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Executive Summary

In October 2003, the Dunes Center retained the services of The Acorn Group, an interpretive planning and design firm based in southern California, to develop an interpretive master plan on behalf of the Guadalupe-Nipomo Dunes Stewardship Collaborative. The purpose of the master plan is to chart a course for the development of visitor services, interpretive communications and educational programming throughout the Guadalupe-Nipomo Dunes Complex.

Members of the Stewardship Collaborative spent considerable time with The Acorn Group to ensure the planners understood the needs, interests, and constraints of dunes landowners. Interpretive planning sessions were attended by representatives of California State Parks, U.S. Fish and Wildlife Service, County of Santa Barbara and the Center for Natural Lands Management (CNLM), The Dunes Center, Unocal, and the local agricultural community. The planners also reviewed existing information on the dunes and the Stewardship Collaborative partnership.

Acorn Group staff, with the assistance of staff from CNLM, conducted a brief survey of visitors at the Rancho Guadalupe Dunes Preserve and the Oso Flaco Lake Natural Area in 2003. Planners also surveyed elementary teachers in four neighboring school districts, and researched other natural history-oriented facilities located nearby in San Luis Obispo and Santa Barbara Counties. In 2005, Acorn Group staff, with the assistance of Oceano Dunes State Vehicular Recreation Area (SVRA) management, staff and volunteers, conducted a survey of SVRA visitors.

The surveys confirmed the Collaborative's belief that interpretive opportunities would enhance the dunes experience for visitors. Survey data show the dunes are a valued destination for both area residents and travelers, although finding the dunes and navigating within them can be a challenge. Most visitors in the 2003 study came to be with family or friends, enjoy natural beauty and wildlife, to exercise, and/or to relax and reflect. The primary interest of visitors in the 2005 study was to be with family or friends, ride in the dunes, and relax and reflect. Although differences were noted between English and Spanish speaking visitors in regard to group size and activities, interest in new interpretive opportunities in the 2003 study was equally high across language groups. When asked what improvements would expand their enjoyment of the dunes, visitors favored a dunes-wide recreation brochure with map, interpretive panels, a field guide for dunes features, and new or improved trails. Some visitors expressed concern that added interpretive and/or directional aids would attract crowds. SVRA visitors indicated camping and picnic facilities, a recreational brochure, more riding areas, directional signs, and

more FM broadcast information. One in five asked for interpretive amenities, with a self-guiding trail, a guidebook, live programs, and wildlife viewing platforms most requested.

Results of the educator needs assessment indicate that the majority of teachers surveyed are enthusiastic about opportunities for learning about the Guadalupe-Nipomo Dunes Complex. Despite concerns over cost and transportation, most teachers are willing and interested in engaging their students in guided discoveries at the dunes as long as the program content focuses on science and is aligned to California Content Standards. Elements likely to improve student experiences outdoors at the dunes include additional information and activities on the trails, additional trail amenities such as restrooms and drinking fountains, and signs to describe points of interest. Teachers are equally supportive of the concept of developing new interpretive media such as signs, and new opportunities for investigations in the field.

The Acorn Group looked at neighboring facilities and organizations that offer interpretive and environmental education opportunities within a 25-mile radius of the Guadalupe-Nipomo Dunes. Twelve institutions were identified, and while several have programs that focus on dune ecology, few are based in an environment as ecologically rich, diverse, and expansive as the Guadalupe-Nipomo Dunes.

Based on the project research, input from Collaborative partners, and their own observations in the field, the planners have identified several strategies for enhancing visitor services and refining communication efforts. Recommendations include phased development of a limited number of interpretive panels at Oso Flaco, Guadalupe-Nipomo Dunes National Wildlife Refuge, Rancho Guadalupe Dunes Preserve, and Black Lake Canyon Preserve. Live programming is also suggested for school groups and recreational visitors. Due to use patterns and climate issues at Oceano Dunes SVRA, interpretive panels are not recommended; instead, live interpreters will be the most effective strategy. Other recommendations within the Complex include development of two interactive exterior displays on the nesting activity of California least terns and western snowy plovers, improved directional signage, development of a wayfinding panel for the exterior of the Dunes Center building (guiding visitors to dunes access points when the Center is closed), and new efforts focused at community outreach, including development of highway signs, offsite brochures, and increased exposure through organizations affiliated with the dunes.

The Collaborative would benefit from enhancing, expanding, and marketing their existing on-site and off-site environmental education and interpretive programs. In addition, the Collaborative is advised to adopt uniform graphic standards throughout the dunes, developing a new graphic identify for use by members of the Dunes

Stewardship Collaborative. Such a graphic “logo” would convey a united effort on behalf of all members while still allowing visitors to identify the managing agency at each parcel.

While the interpretive master plan report establishes the groundwork for future development of interpretive media and programs, it is intended to be a living document in which adjustments and additions can be made over time.

The planners wish to thank the Dunes Stewardship Collaborative—in particular the members of the planning committee, volunteers, staff, and Dunes Center board members—for their support, cooperation, and creative ideas.

Guadalupe-Nipomo Dunes Interpretive Master Plan

Project Overview

The Guadalupe-Nipomo Dunes: A Haven for Wildlife and a Destination for People

A few short generations ago, a person walking the length of California's coast would have encountered more than a dozen stretches of dunes landscape—all strikingly beautiful and supporting an incredibly diverse array of plants and wildlife.

Today, most of California's dunes lie under concrete, asphalt, and houses. Parts of San Francisco, Monterey, and Los Angeles occupy former dunes systems. Of California's 13 original coastal dune systems, only four remain relatively intact. The Guadalupe-Nipomo Dunes, an eighteen-mile-long complex located north of Santa Barbara and south of San Luis Obispo, is one of them. It comprises the second largest coastal dune system in the state and is among the most scenic and treasured of California's wild places.



The dunes are a restless landscape. Born from a chance junction of curved coastline, a river transporting sand from distant mountains, and ceaseless, shifting winds, the dunes are an ever-changing, living place.

Just inland from the tidal area busy with feeding shorebirds, the first line of foredunes is unstable, changing from season to season. These small structures take the brunt of winter storms, drifting and migrating as tide and wind converge. Only the most tenacious of pilgrim plant species take tentative root on these temporary surfaces. Most are torn from their sandy homes in their first winter storm. Others survive and spread to form a living mat, stabilizing small hillocks of sand—until the next tempest arrives to rewrite their fate.

This unstable topography serves as a barrier for large stretches of older, more sedentary dunes inland. Here, dunes may creep a few feet east or west over the course of a year, creating a substrate for the growth of native plants adapted to the harsh conditions of the wind-driven landscape.

Wind is not alone in creating and sustaining this landscape. Flowing down from distant mountains, the Santa Maria River, sand-bearing mother of the dunes, meets the coast in a lush estuary. Here and there, hidden between the dry sand hills, pockets of fresh and brackish water also form numerous small lakes and wetlands. Myriad creatures make their year-round or seasonal homes in this living tapestry. Bobcats, beetles and kangaroo rats nightly leave their prints in the sand. In the estuary, migratory shorebirds feed, rest and recharge for the next stage of their journey, while ducks, herons, frogs and muskrats ply the inland waters. Deer browse shrubs and undergrowth, their young hidden in tall grass, safe from prowling cougars. Foxes, coyote and black bear thrive here. The dunes support one of the few remaining nesting areas for the California least tern and the Western snowy plover, two of California's most endangered shorebirds.



The dunes have also supported human activity and enterprise—in a variety of ways over many centuries. Its hills and valleys offered a rich bounty of game, plant foods, and fresh water for its first people, the Chumash. Later, farmers and ranchers would turn stable areas within the dunes into agricultural production areas. A growing petroleum industry in the 1940s fueled discovery and exploitation of ancient oil deposits under the sand.

In the mid-twentieth century, a collage of artists, authors and eccentrics seeking refuge from the pressures of urban life took up residence in the dunes. As off-highway vehicles gained popularity in the late 20th century, the dunes complex became a prized destination for thrill-seekers. Even Hollywood had its moment here: taking advantage of

an uncanny resemblance to Egyptian desert landscapes, DeMille Studios turned the dunes into a striking backdrop for scenes in the 1923 film *The Ten Commandments*.

The Dunes Today

A growing environmental awareness in the last part of the 20th century moved concerned Californians to protect much of the fragile Guadalupe-Nipomo Dunes landscape from consumptive use and development. Massive efforts to restore the land and its ecosystems to better health are now in progress, ranging from removal of exotic vegetation to reintroduction of native plants to remediation of contamination from petroleum industry activities. Over the last 15 years, visitors have witnessed formerly trampled, bare dunes coming to life with native flowers and shrubs, and the once-luxuriant array of indigenous creatures regaining some of its former abundance and diversity.



