly to the park unit. There is also one recently identified item in the Silverwood Lake State Recreation Area museum collection (catalog number 512-1-2), the *Summit Valley General Plan* written in 1970. Inventoried in March 2008, this document was prepared by the San Bernardino County Planning Department. Further information about these items is available to view online for anyone with access to the The Museum System (TMS) used to inventory California State Parks museum and archival collections.[17]

Silverwood Lake staff have collected and maintained items associated with the park, the majority of which have not been inventoried in TMS. These include photographs of facilities, special events, plants and animals, natural disasters, and the construction of Silverwood Lake. Pieces of melted metal from the 2003 fire have also been collected. This collection, along with items acquired from local research institutions and community members, will be necessary to further develop exhibits and media. Many items associated with the history of the park, including oral histories of former Cedar Springs residents, were stored within the Nella Complex and may have been destroyed during the 2003 fire.[18]

Other institutions with park-related resource repositories include the park's cooperating association (Mojave River Natural History Association), the San Bernardino National Forest/U.S. Forest Service, the California Department of Transportation, California Department of Fish and Game, California Department of Water Resources, U.S. Army Corps of Engineers, California Department of Boating and Waterways, CalPhotos, and the Water Education Foundation.

The Mojave River Natural History Association owns several natural history specimens, including a mountain lion specimen, bear specimen, several taxidermy animals, and various interpretive materials. These support current interpretive programs within the park, but will not support Nature Center development due to the current condition of these resources and the lighting and environmental constraints within the new building. The Mojave River Natural History Association has also collected photographs associated with the park that are available for viewing on the MRNHA website at http://www.mrnha.shorturl.com/.

As of 2009, no scope of collections statement document existed to guide acquisition and maintenance of objects associated with and acquired by the park. The designated collection manager for the park will be responsible for writing a scope of collections document, deciding what the park collects, filing required permits, obtaining collection pieces and intellectual property rights, and accepting donations relevant to the significance and purpose of Silverwood Lake State Recreation Area. Please note that prior to using photographs and collections pieces in an exhibit or public format, all required permissions for use of the object or photograph must be obtained.

17 For more information about TMS contact Winnie Yeung at the Museum Services Section at (916) 654-4728.

18 Danita Rodriguez, correspondence with author, January 27, 2009.

VISITOR ORIENTATION

Orientation is essential to the park experience, helping to facilitate visitor enjoyment. At Silverwood Lake, visitors are first introduced to the park via the California State Park's website, brochures received at the park, directional signs along Highway 138 and Highway 15, and through personal interactions with park staff, volunteers, and concessionaires.

In order to reach the Nature Center area, visitors enter the park from State Hwy 138, which intersects with Highway 173 just outside the park boundaries. Highway 138 is a much used back road "short-cut" from the high desert to the communities of Crestline and Lake Arrowhead. The main access into the unit and marina is off of Saw Pit Road. Access to the sector/unit office and group camp is off of Cleghorn Road.[19] Other access points include Miller Canyon and the Cedar Springs Dam vista-point entrance. Miller Canyon is closed occasionally on a seasonal basis.

At the Mesa kiosk park entrance, visitors can obtain a park brochure. This is also available online on the California State Parks website or at the Sector/Unit office. "Wifi" access is available within the park.

Panels within the Mesa Campground and the marina orient people to the park, facilities, safety tips, and rules. Way-finding signs direct visitors to the park's key features. Unfortunately, few park map panels exist.

Concession operators at the marina, camp hosts, and state park staff who patrol the park play a significant role in orienting visitors and responding to inquiries.

19 California State Parks, *Final Initial Study and Mitigated Negative Declaration Silverwood Lake State Recreation Area Campground and Day Use Improvements*, 48.

Photo by Blythe Liles, 2009.

Above: Park entrance kiosks.

INTERPRETIVE FACILITIES AND MEDIA

Within the park boundaries, interpretive facilities and media are located primarily at the marina and campground areas. The campground area displays generic interpretive panels near the restroom and campfire center (this gathering area is used for interpretive talks and as a meeting place for groups).

The marina also has several interpretive kiosks featuring bald eagles, the rainshadow effect, Silverwood's ecology, fishing facts, safety messages, and park regulations. Brochures provide park orientation, water safety information, and native species interpretation.

Three panels located at a scenic overlook along the entrance road to the park were created by Caltrans. These panels give a basic overview of the cultural and natural history of Silverwood Lake prior to entering the State Recreation Area. Interpretive topics include Silverwood Lake as a wildlife refuge, historic routes that brought people to the area, and a map outlining park activities and features. Interpretive facilities and media developed at the Nature Center will help support those that currently exist within and adjacent to the park.

Photo by Blythe Liles, 2009.

Above: Park entrance sign.

Photo by Blythe Liles, 2008.

Above: Interpretive panel near Mesa campground.

ASSOCIATED INTERPRETIVE FACILITIES

Silverwood Lake SRA is surrounded on three sides by the USDA Forest Service's San Bernardino National Forest which manages four visitor center facilities and covers about 820,000 acres within San Bernardino and Riverside Counties. Facilities include the Children's Forest Visitor Center (located in Running Springs), Barton Flats Visitor Center (Mentone), Big Bear Discovery Center (Fawnskin), and the Santa Rosa & San Jacinto Mountains Visitor Center (Palm Desert) which interpret the resources within the national forest through exhibits and programs.[20]

Silverwood Lake SRA Photo Collection

Another nearby interpretive facility includes the Mountain Skies Astronomical Society's $1.8 million, 6,500 square foot facility which will house a state-of-the-art observatory and a science education center on a three acre site along the Rim of the World Highway. [21]

The Department of Water Resources operates three visitor centers at Lake Oroville, San Luis Reservoir, and Pyramid Lake, which interpret the significance of the state water system through exhibits, films, and publications. These centers are closely associated with the interpretive topics of the State Water Project, water conservation, and environmental issues that are of relevance to Silverwood Lake SRA.[22]

Nearby State Parks to Silverwood Lake include Lake Perris State Recreation Area (11 miles south of Riverside and also a reservoir that was created as part of the state water project), Cal Citrus State Historic Park in Riverside, and Chino Hills State Park in Chino Hills.

Associated interpretive and educational facilities can be valuable partners in interpretation and education. The Silverwood Lake SRA Nature Center will compliment associated facilities, and will also offer visitors an experience unique to Silverwood Lake.

20 San Bernardino National Forest, "Contact Us," http://www.fs.fed.us/r5/sanbernardino/.

21 Mountain Skies Astronomical Society, http://www.mountain-skies.org/.

22 California Department of Water Resources, "Recreation," http://www.water.ca.gov/recreation/.

Above: Mercedes-Benz rolled into Silverwood Lake SRA as a stopover on a test drive from Los Angeles to Palm Springs. This is an example of one of the many special events that have occured within the park.

PARK PROGRAMS

Rangers, volunteers, and docents lead activities such as nature hikes; Junior Ranger, campfire, and scout programs; overnight outings; and winter boat tours to view bald eagles. Bald Eagle Barge Tours are operated every January through March on Saturdays and Sundays, and are popular attractions.

Staff and volunteers also deliver talks at local schools. Currently, three schools participate in these "Adopt-a-school" programs.

FamCamp and CalPal programs also occur within the park. FamCamp is a program designed to introduce communities and families to outdoor recreation and camping. The mission of California PAL is uniting law enforcement and communities by providing youth programs which develop discipline, positive self-image, mutual trust and respect.[23]

The Nature Center will offer a venue for activities and a meeting point from which to embark on nature hikes and programs.

SPECIAL EVENTS

Special events that take place within the park include bald eagle counts, trail work, environmental events, cultural celebrations, career days and fairs, boat festivals, FamCamp, spring wildflower walks, and other community events. [24]

Other potential special events include triathlon and weddings. Future special events within the park may utilize the Nature Center as well.

23 CalPal, "About California Pal," http://www.calpal.org/about-california-pal/
24 Tom Gunther, "Mercedes-Benz Rolls into Silverwood," California State Parks News and Views, December 2008.

Photo by Blythe Liles, 2008

Above: Location of the Silverwood Lake SRA Nature Center.

4 Overall Interpretive Direction

Interpretation is based on the premise that knowledge deepens the park experience and provides lasting benefits not only to individuals, but also to society in general. The Silverwood Lake State Recreation Area Nature Center should expand the visitor's awareness and appreciation of the park's resources. The following goals, objectives, and themes serve as guidelines for delivering meaningful interpretation.

INTERPRETIVE AND EDUCATIONAL GOALS

1. Help visitors appreciate the cultural, natural, and recreational resources of Silverwood Lake SRA to promote a feeling of personal responsibility for, and involvement in, the protection and use of the park environment.

2. Acquaint the visitor directly with the natural environment to help identify what is seen within the park and aid in facilitating an enjoyable experience.

3. Give visitors an overview of the various areas of the park, and also provide information about safety, activities (where to hike, bike, fish and swim), and park rules.

4. Encourage visitors to explore the natural areas and inspire people to make personal connections to their environment.

5. Encourage community involvement in Silverwood Lake, including local schools and universities.

6. Create exhibits and programs that support the mission of Silverwood Lake SRA and the California State Park System.

Photo by Blythe Liles, 2008

Above: The East fork of the Mojave River meets Silverwood Lake.

INTERPRETIVE OBJECTIVES

LEARNING OBJECTIVES

- Visitors will find answers to frequently asked questions.
- Visitors will understand how to better balance human needs with the natural world.
- Visitors will understand the importance of water to plants, animals, landscapes, and people.
- Visitors will be able to identify native and non-native species found within the park.
- Students will find activities aligned with curriculum-content standards.
- Visitors will learn about water and recreation-related safety.
- Build visitor's knowledge of the interconnections of natural systems and public-works infrastructure.
- Visitors will learn about the environmentally friendly design of the Nature Center, supporting the California State Parks "Cool Parks" initiative.

EMOTIONAL OBJECTIVES

- Visitors will feel that Silverwood Lake and natural resources are worth protecting.
- Visitors will use the resources of Silverwood Lake for relaxation and recreation.
- Visitors will want to conserve water and protect Southern California's water supply.

BEHAVIORAL OBJECTIVES

- Visitors will stay on trails, obey park rules, and enjoy the park in a safe manner.
- Visitors will treat the lake environment and other visitors with respect.
- Visitors will find the best places in the park to enjoy their recreational pursuits.
- Visitors will take action to conserve water and protect the environment at Silverwood Lake and at home.
- Visitors will be inspired to engage in activities outlined in the Children's Outdoor Bill of Rights.

INTERPRETIVE THEMES[25]

What is an interpretive theme? It is an inspiring, thought provoking statement that brings the inherent significance of a place to life for visitors. Interpretive themes are the foundation for building interest in the park and organizing exhibits and programs in a consistent and engaging way.

The following themes should ignite lasting and personal connections to Silverwood Lake, helping to inspire visitors to learn more about the park and protect this area for future generations.

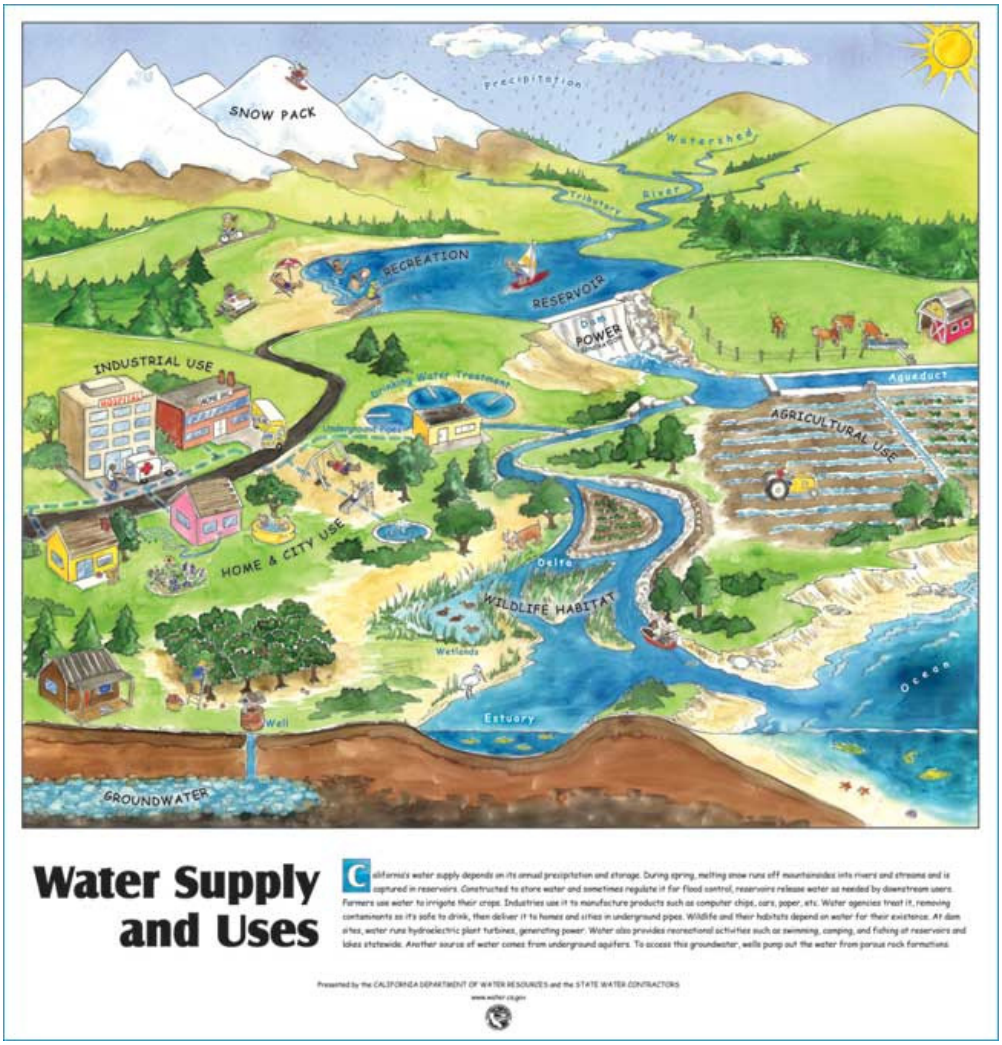
25 The following themes are a revision of those outlined in California State Parks, *Interpretive Prospectus for Silverwood Lake State Recreation Area* (Sacramento: Operations Division, n.d), 4.

I. UNIFYING THEME

Silverwood Lake State Recreation Area reflects the delicate balance between human needs and the maintenance of a healthy, water-rich environment.

Messages

All living things need water. At the Nature Center, the unifying theme encompasses water as habitat, how people have transformed the environment in order to secure reliable water supplies, the many uses of water, and how water can be conserved. These topics relate directly to the resources found at Silverwood Lake, a man-made reservoir that strives to balance the human need for water and recreation with habitat protection.



Left: Water supply and uses map used for educational purposes by the California Department of Water Resources. See www.water.ca.gov/education/wffcatalog.cfm for access to more water-related illustations and educational materials.

II. PRIMARY THEME

Everyday, people in Southern California depend on water from Silverwood Lake.

Messages

1. Water is absolutely essential to our survival. Without food, a human being can live for more than a month, but without water we would die in 3 to 4 days.[26] Silverwood Lake is a vital source of water.
2. Silverwood Lake was constructed as part of the State Water Project (SWP), California's multipurpose water project with thirty-three storage facilities, twenty pumping plants, four generating plants, five hydroelectric power plants, and approximately 647 miles of canals and pipelines, which includes the 444-mile long California Aqueduct. Its main purpose is water supply —that is, to divert and store surplus water during wet periods and distribute it to areas of need in Northern California, the San Francisco Bay area, the San Joaquin Valley, the Central Coast and Southern California. Other project purposes include flood control, power generation, recreation (some 2,400 acres of recreational land surround Silverwood Lake), fish and wildlife enhancement, and water quality improvement in the Sacramento-San Joaquin Delta. Twenty-nine urban and agricultural water agencies have long-term contracts for the delivery of State Water Project water. Approximately 70 percent of the SWP water goes to urban users and 30 percent to agricultural users.[27]
3. "The SWP provides irrigation water to farms in the San Joaquin Valley, and is a major source of supply for cities in Los Angeles, Riverside, San Bernardino, San Diego and other parts of Southern California. In addition, the SWP serves cities in Napa and Solano counties through the North Bay Aqueduct, Santa Barbara and San Luis Obispo counties through the Coastal Aqueduct, and communities in Alameda and Santa Clara counties through the South Bay Aqueduct."[28]
4. Water is essential to urban life. "Project water is used for the whole wide range of man's purposes-from making the morning coffee to washing the dishes, from manufacturing, to watering the stock."[29] Water is in everything and a part of everything.
5. Recreation areas are becoming increasingly important to the people of Southern California, serving as an escape from urban life and supporting a healthy lifestyle within a densely populated area.

26 Explorit Science Center, "Are we Having our Droughts?," http://www.explorit.org/science/TERPS/droughts_terp.html.

27 California Department of Water Resources, "State Water Project Recreation Facilities" brochure, http://wwwowe.water.ca.gov/information/pdf/SWPRecEng.pdf.

28 Water Education Foundation, "Where does My Water Come From?," http://www.water-ed.org/watersources/community.asp?rid=8&cid=444.

29 San Bernardino Valley Municipal Water District, *Dedication of Cedar Springs Dam-Silverwood Lake* (San Bernardino Valley Municipal Water District, 1972).

III. PRIMARY THEME
The human quest for water drew many people to the Mojave River.

Messages
1. Throughout time, water has continually connected people to the area. Prior to the creation of the Cedar Springs Dam which forms Silverwood Lake, the West Fork of the Mojave River flowed naturally within the area and supported plant, animal, and human life.
2. The West Fork of the Mojave River supported a diverse animal and plant population, drawing the first people to the area (the Serrano). This community thrived on the resources of the river. Alongside rivers and streams, the Serrano people lived in small settlements of ten to twenty dwellings. Villages were, predictably, established in the vicinity of reliable water sources. The Serrano used ritual, including songs and storytelling, to pass on the knowledge necessary to maintain the earth's natural order.[30]
3. Later, homesteaders where drawn to the Mojave River bank's fertile soil and founded the community of Cedar Springs.
4. As more and more people settled in Southern California in the early 1900s, the demand for water resources was becoming a concern. In 1930s, the California State Department of Public Works and the Division of Water Resources began to study ways in which to secure California's water supply.[31] This set the foundation for the creation of the Cedar Springs dam by the Department of Water Resources' State Water Project.
5. The Cedar Spring dam was completed in 1972, creating the reservoir known today as Silverwood Lake. The small community of Cedar Springs was buried under water as a result of the construction of Silverwood Lake in 1966, bringing new uses to the area, aquatic recreation, and maintaining a steady water supply for Southern California. The development of the lake also transformed the natural course of the West Fork of the Mojave River.[32]
6. Today, California State Parks works to balance the protection of native habitat with the human needs for water and recreation.

30 California State Parks, "Silverwood Lake SRA brochure," http://www.parks.ca.gov/pages/650/files/silverwood2008.pdf.

31 California Department of Public Works, *Reports on State Water Plan Prepared Pursuant to Chapter 832, Statutes of 1929: Bulletin No. 25 Report to Legislature of 1931 on State Water Plan* (Sacramento: California State Printing Office, 1930), 35.

32 California State Parks, *Summary of Research Findings San Bernardino County Silverwood Lake SRA Nella Complex,* (San Diego: Alexa Luberski (Clausen), California State Parks, 1995), 2.

IV. PRIMARY THEME

Silverwood Lake is a refuge for plant and animal communities uniquely adapted to this water-rich environment.

Messages

1. Silverwood Lake is on the desert side of the San Bernardino mountains along the west fork of the Mojave River and contains the largest expanse of high elevation country in Southern California. At 3,350 feet, the lake is the highest within the California State Water Project. Diverse habitats are found at the lake due to its location on the edge of the Mojave Desert and at the base of the San Bernardino Mountains. Habitat types located within the Silverwood Lake SRA region include a mix of canyon live oak, coulter pine, big cone Douglas-fir, scrub oak, northern mixed scrub, chamise, semi-desert chaparral, Manzanita chaparral, and mixed riparian hardwood. The northwest slopes hold more moisture in the soils, resulting in diverse vegetation.
2. The forest, chaparral, and riparian woodland habitats at Silverwood Lake support a variety of small mammals, reptiles, and amphibians including California ground squirrel, western gray squirrel, dusty footed woodrat, Merriam chipmunk, western fence lizard, western rattlesnake, Pacific chorus frog, and California toad. Larger species commonly found are mule deer, coyote, bobcat, ring tailed cat, long tailed weasel, raccoon, beaver, and striped skunk. These species would have been present during aboriginal times (Kowta 1969).
3. The area has many migratory and resident birds including the acorn woodpecker, mountain bluebird, western tanager, black headed grosbeak, northern oriole, California towhee, Steller's Jay, mountain chickadee, dark eyed junco, California thrasher, wrentit, and mountain and California quail. Raptors include the southern bald eagle, red tailed hawk, red shouldered hawk, sharp shinned hawk, California spotted owl, great horned owl, and western screech owl. Migratory waterfowl such as ducks and coots and wading birds such as herons, egrets, and avocets also currently use the area."[33]
4. Some terrestrial species within the park are uniquely adapted to a lack of water. "Plants and animals adapt to drought conditions depending on what type of drought they experience in their area…Over time, they have evolved in ways that allow them to survive in such harsh environments. However, plants and animals in California have adapted to long periods of dryness between yearly periods of rain. Some plants adapt by having long tap roots that reach deep into the soil for water. Other plants have succulent leaves, stems, or roots that essentially store extra water for the plant. Some animals like birds of prey and kangaroo rats rarely, if ever, drink water because their bodies get all the water they need from the food they eat."[34] All animals depend on and are adapted to the amount of water within their surroundings. "Ingenuity enables species to live in environments that range from very wet to very dry."[35]

33 California State Parks, "Silverwood Lake SRA" brochure, http://www.parks.ca.gov/pages/650/files/silverwood2008.pdf.

34 Explorit Science Center, "Are We Having our Droughts," http://www.explorit.org/science/TERPS/droughts_terp.html.

35 American Museum of Natural History, "Educators Guide: Water: H20 =Life,"amnh.org/education/water.

5. When Silverwood Lake was constructed, it inundated the valley with water. This created a habitat suitable for plants and animals adapted to a wetter environment, including the California red-legged frog, Mountain yellow-legged frog, and the Arroyo toad. Frogs and toads depend on a wet environment for food and shelter.
6. Fish at Silverwood Lake including trout, large-mouth bass, catfish, and bluegill have unique adaptations for living underwater. Fish adapt to their underwater environment so that they can swim, eat, and breathe more easily. Physical adaptations to an underwater environment include variations in body shape, jaws, and color.
7. Non-native species can be problematic and can upset the balance within the natural environment. Humans can play a significant role in introducing non-native animals such as the Quagga Mussel. Invasive Quagga and Zebra mussels are non-native aquatic mollusks that wreak havoc on the environment by disrupting the natural food chain. The mussels are filter feeders that can cause a shift in native species and a disruption of the ecological balance of entire bodies of water. The mollusks also pose a dramatic economic threat to California.[36]

Above: Western Screech owl.