Today the Guadalupe-Nipomo Dunes harbor California's richest collection of dune species. Its unique and varied ecosystems offer invaluable scientific research opportunities. Additionally, the dunes are a much-loved destination for naturalists, seekers of solitude, surfers, fishermen, and families in search of a place to enjoy the beauty of the outdoors.

Honoring the long-established local tradition of off-road vehicle recreation at the dunes, portions of the dunes complex have been set aside for motorized vehicle recreation as well.

The dunes complex continues to provide a growing list of economic benefits to area communities. Its unique ecosystems, recreational opportunities, and unparalleled beauty have made the dunes a destination for tourists regionally and nationally.

Why Interpret the Dunes?

The very qualities that attract outdoor enthusiasts, scientists, and tourists to the dunes place this irreplaceable treasure at risk. The tapestry of ecosystems supported by the dunes is fragile. Sensitive ground-nesting birds are particularly vulnerable to direct and indirect pressures of human use. Additionally, the peaceful nature of certain dune sites—one of the most frequently-cited reasons for visiting—is in jeopardy from increased use. Such growth is inevitable as word of the site spreads.

The dunes complex also faces increased management problems from future residential developments on its borders. Development brings threats to water quality and water supplies, introduction of exotic vegetation, roaming pets, new “social trails” and other unauthorized uses. Eventual loss of buffer lands provided by adjacent agricultural activities is a possibility as well.

Only by supporting increased awareness of the fragility of the dunes complex, connecting visitors and area residents to its meanings, modeling appropriate uses, and ultimately facilitating a stewardship ethic toward the dunes will this special place survive to support future generations of plants, animals, and people who depend upon and value this remarkable land.



Project Purpose

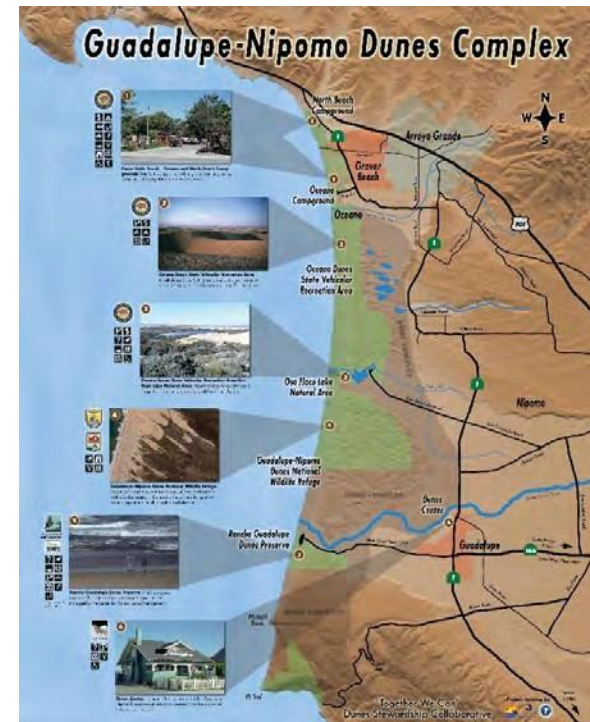
The purpose of this draft interpretive master plan is to chart a course for interpretive communications and educational programming throughout the Guadalupe-Nipomo Dunes Complex.

Partners

The Guadalupe-Nipomo Dunes Complex, approximately 18 miles long and two to five miles wide, is owned by a mosaic of federal, state, county, non-profit, corporate, and private interests, including agricultural operations.

The majority of dunes landowners are members of the Dunes Stewardship Collaborative, a partnership of interests working together to protect dunes resources and provide for their public use. Collaborative members include:

- US Fish & Wildlife Service
- California State Parks
- County of Santa Barbara
- County of San Luis Obispo
- Center for Natural Lands Management
- ConocoPhillips Petroleum
- Land Conservancy of San Luis Obispo
- The Dunes Center, a private non-profit organization serving both as the public face of the Dunes Collaborative and as the manager for this master planning project.



The Acorn Group, Inc., an interpretive planning and exhibit design firm located in Tustin, California, led the interpretive master planning effort. Team members included Jennifer Rigby, director of The Acorn Group, and Rici Peterson, interpretive planner.

Stakeholders

Although privately held parcels and some government-owned properties within the dunes are closed to public use, the majority of the complex is open to visitation. Allowable activities vary by site and landowner, and range from passive uses such as walking, nature study, fishing and surfing to highly active off-road vehicle use. Hunting is not allowed in the dunes system.

With their stunningly beautiful landforms, freshwater and ocean resources, varied habitats supporting a rich array of plant and animal species, and a wide range of recreational opportunities, the dunes are a highly valued resource for area residents while also attracting visitors regionally and nationally. Its relatively intact ecosystems provide a variety of scientists with critical research projects.



These users also have a stake in the outcome of the interpretive plan, and their input has been sought in its preparation.

What the Interpretive Plan Can Do

The interpretive programming proposed in this plan is meant to help visitors, neighbors, and potential stewardship partners become aware of the fragility of this valued community resource, understand their role within it, and develop a pride of place that will attract support for and ensure the long-term protection of the Guadalupe-Nipomo Dunes. It can also serve as a guide for Collaborative partners in all forms of public communication about the resource.

Because the dunes are a resource sought out by many for their scenic values and their undeveloped and wild character, interpretation here must stay respectfully in balance with visitor needs and expectations. It must take a minimalist approach in order to enhance, not detract from, the visitor experience.

Constraints and Limitations of the Plan

In developing this draft interpretive plan, team members took into consideration the complexity of ownership, management, and visitation issues surrounding the dunes. No single point of view can fully represent the dunes complex or its range of meanings, nor is the formation of a single voice among diverse partners entirely possible. Yet, just as harmony offers a richer musical experience than does a solo melody, the Dunes Stewardship Collaborative is in the process of forming a strong working partnership greater than the sum of its parts. Together the partners are protecting the dunes for future generations of plants and animals as well as for those seeking satisfying outdoor experiences. By working together to carry out an interpretive master plan for the development of interpretive and educational services and products, Collaborative partners can further their common mission while creating a richer and more fulfilling visitor experience.

This report was developed in two phases. The first, took place between October and December 2003 and treated Rancho Guadalupe Dunes Preserve¹, the Oso Flaco Lake Natural Area², and the Guadalupe-Nipomo Dunes National Wildlife Refuge. The second phase took place between September 2005 and August 2006, when planning for the Oceano Dunes State Vehicular Recreation Area and the Black Lake Canyon Reserve took place.

The goal of the project was not to create a comprehensive and final plan set in stone, but rather to outline goals, develop thematic messages, identify key issues, and create a living document to shape further planning efforts in the future. Gaps in this plan are acknowledged by the team; as outlined in this plan, identifying and filling them will be one of the next steps for the Dunes Stewardship Collaborative.

¹ owned by Santa Barbara County Park Department and managed by the non-profit Center for Natural Lands Management (CNLM)

² although part of the Oceano Dunes State Vehicular Recreation Area, the Oso Flaco Lake parcel is closed to vehicular use.

The Planning Process

Planning Committee

After an introductory meeting in early October 2003 with members of the Collaborative, an Interpretive Planning Committee was formed, consisting of Collaborative members and stakeholders from the community at large³. Over the course of two months, the committee met with the planning team twice to identify key issues, review findings, and offer comments. Between meetings, the group stayed in contact through telephone and email correspondence.

In mid-October 2003, the committee and the design team met to discuss interpretive topics, identify target audiences and visitor agendas, develop interpretive goals for the dunes, and air issues and concerns for consideration during the planning process. By late October, the design team had submitted for review and comment an interpretive outline with draft theme, subthemes, goals, and target audiences.

In early December 2003, the design team met with the committee to present a draft design scheme and conceptual recommendations for media and services. Comments and suggestions from the committee were incorporated into the draft plan.

In mid-December 2003, after its approval by the committee, the first-phase draft plan was presented in a public meeting to gather feedback on results. Interestingly, despite publication of an announcement, no members of the public showed up for this meeting. We take this as a sign of their faith in the Dunes Stewardship Collaborative and the interpretive planning process. Nevertheless, to ensure critical information would be available to the public, a summary of findings was posted on the Dunes Center website.

In September 2005, phase two of the draft plan was begun. Visitors to the Oceano Dunes SVRA were interviewed over Labor Day weekend by The Acorn Group, SVRA staff, and SVRA volunteers. In January 2006, planning staff visited the Black Lake Canyon Reserve with San Luis Obispo to review its resources and assess its interpretive potential.

³ A list of committee members can be found in Appendix VII.

Project Research

The planners performed extensive background research for this plan. They interviewed Stewardship Collaborative partners and conducted site visits. Resource protection issues, management concerns, land use and ownership history, and partnership issues were examined. Visitor interests and educator needs were assessed. Management plans, strategic plans, species monitoring reports, and background materials from the various partner agencies and organizations were reviewed. The team developed a summary of neighboring facilities likely to attract or interest similar visitor populations, studied area demographic and psychographic data, and read previous interpretive plans developed for portions of the dunes during the 1980s and 1990s. Research summaries developed by the team can be found in Appendices II through V. A list of reference materials consulted during the planning process can be found in Appendix VI.

Background Information

Shifting Sands, Evolving Values

Industrial uses such as farming, ranching, and sand mining have long been established in and around the dunes. In the early and mid-twentieth century, the nation's growing need for petroleum led to the discovery of oil reserves under the dunes, and petroleum extraction joined the list of commercial uses.

Although some areas within the dunes had previously been set aside as park land, a fundamental shift from industrial use of the dunes to their long-term conservation began in the 1960s, when Kathleen Goodard Jones, a local naturalist and activist, began to raise awareness of the dune's fragile and critical resources. Shortly thereafter, the California Coastal Conservancy, a state agency, spearheaded early protection efforts of dunes habitats. By the 1970s, the agency had begun to work with The Nature Conservancy, a private non-profit organization, to initiate the dunes' first cooperative management agreements, pursue land acquisitions, and outline restoration efforts for some of its most impacted areas.

Prior Planning Efforts

Understanding and reaching out to visitors was recognized as a priority for these conservation managers. In the mid-1990s, The Nature Conservancy commissioned a comprehensive User Analysis Report identifying the needs,

interests, perceptions, and demographics of existing and potential dunes visitors (The Nature Conservancy/Christiano and Associates, 1995). Additionally, they developed a draft interpretive plan proposing on-site interpretive media at the Rancho Guadalupe Dunes Preserve and the construction of a dunes visitor center (The Nature Conservancy/Sagan, 1996). The information contained in these early publications has been of considerable value to the current planners in the development of a more comprehensive plan for interpretation dunes-wide.

In 1998, a settlement regarding the impacts of past petroleum extraction efforts created an endowment fund for dunes restoration, conservation purchases, and visitor services. A draft restoration plan for the dunes complex was completed in 2001, the year during which Dunes Stewardship Collaborative was formed. Today the Collaborative coordinates restoration, education, and visitor services projects throughout the Complex and promotes the growth of partnerships for the benefit of the dunes ecosystem. The Collaborative's efforts are coordinated by the non-profit Dunes Center.

Summary of Existing Conditions

A Single Ecosystem Managed by Many Partners

While the 22,000-acre Guadalupe-Nipomo Dunes Complex comprises a single ecosystem, geopolitically it forms a complex mosaic of landscapes and land parcels owned by various private and public interests, including land managing agencies, private conservation organizations, ranchers and farmers. "Facilities" within the Dune Complex consist, for the most part, of the landscapes themselves, with minimal physical amenities. Seven parcels within the dunes are specifically addressed in this interpretive master plan.

Dunes Center

The focal point for Guadalupe-Nipomo Dunes research and education is located in the town of Guadalupe at The Dunes Center. This non-profit organization serves as the administrative hub of the Dunes Stewardship Collaborative. In this capacity, the Center assists in the coordination of research and



restoration activities within the Complex. The Dunes Center also serves as a public education office, developing programs, curricula, and exhibits for its varied audiences.

The Center provides opportunities for visitors to gather information, participate in a wide variety of programs, and become involved in volunteer efforts. Environmental education is a major focus at the Dunes Center. Staff and docents of the Dunes Center offer a range of school programs, including guided field trips to the dunes, science workshops for teachers, and visiting classroom programs. Teachers have access to the Dunes Center website (www.dunescenter.org) and an Education Kit CD-ROM, through which they can review background material, print out a master for a student journal, and guide students in conducting research on assigned activities.



The Center boasts a corps of 80 active volunteers, including ten who serve as Dunes Center hosts. Housed in a classic 1910 American Craftsman structure, the Center includes offices, meeting space, a volunteer-staffed retail area, and a small exhibit area with a theater for audiovisual presentations. It also offers an outside amphitheater for programs and activities.

At the time of this report, a new 7,200-square foot Dunes Interpretive Center, located on the same property as the administration office and scheduled for completion in 2005, was being designed as a portal to the Guadalupe-Nipomo Dunes experience.

Oso Flaco Lake Natural Area

Oso Flaco Lake Natural Area is located immediately north of the Guadalupe-Nipomo Dunes National Wildlife Refuge and is part of the Oceano Dunes State Vehicular Recreation Area. It is off-limits to OHV use and serves to recognize the conservation-related efforts of off-road vehicle user groups (USFWS, 2000).

The area is home to two freshwater lakes. After walking down a long causeway shaded by willows, visitors encounter Oso Flaco Lake and cross it using a long, low pedestrian bridge offering excellent views of waterfowl. At the bridge's end, a boardwalk extends one mile into the foredunes and dune scrub habitat, ending just before the beach. The entire trail system from parking lot to the end of the boardwalk complies with the Americans with Disabilities Act and affords easy access to a spectacular experience; a beach wheelchair is available for use by

prior arrangement through the Dunes Center. Midway along the boardwalk, a short spur connects the Oso Flaco Lake Natural Area to Maidenform Flats, an adjoining off-highway vehicle riding area within the Oceano Dunes State Vehicular Recreation Area. A restroom, relied on by both Oso Flaco pedestrians and OHV riders, is located along this boardwalk spur.

Arriving visitors move through a gate and pass a small gatehouse at the park entrance where they pay a parking fee. The gatehouse is staffed intermittently; when the ranger is on patrol, visitors must use a self-pay system utilizing an iron ranger collection box.



Visitors to Oso Flaco experience astonishing beauty but also risk cognitive dissonance. While taking in the spectacular views of the lake, dunes, and rich array of bird and plant life, the rumble of off-road vehicles can be heard in the near distance; in places, vehicles can be seen and their exhaust fumes detected.

A kiosk at the trailhead offers a bulletin board for guided program announcements and a dispenser for Dunes Center brochures. There are currently no interpretive media at Oso Flaco Lake Natural Area.

Rancho Guadalupe Dunes Preserve, a Santa Barbara County Park

Located in the southern reaches of the dunes, Rancho Guadalupe Dunes Preserve is managed for Santa Barbara County Parks by the Center for Natural Lands Management (CNLM)⁴. Park access is via an entrance at the end of Santa Maria’s West Main Street. Here visitors pass a small, staffed gatehouse where a small donation is collected in lieu of a day-use fee.

The two-mile drive to the beach parking area offers an interesting experience for the visitor who takes the term “Preserve” literally. Emerging from the small wooded area surrounding the park entry point, the visitor is



⁴ The Nature Conservancy turned over its management and ownership interests to the Center for Natural Lands Management in 2000. Many local residents are unaware of the change, and continue to identify the Conservancy as site managers.

first greeted by grazing lands dotted with cattle, then by an active sand mining operation.

But at the next bend, as the road tops the crest of the first dune, the visitor enters another world of unparalleled beauty. The abrupt change and the sheer magnificence of this first view of the dunes overwhelm the eye and excite the mind. The vista only improves as the visitor approaches the beach and the seemingly infinite expanse of dune and water.

At the end of the road, visitors may park at a small beach lot. Here at Rancho Guadalupe, visitors tend to seek passive recreation such as surf fishing, surfing, and walking. Physical improvements for visitors include portable toilets, picnic tables at the parking lot edge, an information kiosk, an interpretive panel on nesting birds (in English and Spanish), and a small mobile interpretive trailer with exhibits related to the dunes. The trailer is open to the public from spring through fall as staffing permits. The trailer, the interpretive panel, and the kiosk represent implementation of concepts proposed by the Preserve's 1996 interpretive plan.



Some regulatory and directional signage is in place at the gatehouse and beach. Personal interpretation is also provided for visitors through direct staff contact, during programs, or via informal visits to the beachside trailer during the summer months.

Resources at the Preserve

Biological resources of the Rancho Guadalupe Dunes Preserve include the dunes themselves, the Pacific Ocean, the Santa Maria River, and agricultural fields. The area provides critical nesting habitat for the endangered California least tern and snowy plover. Although the beach is accessible to the public year-round, nesting areas in the foredunes and back dunes are fenced off during the six-month nesting season.

Visitors driving to the parking lot pass the 1923 filming site of *The Ten Commandments*. The site was intentionally buried in the sand at the end of filming, but pieces of the set are being gradually uncovered by the wind. To the

unsuspecting, the large, unmarked sand hills partially surrounded by symbolic fencing⁵ may be an insignificant feature, but for those already aware of this archaeological site, the fence could become a broadcasted advertisement for a tempting expedition. As the filming site is the subject of an indoor exhibit at the Dunes Center, it is no longer a well-kept secret among local residents. Management struggles to balance interpreting this fascinating archeological resource with protecting it from disturbance and theft.