36 California Resource Agency, "The Quagga and Zebra Mussel Threat," http://www.resources.ca.gov/quagga/.

Copyright Ran Vasudev, 2007. CalPhotos

Above: Soaring bald eagle.

Mojave River Natural History Association

Copyright Bill Stagnaro. CalPhotos

Above: California red-legged frog.

V. SECONDARY THEME:
Water molded this landscape.

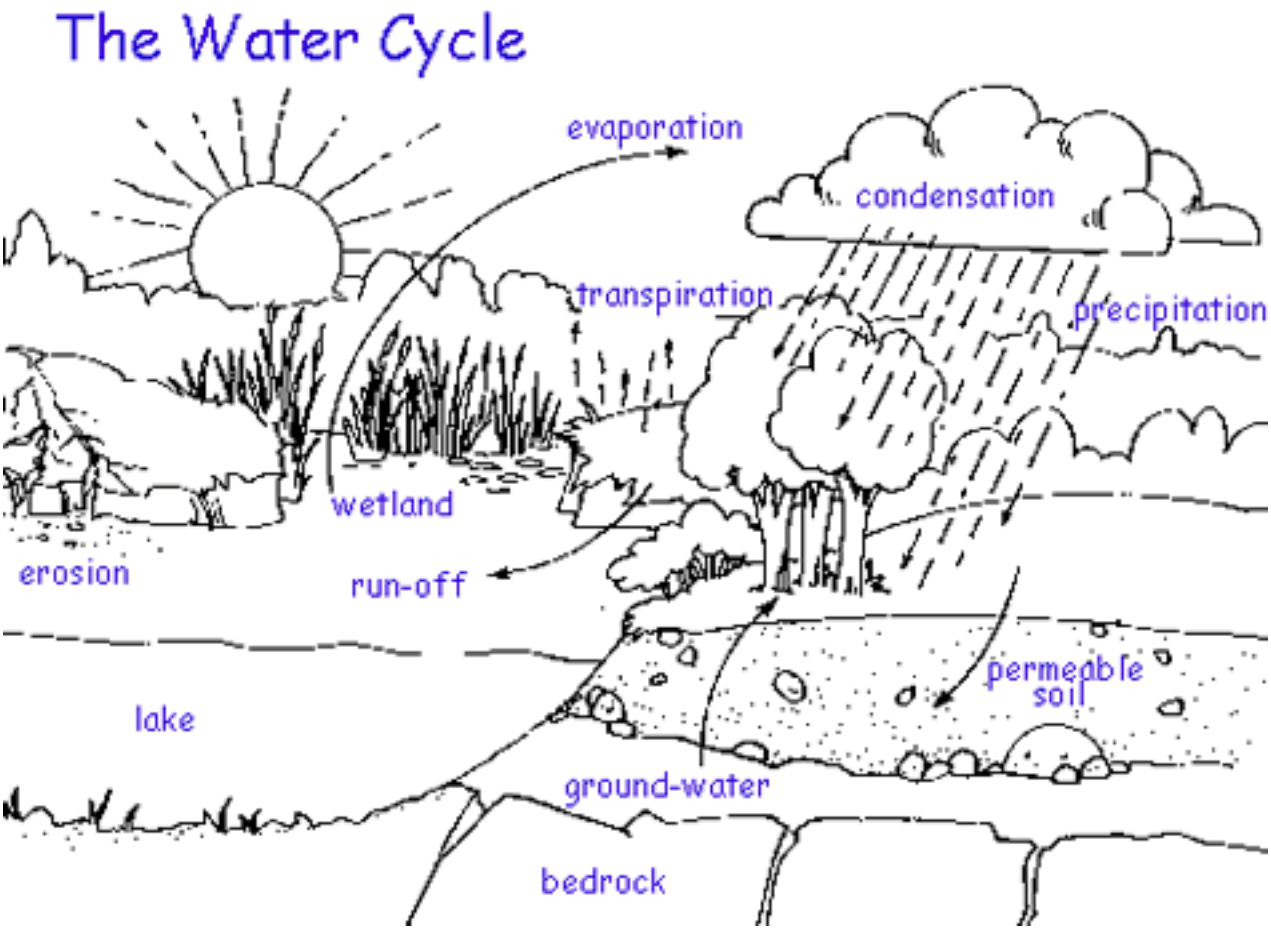
Messages

1. "The single most important force shaping Earth's surface is moving water. Falling and running water weathers and erodes rocks, creating features such as the canyons. Great rivers and small streams carry sediments and deposit them to create new land. And water invisible to us, locked up in rocks up to 200 kilometers (125 miles) below our feet, enables the vast, slow movements of Earth's tectonic plates (as evidenced at the San Andreas fault). Water wears away mountains; it also makes possible the powerful planetary forces that build them."[37]
2. Streams and rivers sculpt the landscape through erosion and determine the unique mosaic of vegetation that defines a landscape.[38]
3. According to GIS data gathered by Michael Bonk in 2008, a total of 53 named fires have occurred within 5 miles of the Silverwood Lake area since 1953, and there have been 151 fires since 1911. Drought conditions have led to devastating fires and floods.
4. "Water does fall from the sky, but it is not "new" water, just recycled water. The amount of water on Earth never increases or decreases. We have a fixed supply. Heated by the sun, water on the ground in oceans, lakes, rivers, streams, and other areas evaporates; water vapor is also released from plants through transpiration. All this water vapor rises into the air, cools and condenses into tiny droplets that gather and form clouds or fog. Finally, when the clouds meet cool air over land, precipitation in the form of rain, hail, sleet, or snow is triggered, and water returns to the land or sea. Thus, the water you use is the same water used by dinosaurs, early Native Americans, pilgrims, and your great grandparents."[39]

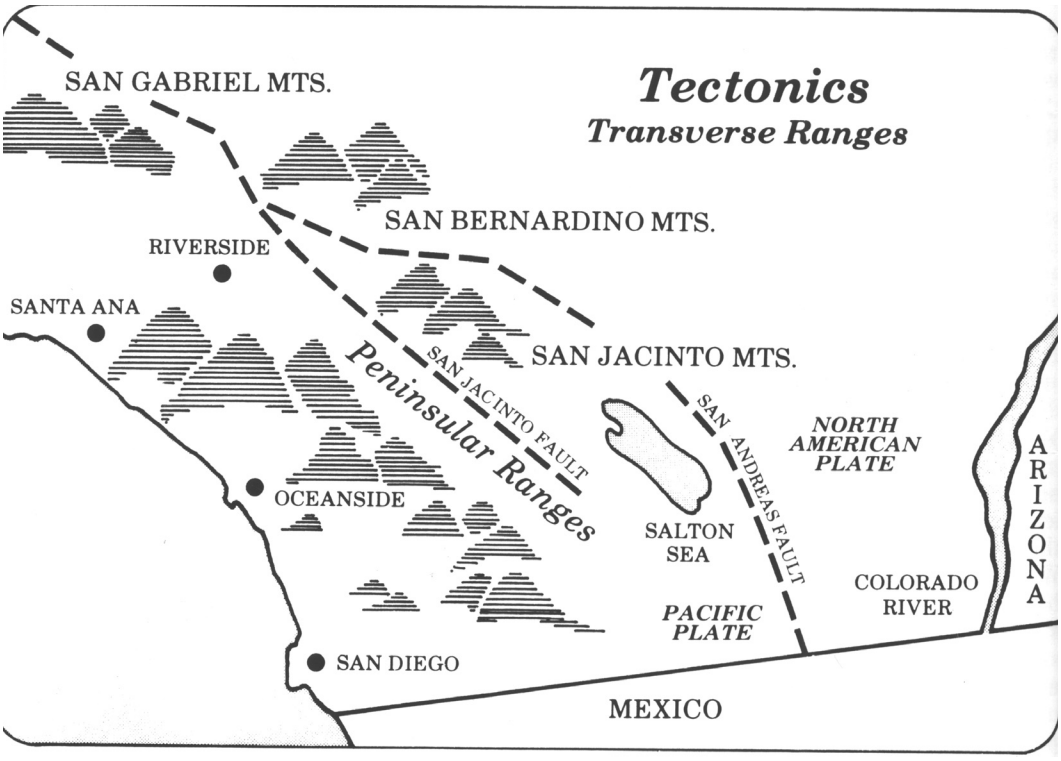
37 American Museum of Natural History, "The Blue Planet: Nature's Architect," http://www.amnh.org/exhibitions/water/?section=blueplanet&page=blueplanet_e.

38 United States Department of Agriculture, "Water and the Forest Service," Washington D.C.: U.S. Dept of Forestry, 2000.

39 California Department of Water Resources, "Conservation Connection: Water and Energy Use in California," http://www.water.ca.gov/education/docs/TeacherGuide.pdf.



http://www.on.ec.gc.ca/community/classroom/images/



Becker & Birmingham, page 22.

VI. SECONDARY THEME:
Conserve water, an irreplaceable finite resource.

Messages

1. "Southern California faces critical water supply challenges — about 70% of the water falls in the northern part of the state, while 80% of the population is in the south. With proper state allocation, there is enough water to meet current demand, but a state consensus on water supply issues is imperative to meet future needs."[40]
2. "Although water seems limitless and is for the most part taken for granted, it is not an absolute certainty that where settlement occurs, water will follow. This fact has not escaped water experts and decision-makers, who realize the many competing needs for a precious resource that has no substitute.
3. As California heads toward a future of further population growth, a number of factors have to be considered as agencies look to accommodate the increasing demand.
4. In addition to the growth itself, other variables such as climate change, environmental conflicts, and aging infrastructure could affect the future reliability of the state's water supplies. Recognizing the era of big projects has passed, state and local officials have turned to a new supply paradigm that emphasizes regionally developed supply alternatives and the need for innovative approaches that accentuate the opportunities offered by conjunctive management."[41]
5. Conservation practices include:

- Turning water off when brushing your teeth or washing dishes
- Taking shorter showers
- Keeping drinking water in the refrigerator instead of running water until it becomes cool
- Planting drought-tolerant plants
- Turning off sprinklers when it's raining
- Using a broom instead of a hose to clean pavement.
- Conservation—with both water-saving devices and practices—would save millions of gallons of water, as well as millions of dollars, every day."[42]

40 Southern California Water Committee, "About SCWC," http://www.socalwater.org/.

41 Water Education Foundation, "Future Water Supply Reliability," http://www.water-ed.org/watersources/subpage.asp?rid=&page=390.

42 California Department of Water Resources, "Conservation Connection: Water and Energy Use in California," http://www.water.ca.gov/education/docs/TeacherGuide.pdf.

San Francisco Public Utilities Commission

INTERPRETIVE PERIODS

SERRANO PERIOD (1000BP-1819)
Silverwood Lake SRA is located within the ethnographic territory of the Serrano people. The territory of the Serrano extended from Cajon Pass in the west to a little east of the oasis of Twenty-nine Palms, centered in the San Bernardino Mountains.

Other than periodic travelers along the Mojave trade route between present-day Arizona and Southern California, Serrano culture was not greatly disturbed until the establishment of an asistencia to Mission San Gabriel in 1819, in the vicinity of present-day Redlands. From that time to the secularization of the mission, most of the western Serrano were removed to missions.

EARLY SETTLEMENT PERIOD (1897-1930)
The formal establishment of lands for recreation and conservation dates to 1897, when the federal government established the San Bernardino Forest Reserve (later National Forest). In the early part of the century, with the availability of the automobile, the area became more accessible to the growing population of the Los Angeles basin.

The area became popular for mountain recreation and development. The community of Cedar Springs, first settled by homesteaders during the early 1900s, slowly developed on the surrounding terraces of today's recreation area and reservoir. In 1914, it became the locale of an enterprising Seventh Day Adventist colony, and a health resort was later established, but was abandoned in the 1920s because of lack of employees and interest. Subsequently, the area became a popular weekend retreat, although the National Forest and steep terrain limited extensive development.

Prior to the fire in October 2003, the historic Nella Complex included recreational mountain structures reflective of the land use of the area in the early 20th century.[43] This complex was a cluster of seven rustic-style buildings, along with additional stacked-stone retaining walls and other landscape features built in the 1920s and early 1930s.

RECREATION PERIOD (1960s-present)
In the 1960s, the California Department of Water Resources began plans for a reservoir in the canyon. The surrounding property was transferred to DPR, to be developed into a state recreation area for meeting the heavy recreational demands of Southern California. Most of the remaining structures associated with the Cedar Springs community were demolished during construction of Silverwood Lake.[44]

43 California State Parks Ranger Association, "An Empire on Fire," The CSPRA Wave Vol 4, No. 1 (2004): 3-6, http://www.cspra.com/wavefeb04.pdf.

44 Silverwood Lake was named after Ted Silverwood, a resident of Riverside County who worked to promote the State Water Project.

Silverwood Lake SRA Photo Collection

Above: Historic Nella complex, prior to the fire that destroyed the buildings in 2003.
Below: Filling the lake after the construction of Cedar Springs Dam.

Silverwood Lake SRA Photo Collection

CALIFORNIA EDUCATIONAL CONTENT STANDARDS

The following extracted California Educational Content standards may be applied to the interpretive and educational programs at Silverwood Lake SRA Nature Center.

HISTORY-SOCIAL SCIENCE

Third Grade: Social Science

3.1.2 Trace the ways in which people have used the resources of the local region and modified the physical environment (e.g., a dam constructed upstream changed a river or coastline).

Fourth Grade: California: A Changing State

4.4.1 Trace the evolution of California's water system into a network of dams, aqueducts and reservoirs.

PHYSICAL EDUCATION

High School:
Adventure/Outdoor Activities

2.1 Participate in adventure/outdoor activities that improve health-related physical fitness.

2.2 Analyze the effects of adventure/outdoor activities on a personal physical fitness program and personal levels of health-related physical fitness.

2.4 Explain the relationship between participation in adventure/outdoor activities and health.

High School: Aquatic Activities

1.1 Demonstrate advanced knowledge and skills in two or more aquatic activities, selecting one or more from each of the following categories:

Category 1: Diving, Kayaking/Canoeing/Rowing, Snorkeling, Swimming

Category 2: Life guarding, scuba diving, synchronized swimming, water polo

1.5 List the safety equipment required for participation in aquatic activities; describe and demonstrate the use of such equipment.

1.7 Identify and practice the safety skills necessary for entering swimming pools, lakes, rivers, and oceans (e.g., walking, jumping, falling, and diving).

1.8 Demonstrate and explain basic water rescue with and without equipment.

1.9 Demonstrate and explain basic cardiopulmonary resuscitation.

SCIENCE

Kindergarten: Earth Sciences

3.c Students know how to identify resources from Earth that are used in everyday life and understand that many resources can be conserved.

Grade Two: Earth Sciences

3.e Students know rock, water, plants and soil provide many resources, including food, fuel, and building materials, which humans use.

Grade Four: Life Sciences

2. Students know plants are the primary source of matter and energy entering most food chains.

Students know producers and consumers are related in food chains and food webs and may compete with each other for resources in an ecosystem.

Grade Five: Earth Sciences

3. Water on Earth moves between the oceans and land through the processes of evaporation and condensation. As a basis for understanding this concept:
   b. Students know when liquid water evaporates; it turns into water vapor in the air and can reappear as a liquid when cooled or as a solid if cooled below the freezing point of water.
   c. Students know water vapor in the air moves from one place to another and can form fog or clouds, which are tiny droplets of water or ice, and can fall to Earth as rain, hail, sleet, or snow.
   d. Students know that the amount of fresh water located in rivers, lakes, underground sources, and glaciers is limited and that its availability can be extended by recycling and decreasing the use of water.
   e. Students know the origin of the water used by their local communities.

Grade Six: Resources

6.b. Students know different natural energy and material resources, including air, soil, rocks, minerals, petroleum, fresh water, wildlife and forests, and know how to classify them as renewable or nonrenewable.

High School: California Geology

9. c. Students know the importance of water to society, the origins of California's fresh water, and the relationship between supply and demand.

"The most powerful forms of education are meaningful, involve the student, promote critical thinking, and appeal to different learning styles. Our mission is to provide educational experiences both in California State Parks and in the classroom, assisting educators with curriculum needs and offering activities that enable students to investigate, research, and participate in interactive learning."

—California State Parks' Educational Mission Statement

Above: Rendering of the completed Nature Center, as seen from the parking lot.

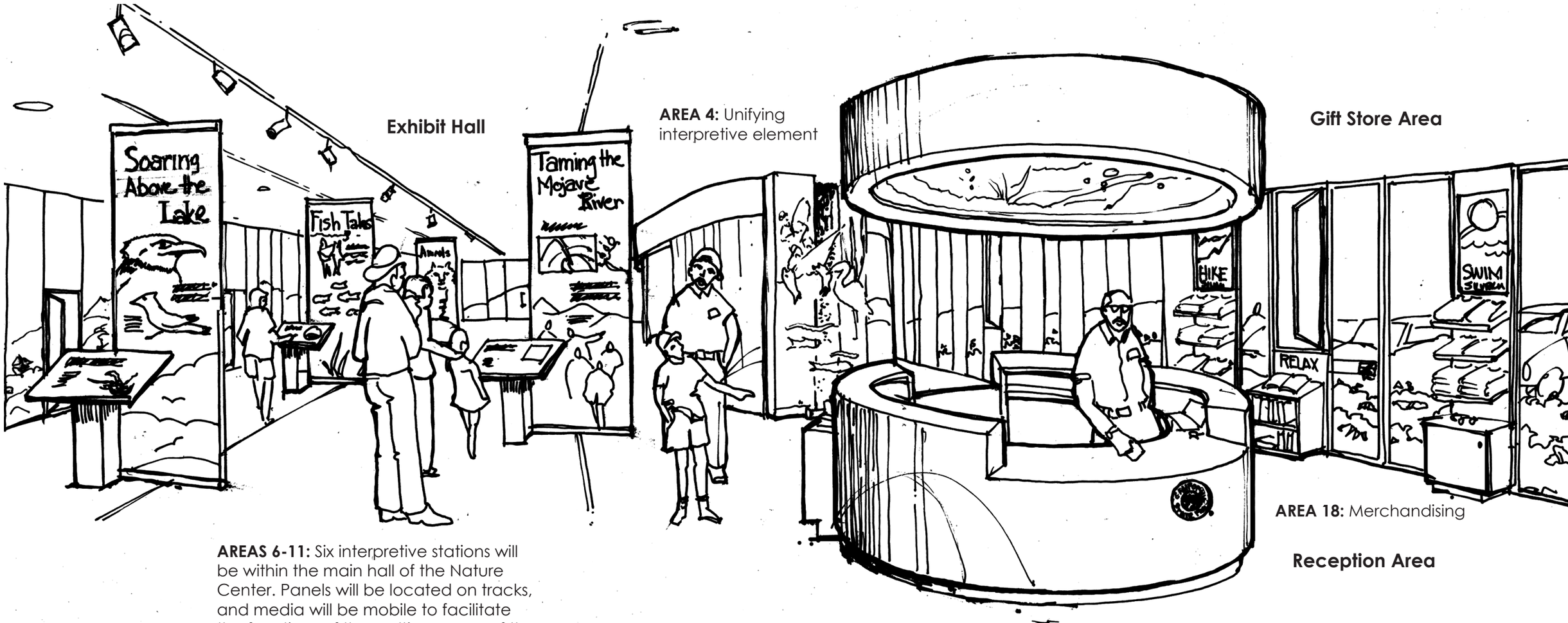
5 Media and Messages

With the previously addressed interpretive themes, goals and objectives incorporated, the following outlines specific opportunities for the development of media within the arrival and contact area, exhibit hall, audio-visual viewing area, and other interpretive areas within the Nature Center. Organized around the unifying theme (focused on maintaining a balance between human needs and natural resources), the 2,700 square foot facility will provide interpretive exhibits and programs, visitor orientation, and public information. About 765 sq. feet will be used for audio-visual display and 1,100 square feet for exhibits. Equipment within the Nature Center may include a speaker system with a cordless microphone and audiovisual devices.

This chapter outlines draft concepts for the Nature Center and provides outlines for interpretive content, and visual representations of the space. The proposed elements are numbered according to site plans on the following pages. Each section defines the purpose of the interpretive area, the messages extracted from the interpretive themes, the objectives, and a description of the desired visitor experience.

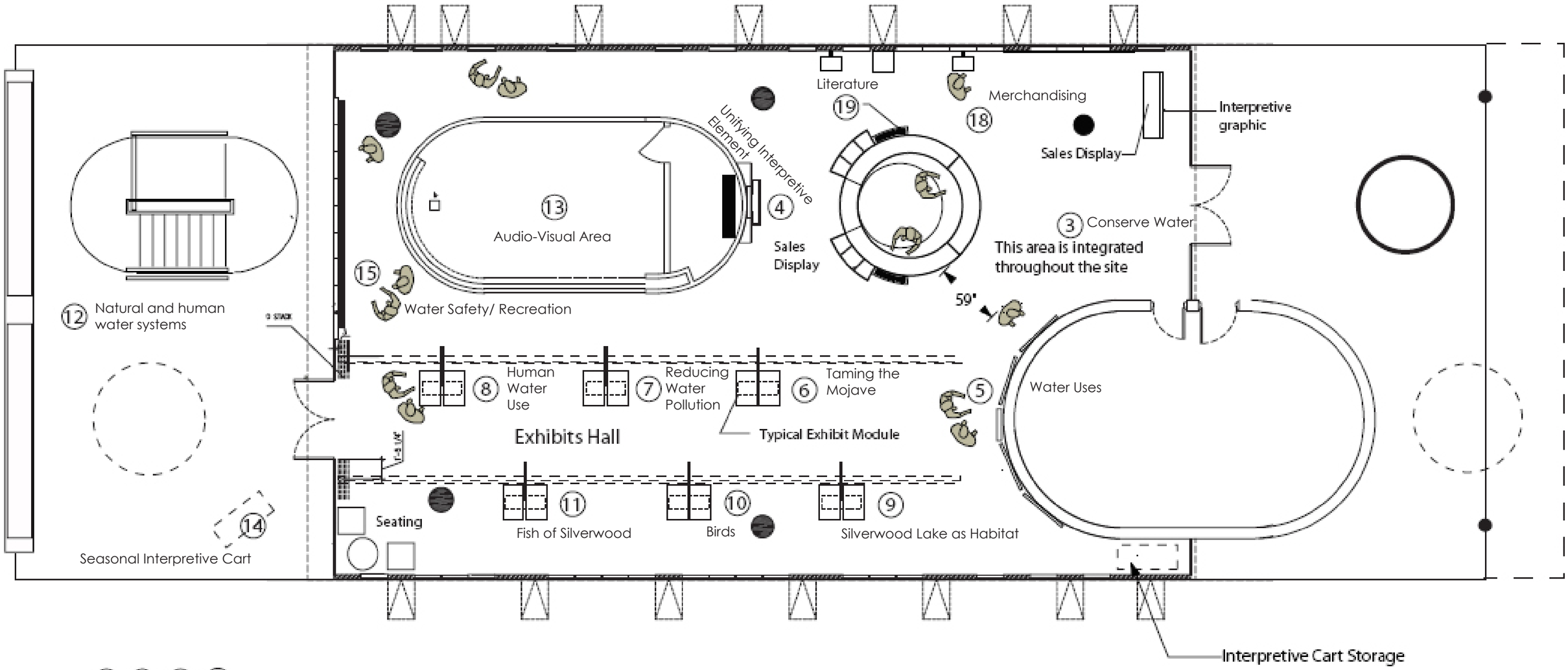
Concept sketch of interior of the Silverwood Lake SRA Nature Center

Area 3: Nature Center messaging. Elements will be incorporated throughout the exhibit areas and also into the architecture.