Some visitors use the preserve as access to Mussel Rock and Point Sal, located at the southern end of the dune system.

Improvements to Visitor Services

Visitor facilities at the Preserve are already improving. In 2004, the County of Santa Barbara will develop a new parking lot and picnic area to replace the deteriorating lot currently located just above the beaches' high tide mark. By moving the lot eastward, separating cars from the beach area, and creating a designated space for picnic tables, the County's efforts will improve the aesthetic experience for all visitors.

The County is also planning the installation of an overlook located east of the beach along the entry road. The site affords excellent north-facing views of the Santa Maria River estuary immediately below, as well of the retired oil fields and the Guadalupe-Nipomo Dunes National Wildlife Refuge beyond the river. Directly south of the road are the remains of *The Ten Commandments* movie set, partially roped off by symbolic fencing. The overlook will accommodate 15-minute parking for five vehicles, including one handicapped spot.



⁵ "Symbolic fencing" at the Dunes Complex consists of a simple post-and-cable array. It is fairly effective at discouraging trespass but is easily crossed by any visitor determined to enter.

Guadalupe-Nipomo Dunes National Wildlife Refuge

Formerly known as the Mobil Coastal Preserve, the Guadalupe-Nipomo Dunes National Wildlife Refuge is located north of Rancho Guadalupe County Park and south of Oso Flaco Lake Natural Area. Visitors may gain access to the refuge on foot from either of these two sites, exploring the vast coastline and a variety of coastal dunes habitats that extend inland throughout this wilderness area.

Donated by the Mobil Oil Company in 2000, the Refuge was established to conserve, enhance, and recover coastal habitats, enhance public appreciation of coastal resources, and aid in the recovery of several endangered and threatened species including the California least tern, California red-legged frog, La Graciosa thistle, and western snowy plover.



The Refuge provides wildlife-dependent recreational opportunities, including wildlife observation such as bird watching, surf fishing, photography, and environmental education and research.

Physical facilities are intentionally minimal to protect and provide a wilderness experience. Seasonal signage is used for habitat protection. After the exact boundaries of this relatively new site are established in 2004, Refuge boundary signs will be needed. An old sign-in box is located at a site within the Refuge called Hidden Willow Valley, but it has fallen into disuse.

No on-site staff are assigned here; public contact with the Refuge occurs through signage and periodic guided walks offered by management.

Oceano Dunes State Vehicular Recreation Area

Comprising about one-fourth of the Guadalupe-Nipomo Dunes complex, the Oceano Dunes State Vehicular Recreation Area (SVRA) is set aside for off-highway vehicle (OHV) riding in the dunes, as well as for beach walking, surfing, surf fishing, camping, and equestrian use. Oso Flaco Lake Natural Area is located within its boundaries. However, for the purposes of this report, Oso Flaco property is treated separately.

Because of the presence of California least terns and Western snowy plovers, portions of the SVRA are closed during the nesting season. OHV activity here can also accelerate sand movement and resultant loss of vegetation and open water elsewhere, such as at Oso Flaco Lake.

While a large portion of the area consists of active coastal dunes where vegetation is scarce to non-existent, vegetation islands do occur. The state monitors these islands to measure sand movement and biological diversity. They also conduct annual monitoring of terrestrial birds, shore birds, plovers and terns, reptiles, amphibians, and mammals.



Vehicular safety and “environmental etiquette” are the two major issues for communication with visitors to Oceano Dunes SVRA. Existing informational signage at Oceano Dunes includes welcome signs, regulatory panels, boundary signs, and safety messages about creek crossings, hazardous conditions, riding tips, and cougar awareness. Low-power FM radio broadcasts are used locally to disseminate access information, and maps and safety brochures are distributed to visitors at SVRA entry points.

Seasonal interpretive panels on plover and tern nesting are in place from March through September, along with panels that focus on pelagic birds, shorebirds, other wildlife-related topics of interest, and beach and water safety.

Black Lake Canyon Reserve

Owned by the Land Conservancy of San Luis Obispo County, the Black Lake Canyon Reserve properties total 232 acres located at the west end of Black Lake Canyon at its terminus with the Guadalupe-Nipomo Dunes. The Black Lake Canyon Reserve is located three miles north of the National Wildlife Refuge, adjacent to the eastern border of the Oceano Dunes State Vehicular Riding Area. Black Lake—freshwater habitat for California red-legged frog, western pond turtles, and waterfowl—is surrounded by coastal dune scrub and riparian woodlands. The property is well known for spectacular spring wildflowers, and hosts a sizeable population of monarch butterflies during the winter months.

East of Highway 101

Flanked on its east and southeast boundaries by residential development, the portion of the Reserve east of Highway 101 is open to the public. This site is an increasingly popular destination for equestrian users and birdwatchers and includes a natural-surface parking area.

From the north edge of the parking area, visitors may view the low-lying canyon wetlands immediately below. The site offers excellent opportunities to observe associated bird life. High ground north of the wetlands offers a spectacular view of the diverse Guadalupe-Nipomo Dunes landscape. From this small, scrub-covered ridge one may view the wetlands immediately to the south, a long stretch of Black Lake Slough to the east, high-density housing development to the east and south, lush vegetation surrounding Black Lake west of the highway, and, in the distant west, the beautiful rising slopes of the coastal dunes. The effect is rather spectacular.

However, to visit the north side of the wetlands on the east portion of the site, visitors must walk on the shoulder of the highway. Both experiences can be nerve-wracking. It must be assumed that a pedestrian-vehicle collision will occur at some point in the future, especially as visitation and highway traffic increase.

This upland area offers an excellent opportunity to tell the compelling story of the dunes ecosystem and its long-term survival. This can be accomplished by interpreting the diverse topography and habitats of the dunes system within the context of pressure from human habitation.

West of Highway 101

The portion of Black Lake Canyon Reserve west of Highway 101 is not open for unescorted visitors. Access is available only through guided walks and other staff- or docent-led activities advertised in local newspapers and through the Conservancy's website and newsletters. The property on the west side of the highway features a large ring of eucalyptus trees with a monarch butterfly over-wintering site, as well as the magnificent Black Lake itself—the culmination of the entire Black Lake Canyon wetland complex.

Exotic species such as veldt grass and slender-leaf ice plant are a management issue at the Reserve. Currently, major restoration efforts are underway which focus on the removal of non-native plants and reintroduction of native shrubs. Recent studies undertaken by students from Cal Poly, San Luis Obispo revealed that the site receives a significant amount of wildlife use.

Safety issues from traffic along Highway 101 are a major concern at Black Lake Canyon Reserve. Parking for casual visitors is available only on the east side of the highway. Public tours of Black Lake on the west side of 101 necessitate parking on neighboring gated private property, where LCSLOC enjoys a private access easement.

Additionally, as residential areas are adjacent to the Black Lake Canyon Reserve properties, problems related to resource management, encroachment, pollution, vandalism, and visitor safety have occurred historically. The area is currently experiencing a demographic shift and some of these problems may begin to wane over time.

Pismo Dunes Natural Preserve

Pismo Dunes Natural Preserve is located south of Arroyo Grande Creek and east of Oceano Dunes State Vehicle Recreation Area. The property is managed by the California Department of Parks and Recreation as a natural preserve “existing within boundaries of the State park system units” – in this case, Pismo State Beach.

Foredune vegetation, active dunes, and two freshwater lakes comprise the landscape. Numerous sensitive species are found within the preserve, including the western snowy plover. The Dunes Center, Morro Bay Natural History Museum, and volunteers within the California Department of Parks and Recreation offer guided tours. There are no on-site interpretive media.

Point Sal

Managed by the Bureau of Land Management and designated as an *Area of Critical Environmental Concern*, Point Sal is a 77-acre property located at the southern end of the dune system, immediately north of both Vandenberg Air Force Base and Point Sal State Beach. Sandy beach, steep rocky cliffs, and coastal bluff offer habitat for mountain lion, peregrine falcon, California brown pelican, giant coreopsis, and other charismatic dune species.

There are no physical facilities at Point Sal other than informal hiking trails. The main access road to the State Beach and its parking lot has been closed after having incurred storm damage in 2002. There are no signs, formal trails, or other visitor amenities. Visitors park off the shoulder of the road and hike in to enjoy the view and solitude, and/or to access nearby state or county beaches. Because it is surrounded by private land, access is a sensitive issue and stewardship a critical subject at this site.

2003 and 2005 Visitor Study Summaries: Many Faces of the Dunes

Two visitor studies, in the form of live interviews, were conducted for the purpose of measuring visitor perceptions, needs, and interests surrounding interpretation at the dunes for this report. The first took place between October 24 and 31, 2003, when fifty-seven visitors to Oso Flaco Lake Natural Area and Rancho Guadalupe Dunes Preserve were surveyed. The second took place over Labor Day weekend, September 3-5, 2005, when visitors to Oceano Dunes SVRA were interviewed.