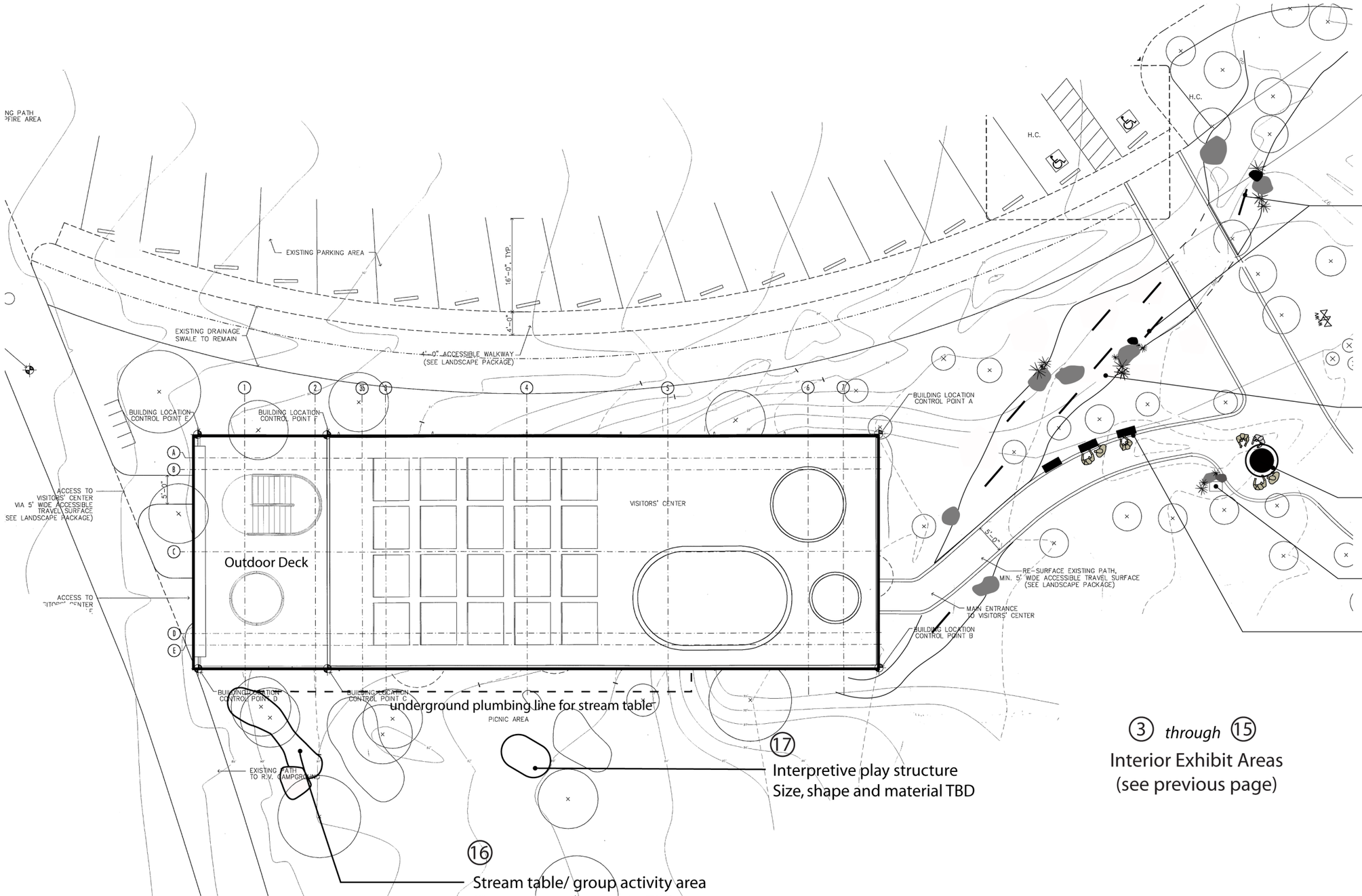
AREAS 6-11: Six interpretive stations will be within the main hall of the Nature Center. Panels will be located on tracks, and media will be mobile to facilitate the functions of the multi-use area of the center.

Interior floor plan of the Silverwood Lake SRA Nature Center



1 2 16 17
Outside Areas
(see next page)

Exterior view of the Silverwood Lake SRA Nature Center



COR-TEN pierced-cut Interpretive shapes depict the relationship between water and nature. Shapes represent school of fish swimming towards visitor center. Shape of eagle is shown with a fish clenched in his tallons.

Simulated dry creek bed

① Orientation map

Backflow prevention valve in housing

② Graphic panels for interpretive garden

③ *through* ⑮ Interior Exhibit Areas (see previous page)

⑰ Interpretive play structure Size, shape and material TBD

⑯ Stream table/ group activity area Size, shape and material TBD

Concept sketch of the Interpretive Garden and Tactile Map located at the entrance of the Nature Center

AREA 1: Tactile park map.

AREA 2: Interpretive Garden

Right: Example of COR-TEN steel sculpture that would be used to create interpretive dimensional forms within the garden.

INTERPRETIVE AREA CONCEPTS

Area 1: Tactile Park Map (Orientation)

WELCOME TO SILVERWOOD LAKE SRA!

PURPOSE
This exterior station will orient visitors to the park, provide directional guidance, and help visitors plan their visit according to their interests and needs.

MESSAGES
Orientation to the park unit and recreational opportunities available at Silverwood Lake will be provided. This station may include specific information about preparing for a park experience such as safety regulations, weather patterns, trails for hiking and biking, and camping and swimming areas. While this station is not specifically related to interpretation, it enhances the visitor experience.

OBJECTIVES: Visitors will…
- Find answers to frequently asked questions.
- Learn tips for enjoying their visit to Silverwood Lake.
- Find the best places in the park to enjoy their recreational pursuits.

DESCRIPTION
A tactile, 3-D map will provide an introduction to the park. This station may include an overview of park resources and recommended recreational opportunities. This map will be visible from the parking lot and trails, and will be oriented towards the lake. Elements will be made of materials that are easily repairable in case of vandalism or damage.

Area 2: Interpretive Garden

SILVERWOOD LAKE: A WATER REFUGE

PURPOSE
This exterior station will introduce visitors to the lake's flora and fauna and the significance of water. This information will be available outside the Nature Center when the facility is closed.

MESSAGES
IV. Primary Theme
Silverwood Lake is a refuge for plant and animal communities uniquely adapted to this water-rich environment.

OBJECTIVES
Visitors will…
- Know that Silverwood Lake is essential to the survival of native plants and animals.
- Be able to identify plants and animals native to Silverwood Lake.
- Understand why water attracts wildlife.
- Want to explore the Nature Center and Silverwood Lake.
- Feel that Silverwood Lake and its natural resources are worth protecting.

DESCRIPTION
Steel sculptural elements will evoke the significance of Silverwood Lake as a habitat for native animals. Eagles, migratory waterfowl (such as ducks and coots and wading birds such as herons, egrets, and avocets), amphibians (such as California red-legged frog, Mountain yellow-legged frog, and the Arroyo toad) and fish (trout, large-mouth bass, catfish, and bluegill) may be depicted. Three interpretive panels will describe the significance of the lake environment to plants and animals and their dependence on water and each other in order to survive.

Area 3: Nature Center Messaging

EVERYTHING NEEDS WATER

PURPOSE
While people are using the Nature Center, they will be reminded that conservation is essential to stretching water supplies and making the most of water resources. Using less water reduces the amount of wastewater that is put back into the system. Multiple interpretive elements will explain how much water was used to create and operate objects found within the facility. This will also help to reinforce that water is used for many purposes and should be conserved.

MESSAGES
V. Secondary Theme
Conserve water, an irreplaceable, finite resource.

OBJECTIVES: Visitors will…
- Want to conserve water and protect Southern California's water supply.
- Take action to conserve water at Silverwood Lake and at home.
- Understand how water is essential to almost everything.

DESCRIPTION
Interpretive elements (interpretive posters, signs, or tiles) will describe how much water is used in the construction, maintenance, and operation of the Nature Center. These interpretive elements may be located near faucets, toilets, doors, and other structural elements found within the Nature Center. Media will be specific to the objects found within the Nature Center or associated with the lake, and will support associated interpretive activities such as scavenger hunts.

Area 4: Unifying Interpretive Element

WATER CONNECTS US

PURPOSE
This element will introduce visitors to the significance of water at Silverwood Lake. While the lake is not visible from the Nature Center site, it is important to incorporate a water feature that evokes the significance of water.

MESSAGES
Unifying Theme
Silverwood Lake SRA reflects the delicate balance between human needs and the maintenance of a healthy, water-rich environment.

OBJECTIVES: Visitors will…
- Understand the importance of water and Silverwood Lake to plants, animals, landscapes, and people.

DESCRIPTION
This artistic rendering focuses on how water is the key to life and connects us all. This may also be accompanied by a small water feature or sounds of water.

Area 5: Wall Depicting Water Use

LIFE WITHOUT WATER?

PURPOSE
This station will introduce people to the many ways in which water from Silverwood Lake is used and managed. It will emphasize that water is essential to survival.

MESSAGES
II. Primary Theme
Everyday, people in Southern California depend on water from Silverwood Lake.

Topics:
- Recreation
- Agriculture
- Wildlife habitat
- Urban uses
- Resource management

OBJECTIVES: Visitors will…
- Understand that water is essential to all living things.
- Understand that water has many uses including agriculture, wildlife habitat, recreation, and urban needs.
- Want to conserve water.
- Understand the role of California State Parks in protecting the resources of Silverwood Lake.

DESCRIPTION
A series of four panels will incorporate graphics and tactile elements interpreting the many uses of water. Each of the four panels will focus on one of the following: recreation at Silverwood Lake, how water from Silverwood Lake supports agriculture, wildlife habitat at Silverwood Lake, and urban uses of water from Silverwood Lake.

An associated panel will focus on resource management efforts by California State Parks to protect Silverwood Lake. This may include a discussion of invasive species management or the preservation of eagle habitat.

Area 6: Creating Silverwood Lake

TAMING THE MOJAVE RIVER

PURPOSE
Visitors will be introduced to the history of water at Silverwood Lake.

MESSAGES
III. Primary Theme
The Human quest for water drew many people to the Mojave River.

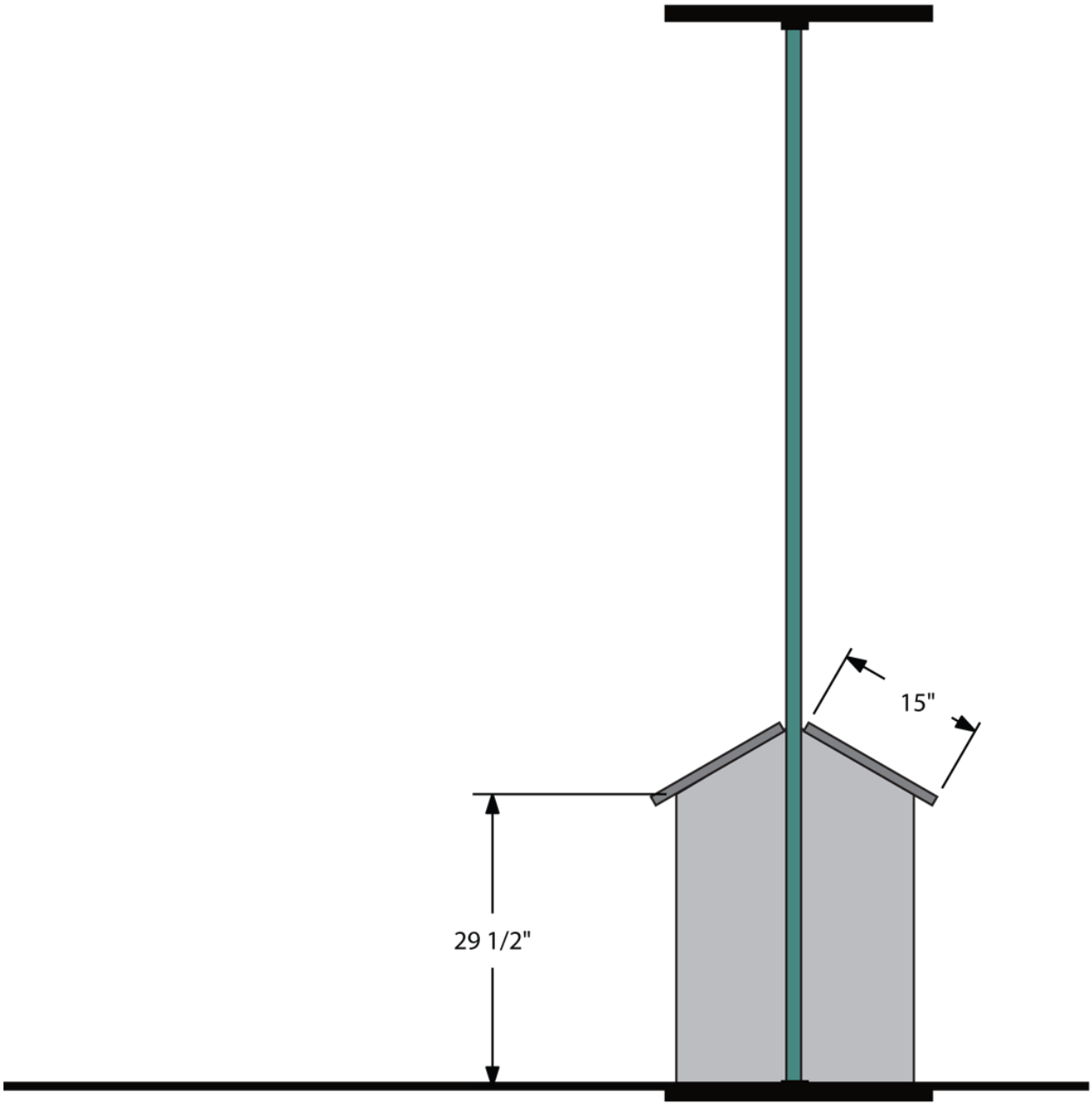
Topics:
- Human use of the Mojave River and Silverwood Lake area.
- Building Silverwood Lake
- Environmental impacts of damming the Mojave river's west fork

OBJECTIVES: Visitors will…
- Understand that the west fork of the Mojave River was dammed in order to create Silverwood Lake.
- Understand that this project was part of the state water project and why the reservoir was created.
- Understand how the Silverwood Lake environment has been greatly transformed by humans and the impacts on the natural environment.
- Want to learn more about the water systems within the state and how water is distributed to support millions of people.

DESCRIPTION
This is one of the six interpretive stations within the main hall of the Nature Center. Stations will consist of a podium with tactile elements and an associated interpretive panel. Panels will be located on tracks, and all media will be mobile to facilitate the functions of this multi-use area within the center.

Front Elevation

Above and Right: Rendering of one of six stations within the main hall (Areas 6-11). Each station consists of a two-sided panel and a podium stand. These features should be secure but also fully mobile in order to accommodate the multi-use functions of the Nature Center.



Side Elevation

Area 7: Reducing Water Pollution

CLEAN WATER=HEALTHY LIVES

PURPOSE
This exhibit is needed to interpret the impacts and causes of water pollution.

MESSAGES
VI. Secondary Theme
Conserve water, an irreplaceable finite resource.

Topics:
- Causes of water pollution
- Impacts on humans
- Impacts on animals
- Ways to reduce pollution and its impacts to on the Silverwood environment.

OBJECTIVES: Visitors will…
- Understand the most devastating causes of water pollution.
- Understand how to better balance human needs with the natural world.
- Understand how polluted water can impact humans.
- Understand that we only have a limited supply of clean water on earth.
- Understand how pollution has impacted plant and animal populations, and what has been done to reverse negative impacts to the environment.
- Want to take action to reduce water pollution and reduce impacts to the environment at Silverwood Lake and at home.

DESCRIPTION
This station is one of six stations, as discussed in the previous areas. The interpretive panel will focus on the broader concept of water pollution. A pop-up (three-dimensional) flip book will be created on the podium, addressing causes and effects of water pollution.

Area 8: Human Water Use

WHERE WILL YOUR WATER COME FROM?

PURPOSE

People will explore how water in Southern California is distributed and used.

MESSAGES

II. Primary Theme
Everyday, people in Southern California depend on water from Silverwood Lake and associated water distribution systems.

Topics:
- State water project
- Water processing and distribution
- Human water use

OBJECTIVES: Visitors will...

- Want to conserve water and protect Southern California's water supply.
- Understand that water is manipulated by people because of its importance
- Understand that the world's water supply is limited.

DESCRIPTION
This will be one of six main stations within the main hall of the Nature Center focusing on how finite water supplies are processed and used for human consumption.

Area 9: Silverwood Lake as Habitat

WE DEPEND ON EACH OTHER

PURPOSE

People will continue to learn about the variety of plants and animals who depend on each other and Silverwood Lake SRA for survival. The station will give an overview of the plant and animal communities, and how the relationships between them are vital. This station will build upon information about plants and animals delivered in the outdoor entrance area.

MESSAGES

IV. Primary Theme

Silverwood Lake is a refuge for plant and animal communities uniquely adapted to this water-rich environment.

Topics:

- Food chains/webs
- Native plants and animals
- Habitat requirements

OBJECTIVES: Visitors will…

- Understand how the animals native to Silverwood Lake need each other to survive.
- Understand the importance of water to plants and animals.
- Find activities aligned with curriculum-content standards.

DESCRIPTION

This will be one of six main stations within the main hall of the Nature Center. This panel and associated elements will interpret how plants depend on animals for pollination and seed dispersal, and how animals depend on plants for food and shelter. Water will be emphasized as essential to the maintenance of these relationships.

Area 10: Birds of Silverwood Lake

SOARING ABOVE THE LAKE

PURPOSE

This station will interpret the diverse variety of bird species found within Silverwood Lake and why they depend on water.

MESSAGES

IV. Primary Theme

Silverwood Lake is a refuge for plant and animal communities uniquely adapted to this water-rich environment.

Topics:

- Bald eagles
- Waterfowl
- Migratory birds
- Survival tactics and needs
- Adaptations to the environment

OBJECTIVES: Visitors will...

- Know that while some birds are found all year round, many birds simply stop here seasonally on their way to somewhere else.
- Be able to name some of the birds that are found within Silverwood Lake, and know when the best time for viewing birds.
- Feel that Silverwood Lake and its natural resources are worth protecting.

DESCRIPTION

One of six interpretive stations within the main hall of the Nature Center, this area focuses on birds found within Silverwood Lake. The large panel will provide an overview of the bird species found within the lake and the podium will describe why different birds are attracted to and adapted to the lake environment. A book on the podium will be written from five different birds' point of view, asking visitors to guess the bird species based on the description of how they live within and use the lake environment.

Area 11: Fish of Silverwood Lake

FISH TALES

PURPOSE
This station will interpret the variety of fish that can be found within Silverwood Lake, discussing fishing tips and fish adaptations.

MESSAGES
IV. Primary Theme
Silverwood Lake is a refuge for plant and animal communities uniquely adapted to this water-rich environment.

Topics:
- Fish diversity
- Where fish live within the lake
- How fish survive in water
- Fishing techniques

OBJECTIVES: Visitors will…
- Understand how the animals native to Silverwood Lake get what they need from the Silverwood environment.
- Be inspired to catch a fish at the lake.
- Be able to name some of the fish that are found within Silverwood Lake.
- Know the best season for catching fish.
- Understand the importance of water to plants, animals, landscapes, and people.
- Be inspired to engage in activities outlined in the Children's Outdoor Bill of Rights (i.e. catch a fish).

DESCRIPTION
One of six interpretive stations within the main hall of the Nature Center, this station focuses on fish native to Silverwood Lake. The area incorporates fish habitat graphics and an interactive element related to fishing techniques.

Area 12: Natural and Human Water Systems: WATER ON THE MOVE

PURPOSE
This exterior station will interpret the ways in which water moves around the earth. This includes the natural water cycle and the man-made California aqueduct system/State Water Project.

MESSAGES
V. Secondary Theme
Water molded this landscape.

Topics:
- Water movement
- Man-made systems
- Water cycle

OBJECTIVES: Visitors will…
- Understand the water cycle.
- Understand the water systems within California that bring water from distant rural locations to urban areas.
- Want to conserve water and protect Southern California's water supply.

DESCRIPTION
This station will be located on the outdoor deck. Rail-mounted graphics will discuss the natural and human processes that move water. Photos of the State Water Project and the aqueduct system will describe how natural water sources are controlled by man. The other side of this story will describe the water cycle and the natural processes of water movement and distribution. Possible repositories for appropriate interpretive materials include: California State Parks Photo Archives and Museum Collections; California Department of Public Works; American Museum of Natural History; San Bernardino Discovery Center; and Department of Water Resources Visitor Centers.

Area 13: Audio-visual Programming

PURPOSE
This media will orient visitors to Silverwood Lake.

MESSAGES
I. Unifying Theme
Silverwood Lake SRA reflects the delicate balance between human needs and the maintenance of a healthy, water-rich environment.

Topics:
- Before the reservoir
- Taming the Mojave River
- Native plants and animals
- Seasons of Silverwood
- Trails, recreation, and safety
- Natural disasters
- Conserving water
- Water cycles
- Cultural history

OBJECTIVES: Visitors will…
- Understand the importance of water to plants, animals, landscapes, and people.
- Learn about water and recreation-related safety.
- Feel that Silverwood Lake and its native flora and fauna is worth protecting.
- Want to conserve water and protect Southern California's water supply.
- Stay on trails, obey park rules, and enjoy the park in safety.
- Treat the lake environment and other visitors with respect.
- Find the best places in the park to enjoy their recreational pursuits.

DESCRIPTION
An audiovisual program will be offered within the theater area. This five to ten minute video will highlight the natural and cultural significance of the Silverwood lake and the recreational opportunities available. This could include 3-D animation, footage, historic photographs, oral history interviews, footage from the Pacific Crest Trail, animals and plants, and other portrayals of the lake environment. Repositories for existing footage may include the State Archives, the Department of Water Resources, and other footage related to the building of the dam and the natural resources found within the park.

Area 14: Seasonal Cart

PURPOSE
This rotating exhibit will provide visitors with seasonally relevant elements. Topics will relate directly to the unifying theme.

MESSAGES
I. Unifying Theme
Silverwood Lake SRA reflects the delicate balance between human needs and the maintenance of a healthy, water-rich environment.

Exhibit topics will rotate depending on seasonal relevance.

OBJECTIVES: Visitors will…
- Enjoy seasonally relevant, changing exhibits.
- Learn about how ice has transformed the landscape (geology).
- Understand how Silverwood Lake is a refuge for eagles.
- Explore fire seasons.
- Learn about water and recreation-related safety.

DESCRIPTION
This cart can be easily changed on a seasonal basis. The cart can be wheeled around the Nature Center in order to support programs or interpretive events. This cart will aim to provide visitors with content that is directly related to the seasonal events and activities, which will promote return visitation throughout the year.

Possible rotating exhibits may include:
- Winter-Amazing Ice-How ice transforms the landscape
- Spring-Eagle Watch-Life cycles and importance of Silverwood Lake for eagle reproduction
- Summer-Water Recreation and Safety
- Fall-The Nature of Wildfires-Only you can prevent forest fires? Humans, Nature, and Fire

Left: Interpretive cart used at the Audobon Center at Debs Park. A similar cart at the Nature Center will provide interactive, seasonally relevant interpretive media. A cart will be easy to store and move, making it a versatile media option.

Area 15: Water Safety Station

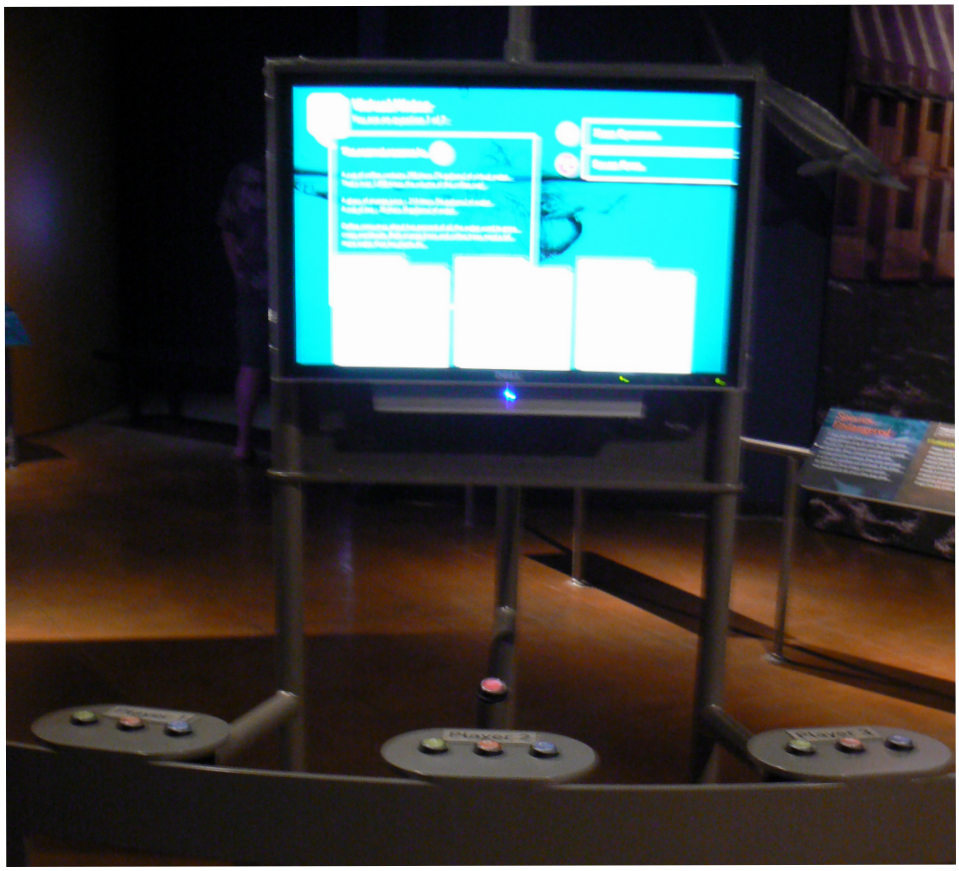
PURPOSE
Interactive station will provide a game-like element, giving visitors an overview of safety tips related to water and recreation within the park. This will make learning facts about recreation and safety fun.

MESSAGES
- Park recreation and safety

OBJECTIVES: Visitors will…
- Enjoy an interactive, game-like experience.
- Learn about water and recreation-related safety.
- Stay on trails, obey park rules, and enjoy the park in safety.

DESCRIPTION
A screen and video-game-like station will make water and recreation safety tips more fun to learn. Visitors will push buttons and answer questions. The graphics could incorporate park images and virtual rangers helping you navigate safely through the park.

Left: Game concept used at the San Diego Natural History Museum's H20=Life exhibit. This type of exhibit makes communication gamelike and participatory.



Area 16: Stream Table

PURPOSE
Visitors will explore rivers and reservoirs and enjoy educational, interactive water play.

MESSAGES
V. Secondary Theme
Water molded this landscape.

Topics:
- Reservoirs
- Rivers
- Erosion
- Dams
- Water cycles
- Geology

OBJECTIVES: VISITORS WILL…
- Enjoy an interactive, game-like experience.
- Learn about water cycles, erosion, rivers, and dams.
- Find activities aligned with curriculum-content standards.
- Build knowledge of the interconnections of natural systems.

DESCRIPTION
A stream table consists of a large holding area, soil, and water. Soil can be manipulated to create reservoirs and rivers, and to test the principles of erosion.

Area 17: Interpretive Play Structure

PURPOSE
Children will have a chance to play in a safe environment where they can be inspired by the wonders found within Silverwood Lake.

MESSAGES
I. Unifying Theme
Silverwood Lake SRA reflects the delicate balance between human needs and the maintenance of a healthy, water-rich environment.

OBJECTIVES: VISITORS WILL…
- Play, explore, and want to learn about Silverwood Lake.
- Be inspired to engage in activities outlined in the Children's Outdoor Bill of Rights.

DESCRIPTION
- Interpretive structures will promote safe play and active imagination.

Area 18: Merchandising

PURPOSE
Sell products that are related to the park's interpretive themes, goals, and objectives. Create merchandising areas that enhance the visitor experience.

MESSAGES
All merchandise sold at the Nature Center must be directly related to the mission of interpretation at Silverwood Lake SRA. While this area is not specifically designed as an exhibit, it is important to the visitor experience and for the support of interpretive messaging.

OBJECTIVES: VISITORS WILL…
- Support the Nature Center, the park's cooperating association, and Silverwood Lake.
- Learn more about the cultural and natural resources through further reading and information available for purchase at the Nature Center.

DESCRIPTION
Interpreters and volunteers will maintain the sales area, promoting a positive visitor experience and furthering educational pursuits and interests related to the park and its resources.

Area 19: Literature

PURPOSE
To create alterative, multi-lingual opportunities and more detailed information about the park.

MESSAGES
I. Unifying Theme
Silverwood Lake SRA reflects the delicate balance between human needs and the maintenance of a healthy, water-rich environment.

OBJECTIVES: VISITORS WILL…
- Obtain desired information about the park, factoring in language or other limits to accessibility.
- Find the best places in the park to enjoy their recreational pursuits.
- Find answers to frequently asked questions.

DESCRIPTION
Literature may include trail maps, detailed park information, and field guides that meet accessibility standards and further the availability of information about the park to all visitors.

Silverwood Lake SRA Photo Collection

Above: Early plans for the creation of Silverwood Lake.

6 Special Concerns

Various topics, facilities, programs, and concepts associated with Silverwood Lake SRA should be kelp in mind when designing or implementing interpretive programs and exhibits. The following special concerns have the potential to impact the visitor experience and appreciation of Silverwood Lake.

GROUPS

In order to meet the needs of inter-generational groups, forms of interpretation must appeal to different styles of learning and ages. Interpretation geared towards family interaction must be considered, as these visitor groups are very typical at Silverwood Lake SRA.

ACCESS

Exhibits, programs, and information shall be equally accessible to all visitors, regardless of cultural background, age, gender, or disability. Refer to the California State Parks accessibility manual, (*All Visitors Welcome: Accessibility in State Park Interpretive Programs and Facilities)*, and Appendix A for specific standards related to access.

WEATHER

The environment of Silverwood Lake creates extremes in temperature between summer and winter. This area is also subject to fires and floods. The design of interpretive elements must consider potential environmental stresses on exhibits, displays, and visitors.

LANGUAGE

Many visitors to Silverwood Lake SRA have diverse language needs. According to a study by the USDA of a campground and day-use within the San Bernardino National Forest near Silverwood Lake, only 52% of visitors spoke English and 57% read English. Some multi-lingual forms of interpretation (both written and oral) should be made available in order for all park visitors to have a safe, enjoyable and enlightening visit to Silverwood Lake.[45] Brochures translating the exhibit text in multiple languages should be made available.

PREFERRED METHODS OF COMMUNICATION

According to a study by the US Forest Service, the top three preferences for receiving information while at the San Bernardino National Forest were brochures at the entrance (65%), signs along the road (61%), and notes on the bulletin board (51%).[46] While these methods of communication are beyond the scope of the Nature Center project, it is important to remember that communication about the park begins long before visitors set foot within the facility. Signs, brochures, and bulletin boards are also an important aspect of the visitor experience and should provide messages consistent with those delivered within the Nature Center.

45 USDA, *Recreation Visitor Research: Studies of Diversity* (Riverside: Pacific Southwest Research Station, 2008), 67.

46 USDA, *Recreation Visitor Research: Studies of Diversity* (Riverside: Pacific Southwest Research Station, 2008), 63.

PROMOTING RETURN VISITATION

Interpretive programs and media must promote return visitation and sustain interest. Changing interpretive media and expanded interpretive programming will aid in renewing interest in the park and encourage continuing enthusiasm for its resources.

SPACE AND VISITOR FLOW

State Highway 138 (which intersects with 173 just outside the park boundaries) provides access to the area of Silverwood Lake SRA that contains the Nature Center. The center will hold an estimated forty-five people at one time. Large groups of forty or more must be separated in order to reduce crowding and capacity limits within the Nature Center.

CHILDREN'S BILL OF RIGHTS[47]

California State Parks is engaging in a campaign to get kids outdoors and interacting with the natural environment. This campaign focuses on children. It aims to increase the variety of opportunities for California children to experience and benefit from nature. This campaign also includes a Children's Bill of Rights.

The ten Children's Outdoor Bill of Rights activities encouraged in California State Parks include: Discover California's Past; Splash in the Water; Play in a Safe Place; Camp Under the Stars; Explore Nature; Learn to Swim; Play on a Team; Follow a Trail; Catch a Fish; Celebrate their Heritage.

CALIFORNIA STATE PARKS STRATEGIC INITIATIVES[48]

Interpretive programs and media at Silverwood Lake SRA should strive to support the following California State Park Initiatives:

A. Promoting Health
B. Achieving Sustainability
C. Embracing Diversity
D. Making Connections
E. "Cool Parks" (Addressing Climate Change)

SAN BERNARDINO NATIONAL FOREST[49]

The USDA Forest Service's San Bernardino National Forest (SBNF) covers about 820,000 acres within San Bernardino and Riverside Counties. Of this area, about 162,000 acres are in private, county, state, and other federal agency ownership, including Silverwood Lake SRA. The Forest lies within 2 hours driving distance of more than 16 million residents of Southern California. The SBNF is one of the most heavily-used in the nation and was ranked 12th in recreation use among national forests in 1995 (it was ranked third in California). Developed recreation sites on the SBNF frequently exceed their design capacity during weekends of high season use.

47 California State Parks, "Children in Nature Campaign," http://www.parks.ca.gov/?page_id=24914.

48 California State Parks, "California State Parks Strategic Initiatives," http://www.parks.ca.gov/pages/21491/files/Strategic%20Initiatives.pdf.

49 USDA, *Recreation Visitor Research: Studies of Diversity* (Riverside: Pacific Southwest Research Station, 2008), 65.

PACIFIC CREST TRAIL

The 2,659 mile Pacific Crest Trail is part of the National Park Trail System which passes through the park. This trail originates at Mexico, before traversing three western states and terminating at Canada. This jewel in the crown of America's scenic trails runs along the crest of the San Bernardino Mountains.[50] The trail passes through five state parks including: Castle Crags and McArthur-Burney Falls in Northern California; and Anza Borrego Desert, Mt. San Jacinto, and Silverwood Lake in Southern California.[51] Trails connected to Silverwood Lake SRA have the potential to impact interpretive, educational and recreational experiences.

SUSTAINABILITY

The Nature Center includes various sustainable design components. Staggered concrete slabs will be oriented to create a south-facing overhang to reduce heat gain. Thermal mass provided by the concrete will foster a passive heating/cooling strategy. Furthermore, solar roof panels will heat water that will be circulated through a radiant floor slab in the winter. The goal of the environmental strategy is to create a self-sustaining building that could, in the best case, operate independently of the local power grid. The Nature Center building will stand as a demonstration of sustainable building practices, appealing to all visitors interested in environmentally sensitive designs.[52]

50 Pacific Crest Trail Association, "Trail Overview," http://www.pcta.org/about_trail/overview.asp.
51 California State Parks, "Silverwood Lake SRA," http://www.parks.ca.gov/default.asp?page_id=650.
52 California State Parks, *Final Initial Study and Mitigated Negative Declaration Silverwood Lake State Recreation Area Campground and Day Use Improvements*, 8.

SENSITIVE PLANTS AND WILDLIFE[53]

Silverwood Lake SRA is home to diverse plant and wildlife populations due to the variety of ecological zones within the area. Forest, chaparral, and desert species are all present at Silverwood Lake. Two sensitive plants are known to occur within the park: Southern California black walnut (Juglans californica) and Humboldt's lily (Lilium humoldtii ssp. Ocellatum).

There are also 35 species of reptiles and amphibians that are known to occur in the desert/transmontane vicinity of Silverwood Lake, 22 of which are known to be within the park boundaries. The Mesa campground and Cleghorn Day Use Area is essential habitat for the endangered Arroyo Toad. Interpretation and education must strive to reduce negative impacts to these species.

TECHNOLOGY

Technology incorporated into the site's interpretive programs may include web-based applications, State Parks' Programs Online for Teachers and Students (PORTS) and audio-visual elements. Technological components will require maintenance and occasional replacement. Cost of replacement and operation of screens, televisions, internet access, audio-visual, or other elements must be taken into consideration in annual operating budgets. The use of any highly-technical equipment must correlate with the skill level of the potential operator, include detailed manuals if needed, and must be designed with ease of operation as a primary consideration.

53 California State Parks, *Final Initial Study and Mitigated Negative Declaration Silverwood Lake State Recreation Area Campground and Day Use Improvements*, 23-24.

FUTURE PARK MANAGEMENT

Park visitors mostly derive from an increasingly urban population surrounding the park. Urban users should be made aware of precautions and safety measures to consider when preparing for an outdoor experience. Safety and awareness among urban park users will continue to be an important priority. With an expected life span of ten years or longer, permanent interpretive media and messages must remain relevant to future park development and park use.

Photo taken by Blythe Liles, 2008.

Above: View from the outdoor deck of the Nature Center.

7 Operations

Organized and well-thought out operations of the Nature Center are essential to the successful interpretation. The following considerations address use of the Nature Center, programming, safety, staffing, training, and future interpretive planning. These elements are meant to guide staff and support meaningful and enriching experiences for all park visitors.

EXHIBIT SCHEDULE

Some exhibit elements will change on a seasonal basis. These exhibits must be maintained in order to promote return visitation and present seasonally relevant topics.

EDUCATIONAL PROGRAMMING

School programming will align with curriculum content standards. Teachers should be surveyed in order to continually improve educational programming and better understand the needs of teachers and students. See *Making the Grade* for more detailed information regarding school group evaluation within California State Parks. Also, taking advantage of State Parks' Programs Online for Teachers and Students (PORTS) and other outreach programs is encouraged.

INTERPRETIVE PROGRAMMING

All good interpretive programs start with a theme that evokes the inherent meaning of Silverwood Lake and inspires visitors to want to learn more. People forget facts, but they remember ideas. Brainstorming, familiarity with the site and the visitor, and understanding management needs and objectives all combine to assist in creating appropriate programming.

Possible interpretive programming could include a tour of the building, nature walks, water programs, and storytelling. Guided hikes, eagle counts, and other programs may embark from the Nature Center. All interpretive programming must be organized around appropriate interpretive themes that are relevant to Silverwood Lake.

PREPARING FOR YOUR AUDIENCE

Large groups and school groups booking field trips or pre-scheduled visits to the park will need to be contacted in advance in order to best connect with the audience and adequately meet their special requirements including accessibility, language, or educational needs.

SPACE FOR OTHER ACTIVITIES

Many activities and locations within the park can be used to support the interpretation and educational goals of Silverwood Lakes State Recreation Area. These areas include the Campground Center across from the Nature Center which will serve as a group meeting place and a venue for special events.

Other spaces for interpretive and educational activities include the marina, biking and hiking trails, boat rides,

beaches, local schools and classrooms, day-use ramadas, group camps, and Miller Canyon, Black Oak, and Cleghorn day-use and camping areas.

High volume visitation may occur. Appropriate visitor flow may include rearrangement of flexible exhibits within the exhibit space.

PREPARATION AND INTERPRETIVE TRAINING[54]

REFERENCE MATERIALS
A Silverwood Lake SRA Library of Interpretive Resources should be created for the park that will provide hardcopies and digitized versions of reference materials to support interpretive content and programming. This library will be used as a valuable reference and training tool.

Some general California State Park interpretive resources are available at www.parks.ca.gov/interptools and online on the Department's Unit Data File. The Unit Data File is an online departmental source that provides access to reports and general plans for all California State Parks employees logged onto Citrix.

TRAINING
All interpretive services, which include programs, facilities, and activities, shall incorporate, as applicable, the essential elements of quality interpretation as represented by the acronym **RAPPORT**: **R**elevant, **A**ccurate, **P**rovocative/ Enjoyable, and **P**rogrammatically Accessible. **O**rganized, **R**etained, and **T**hematic.

The quality of interpretive and educational programs presented to the public, and therefore the image and reputation of California State Parks, is directly related to the skills, training, and professionalism of those who provide the service. A competent, well-trained workforce is essential to the delivery of high-quality programs.
Training takes many forms: formal instruction (e.g., in-service and out-service), and informal instruction (e.g., coaching, mentoring, planned experiences, etc.). Choosing the proper training is critical to ensure that all interpretive presenters, including volunteers, develop the skills needed to present interpretive and educational programs.

The Basic Interpretation Learning System (BILS) provides a comprehensive, standardized resource for introductory interpretive training. Intended primarily as a reference for ranger and lifeguard cadets, it is also a valuable resource for all interpretive training.

Managers, supervisors, and employees have a responsibility to ensure that all interpretive presenters are given opportunities to develop the knowledge, skills, and abilities needed to provide high-quality interpretive programs to our visitors. All employees and volunteers involved in the delivery of interpretive programs will be provided initial training to a level such that they can demonstrate proficiency in the theory and techniques of interpretation. Following this initial training, a minimum of twenty-four hours of interpretive instruction will be provided annually to all departmental employees and volunteers involved in the delivery of interpretive programs. Department training, district-led training, and out-service training opportunities are all options that may be used to meet this training requirement.

54 California State Parks, *Draft DPR Operations Manual: Interpretation and Education* (Sacramento: CSP Planning Division, May 2008), 09-3 - 09-6.

Evaluation is another important tool to continually improve the quality of interpretation at Silverwood Lake SRA. Evaluation of interpretive services allows the Department to make qualitative improvements to our programs and facilities, thereby providing immediate and long-term benefits for visitors and staff, and ultimately helping to preserve park resources.

The effectiveness of quality interpretation in California State parks is measured by a system known as RAPPORT. This stands for:

Relevant-
Related to the audience
Accurate-
Well prepared and researched
Provocative/enjoyable-
Interesting and fun
Programmatically Accessible-
Accommodating for all visitors
Organized-
Logical sequence of ideas presented
Retained-
Memorable
Thematic-
A central message throughout

These measures of effectiveness, along with the basic principles of communication, are the foundation of all interpretation.

The Department has produced a handbook on effectively evaluating interpretive programs titled *Aiming for Excellence: An Evaluation Handbook for Interpretive Services in California State Parks.* To assist in evaluating interpretive programs, three versions of an evaluation form for interpretive services have been developed: DPR 461, 461A, and 461D.

Interpretive services shall be monitored and evaluated on a regular basis to maintain high quality and to gather data for continuous improvement. Specifically:

- Each district must develop a consistent plan for evaluating its interpretive staff, programs, and facilities.
- Data on the number of interpretive staff members evaluated shall be reported to the Interpretation and Education Division.
- All interpretive staff members who present interpretive programs shall have their programs(s) evaluated at least twice per year, including at least one evaluation by an interpretive coordinator, lead person, or supervisor using the Standard RAPPORT Evaluation (DPR 461) form.
- For purposes of evaluation, interpretive staff include, but are not limited to, any full-time permanent, seasonal, or volunteer staff member who conducts interpretive programs as part of his or her regular duties.
- All interpretive projects and facilities shall be evaluated upon their completion or their implementation, and the results of the evaluation shall be maintained in the project file.

A statewide School Group Program Evaluation is regularly conducted to measure, on a statewide level, congruity of programs with educational curricula. All districts and park units that provide programs for school groups shall participate in the statewide School Group Program Evaluation, as directed by the Interpretation and Education Division.

INTERPRETIVE CONCESSIONS

Concessions are located within the marina area where visitors rent boats and equipment, or buy supplies at the general store. Other items sold include post cards, environmental toys, and firewood.

All items sold within the Nature Center must be consistent with the park mission and contribute to the educational or interpretive messages within the park. Nature Center sales must not directly compete with the marina concessions operations. See the *Department Operations Manual* for detailed concessions guidelines.

SAFETY AND SECURITY[55]

Among the most memorable and enjoyable park experience are those that take visitors beyond the bounds of everyday life, whether it's hiking a mountaintop, paddling a kayak, or catching a fish. While enjoying new experiences, visitors should have confidence that Department-sponsored interpretive programs are safe and well organized.

Staff and volunteers conducting interpretive programs and activities shall ensure:

- Activities are well supervised, with group size limited to a safe number.
- Proper equipment is available and is regularly inspected and maintained.
- Emergency communications, first aid, and evacuation plans are in place.
- All staff and volunteers conducting programs are trained in safety procedures.
- Visitors are informed of inherent risk and the physical demands of the activity.
- Participants are properly dressed and equipped for the activity.
- Interpreters keep groups to established routes, of which supervisors are aware.