Survey questions and tabulated data can be found in Appendices II (2003 study) and III (2005 study).

2003 Survey

Methodology

Santa Barbara County Park and Acorn Group staff conducted the studies at Oso Flaco Lake Natural Area and at Rancho Guadalupe Dunes Preserve. Visitors were approached either as they exited their vehicles upon arrival or at the end of their visit. Response rate was excellent; 60 approaches yielded only three refusals. To accommodate the regions' two major languages, the survey was offered in Spanish or English according to the participant's preference. Eleven of the 57 interviews (19%) were conducted in Spanish. Although the study did not account for other first-language preferences, the three individuals refusing to partake in the survey spoke either English or Spanish, so it is presumed that no person approached was prevented from participating due to a language barrier.

In addition to being examined as a whole, survey results were analyzed by language group within and across sites. Only major findings of the surveys are noted here; for details please refer to Appendices II and III.

While this study generated some interesting and useful information, its small sample size and non-random sampling techniques make it statistically unreliable. Additionally, sampling took place outside of the busy summer season, when visitation is at its highest. The results of this study should not be used to predict the responses, needs, or interests of the potential dunes visitor population; however, they may be used for purposes of discussion, theorizing, and creating profiles of the visitors interviewed specifically during this study. Additional visitor studies, particularly during peak visitation months, are recommended.

Interestingly, however, study results closely parallel those of a comprehensive and scientific profile of dunes visitors produced eight years earlier for The Nature Conservancy (Guadalupe-Nipomo Dunes Preserve User Analysis Report, The Nature Conservancy/Christiano and Associates, 1995). Such correlations bolster our confidence in the validity of the current results. They also indicate that the earlier research, though aged, remains a useful tool for management. Despite changes in ownership and management policies over the years, visitor interests, needs, and values surrounding the dunes seem unchanged.

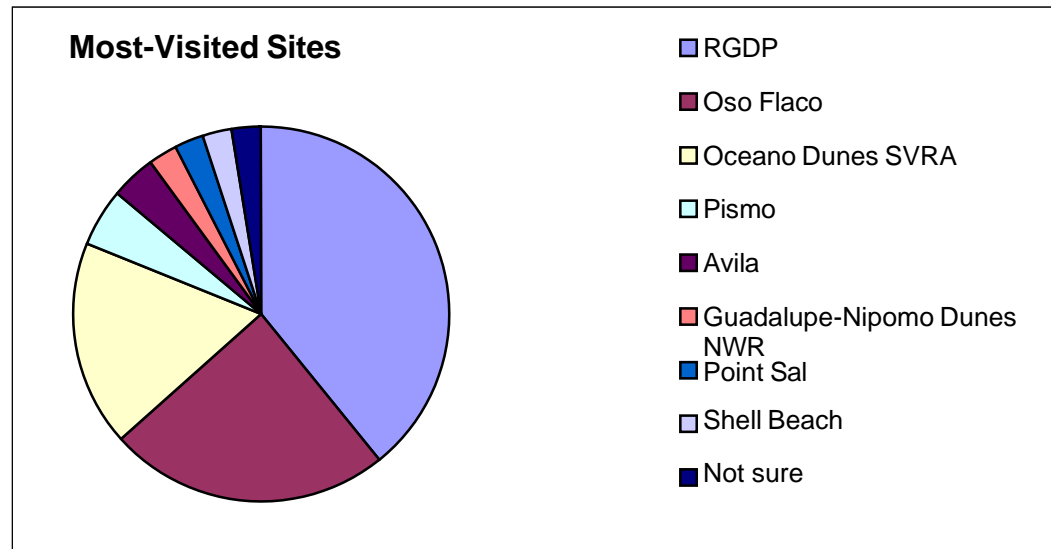
2003 Survey Results

The following is a summary of survey results. Complete data sets are provided in Appendix II.

Patterns of Use

The dunes are popular with locals; most visitors live within 30 miles and are “repeat customers”. Eight-four percent of respondents had visited before, and more than a third had visited 10 times or more over the last year. See chart below for the most frequently-visited dunes sites.

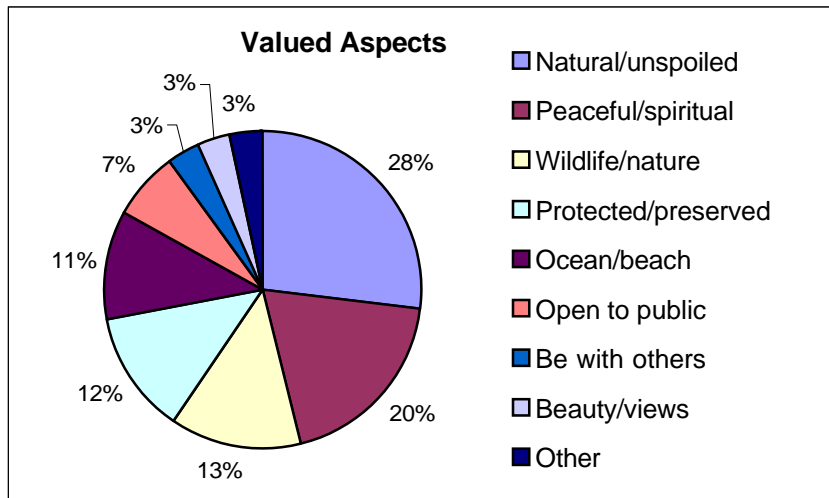
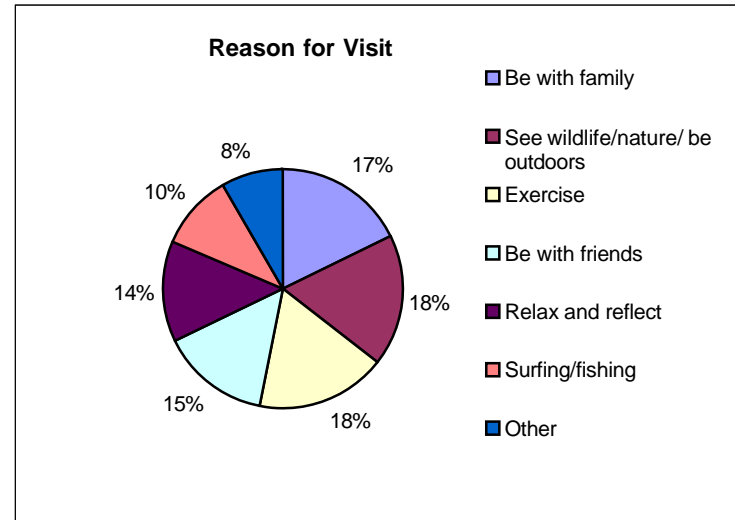
Only 11% of English-speaking respondents had visited the Dunes Center; no Spanish speakers had visited.



Ways Oso Flaco Lake and Rancho Guadalupe Visitors Value the Dunes

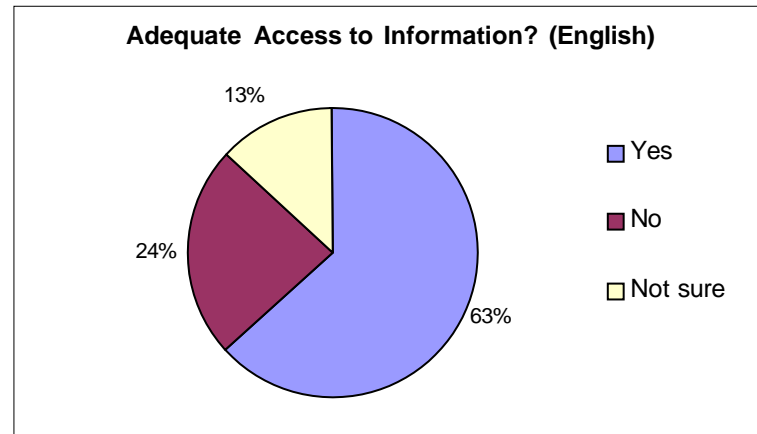
Visitors were asked to name up to two reasons for their visit. As seen at the chart to the right, five most favored reasons are fairly equally distributed: an opportunity to be with family; be with friends; enjoying wildlife, nature, or the outdoors; exercise; and relaxation or reflection. Other responses included surfing, fishing, curiosity, doing homework, preparing to lead a guided walk, and cooling off on a hot day.

The most-valued aspects of the dunes are its natural (undeveloped, peaceful, unique, clean, beautiful, or preserved) qualities, comprising 62 out of 82 named values, or 76%. The “Valued Aspects” chart below provides a more detailed breakdown of values.