An emergency plan for the Nature Center and for the entire park is another important document that should be created to better protect people, collections, and park resources in the case of emergency.

STAFFING

PARK EMPLOYEES
Volunteers, park aids, interpreters, and rangers will be responsible for the interpretation and education within the Nature Center area. The park should consider hiring full-time interpretive specialists to conduct interpretive services and training, work with volunteers and the cooperating association, develop park collections, and conduct interpretive and educational programs.

COOPERATING ASSOCIATION[56]
California State Parks has a valuable relationship with more than 80 cooperating associations. These non-profit charitable organizations are dedicated to enhancing the educational and interpretive programs in California State Parks. Associations are related to, but independent of, the state parks they serve.

At Silverwood Lake, Mojave River Natural History Association expands educational and interpretive functions within Silverwood Lake State Recreational Area, and is a way for park visitors and

55 California State Parks, *Draft DPR Operations Manual: Interpretation and Education* (Sacramento: CSP Planning Division, May 2008), 09-22.

56 California State Parks, "Mojave River Natural History Association," http://www.parks.ca.gov/default.asp?page_id=22073.

members of the surrounding communities to become more involved in the activities and services at Silverwood Lake.

Various activities to further educational and interpretive goals include recruitment, docent training, and volunteer staffing of the Nature Center. The volunteers also assist in the development of displays, and may help with special events such as bald eagle counts, barge tours, trail work, nature walks, campfire programs, scout programs, and overnight outings for kids. The association also provides a budget to assist the State Park staff in purchasing interpretive equipment and supplies.

VOLUNTEERS AND DOCENTS
Volunteers are integral to the overall operation of California State parks. The Volunteers in Parks Program provides an organized, efficient, cost-effective, and legally-based approach to managing a wide range of volunteer programs in California State Parks. Volunteers can augment existing programs or begin new projects at a minimal cost to taxpayers. They can bring expertise that is not otherwise available to the Department. Volunteer efforts enrich the visitor experience and are of personal value to the volunteers themselves.[57]

While volunteers are integral to operations, it is also important to note that volunteer management will require the attention of a staff person dedicated to this task.

BEYOND THE NATURE CENTER

An interpretive master plan for the park should be developed to further evaluate the interpretive potential at Silverwood Lake. This type of plan will further address factors impacting interpretation including the audience, themes, and interpretive recommendations for the future.
The master plan will look beyond the scope of the Nature Center, and make recommendations for interpretation for the entire park unit. This document will serve as a park-wide blueprint for the future of interpretation within Silverwood Lake SRA.

57 California State Parks, *Draft DPR Operations Manual: Interpretation and Education* (Sacramento: CSP Planning Division, May 2008), 09-46.

Photo by Blythe Liles, 2008

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California State Park Photographic Archives (The Museum System)

California Department of Boating and Waterways

California Department of Fish and Game

California Department of Water Resources

CalPhotos. http://calphotos.berkeley.edu/

Hesperia Public Library

Hesperia Chamber of Commerce

Lake Arrowhead Library

Loma Linda Hospital Library

Loma Linda University (Seventh Day Adventist Community)

Los Angeles Public Library
History and Genealogy Department
(biographical information on Marshall, Burke, Allen, and Service Tank Lines)

Mojave River Natural History Association

San Bernardino County Archives

San Bernardino National Forest Service

San Bernardino Public Library-California Room

UCLA University Library Special Collections

U.S. Army Corps of Engineers

Victorville Public Library

Water Education Foundation

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American Museum of Natural History.
"Educators' Guide: Water: H2O=Life." amnh.org/education/water.

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Environmental Kids Club
epa.gov/kids/
This EPA's environmental education site illustrates the different steps of the water treatment process, a "pollution drawing gallery," and an interactive "what's wrong with this picture?"

EPA Water Teaching Resources
epa.gov/teachers/water.htm
This is a comprehensive list of water-related teaching resources for all grades, assembled by the Environmental Protection Agency.

Create a Wetland Scene Lesson Plan
nationalgeographic.com/xpeditions/lessons/16/g35/freshwater35.html
Correlating with Geography Standard 16, this lesson plan from National Geographic explains the importance of wetlands and asks student groups to research and report upon various types of wetlands. Includes assessment, extensions, and links.

Down the Drain: How Much Water Do You Use?
k12science.org/curriculum/drainproj/index.html
Developed by the Center for Innovation in Engineering and Science Education, this collaborative project explains how kids can figure out their daily water use, collect date from other places around the world, and consider conservation strategies. Includes lesson plan and activities.

H2O Conserve
h2oconserve.org
Learn how to make water conservation a part of your every life. You'll find a water calculator, water saving tips, glossary, and information on a wide variety of water-related topics.

Know H2O
knowh2o.org
Take the interactive water quiz to see how much you know about water, and explore how you can make a difference. Educators can download free lesson plans.

NWF Water Calculator
nwf.org/water/watercalculator.cfm
Designed by the National Wildlife Federation, this site enables students to calculate personal water usage and compare it to the state average. Part of a five-part water education and conservation resource.

OLogy
ology.amnh.org/water
At the Museum's website for kids, students can take a quiz on virtual water (the water we didn't know we're using), play a game to explore how ocean creatures survive under water, find out how we can protect freshwater and marine habitats, and more!

Science Bulletins
amnh.org/sciencebulletins
Investigate current research about water through videos and interactives. Look for the Earth Features such as "Melting Ice, Rising seas" and Bio Features such as "Bronx River Restoration" and "Our Oceans, Ourselves."

USGS Water Calculator
ga.water.usgs.gov/edu/sq3.html
With this calculator produced by the US Geological Survey, students can find out how much water they use at home on a typical day. Then explore other topics such as Earth's water and the water cycle.

USGS Water Science for Schools
water.usgs.gov/droplet
The US Geological Survey's Water Science for Schools site will grab kids' attention with graphics, activities, quizzes, and fun facts about the properties of water.

Voices of Youth
unicef.org/voy/explore/wes/explore_wes.php
Voices of youth speak out about water issues (in English, Spanish, French, and Arabic) on this UNICEF-sponsored site. Includes games, real-life stories, fact sheets, and links.

Water Cycle Lesson Plan
sciencenetlinks.com/lessons.cfm?BenchmarkID=4&DocID=393
This well-conceived lesson is designed to help students in grades 3-5 understand how water changes form over the course of the water cycle.

Water Education for Teachers. Project WET: K-12 Curriculum and Activity Guide. Bozeman, Montana: The Watercourse and Western Regional Environmental Education Council, 1995.

Water Facts and Figures
unesco.org/water/wwap/facts_figures/Sponsored by UNESCO, this multilingual site compares the way water is priced around the world and its value in different cultures. Links to a wide range of international water-related initiatives and resources.

Water Footprint
waterfootprint.org
This site explains the concept of a water footprint (the amount of water used to produce the goods and services consumed by an individual, business, or nation) and explores the implications through a water footprint calculator, a photo gallery of products, case studies, research, and links.

Water for Educators
amnh.org/education/water
Use these free online resources to help teach water-related topics, including the properties of water, the importance of water to living things, climate and Earth processes, and the conservation of marine and freshwater habitats.

Wondrous Water Lesson Plan

nytimes.com/learning/teachers/lessons/20070710tuesday.html

Based on The New York Times article "Small, Yes, but Mighty: The Molecule Called Water", this lesson plan provides experiments and activities that investigate the properties of water, and gets students to reflect on its importance. Includes a range of extension activities.

Your Water On Tap

amnh.org/education/waterontap

Students can explore how drinking water is delivered and treated, and how wastewater and storm water is processed.

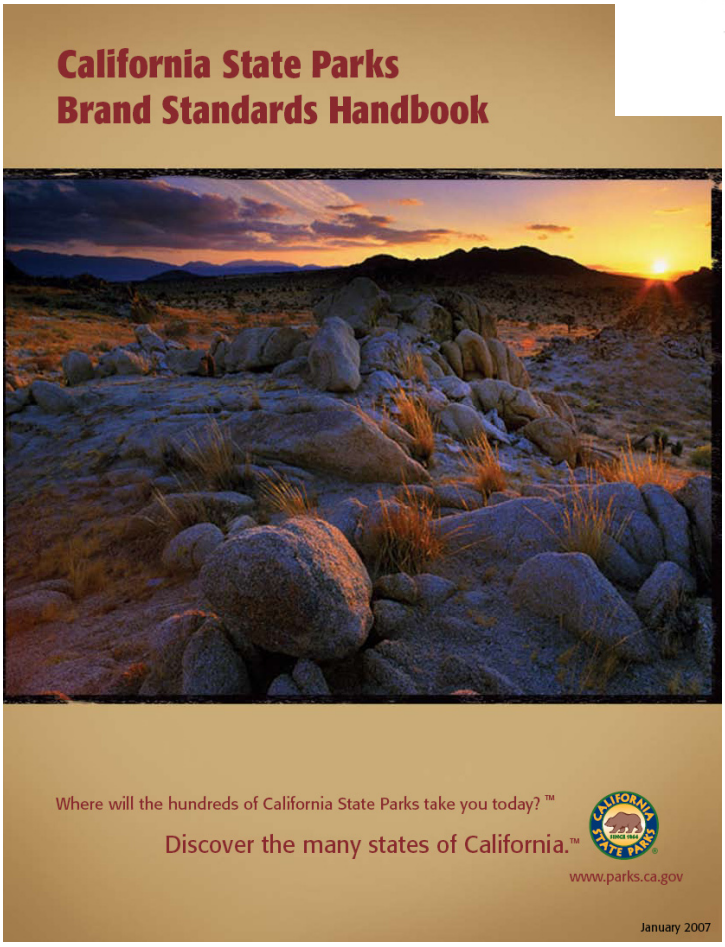
Revised and updated from
California State Parks Accessibility Guidelines, 2005

California State Parks

Accessibility Guidelines

2009 Edition

Accessibility Section
Acquisition and Development Division



Appedix A: California State Park Design Standards

Compliance with California State Parks Design Standards is key to any and all media developed within Silverwood Lake SRA. These standards help to ensure that the messages and media within all units within the California State Park system are developed consistently and are widely accessible to all. All forms of interpretive media at Silverwood Park including, but not limited to, brochures, panels, and exhibits must comply with the following branding and accessibly standards.[1]

BRANDING STANDARDS[2]

The California State Park System is one of the most diverse and expansive in the United States. Because of this diversity, consumers don't recognize California's state parks as a single, unified entity. With the help of consumer research, a unique brand identity has been developed to communicate the breadth of the California State Park System in a friendly, exciting way.

Why is branding important?

A brand is the personification of an organization or its products and services. Brands are designed to build relationships and connect emotionally with customers. Brands also promise relevant benefits to consumers.

By presenting a consistent brand look and message, you can help differentiate California State Parks from other parks and recreational facilities, and help promote park advocacy and consumer loyalty.

Who should follow these brand guidelines?

Because the brand must be communicated at every point of consumer contact, brand guidelines should be used by all agencies, departments, and individuals involved with designing and producing California State Parks advertising, park entrance signage, web marketing, and printed material. This includes all portions of the Department even though they may not deal with the park units themselves.

When communicated consistently across these consumer points of contact, California State Parks branding will become familiar to consumers and motivate them to cherish, preserve and protect the parks.

Communicating the California State Parks Brand

Each of the following brand elements contributes to the overall California State Parks brand: Logo; Headline; Tagline; Fonts and Colors; Photography; Copy Content;Tone and Messaging Hierarchy; Background and Border Treatment

Incorporating the California State Parks brand elements correctly and consistently will create a strong, unified style and tone that convey the branding. Copy and design have been developed to bring the California State Parks brand to life.

Colors

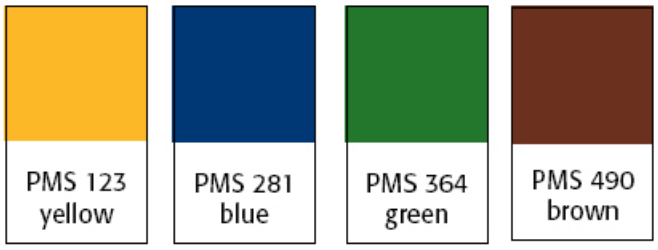
It is best to reproduce the logo using the Pantone (PMS) colors shown on the next page. When reproducing these colors in four-color process inks (CMYK), or on screen (RGB), the screen tints listed below should be used. The following Pantonecolors are used in the design of the logo: PMS 123-Yellow, PMS 281-Blue, PMS 364-Green, PMS 490-Brown. The yellow background is a gradation of PMS 123, and the lighter areas of the bear are 60 percent of the brown PMS 490. No other colors may be used in the four-color

1 Please note that this standards are current as of 2009 and are updated regularly. Please confirm that these are the most current standards prior to the beginning of the development of interpretive elements.

2 California State Parks, California State Parks Brands Standards Handbook, http://www.parks.ca.gov/pages/735/files/Brand%20Standards%20Handbook%2001-07.pdf.

version of the logo.

- Do not convert the four-color logo to grayscale. Instead use the black-and-white version of the logo.
- Do not copy the four-color logo on a black ink photocopier (except in the case of providing printouts of presentations that use the color logo). Instead the black-and-white version of the logo should be used.
- The logo, in both four-color and black-and-white, may be used on colored paper, fabrics, and backgrounds.
- When printing in one, two, or three colors, only the black-and-white version of the logo may be used. When printing in two or three colors, the logo must be printed in the darkest color available.
- When embroidering the logo or screening it onto fabric, use the four-color version of the logo or reproduce the black-and-white version of the logo in any single color.



PMS 123-Yellow
C-0%, M-30%, Y-94%, K-0%
R -255, G-175, B-13
PMS 281-Blue
C-100%, M-72%, Y-0%, K-38%
R -8, G-28, B-90
PMS 364-Green
C-72%, M-0%, Y-100%, K-43%
R -41, G-96, B-22
PMS 490-Brown
C-0%, M-65%, Y-65%, K-69%
R -79, G-27, B-18

Except in the case of printing, screening, or embroidering the logo in one color a specified above, the logo colors may not be added to, changed, or altered. Exceptions to the policies above must be approved by the Chief of the Interpretation and Education Division.

Exterior Park Signage

Cohesive signage is one way to create a unified brand. Follow the samples below and on the following page when creating new signs or replacing pre-existing signs, unless the park has been given permission to have a unique sign design by the Deputy Director of Park Operations.

Messaging Hierarchy
1. Park name
2. A California State Park, with logo
3. Type of park
4. Dedicator's name (if applicable)

Fonts
TRAJAN PRO
TRAJAN PRO BOLD

Base Colors
PMS
- Blue = 281
- Brown = 490
- Green = 364
- Yellow = 141

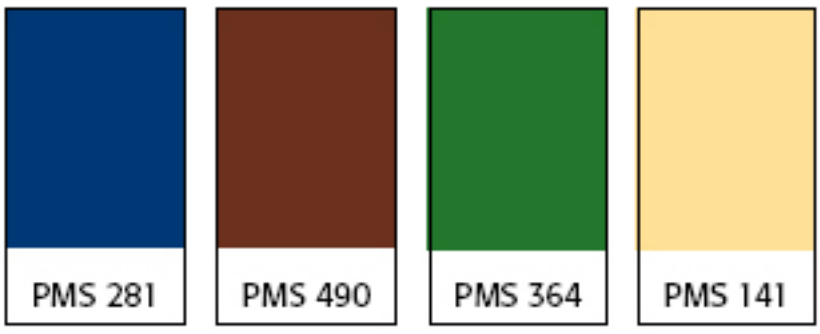
CMYK Breakdown
- Blue = C:100, M:72, Y:0, K:38
- Brown = C:0, M:65, Y:65, K:69
- Green = C:72, M:0, Y:100, K:43
- Yellow = C:0, M:11.5, Y:47, K:0

Standard Sign Sizes

72" x 48"	66" x 40"
60" x 40"	54" x 36"
48" x 36"	42" x 30"

Please note: For questions about branding standards, or if you want to request an exemption from the policies and guidelines in the *California State Parks Branding Handbook*, contact Partnerships and Consumer Strategies at (916) 653-5682 or partnerships@parks.ca.gov.

Directional Signs



Park Entrance Sign

Other Signs

CALIFORNIA STATE PARKS ACCESSIBILITY GUIDELINES FOR AUDIO-VISUAL PROGRAMS, EXHIBITS, GUIDED TOURS, SIGNS, PUBLICATIONS, AND PLAY AREAS[1]

Project Review Process

The Department must ensure that all projects that potentially alter use areas or facilities within State Parks accurately incorporate accessible features. The Department is also mandated to track accessibility improvements. The Accessibility Section is responsible for ensuring compliance with these mandates by reviewing all projects and should be involved in the planning stages of projects that affect accessibility to ensure that access is adequately integrated. Accessibility Section project review will also ensure that California State Parks continues to provide all visitors, regardless of their abilities, with high quality recreational opportunities, while preserving the integrity of park resources.

Consequently, all Project Evaluation Forms (PEFs) SHALL be routed to the Accessibility Section for review and approval regardless of the anticipated CEQA compliance determination.

In order to ensure an accurate project description on your PEF and to avoid repetitive reviews it is highly recommended that the accessibility review occur prior to review by other specialists. Do not assume there are no access issues involved in a project unless the Accessibility Section has exempted it because an oversight of access may cause significant delays. If your project does not require a PEF for CEQA purposes, it may still require an accessibility review if it has the potential to alter a facility or use area.

To obtain a "Project Evaluation Form" (PEF) and a current copy of the official "Project Review Process Guidelines," ☎ contact the Accessibility Section at:

California State Parks
Accessibility Section
One Capitol Mall, Suite 500
Sacramento, CA 95814
Telephone: (916) 445-8949
E-mail: access@parks.ca.gov

1 California State Parks, *California State Parks Accessibility Guidelines 2009*, http://www.parks.ca.gov/pages/21944/files/ca_stateparksaccessguiderev_titlepagewithdisclaimer.pdf.

Project Review Process

It is your responsibility to ☎ contact the Accessibility Section when you begin work on any project, including design, planning, interpretive, engineering, trail or construction projects. When you do, Accessibility Section Specialists will help you address legally mandated access compliance issues.

ACCESSIBILITY SECTION PROJECT REVIEW PROCESS

I. PROJECT PLANNING

Planning for access for people with disabilities needs to take place at the very early stages of a project. When Project Evaluation Forms (PEF) and Concept Papers are initially drafted, that is the appropriate phase at which to have the project reviewed by the Accessibility Section. A ☎ phone call to discuss the project will allow the Accessibility Section to log the project into its database and help project managers determine the specific components that should be included in the project. The more information about the project and existing site conditions that you provide, the better the Accessibility Section specialists will be able to assist you. Site drawings, topographic maps and photographs are quite valuable in helping to impart the details of your project, and often these same documents can be used as part of the final PEF. Early review will determine if the access features in the project have been adequately addressed and/or if subsequent reviews will be necessary.

This stage of review will also identify all issues with physical alterations required for access compliance often associated with qualified historical properties and outdoor environments and will prevent access issues from being overlooked or applied improperly.

II. PRELIMINARY DESIGN AND CONSTRUCTION DOCUMENTS

In addition to conceptual reviews, projects for which plans and specifications are developed will need to be reviewed at the intermediate stages of preliminary plan design, design development and construction document preparation stages. The complexity of the project and schedule will vary. As a result, the level of completeness for the intermediate stages of preliminary plan design review submittal will vary.

Project Review Process

In general, design review submittals should take place at each of the following steps:

1) Schematic/preliminary design,

2) Design development / 30% construction documents, and

3) 70% completed construction documents.

III. Final Plan Review and Certification

Pursuant to the Government Code, contracted construction projects cannot be put out to bid until the plans and specifications have been certified by Accessibility Section Architects. Approved and certified construction documents must demonstrate that the project will comply with current accessibility codes, regulations, and guidelines. To that end, the Accessibility Section of California State Parks must review all final plans and specifications to ensure compliance. All approved plans will receive a certification stamp, dated and signed by an Accessibility Section Project Review architect.

IV. Post Construction

"Construction Verified Report" forms need to be submitted for all contracted projects. These forms document that contractors have correctly installed the accessible features. During the construction of projects and at the completion of a project the project manager should notify the Accessibility Section so that a verified report can be completed, certified and submitted to complete the project files. This document should also be kept with the official project file.

V. Trail Planning

When planning trail projects, the following steps should be completed in order to coordinate review of a trail project by the Accessibility Section and ensure compliance with current regulations and integration into the statewide accessible trail program.

1) ☎ Contact the Accessibility Section Trail Coordinator to discuss the trail project, determine the potential level of accessibility and evaluate the trails inclusion in the statewide accessible trail program.

Project Review Process

2) Submit a draft PEF or Notice of Exemption with a detailed project description, maps showing connections to other trails and to trailheads, and photographs to the Accessibility Section Trail Coordinator.

3) If the Accessibility Section Trail Coordinator determines that the trail qualifies for a departure from the current guidelines, a detailed explanation of the reason for this departure from the guidelines is required. Photographs and topographic maps would be helpful in supporting the reason for departure.

VI. Exhibit Design

In addition to architectural review of construction documents, interpretive accessibility reviews will evaluate exhibit design specifics. This may include but is not limited to: fonts, contrasts, clarity of content and layout, controls and interactive elements, and mounting and location of details.

It is important to initiate the review process prior to the completion of the exhibit design, otherwise additional design costs and delays may occur. Staff should ☎ contact the Accessibility section during the initial design planning stage.

SECTION 3

Audio-Visual Programs

I. Concept

A. Audio-visual programs are informational, educational, entertaining programs that are transmitted by auditory and/or visual means. This includes, but is not limited to, audiotapes, sound systems, videotapes or DVDs, films, slides and interactive audio/video displays.

B. Audio-visual programs are required to be presented and available from accessible locations.

C. Audio-visual programs are required to be accessible to persons with disabilities. Appropriate auxiliary aids and services, such as qualified sign language interpreters, shall be made available to communicate with people who are deaf and hard of hearing.
DN 2004-07.

II. Alternate Formats

A. Alternative means of presenting audio and visual program information shall be available.

1. Auditory information must also be provided in print, captioned video, or graphic visual form.

2. Visual information (films, videos, slides, printed publications, etc.) must have alternatives such as large print descriptive narration, audio description, descriptive audiotapes, and electronic media usable with screen readers, Braille, etc.

B. Audio-Video Program Alternatives

1. Captions (on-screen text) must be provided for existing videos and other audio-visual programs.

Section 3 - Audio-Visual Programs

a. Close-captioned video requires a decoding monitor to display text on the screen.

b. Both open-captions and Computer Assisted Real Time Captions ("CART") show the dialog on the screen all the time.

c. Until captions are provided, a written program transcript must be available as a handout. ★ Refer to Section 30, Publications.

   Electronic transcripts provided for home use should be usable with most screen readers for persons with visual impairment.

d. When existing videos contain visual elements critical to understanding the material, CD equivalents of videos that include audio description may be created – if feasible – until new synchronized audio described videos are available.

2. All new video programs that contain visual information necessary for the comprehension of the content must include audio description.

   a. Key visual elements such as settings, actions, costumes, scene changes and facial expressions critical to understanding should be described and inserted into pauses in sound-tracks.

   b. Audio descriptions of the above elements must be synchronized to a film as it is projected and then transmitted to an FM receiver headset or other receiver.

III. ACCESS FOR PERSONS WHO ARE DEAF OR HARD OF HEARING

A. Speakers must allow extra time between slides for visitors with hearing impairments to see the images that have been described. These visitors may be lip reading or watching the sign language interpreter.

Section 3 - Audio-Visual Programs

B. If a room is too dark, a spotlight on the speaker and/or sign language interpreter may also be necessary.

C. A system for requesting sign language interpreters with advance notice must be established at all locations and communicated to the public.
DN 2004-07

IV. References

A. For additional information, refer to the California State Parks Qualified Sign Language Interpreters Policy and "All Visitors Welcome", a California State Parks publication.

SECTION 18

Exhibits

I. CONCEPT

A. Accessible exhibit design elements shall include, but not be limited to, font style and size, color contrast between text and/or objects and background, tactile exhibits, interactive exhibits, controls, exhibit mounting heights and positioning of exhibits on path of travel.

The Accessibility Compliance Checklist for Exhibits may be found in the Appendix. This checklist contains the basic elements necessary for accessible exhibit design. Please refer to this checklist when developing or redesigning exhibits. Following the directives in this checklist will help to ensure that exhibits are fully accessible and legally compliant with all statutes and regulations.

B. Exhibits shall be designed to allow people with physical and sensory disabilities to access and experience the material presented.

C. Exhibits shall be designed so that they do not overwhelm visitors of any ability with large blocks of text. Good exhibit design creates a visual balance between text, graphics and white space.

D. Models, touchable, and hands-on exhibits may be better teaching tools that reach broader audiences than purely graphical exhibits and should be considered where possible.

E. Where possible and appropriate, exhibit contents shall include the experiences and "voices" of persons with disabilities.

Section 18 - Exhibits

II. Basic Elements of Accessible Exhibit Design

A. Fonts

1. Typeface or font families used for exhibit text and labels shall be easy to read for persons with varied levels of vision. Preferred typefaces include sans serif fonts or fonts with simple, clean serifs. The number of typefaces in a given exhibit should not exceed two or three.

   a. Some examples of legible sans serif fonts include: Arial, Comic Sans, Futura, Optima, Tahoma, Tiresias and Trebuchet.

   b. Some examples of legible serif fonts that work well at large sizes include: Albertus Medium, Bookman, Caslon, Clarendon, Lydian, Novarese, and ITC Tiepolo.

2. Avoid fonts with strokes that are very heavy, thin, light or decorative and those with letters are either very close together or widely spaced.

3. Spaces between lines of type (also known as "leading") should make it easy to locate the next line. Leading at least 25% taller than the height of the lowercase font is suggested, and this percentage may increase slightly as the font size increases.

4. Font Styles - Even at panel size text, italics may be somewhat hard to read and shall be limited to book title, foreign names and short quotes. Boldface text should generally not be used for entire sections. Text that uses upper and lowercase letters in typical sentence style is easier to read than all uppercase letters.

5. Font sizes for the main body of text shall meet or exceed the minimums required for the horizontal viewing distance from the eyes to the object, according to the following chart. Minimum height of characters shall be measured using the uppercase X. Titles and Headings will be larger.

Section 18 - Exhibits

Captions may be smaller, but not smaller than 24-point. Captions briefly describe images; text that may be illustrated with an image but can stand alone is sidebar text and should be as close to main body text height as possible. Design credits may be small. See chart of Print Height Minimums.

6. Font Height Minimums -

HORIZONTAL DISTANCE EYE-TO-OBJECT	HEIGHT IN INCHES
Up to 39"	⅜"
Up to 78"	¾"
Up to 118"	1⅛"

(For measurement purposes, there are 72 points per inch. When taking into account spacing above and below a line of type, when set at 72 points, the line of type will take up approximately 1" of vertical space.)

B. Text and Labels

1. Words are easier to read in horizontal lines. Artistic word shapes must be kept to a minimum or repeated in linear format, if used.
2. Maintaining a line length between 45 and 60 characters with margins flush left and ragged right is optimal. Where columns of text are used, space between columns must be large enough so viewers do not read across columns.
3. Labels pertaining to pictures or objects shall be placed consistently throughout an exhibit.
4. Exhibit labels in cases or on shelves shall be placed at readable heights and angles for persons who are seated or standing. Avoid placing labels flat on horizontal shelf surfaces. Labels placed at 45 degree angles to front plane of case are generally easier to see.
5. Text must be well balanced with graphics and not overly wordy or technical. It should be straightforward, germane, and easy to comprehend for people of all abilities.

Section 18 - Exhibits

C. Light Levels

1. When not prohibited from doing so by conservation requirements, provide at least 100 lux (10 foot-candles) of light on an object. This is the minimum light level at which someone with low vision can see an object. If displaying sensitive materials that require a maximum of 50 lux (5 foot-candles), then:

   a. Position the items to allow the visitor to approach them as closely as possible.

   b. Light the environment with even light; do not spotlight an object.

   c. Provide the highest contrasting background possible.

   d. Present the object in an alternate format, such as a reproduction or a brochure that can be viewed in a brighter location.

2. Lighting shall be planned to coordinate with conditions of exhibits so that glare from shiny objects can be avoided and so adequate lighting (100 – 300 lux or 10 – 30 foot-candles is recommended) is provided for the entire exhibit.
   ADAAG-4.30.8

B. Glare

1. Finishes shall be non-glare, eggshell or matte.
   ADAAG-4.30.5

2. Text screened directly onto clear glass or Plexiglas is very difficult to see and shall not be used.

C. Contrast

1. Characters and symbols shall contrast with their background, either dark characters on a light background or light characters on a dark background. A minimum of 70% contrast is a recommended guideline.

   Contrast percentage is calculated using the following formula:

   ([B1-B2]/B1) x 100 = Contrast.

   B1 = Light Reflective Value (LRV) of the lighter color and B2 = LRV of darker value.
   ADAAG-4.30.5

Section 18 - Exhibits

Simply stated, "pure" black is the absence of light or 0% LRV, while white is "all" light or 100% LRV. Black and white have 100% contrast. If the background is white, the text darkness should be nearly ¾ of the way to black. Please ☎ contact the Accessibility Section for more information. ★ Refer also to Section 30, Publications.

2. Placing text over images or patterns forces readers' eyes to constantly adjust to varying contrasts. Use screens or place text over solid background with 70% contrast to text.

3. For objects that require a high mounting position and/or low lighting, laminated, high-contrast photographs located near the individual exhibits or centrally set within the exhibition serve those with low vision as well as those who use wheelchairs.

D. Color

1. When choosing colors for fonts and backgrounds, research suggests that visibility for persons with low vision will be enhanced by considering the following:

a. Differences between foreground and background colors on labels or panels should be exaggerated. Lighten the lights and darken the darks to increase to 70% contrast.

b. Avoid using red and green against each other as text and background, as persons with red-green color deficiencies (the most common color deficiency) are not able to easily distinguish the two.

c. Avoid contrasting colors from adjacent hue families in the color circle (such as orange and yellow, orange and red, yellow and green, blue and green, blue and violet) as they often lack adequate contrasts.

d. Even if they are from different hue families, colors of similar lightness (such as gray-blue and gray-brown) are difficult for persons with certain color deficiencies to see.

Section 18 - Exhibits

e. If colors from the same hue families (blue and light blue, brown and tan, etc.) are used adjacent to each other, contrast should be exaggerated to reach 70%.

III. Alternate Formats

A. Exhibits that cannot be made physically accessible shall have alternatives such as captioned films, slide shows or photos.

B. Exhibits shall be able to provide alternatives such as large print, audio, Braille, or tactile graphics on request. Large print text handouts shall be readily available for main body text located beyond optimal viewing range for its size or for any handouts printed at less than 18-point size. Verbal descriptions of exhibits may also be provided by docents or staff.

C. Audio or verbal descriptions shall provide concise, objective, critical information the listener needs but cannot see or read.

D. Electronic versions of exhibits in TXT or PDF format may be offered as a take home alternative to Braille for persons with a screen reader.

F. Availability of alternate formats and contact information shall be included on introductory panel and/or posted in a central area.

IV. Hands-On and Interactive Materials

A. Provide models, either life-size or to scale, of rare or fragile objects that may not be touched. If the object is very large, a reproduction of a part of it should be available so that visitors can get an idea of its relative size.

B. Provide magnifiers for visitors to examine photographs, signs, artifacts, fossils and mounted specimens in the exhibits.

C. In order to be within comfortable reach ranges, exhibits featuring interactive controls or objects to be picked up and/or manipulated for more than a few seconds shall be located within accessible reach ranges. **(Figures 18-1 & 18-3).**
☎ Contact the Accessibility Section for details

D. Exhibit controls or other items to be briefly touched, such as push buttons, shall also be placed at a minimum of 28" and a maximum of 48" and within 18" across.

Section 18 - Exhibits

1. Earphones or speaking devices shall be mounted no higher than 40" and volume must be adjustable.

2. Knobs, handles, dials, and controls used on interactive exhibits shall be designed so they can be operated with a closed fist with no tight grasping, pinching or twisting. *CBC*-1117B.6.4

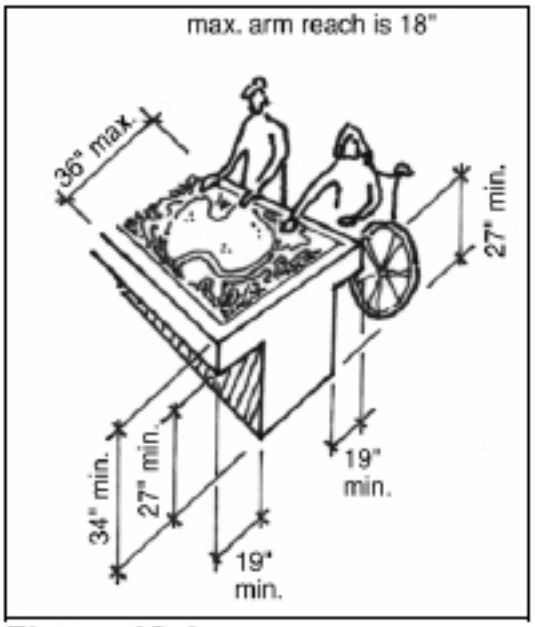


Figure 18-1

V. Flat Mounted Displays

A. Flat-mounted or table top exhibits to be touched or closely approached, such as relief maps and tactile exhibits, shall allow for a clear knee space that is a minimum of 36" wide and 27" clear height above the floor surface. Where it does not create a hazard for persons with low vision, 29" high knee space is recommended for wheelchair users **(Figure 18-1).**

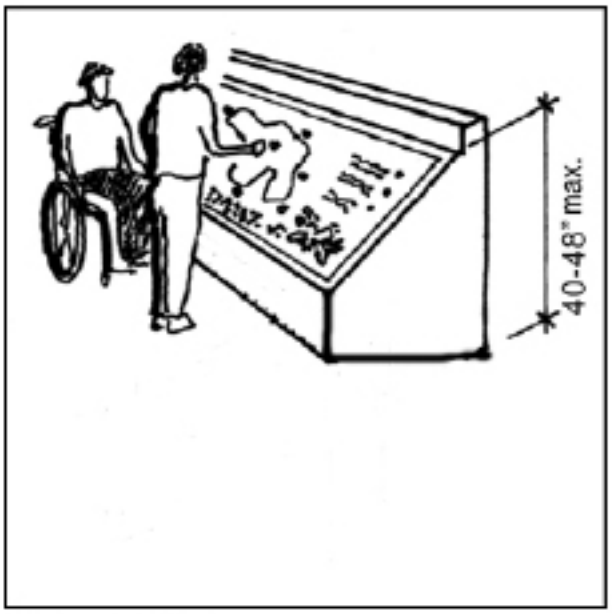


Figure 18-2

VI. Angle Mounted Displays

A. Angle-mounted exhibits featuring mostly interactive features and/or controls to manipulate must include knee space as described in Part V, Flat-Mounted Displays **(Figure 18-2).**

Section 18 - Exhibits

B. Angled exhibit panels on pedestals or supports shall be placed at angles from 30 to 60 degrees to the ground or floor. The lower horizontal edge of the panel must be mounted between 28" and 34" above the ground. The exact distance may vary according to the panel size, and the text size should conform to minimums **(Figure 18-3).**
☎ Contact the Accessibility Section for more details.

C. Angled exhibits mounted on posts and located along the prevailing path of travel must not protrude into the path of travel more than 12", as described in Part VIII, Protruding Objects, Item C.

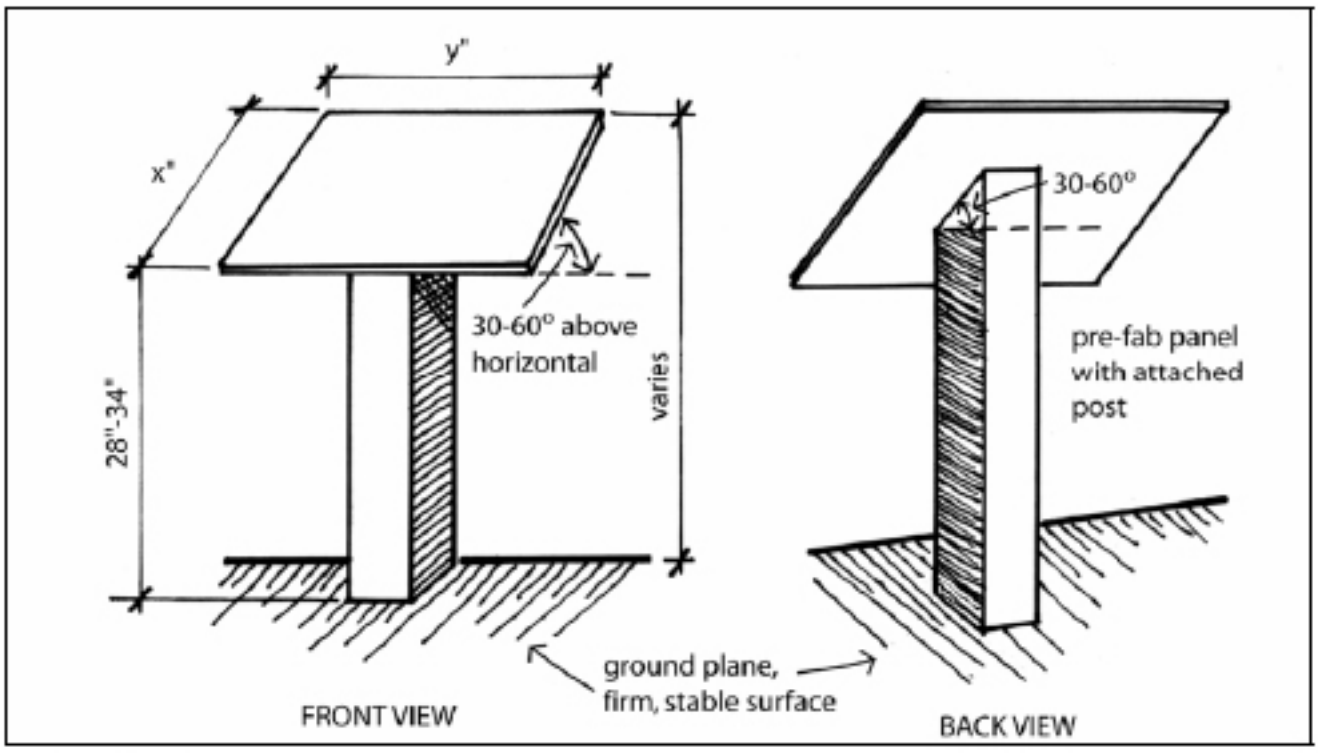


Figure 18-3

Section 18 - Exhibits

VII. VERTICALLY MOUNTED DISPLAYS

A. To allow both a standing and seated person to read vertically displayed material, the material shall be mounted in accordance with **Figure 18-4**, "Text Mounting Height Ranges for Vertical Exhibits" based on the optimal field of vision for sitting and standing adults.

1. The optimal field of vision for standing adults at six feet from a vertical surface varies from 55" to 69". The median height is 62". For seated adults in standard wheelchairs at the same distance, the range is 42" to 50". The median height is 46".

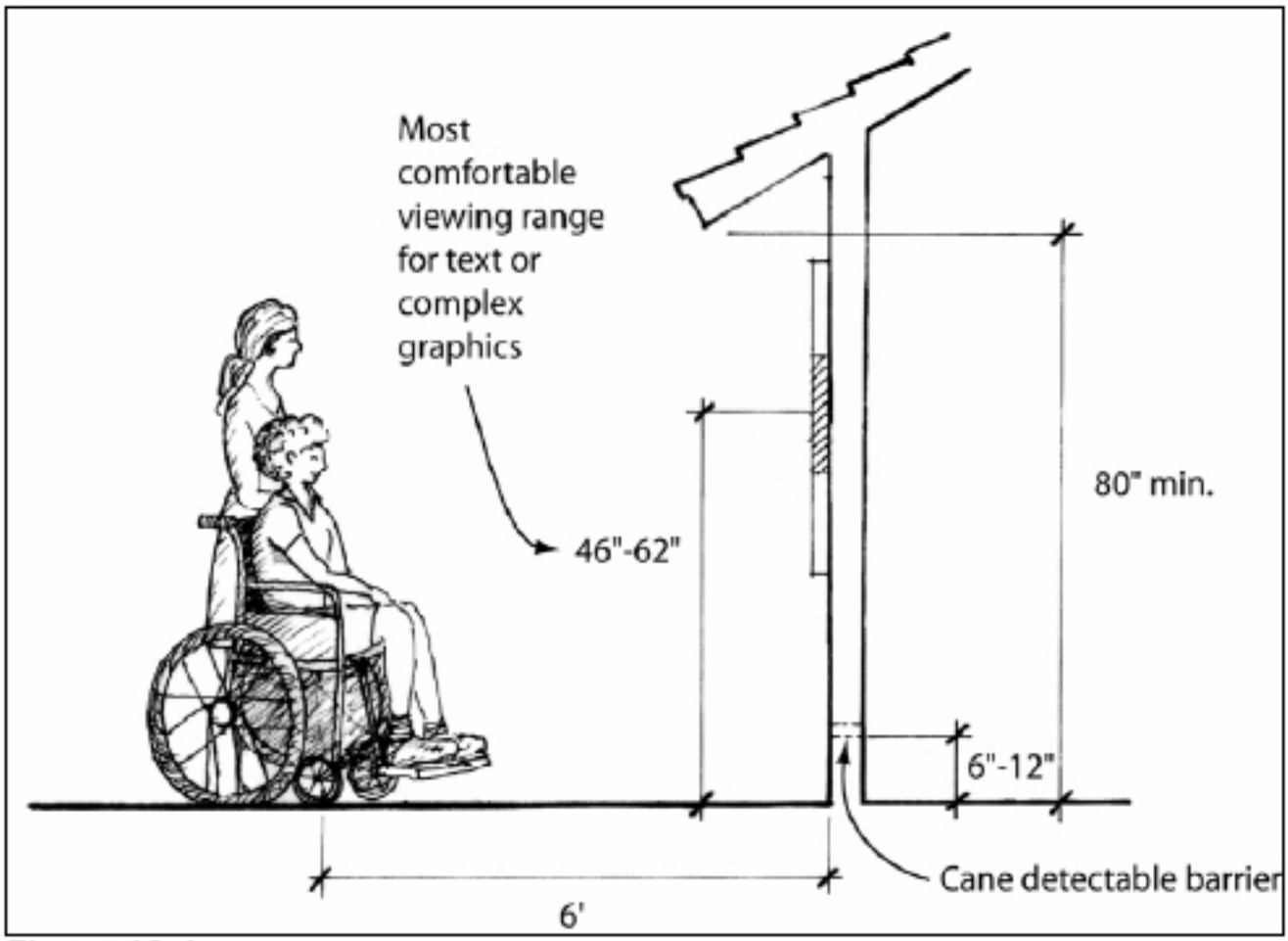


Figure 18-4

Section 18 - Exhibits

B. Vertically mounted exhibits with most text and graphics between the 46" and 62" medians, and with most of the main body text centered around the 54" mid-point of the two medians will be within most viewers' comfortable range of vision. Actual exhibit panel size may exceed these dimensions.

C. Exhibit shelters that have roofs must allow vertical clear space of at least 80" between the lowest edge of roof and exhibit viewing surface **(Figure 18-4).**
☎ Contact the Accessibility Section for more information.