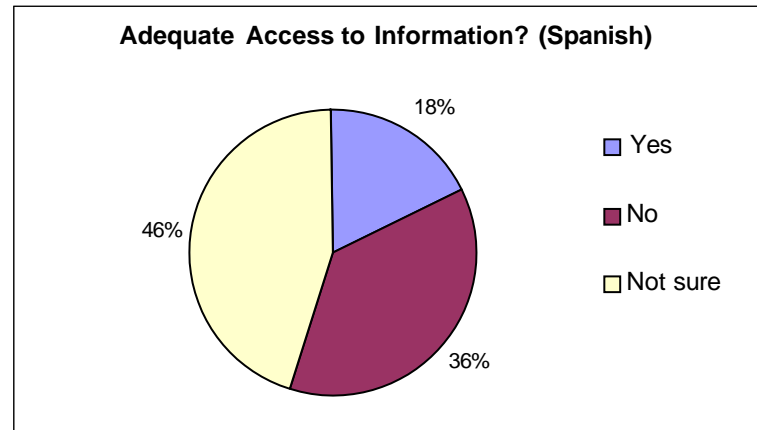
Visitor Perceptions Regarding Access to Sites and Information (2003 Study)

The Guadalupe-Nipomo Dunes Complex is a mosaic of individual properties, each owned and managed differently. It was not surprising, therefore, to uncover a significant knowledge gap regarding site ownership and visitation policies. While seventy-seven percent of visitors indicated it was very or somewhat important to have information about available and permissible activities at the dunes, only 54% felt they had adequate access to such information. Sixty-five percent felt it was very or somewhat important to know who owns or manages the land they visit, yet only 28% were able to accurately identify the agency that manages the site they were visiting that day.



Cultural Gaps Revealed in the 2003 Study

Significant cultural gaps regarding access to information emerge when the data were stratified by language group. Sixty-three percent of English speakers were confident in their access to dunes information, in contrast to 18% of Spanish speakers. Nine percent of Spanish speakers versus 33% of English speakers were able to accurately identify the landowner or managing agency.

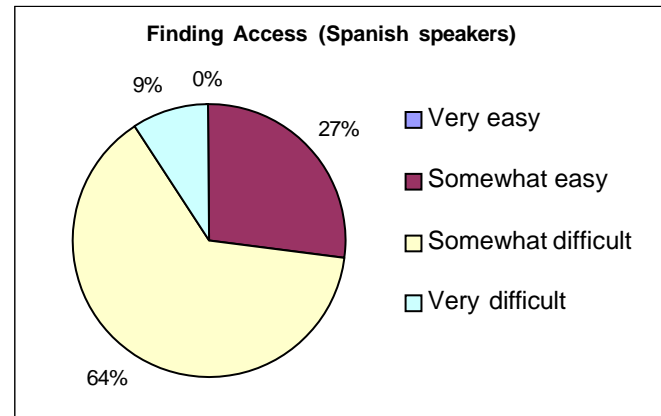
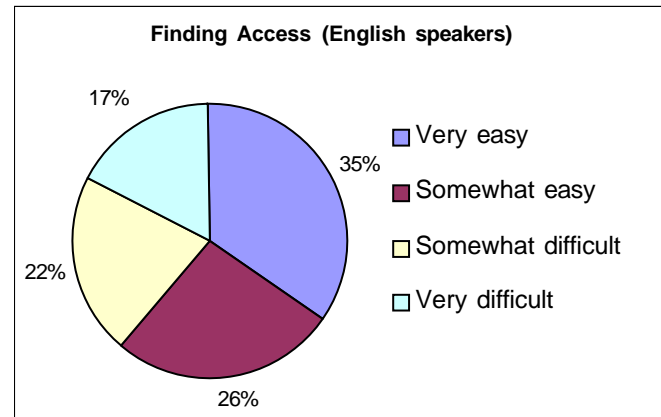


Thirty-nine percent of English-speaking visitors felt finding one’s way to or navigating within the dunes is somewhat to very difficult, while 73% of Spanish speakers felt this way. Both groups cited problems stemming from lack of off-site directional signs or maps, difficulty locating access routes, and/or lack of trailhead signs or other on-site wayfinding aids. Spanish speakers specifically asked for information to be published in their language.

Oso Flaco and Rancho Guadalupe Visitor Awareness and Perception

Most visitors—70%—first learned about the dunes through a friend or family member. Other sources were newspapers, organizations, maps, unplanned discovery, or simple awareness from having been a long-term resident. Only 44% of visitors were aware of organized programs or activities available at the dunes. Only 10% of respondents had attended a program.

Safety concerns emerged as either a non-issue or a significant issue, depending on language group. Ninety-eight percent of English-speaking visitors feel very or fairly safe at the dunes, while only 45% of Spanish speakers feel safe. The differences may be related to language-based communication problems as reported in “Access to Sites and Information,” above. In both groups, those who felt less than fairly safe cited fear of animals, lack of lifeguards, isolation, and lack of security guards.

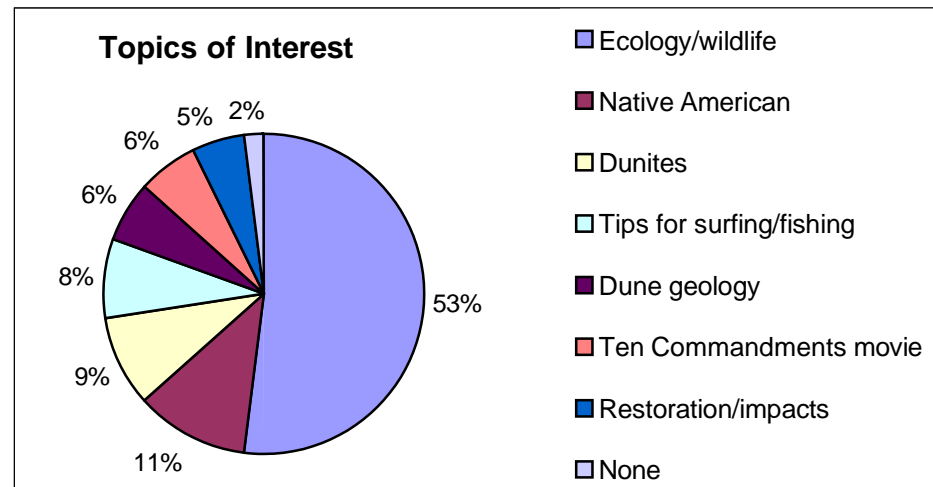
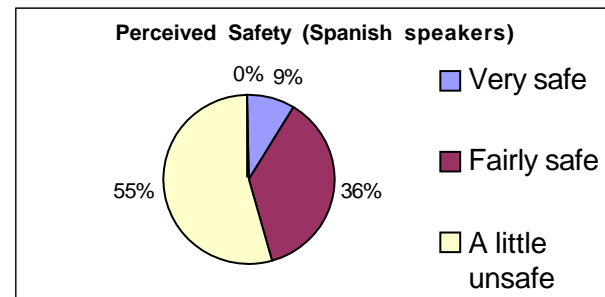
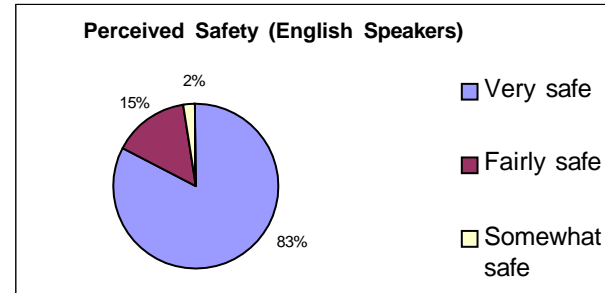


Interests of Visitors in the 2003 Study

Surprisingly, seventy-two percent of all respondents indicated that they tend to read interpretive panels when they encounter them in the field, a rather high figure. Half of this group claims they tend to read all of a brief panel, while a third will read even long and detailed panels. Admittedly, such questions are subject to response bias from what survey researchers term “social desirability”—an unconscious tendency to respond favorably to questions in order to please or to avoid offense. Nevertheless, these figures seem to indicate a strong level of interest in interpretive opportunities. Visitor comments at the end of the survey also indicate concern for (and appreciation of) protection of dunes values.

Visitors were asked what two features would improve their experiences at the dunes, while being shown a pictorial list of prompts. Visitors were also invited to supply their own ideas. The results, as illustrated in the chart above right, show interest in both interpretive opportunities and structural improvements.

Given a second prompt list, visitors were asked to choose up to two favored topics for future interpretation (again with an option to supply original ideas). Preferences are shown in the chart “Topics of Interest”, right.



Differences Noted Between 2003 Survey Sites

Oso Flaco Natural Area

Visitors to Oso Flaco must park at the entry gate and walk over a mile to reach the beach. The walk itself is part of the appeal. It was not surprising to find that Oso Flaco visitors tend to value their experience of nature, quiet reflection, beauty and solitude at the site. Interest in interpretive enhancements was very strong here. The majority expressed a strong interest in learning more about natural history of the site and indicated that they are diligent readers of interpretive panels. Most consider themselves regular visitors.