VIII. Protruding Objects

A. Objects projecting from walls (e.g. telephones, display cabinets, etc.) with their leading edges between 27" and 80" above the floor surface shall protrude a maximum of 4" into walks, halls, passageways or aisles **(Figure 18-5).**
CBC-1133B.8.6.1

B. Objects mounted with their leading edges at or below 27" above the floor surface may protrude any amount.
CBC-1133B.8.6.1

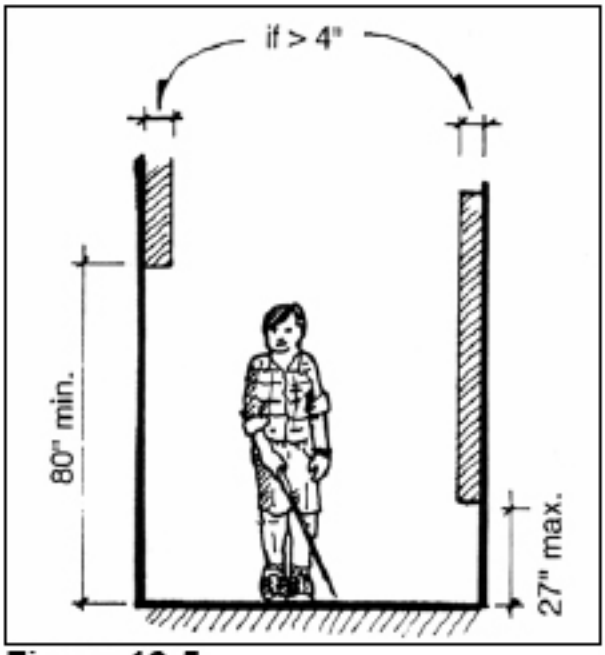


Figure 18-5

C. When freestanding objects are mounted on posts or supports between 27" and 80" above the floor surface, they may overhang 12" but all edges must be rounded.
CBC-1133B.8.6.1 - 3

D. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.
CBC-1133B.8.6.3

Section 18 - Exhibits

IX. Path of Travel and Clear Space

A. Floor and path of travel surfaces must be firm, stable and slip resistant, along accessible routes, and in accessible rooms and spaces.
CBC-1124B.1

B. Exhibits and displays adequately allow for approaching and viewing from a wheelchair. A stationary wheelchair requires a clear floor space of 30" x 48" **(Figures 18-6 & 18-7).**
CBC-1118B.4.1

C. The clear space in front of any exhibit or display shall be a minimum of 60" wide to allow for both exhibit viewing and visitor circulation **(Figure 18-8).**
CBC-1118B.3

D. All visitors viewing an exhibit shall be given the same opportunity to turn and leave the exhibit. To turn in any direction a wheelchair requires a minimum 60" diameter circle or a T-intersection with T-aisle widths of 36" or wider **(Figures 18-8 & 18-9).**
CBC-1118B.3

E. Exhibit protective railings shall not be higher than 36" and shall not obstruct the line of vision of seated persons.

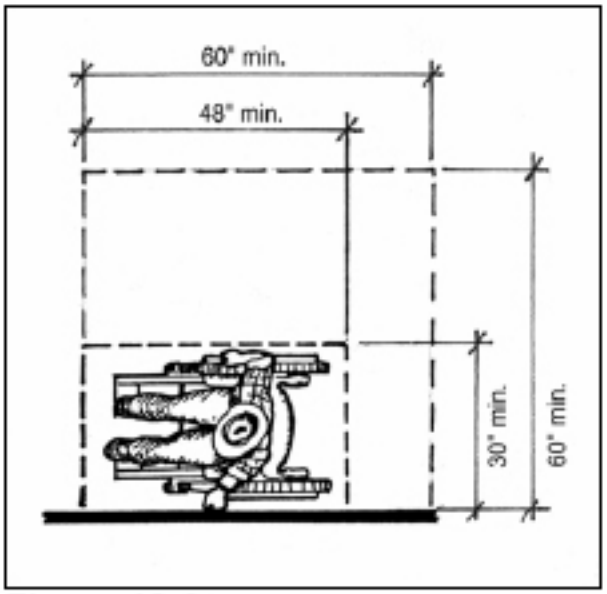


Figure 18-6

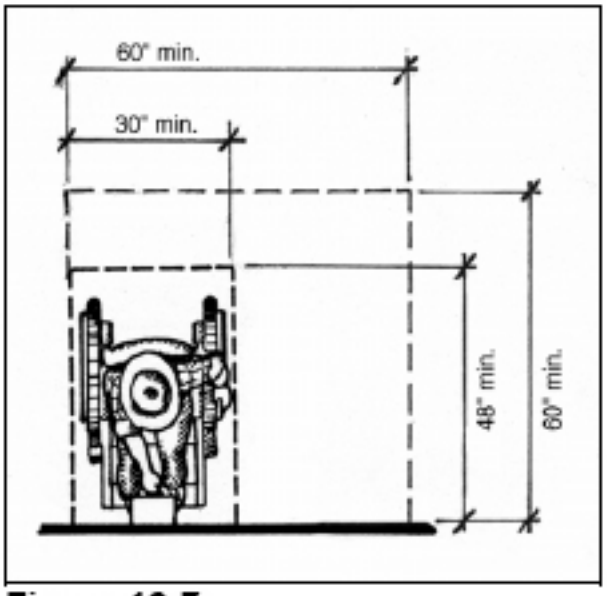


Figure 18-7

Section 18 - Exhibits

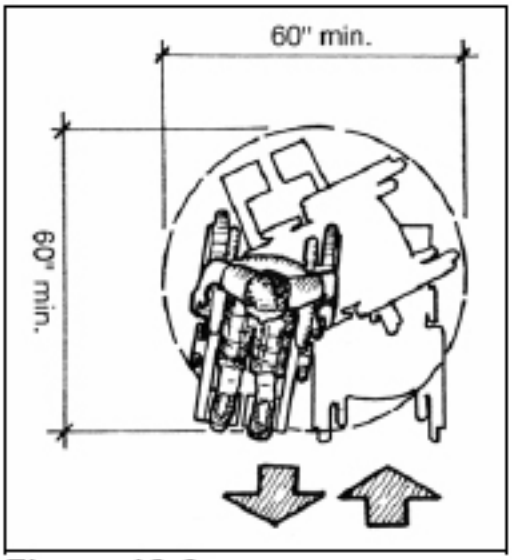


Figure 18-8

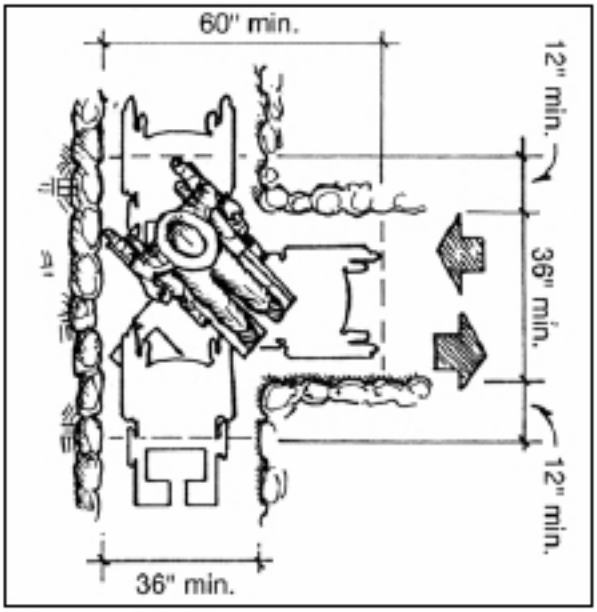


Figure 18-9

X. Exhibit Panels and Tactile Design

A. To provide accessible nature trails or other educational exhibits for those with vision impairments, exhibits need to follow the guidelines above regarding design, mounting, path and clear space issues and protruding objects **(Figures 18-8 & 18-9).**

B. Exhibit designers shall also consider providing raised tactile lettering for short descriptive educational text such as plant names, "station" names ("Quartermasters House") or numbers ("Stop 6: Valley Oak") and similar basic concepts or simple graphics (Valley Oak Leaf, egg-and-dart molding). Recommended uppercase letter height for such labels is 5/8" minimum, and 2" maximum; letters should be raised 1/32" above surface.

C. See also the design information in Section 41, Trails, regarding methods to mark the panel locations so that they are detectable by persons with vision impairments.

Section 18 - Exhibits

XI. REFERENCES

A. For additional information, see the following references:

1. Website and other information from Lighthouse International research publications about accessible contrast and print. See online articles below:

   www.lighthouse.org/color_contrast.htm

   and

   www.lighthouse.org/print_leg.htm

2. Smithsonian Institute Guidelines for Accessible Exhibit Design, including some information credited to Parks Canada, at:

   www.si.edu/opa/accessibility/exdesign/start.htm

SECTION 21

Guided & Self-Guided Programs and Tours

I. CONCEPT

A. Conducted tours and interpretive walks/talks should be scheduled at locations that are accessible.

B. Tours must be integrated as much as possible to accommodate visitors with differing abilities. Guides and interpreters must respond to individual differences and adjust the pace accordingly.

C. Hikes or tours requiring the ability to traverse stairs or difficult terrain should be so described in advance publicity.

D. Qualified Sign Language Interpreters shall be provided when requested in advance or whenever oral presentations are scheduled for large groups. Interpreters may include ASL, verbal enhancement for individuals with visual impairments, etc.
DN 2004-07

E. Upon request, effort shall be made to obtain a Qualified Sign Language Interpreter (QSLI) or another method of communication requested by the person who is deaf or hard of hearing (e.g., written, ASD, CART, etc.), in accordance with the Department's QSLI Policy (DN 2004-07).

F. Material shall be provided that describes what information is available and the various means by which it is communicated.

G. Portable assistive listening devices shall be provided for tours, special events and other activities where oral presentations are the core program.

H. Oral description and/or sighted guide services must be available for the blind and visually impaired when requested in advance or whenever visual presentations are scheduled for large groups.

Section 21 - Guided & Self-Guided Programs and Tours

II. SELF-GUIDED PROGRAMS

A. Self-guided printed or audio tours must be designed to be accessible. Interpretive resource material to help guide the tour must be available in a variety of media (e.g., CD's, large print, Braille, etc.).

B. Educational nature trails must be designed to be accessible.
★ Refer to Section 41, Trails.

III. VISUAL ACCESS

A. Any solid barriers or walls required along the route or at interpretive trails must be designed so that their height and location will permit clear visual access for a person sitting in a wheelchair.

B. An adult sitting in a wheelchair has an eye level between 42" and 50" measured vertically from the floor surface. Section 18, Exhibits, provides criteria for the placement of visual displays of various types.

IV. Tour Route

A. Before beginning the tour, describe the route that will be taken, provide a map if available and give a brief overview of the resources that will be interpreted along the way. Describe any obstacles that may be encountered along the route.

V. SPEAKING TO GROUPS

A. Adequate lighting of speakers is essential to facilitate lip reading for persons with hearing impairments.

B. Speakers should face the audience and enunciate clearly so that persons who are lip reading, signing or interpreting orally may clearly observe the speaker.

C. Speakers should speak clearly, in a normal tone and volume. Speaking loudly does not help visitors with hearing impairments. Speak louder only if requested to do so. For large groups, use an amplification system or assistive listening system.

Section 21 - Guided & Self-Guided Programs and Tours

D. Speakers should wait for the audience to settle and be sure to have everyone's attention before talking. Also, speakers may periodically check to see that everyone appears to have understood before continuing.

E. Try to use short sentences and avoid using slang or jargon. A subject-verb-object sentence structure is best because it is the same syntax as American Sign Language.

F. Avoid sweeping arm movements or moving around while speaking; this may be distracting to some visitors.

G. Give an oral description of objects or features you show the group.

VI. Delivering Interpretive Information

A. Focus the program around a theme. Smooth transitions are helpful. Discuss concepts and ideas in basic terms and reinforce through repetition. Too much information may cause confusion.

B. When showing visitors an object and discussing it at the same time, allow extra time for visitors to see what has been described. Some visitors can look at an object during the talk, but visitors with hearing impairments may need to watch the sign language or oral interpreter, or they may be lip-reading.

C. Speakers must try to position themselves so that visitors can see them and the object of discussion at the same time. When working with a sign language or oral interpreter, the object must be placed between the two speakers.

D. To help visitors better understand the presentation, point to objects that are being discussed.

E. Reading aloud exhibit or trail signage can assist visitors with visual impairments.

F. Use photographs, slides, objects and other visual and tactile examples to illustrate interpretive information.

Section 21 - Guided & Self-Guided Programs and Tours

G. Use descriptive language during the talk and encourage the entire group to be more aware of their senses.

H. Be familiar with and incorporate different methods of describing historical and natural settings and objects.

I. Explain new or difficult words and concepts. Include these words and their definitions in a handout, along with suggestions for additional reading on the subject.

VII. QUESTIONS

A. Questions to the audience should allow sufficient time for a response. Questions from the audience should be repeated before responding so that the audience understands both question and answer. An individual with a hearing impairment may understand the question a few seconds later because the sign language or oral interpreter may be a few words behind the speaker.

B. Look for visitors to indicate that they wish to answer a question before calling on them. A speech impairment or memory problem may interfere with visitors' abilities to answer questions.

C. Do not automatically dismiss a question or an answer as being irrelevant. Sometimes communication difficulties confuse what the individual is trying to say. Speakers should attempt to relate the question or answer to the subject.

VIII. INDIVIDUAL NEEDS

A. Allow extra time between exhibits or points of interest. People using assistive mobility devices may require additional time to move about.

B. Some individuals with developmental disabilities may have difficulty understanding the concept of historical and calendar time. If this information is included in a program, use a variety of techniques to explain or demonstrate it.

Section 21 - Guided & Self-Guided Programs and Tours

C. Be aware that the low light levels in some areas might create hazardous situations, especially for persons with visual impairments. Some individuals may need extra time when moving from a bright area into a darkened room to allow their eyes to adjust.

D. Meet with visitors with visual impairments before and/or after the program and ask if there is anything they would like described to them or if they would like additional information.

IX. Service Animals

A. Working service animals are permitted in park facilities and activities. Service animals should be under the control of the owner, generally on a leash, and under voice command. Some exceptions may include persons in wheelchairs who cannot operate the chair and manage a leash, a service animal pulling the wheelchair, or an animal retrieving a dropped item. Service animals must be under control when around other people, in buildings, and in places where wildlife may be encountered.

B. Self-guided hikes through natural or cultural areas may be posted as closed to all animals, including service animals, for the protection of the visitors or the resource, or during certain times such as breeding season.

X. References

A. For additional information, refer to the Accessibility Section's resource list; the California State Parks' Qualified Sign Language Interpreters Policy (DN 2004-07); and "All Visitors Welcome – Accessibility in Interpretive Programs and Facilities", a California State Parks publication.

SECTION 27

Play Areas

I. CONCEPT

A. A park location that has any number of play components designed and constructed for play, socialization, or learning by children is considered a play area. In play areas it is important that accessible equipment be integrated with non-accessible equipment. While not every piece of play equipment needs to be accessible, when non-accessible components stand alongside accessible ones, it promotes social interaction between children.

B. Play components can be either elevated or ground level, made of manufactured or natural materials, and may be "stand alone" or part of a composite play structure.

1. Ground level play components are those that are approached and exited at ground level (i.e., swing rockers, swings and stand-alone climbers). Free standing slides are also considered ground level components and an accessible route of travel must connect to the ladder or steps and to the exit of the slide.

2. Elevated components are approached above or below grade and are part of a composite play structure consisting of two or more play components attached or functionally linked to create an integrated unit providing more than one play activity.

3. Soft, contained play structures are made up of one or more components where the user enters a fully enclosed play environment that utilizes pliable materials such as plastic, netting or fabric.

Section 27 - Play Areas

C. Accessible surfaces and routes inside play areas have different criteria than accessible surfaces and routes elsewhere. Certain surfaces must meet stringent safety standards put forth by the American Society for Testing and Materials. To ensure compliance with all codes and standards it is important that park leaders and project managers ☎ contact the Accessibility Section for guidance whenever work on a new or existing play area is planned.

II. GENERAL

A. All newly constructed play areas designed for children ages two and over or altered portions of existing play areas shall be accessible.
ADAAG-15.6.1

1. Where play components are relocated in existing play areas for the purpose of creating safe use zones or where play components are altered and the ground surface is not altered, the ground surface inside the play area shall not be required to be modified for accessibility.
ADAAG-15.6.2 - 3

B. Play areas must be located along an accessible route of travel. ★ Refer to Section 33, Routes of Travel. However, within the boundary of the play area, routes must comply with the guidelines in this section.
ADAAG-4.3.2
ADAAG-15.6.4

III. ACCESSIBLE ROUTES INSIDE PLAY AREAS

A. Except as amended in this section, when required within the boundary of a play area, accessible routes shall meet the requirements for exterior routes of travel (ERT).
ADAAG-4.3
ADAAG-15.6.4

B. Accessible routes required within the boundaries of play areas shall connect ground level play components and elevated components, including entry and exit points.
ADAAG-15.6.4.1

Section 27 - Play Areas

C. Accessible route surfaces inside play areas must comply with the American Society for Testing and Materials (ASTM) "**F 1951-99** Standard Specifications for Determination of Accessible Surface Systems Under and Around Playground Equipment." *ADAAG*-15.6.7.1

D. Use zones differ from accessible routes inside a play area in that they constitute the area beneath and immediately adjacent to a play structure or piece of equipment. This is the surface upon which it is predicted a user would land when falling from or exiting the equipment and these surfaces are required to comply with the ASTM "**F 1292-04** Standard Specifications for Impact Attenuation of Surface Systems Under and Around Playground Equipment." *ADAAG*-15.6.7.2

E. Ground Level Accessible Routes

1. No object may protrude into the ground level accessible route below 80" from the ground surface. *ADAAG*-15.6.4.2

2. The clear width of the ground level accessible route shall be 60" minimum except that in play areas less than 1,000 square feet the clear width may be reduced to 44" provided that at least one turning space that is a 60" diameter circle or T-shape, is provided every 30 linear feet **(Figure 27-1).** *ADAAG*-15.6.4.3

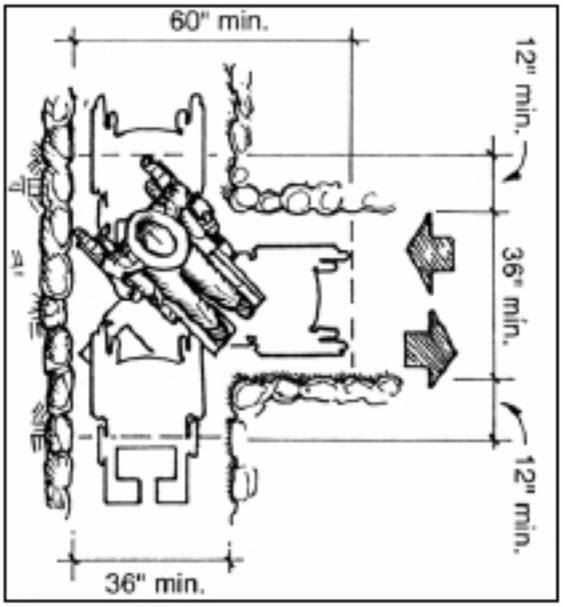


Figure 27-1

Section 27 - Play Areas

3. The clear width of any ground level accessible route in a play area may be reduced to 36" minimum for a distance of 60" maximum provided that multiple reduced width segments are separated by segments that are 60" wide for at least 60" in length.
   ADAAG-15.6.4.3.1

F. Elevated Accessible Routes

1. At least 50% of the elevated components must be located on an accessible route.
   ADAAG-15.6.3

   a. Where transfer systems are provided, an elevated play component shall be permitted to connect to another elevated play component in lieu of an accessible route. However, where 20 or more elevated play components are provided, no more than 25% of the elevated components are permitted to be connected by transfer systems.
      ADAAG-15.6.4.1

   b. Platform lifts in compliance with all other applicable state and local codes shall be permitted to be used as part of an accessible route.
      ADAAG-15.6.4.3
      EXCEPTION 3

2. The clear width of an elevated accessible route connecting elevated play components shall be 36".
   ADAAG-15.6.4.3.2

   a. The clear width of any elevated accessible route in a play area may be reduced to 32" minimum for a distance of 24" maximum, provided that reduced width segments are separated by segments that are 48" in length and 36" minimum width.
      ADAAG-15.6.4.3.2

   b. The clear width of transfer systems connecting elevated play components shall be 24" minimum.
      ADAAG-15.6.4.3.2

Section 27 - Play Areas

IV. RAMPS IN PLAY AREAS

A. Any part of an accessible route with a slope greater than 1:20 (5%) shall be considered a ramp and shall meet the guidelines for ramps, except as modified by this section. ★ Refer to Section 31, Ramps.
ADAAG-15.6.4.4

B. The maximum slope on ramps connecting ground level play components shall be 1:16 (6.24%).
ADAAG-15.6.4.4.1

C. Where a ramp connects elevated components, the maximum rise of any length run shall not exceed 12".
ADAAG-15.6.4.4.2

V. HANDRAILS IN PLAY AREAS

A. Except as modified in this section, handrails shall meet the guidelines for handrails.
★ Refer to Section 31, Ramps.
ADAAG-15.6.4.5

B. Handrails are not required at ramps located within ground level use zones.
ADAAG-15.6.4.5

C. Handrail extensions are not required in play areas.
ADAAG-15.6.4.5
EXCEPTION 2

D. The diameter or width of the grip portion of handrails shall be 0.95" minimum to 1.55" maximum, or the shape shall provide an equivalent gripping surface.
ADAAG-15.6.4.5.1

E. The top of the handrail gripping surface shall be 20" minimum to 28" maximum above the ramp surface.
ADAAG-15.6.4.5.2

VI. TRANSFER PLATFORMS IN PLAY AREAS

A. Where transfer is intended to be from a wheelchair or other mobility device, transfer platforms shall be provided.
ADAAG-15.6.5.1

Section 27 - Play Areas

B. Transfer platforms shall have a level surface, 14" minimum depth and 24" minimum width, located between 11" and 18" above the ground or floor surface.
ADAAG-15.6.5.1.1 - 2

C. A clear and level 30" by 48" transfer space that adjoins or overlaps the accessible route shall be provided at each transfer platform. The 48" long dimension of this clear space must be located so that it is parallel to the 24" unobstructed wide side of the transfer platform.
ADAAG-4.2.4
ADAAG-15.6.5.1.3

D. A means of support such as handrails, handgrips or custom designed handholds shall be provided at each level where transferring is the intended method of access.
ADAAG-15.6.5.1.4

VII. TRANSFER STEPS

A. Transfer steps shall be provided where movement is intended from a transfer platform to a level with elevated play components that is required to be on an accessible route.
ADAAG-15.6.5.2

B. Transfer steps shall have a level surface, 14" minimum depth, 24" minimum width and each step shall have a maximum height of 8".
ADAAG-15.6.5.2.1
ADAAG-15.6.5.2.3

C. A means of support such as handrails, handgrips or custom designed handholds shall be provided at each level where transferring is the intended method of access.
ADAAG-15.6.5.2.3

VIII. PLAY COMPONENTS

A. Where ground level play components are provided, at least one of each type provided shall be located on an accessible route.

B. Where elevated play components are provided, ground level play components shall be provided in accordance with the chart on the following page:

Section 27 - Play Areas

Number of Elevated Play Components Provided	Minimum Number of Ground Level Play Components Required To be on Accessible Route	Minimum Number of Different Types of Ground Level Play Components Required To be On Accessible Route
1	N/A	N/A
2 to 4	1	1
5 to 7	2	2
8 to 10	3	3
11 to 13	4	3
14 to 16	5	3
17 to 19	6	3
20 to 22	7	4
23 to 25	8	4
More than 25	8, plus 1 for each additional 3 over 25, or fraction thereof	5

EXCEPTION: If at least 50% of the elevated play components are connected by a ramp, and if at least three of the elevated play components connected by the ramp are different types of play components, the above chart shall not apply.

C. When more than one ground level play component is required on an accessible route, they shall be integrated in the play area. Grouping all accessible ground level components in one location does not constitute integration.
ADAAG-15.6.2

D. Clear space as well as maneuvering space shall be provided on the same level as all accessible play components and must adjoin or overlap an accessible route.
ADAAG-15.6.6

1. Clear space must be 30" by 48" minimum and shall not exceed 2% slope in any direction.
ADAAG-15.6.6.2

Section 27 - Play Areas

2. Maneuvering space shall be a 60" diameter circle or T-shape that does not exceed 2% in any direction **(Figure 27-1).**
   ADAAG-15.6.6.1

   a. Maneuvering space required for a swing shall be located immediately adjacent to the swing.
      ADAAG-15.6.6.1

E. Where play tables are provided, knee clearance, minimum 24" high by 17" deep and 30' wide, shall be provided and the top of table rims, curbs or other obstructions shall be 31" high maximum.
ADAAG-15.6.6.3

1. Play tables designed or constructed primarily for children ages five and under shall not be required to provide knee clearance if the clear floor or ground space is arranged for a parallel approach and if the table is 31" high maximum.
   ADAAG-15.6.6.3

F. With the exception of entry points on slides, where a play component requires transfer to the entry point or seat, the entry point or seat shall be 11" minimum and 24" maximum from the ground or floor surface and a means of support for transferring such as handrails, handgrips or custom designed handholds shall be provided.
ADAAG-15.6.6.4 - 5

SECTION 30

Publications

I. CONCEPT

A. All new or reprinted publications shall be prepared using the following guidelines. This policy applies to publications developed at the Headquarters, District or Unit levels, including publications copyrighted to the Department. Staff must ensure that publications produced for the Department by cooperating associations, concessionaires and other external entities follow the attached guidelines or subsequent updates.