Rancho Guadalupe Dunes Preserve

Reaching the beach is easy at the Preserve, as the paved road leads to within yards of the ocean. Planners observed that during the study period, visitors here tend to be surfers or fishermen, although some simply come to walk on the beach or dunes, or to enjoy the view from their cars. Interest in natural and cultural resources was somewhat lower here, particularly among those who use the Preserve for active sports. This may be an artifact of user demographics—for example, this park, with its easy access, may attract more visitors interested in sports activities and not the site per se. This study is too small, however, to support speculation.

Although there were differences in visitor interests and needs between the two sites, many commonalities were also uncovered. Most visitors are area residents who visit frequently and who value the site as a place to get away, or to enjoy the outdoors in the company of friends or family; several say they bring out of town guests to the dunes. Some respondents at both sites expressed fear that making the dunes more accessible or attractive would increase visitation, impacting cherished experiences and/or the resources themselves.

Implications for Interpretation

The overwhelming majority of visitors in the 2003 study would welcome increased interpretive opportunities within the Dunes. Their reasons for visiting—enjoying nature, sharing time with loved ones, and opportunities for reflection and exercise—are compatible with on-site interpretive media and programs. Natural history, and to a certain extent, human history are the broad topics of interest to most visitors. Programs about surfing and fishing, however, would attract their aficionados—something to keep in mind if impacts from those activities should become a management problem in the future. Most visitors feel that orientation, safety, and wayfinding information at the dunes should be improved.

Language is a barrier to access, understanding, and enjoyment at the dunes. The area's Spanish-speaking visitors are hungry for interpretive services, media, and visit-planning information. They indicate a lack of awareness of the dunes among Spanish-speaking populations. Where possible, informational and interpretive media at the dunes should rely on non-verbal approaches to communication. Spanish-language panels, brochures, and programs are also recommended, as is the addition of further bilingual staff and volunteers. Bilingual or Spanish-language books and field guides, properly marketed, could be welcome additions to the Dunes Center gift shop and other appropriate outlets. Public service announcements and other promotional efforts should be translated into Spanish and offered through Spanish-language media.

Although visitors expressed a desire for interpretive media, strong repeat visitation patterns suggest to the planners that a changing series of programs may be of interest as well. Marketing of existing programs can be improved. It should be noted that interest in visiting the Dunes Center is likely to increase of its own accord after the new Interpretive Center is built, but marketing of Dunes Center programs and visiting hours may still be needed.

Notable comments from visitors:

- *25% of visitors volunteered their opinion that the dunes should be kept natural, protected, or uncrowded.*
- *22% percent of Spanish-speaking interviewees asked for interpretation and/or promotion in Spanish.*
- *One in ten visitors thanked management for doing the survey and allowing them to be part of the process.*

Please see Appendix II (in seven sections labeled A-G) for visitor comments.

2005 Visitor Survey at Oceano Dunes SVRA

Methodology

Over Labor Day weekend, September 3-5, 2005, Oceano Dunes, 60 SVRA visitors were interviewed at five sites: the “pressure-down” pullout just inside the entrance to the SVRA, beach campsites, the entrance to the active riding areas, and the Oceano and North Beach campgrounds. Only major findings of the surveys are noted here; for details please refer to Appendix III.

Just as with visitor research conducted in 2003, this study’s small sample size and non-random sampling techniques make it statistically unreliable. These results should not be used to predict the responses, needs, or interests of the SVRA visitor population as a whole; however, they may be used for discussing, theorizing, and creating profiles of the visitors interviewed specifically during this study.

2005 Survey Results

SVRA Demographics and Patterns of Use

Most visitors are not local residents. Eighty-five percent (52) live within 200 linear miles of the SVRA, while 35% (22) live within a 100-mile radius. Most are repeat visitors, with 87% having previously visited. Of that figure, the majority, or 35% (22) have visited two to three times. Not surprisingly, particularly given that visitors drive a significant distance and haul recreational equipment, weekends were the preferred choice for visits (88% of respondents).

Forty percent of visitors (24) planned a 2- to 3-day or 3- to 4-day stay (2-3 days, 3 days, or 3-4 days) over this holiday weekend. Ten percent of respondents (6) were certain they would stay 4 or more days.

Ten percent of visitors (6) have visited the Dunes Center, while 25% (15) have visited the Pismo Nature Center and 28% (17) have visited the Butterfly Grove.

How SVRA Visitors Value the Dunes

Visitors were asked to name up to two reasons for their visit. As seen at the chart to the right, nearly half of respondents listed being with family or friends as a reason for their visit (43%, representing 48 of 111 responses).

Other reasons given were to ride off-road (23%, or 25 of 111 responses), or to relax and reflect (20%, or 22). Only 3 respondents (3%) listed watching wildlife as a reason, while 2% listed fishing.

In another, open-ended question, visitors were asked to describe what about the dunes is important to them. Not surprisingly, the most-listed value (27 of 59 responses, or 46%) centered on riding off-highway vehicles. The second most frequent answer related to enjoyment of the ocean, fishing, beach, or dunes themselves (13, or 22%). Visitors often named “space for their families,” “safety,” “accessibility,” “escape,” and “fun.” One response mentioned “wildlife” and another mentioned a “clean, wild state” as a value.

Access to Sites and Information at the SVRA

The Guadalupe-Nipomo Dunes Complex is a mosaic of individual properties, each owned and managed differently. It was not surprising, therefore, to uncover a significant knowledge gap regarding site ownership and visitation policies. While 82% (49) of visitors indicated it was very to somewhat important to have information about rules and regulations at the dunes, only 67% (40) felt they had adequate access to such information.

Fifty-six percent (32) felt it was somewhat or very important to know who owns or manages the sites they visit, and 60% (36) were able to accurately identify the State as owner/manager⁶.

Seventy-eight percent of visitors felt finding one’s way to or navigating within the dunes is fairly to very easy. Of those who felt access and orientation was somewhat to very difficult (20% and 2% respectively) specific complaints were poor signage, traffic and congestion. Two respondents cited lack of knowledge about what exists or what to expect as a first-time visitor.

SVRA Site Awareness and Perception

Most visitors (84%, or 51 of 60) first learned about the dunes through a friend or family member. Seven percent (4) learned through an unplanned encounter. One learned through a web site, while two had learned of the site through their fishing or clamming activities. Only 38% of visitors (23) were aware of organized programs or activities available at the dunes. Twenty-seven percent of respondents (16) had attended a program.

⁶ The fact that the second figure is slightly higher than the first is not surprising, as the site is widely known as a “State Recreation Area.”

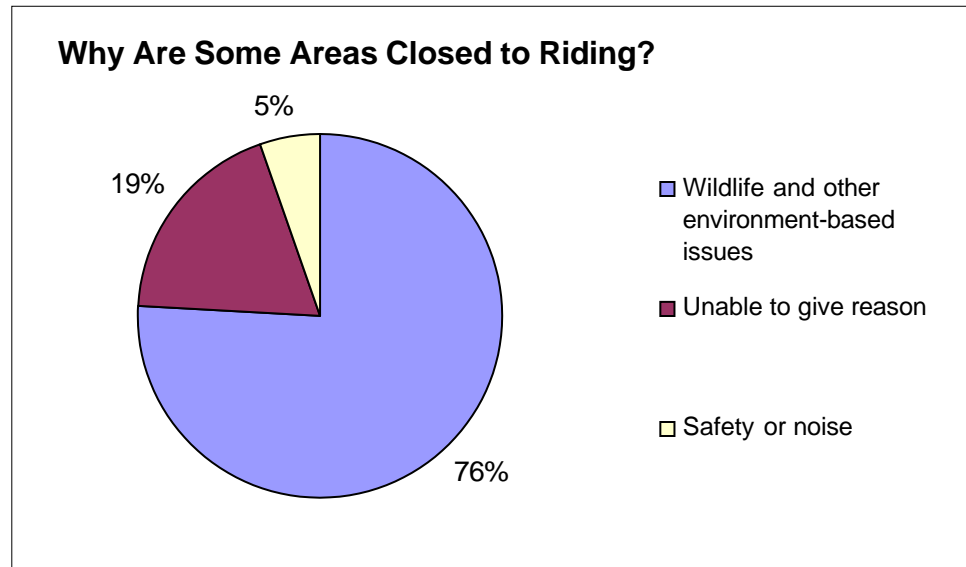
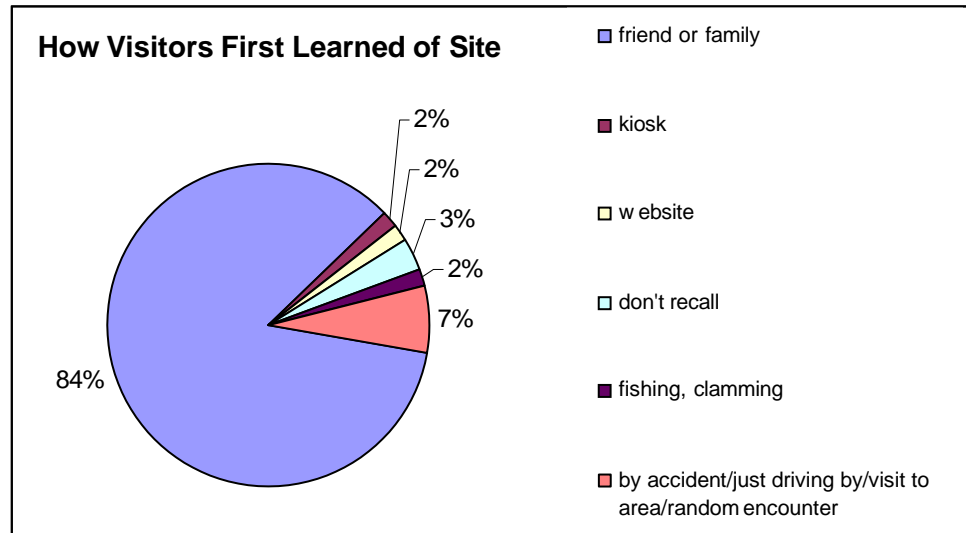
Safety concerns are not an overriding issue at the SVRA. Ninety percent of visitors (54) feel fairly to very safe when visiting. The remaining 10% (6) reported feeling somewhat unsafe; the issues they cited include recklessness, speeding, crowded conditions, lack of ranger presence, and theft.