The Accessibility Compliance Checklist for Publications may be found in the Appendix. This checklist contains the basic elements necessary for accessible publication design. Please refer to this checklist when developing or redesigning publications. Following the directives in this checklist will help to ensure that publications are fully accessible and legally compliant with all statutes and regulations.

II. PUBLICATION DEFINITION:

A. Publications are defined as brochures, booklets, books, announcements, posters, advertisements, park maps, park program materials, campground maps, departmental plans, reports, newsletters and other items – including those under copyright to California State Parks – that are usually handheld.
DN 2007-04

III. PUBLIC INFORMATION

Public accessibility information to be included where accessible features are present:

A. Publications must integrate information about accessible features with general descriptive information regarding park sites and facilities.

Section 30 - Publications

B. The International Symbol of Accessibility (ISA) is to be used to locate accessible features on maps, and may be used to identify the location of accessibility information in publication text.

C. Publications must include the following standard statement immediately adjacent to the contact phone number: "711, TTY RELAY SERVICE."

D. Publications need to incorporate the following standard statement: "CALIFORNIA STATE PARKS SUPPORTS EQUAL ACCESS. PRIOR TO ARRIVAL, VISITORS WITH DISABILITIES WHO NEED ASSISTANCE SHOULD CONTACT [contact office and phone number]."

This statement encourages visitors to request assistance, such as American Sign Language (ASL) interpretation for the deaf, in advance.

★ Refer to Departmental Notice 2004-07 for more information on sign language interpretation policies and suggestions.

E. Publications must state: "THIS PUBLICATION IS AVAILABLE IN ALTERNATE FORMATS BY CONTACTING [contact office and phone number]."

Alternate formats for print media include audio, large font print, electronic files, internet information, and Braille.

Section 30 - Publications

IV. FONTS

A. Brochure fonts have to be easy to read and can either have simple, clean serifs or can be sans serif.

Serifs are short, usually straight, lines angled to the upper or lower ends of the main strokes of a letter, a bit like little feet. Common fonts with serifs include Bookman, Garamond, New Century Schoolbook, and Times Roman. Serif fonts are NOT to be used for large font format materials.

Sans serif fonts ("sans" is French for "without") lack these little feet but may use curved lines on letters like **a**, **g**, **l**, **t,** and **y** to lead the eye along and sometimes to help distinguish **t** from **+** and **l** from uppercase **i**. These are NOT serifs. Some sans serif fonts include Arial, Century Gothic, Helvetica, Optima, Tiresias and Trebuchet.

B. Minimum type font size for brochure text is 12-point for many font families. Some fonts do not meet Department standards at 12-point size. (These fonts will meet ADA standards at 13-point size.)

1. Fonts that meet Department standards at 12-point:

   - Arial
   - Helvetica
   - Comic Sans
   - Trebuchet

2. Fonts that DO NOT meet Department standards at 12-point (use 13-point minimum):

   - Garamond
   - Times New Roman
   - Twentieth Century MT
   - Gill Sans MT.

3. How to test if a font meets Department publication standards:

   a. Type out the alphabet for your proposed font in 12-point lower case, as follows:

      abcdefghijklmnopqrstuvwxyz

   b. Print the font at the desired scale and measure the line length.

   c. If the a – z line length **clearly** exceeds 2 inches, the font is acceptable.

Section 30 - Publications

C. Italics are harder to read than upright fonts for persons with low vision and should not be used. For titles, foreign terms or short quotes, consider using quotation marks or boldface or an alternate font. If space permits, you may use italics as long as you also provide an upright version of the italicized text.
DN 2007-04

D. Highly decorative fonts, condensed fonts, wide fonts, or fonts with very thick or very thin strokes, or a mix of both thick and thin strokes, should not be used.

E. Using upper and lower case letters (typical sentence style) helps the eye read smoothly. Avoid using all upper or all lowercase text. Short titles and headings may be excepted.

IV. LAYOUT

A. Straight lines of text are generally easiest to read. Curved lines and word art should be avoided.

B. Left justified and ragged right margins are preferred unless full justification can be done without distracting blank spaces between words.

C. Indents should be a standard size. Left indents that force the eye to find a new starting point for each line (such as centered text with very different line lengths, or text wrapped around objects) should be avoided or rarely used.

V. CONTRAST

A. To enhance readability, very dark print or graphics should be used on a light background. Small areas of reversed text (light text on dark background) may be approved as needed. The difference in contrast between font and background should be at least 70 percent. The chart on the next page shows shades of gray from 0% gray (black) to 100% gray (white), by 10% increments **(Figure 30-1).**

B. Note that background prints, photographs, or patterns placed behind text may be distracting or lessen contrast and should be avoided.

Section 30 - Publications

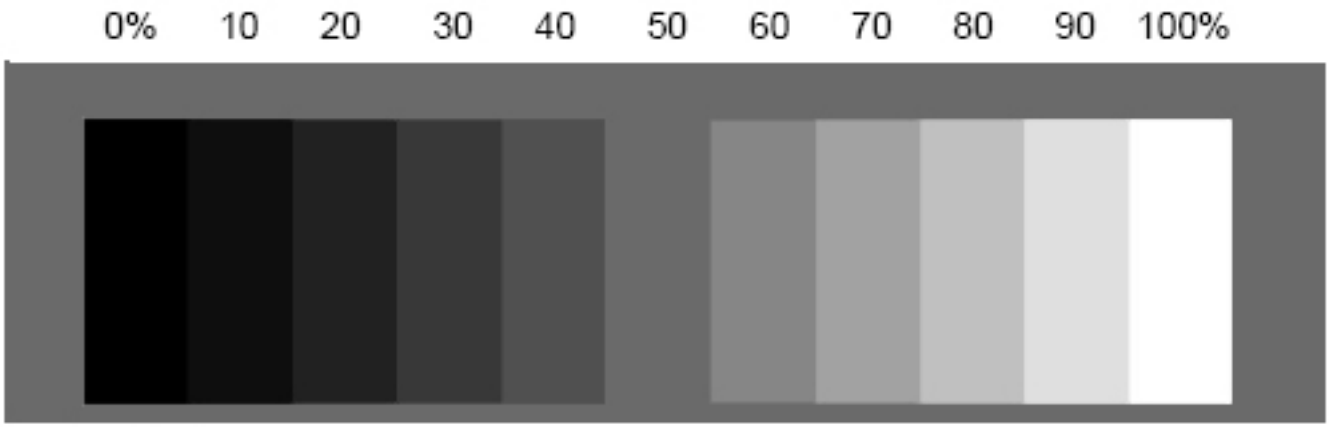


Figure 30-1

Directions for using the Grayscale Chart

1. Print and fold this page so you can place the chart adjacent to your publication. Find the gray tones equivalent to your text color and background color. It is sometimes easier to begin by comparing the colors to the mid-ranges and then finding which side of the middle each color is on.

2. Subtract the percentage for the darker color from the percentage for the lighter color to assess whether there is at least 70% contrast (difference) between colors. White and black have a 100% contrast, in theory.

3. Please note that bigger blocks of color (e.g., larger fonts and boldface fonts) "read" or appear darker than smaller and normal fonts. Using darker hues for smaller fonts to enhance their apparent contrast is suggested, when possible.

Section 30 - Publications

VI. Color combinations

A. Some color combinations are especially difficult for persons who have color perception deficits. The inability to distinguish between reds and greens is one of the most common forms of color deficit.

B. Red or green text (or symbols) must not be contrasted with green or red background colors. Nor should recognition of either of these colors be a sole identifying factor in a publication (e.g., "Green symbols represent spring flowers.").

VII. Large print material (an alternate format)

A. Upon request, printed park visitor information must be provided in large print format in a timely manner. Electronic or print versions may suffice, as the requestor wishes.

B. Large print materials must be in 18-point size and a sans serif font.

VIII. Map font exceptions

A. In order to be hand held comfortably and to include large amounts of land in detail, park maps often use many small fonts. When cartographers create new maps for Department publications, staff shall recommend that 12-point minimums be used where possible for significant park features. For all park features, the map font minimums described below shall apply. Small campground or trail maps created by park staff must also meet or exceed these recommendations and minimums. Otherwise, maps may be viewed with magnifiers or online.

B. Fonts used to label park features must be at least an 8-point size. Where space permits, larger font sizes are recommended. Non-critical geographic features may be labeled, but fonts used for them do not have to meet minimums.

Section 30 - Publications

Examples of significant park features for which labels are preferred to be 12-point, but must at least be 8-point fonts include: Big Lodge Visitor Center, Park Entry, Campfire Center, Big Trees Campground, Pretty Nice Trail, etc.

Labels for geographic features such as Ponderosa Reservoir, Mt. Hope, Fair River, Pine Creek, Mucky Marsh, etc. that may be in or near enough to a park to be shown on the map but that are not locations where park programs – such as trails, picnicking, or camping – occur do not require the 8-point font minimums.

IX. LANGUAGE

A. Publications must be easy to read and must not use slang or jargon.

B. Text and captions must be clear and concise.

X. PUBLICATION REVIEW

A. ALL PUBLICATIONS SHALL BE REVIEWED BY THE ACCESSIBILITY SECTION. Park accessibility information and/or campground maps showing accessible facilities sent to reservations concessionaires must be reviewed for content accuracy before being posted online. Please allow a minimum of two weeks for the review process. Discussing proposed publications at project start-up often speeds the process. Submission for final review must be planned to allow time for any necessary text and/or design changes before printing. A completed review form will recommend any needed changes before printing. Reviews will cover content on accessible features, font, contrast and other standards covered in this section. If you have any questions relating to publications, ☎ contact the Accessibility Section.

Section 30 - Publications

XI. ADDITIONAL PUBLICATION INFORMATION

A. Smithsonian Institution Checklist for Printed Publications

http://www.si.edu/opa/accessibility/exdesign/sectione.htm

B. Lighthouse International

http://www.lighthouse.org

Search within site for "accessibility".

C. National Center on Accessibility

http://www.ncaonline.org

SECTION 35

Signage

I. CONCEPT

This section refers to permanent signs.

A. An effective information system is essential for accessibility. There are three general categories of signage:

1. Location or directional information: All information that indicates direction or location, including signs along outdoor routes indicating direction and distances (e.g., 1.5 miles to waterfall).

   a. Trailhead signage should describe conditions such as average grade, cross slope, width of trail, trail surface and average size of obstacles.

2. Identification and description information: identifies a specific facility (such as an information station or a restroom) and describes the availability and location of facilities. This identity and description information must meet Title 24 and ADA standards for permanent signs.

3. Regulation and safety signage: information about rules, procedures and regulations. (e.g., restrictive signs such as "NO FISHING, NO CAMPING or NO SMOKING ON TRAIL"; regulatory sign such as "CAMP IN DESIGNATED AREAS ONLY"; and safety signs such as "UNSAFE DRINKING WATER")

Section 35 - Signage

II. SIGNAGE

A. Signs should be part of a well-planned system throughout a park or recreational area.

B. Signs must be placed in logical and visually unobstructed locations, while ensuring that growth of adjacent foliage will not interfere with visibility.

C. The International Symbol of Accessibility (ISA) sign shall be located at the primary entrance and at junctions between accessible and inaccessible pathways. The sign shall be displayed to direct the user to an accessible route **(Figure 35-1).**
CBC-1127B.3

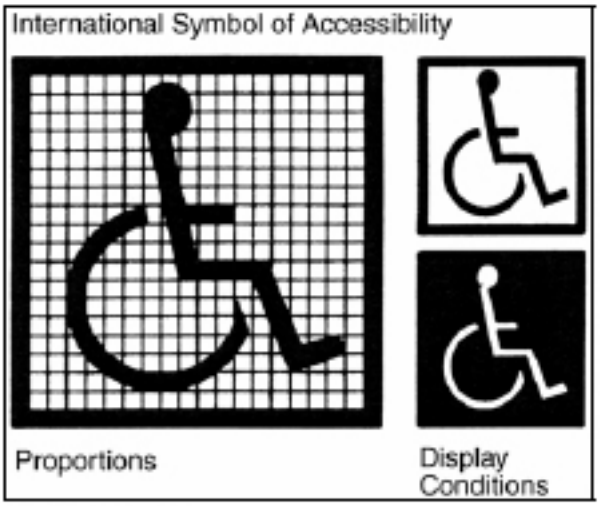


Figure 35-1

D. All characters, symbols and sign backgrounds must have a non-glare finish with at least a 70% contrast between characters and their backgrounds, either light characters on a dark background or dark characters on a light background. All signs shall have letters and numbers with the ratio of letter width to height of between 3:5 and 1:1, and the stroke width to height ratio of between 1:5 and 1:10 **(Figure 35-2).**
CBC-1117B.5.2-3

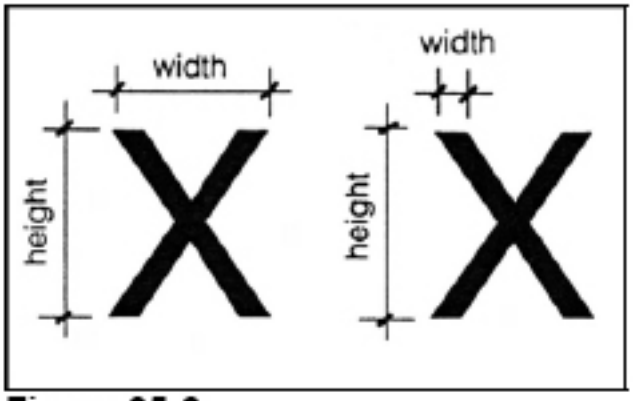


Figure 35-2

Section 35 - Signage

E. Characters and numbers shall be sized according to the viewing distance from which they will be read. See visual character height table **(Figure 35-3)** for various viewing distances. Both upper case and lower case letters should be used, but font size is measured using an upper case X **(Figure 35-2)**. For signs suspended or projected above the finish floor on posts or supports at a height where the bottom edge of the sign is 80" or more above the floor, the minimum character height shall be 3".
ADAAG-703.5.5
CBC-1117B.5.4

F. Signs identifying permanent uses of rooms and spaces shall have raised letters at a minimum 1/32", raised characters at a minimum ⅝" to a maximum 2" **(Figure 35-4),** san serif, uppercase and Grade II Braille, mounted on the latch side of any doors at 60" above the floor to the centerline of the sign. Signs must be approachable to within 3" without obstruction **(Figure 35-5).**
CBC-1117B.5.5-6

Height to Finish Floor or Ground From Baseline of Character	Horizontal Viewing Distance	Minimum Character Height
40" to less than or equal to 70"	Less than 72"	⅝"
	72" & greater	⅝", plus ⅛" per foot of viewing distance above 72"
Greater than 70" to less than or equal to 20"	Less than 180"	2"
	180" & greater	2", plus ⅛" per foot of viewing distance above 180"
Greater than 120"	Less than 21'	3 inches
	21' and greater	3", plus ⅛" per foot of viewing distance above 21'

Figure 35-3

Section 35 - Signage

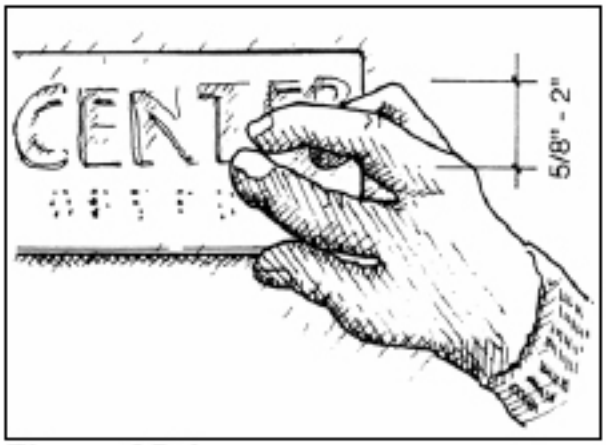


Figure 35-4

G. Pictograms must be accompanied by the equivalent verbal description placed below in raised letters and Grade II Braille when used in a permanently signed room or space.
CBC-1117B.5.5.3

H. Signage containing pictograms should have 6" borders. The International Symbol of Accessibility (ISA) circles and triangles on restroom doors are not considered pictograms.
CBC-1117B.5.5.3

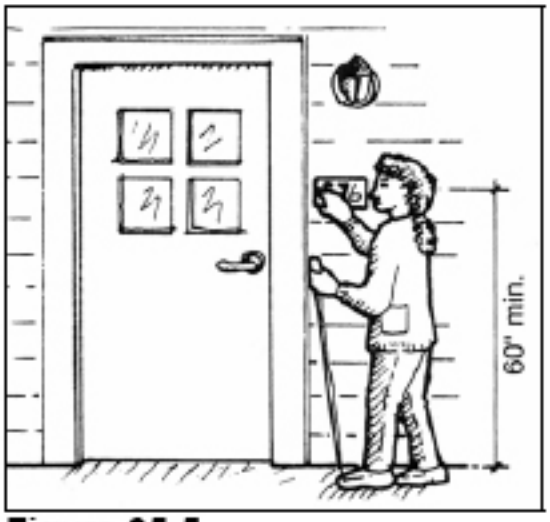


Figure 35-5

I. Buildings that have been remodeled to provide accessible restrooms and/or elevators shall post this information in the building lobby.
CBC-1117B.5.8.1.3

J. The use of alternative signage forms such as remote directional human voice messages may be explored and used subject to the consent of the Accessibility Section.

Section 35 - Signage

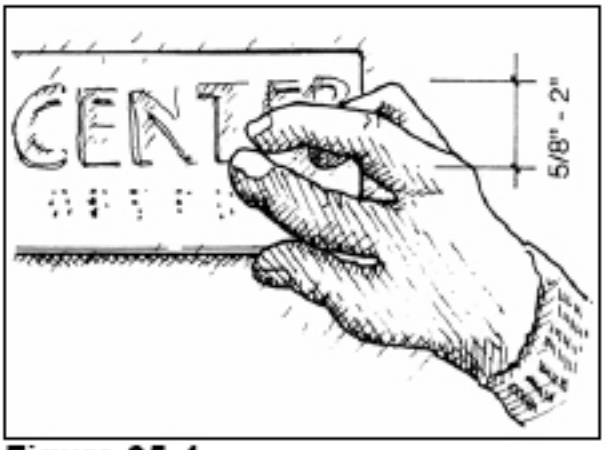


Figure 35-4

G. Pictograms must be accompanied by the equivalent verbal description placed below in raised letters and Grade II Braille when used in a permanently signed room or space.
CBC-1117B.5.5.3

H. Signage containing pictograms should have 6" borders. The International Symbol of Accessibility (ISA) circles and triangles on restroom doors are not considered pictograms.
CBC-1117B.5.5.3

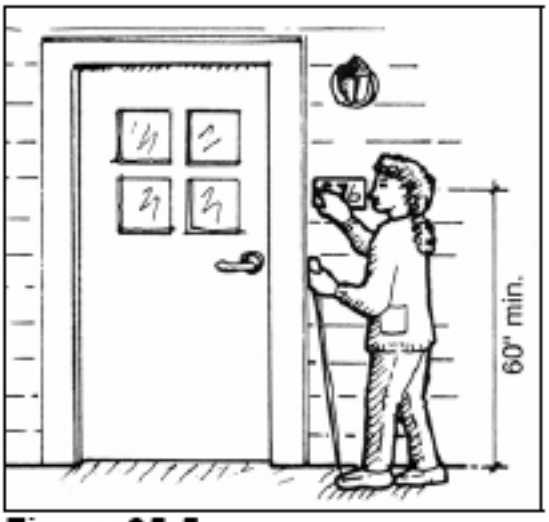


Figure 35-5

I. Buildings that have been remodeled to provide accessible restrooms and/or elevators shall post this information in the building lobby.
CBC-1117B.5.8.1.3

J. The use of alternative signage forms such as remote directional human voice messages may be explored and used subject to the consent of the Accessibility Section.

Accessibility Compliance Checklist for Exhibits

This document is intended to facilitate in planning accessible exhibits. Refer to Section 18, Exhibits for detailed descriptions of accessible exhibit requirements. Please ☎ contact the Accessibility Section at (916) 445-8949 for clarification or assistance.

A. SITE PLAN

1. Have the site drawings or floor plans been submitted, showing compliant exhibit locations, panel dimensions, mounting heights and angled, viewing distances and turning space?

   ☐ Yes
   ☐ No
   ☐ Not Applicable

2. Are the paths of travel through the exhibit barrier-free, allowing compliant approaches, views and departures?

   ☐ Yes
   ☐ No
   ☐ Not Applicable

3. Are the hands-on and interactive components within prescribed reach ranges, not requiring tight pinching, twisting or grasping?

   ☐ Yes
   ☐ No
   ☐ Not Applicable

B. DESIGN ELEMENTS

1. Have panel designs been submitted on hard copy (at a minimum of 40% of actual size), or electronically in Photoshop or Illustrator?

   ☐ Yes
   ☐ No
   ☐ Not Applicable

2. Is the layout of each panel visually logical and easy to understand?

   ☐ Yes
   ☐ No
   ☐ Not Applicable

3. Are videos captioned for sound and key visuals?

   ☐ Yes
   ☐ No
   ☐ Not Applicable

Accessibility Compliance Checklist for Publications

This document is intended to facilitate in planning accessible publications. Refer to Section 30, Publications for detailed descriptions of accessible publication requirements. Please ☎ contact the Accessibility Section at (916) 445-8949 for clarification or assistance.

1 Does the publication integrate information about accessible features?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

2 Does the publication state the availability of a TTY "(000) 000-0000, TY direct connection" and/or include the following statement: "711, TTY RELAY SERVICE"?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

3 Does the publication incorporate the following: "California State Parks supports equal access. Prior to arrival, visitors with disabilities who need assistance should contact (contact name and phone number)"?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

4 Does the publication state: "This publication is available in alternate formats by contacting (contact name and phone number)"?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

5 Is the font size of body text an acceptable 12-point typeface?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

6 Is the type easy to read?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

7 Are the text and graphics in high contrast to the background?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

Accessibility Compliance Checklist for Publications

8 Are international symbols used on maps to identify areas, facilities or points of interest?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

9 Is the publication easy to read, without complex sentences and academic jargon?

- ☐ Yes
- ☐ No
- ☐ Not Applicable

California State Parks, Southern Service Center, 2009.

This publication is available in alternate formats by contacting the SSC at (619) 220-5300.