Environmental Awareness at the SVRA

Two questions were asked in an effort to gauge awareness of sensitive species and habitats at the dunes.

Asked if they knew any reasons why some areas of the dunes are closed to riding, seventy-six percent of respondents (44 of 58 responses) named wildlife, preservation, or environment as a reason for closure. Only eleven respondents (19%) failed to offer a reason, while three (5%) offered reasons unlinked to species (safety and/or noise).

In another part of the survey, visitors were asked if they could name any endangered species at the dunes⁷. Thirty-three percent answered “no”. Of the 68% (50) who claimed to be aware, nearly three in



⁷ The question was “Are you aware of any endangered species that exist here at the dunes,” with a follow-up invitation to name any species they could. To keep communication simple, the term “endangered” was used as a catch-all for any protected status, since outside of the wildlife management and legal arenas, few people draw a distinction between the terms *rare*, *threatened*, and *endangered*.

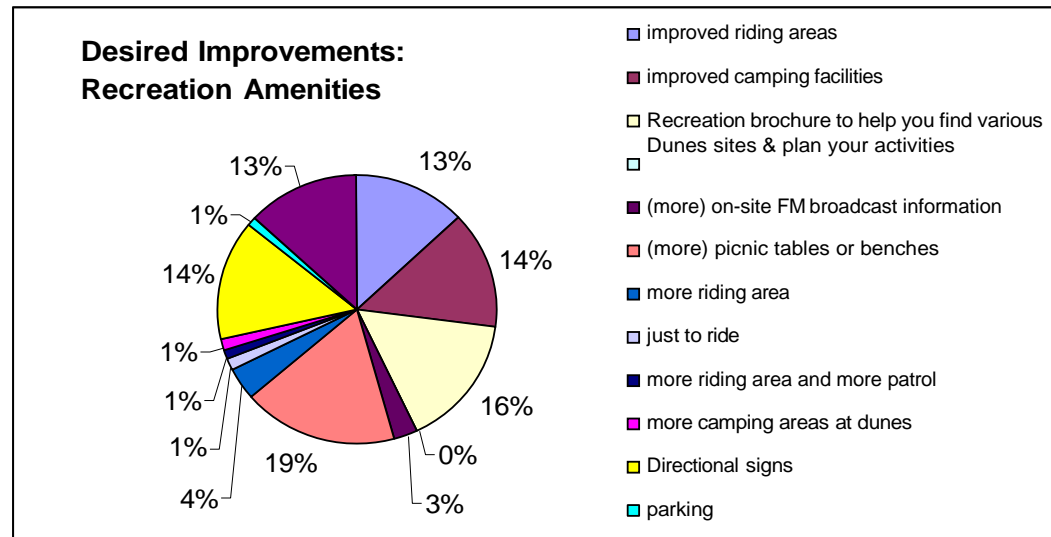
four (70%, or 42) were able to give at least an accurate if general answer (a fish; a bird; plants and flowers) with three being able to offer common names (snowy plover, California least tern, steelhead trout). Only three of the 50 who claimed to be aware of endangered species were unable to identify a species in any way.

Interests of Oceano Dunes Visitors

Visitors were asked what two features would improve their experiences at the dunes. They were offered a pictorial list of prompts (both services and facilities) while the interviewer briefly described each. Visitors were also invited to offer their own ideas. The results show interest in both interpretive opportunities and recreation facility improvements. 53% of responses (63 out of 118 total responses) asked for improved or expanded recreation facilities; 20% (24) cited heritage resource interpretation or learning opportunities; five percent (6) asked for improvements in maintenance, services or increased staffing.

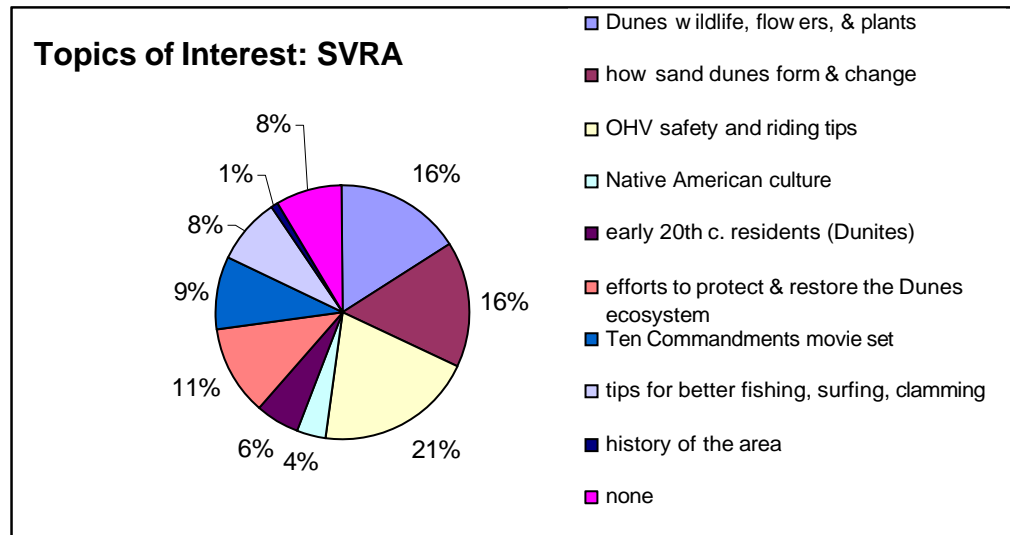
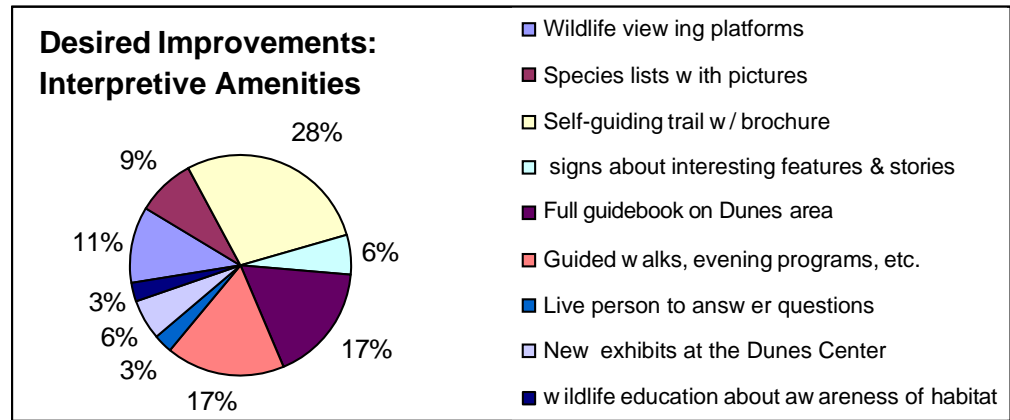
The single most-requested item was picnic tables (12% of all responses, or 14). Recreational planning brochures ran a close second, with 10% of all responses (12). Directional signage (9%, or 11) and improved or expanded walking trails (8%, or 10) were also popular choices. Only 2.5% of responses (3) dealt with expanded riding areas, an interesting result in light of the many post-survey comments from visitors asking for continued availability of riding areas.

Although SVRA visitors are here primarily to enjoy off-highway vehicle activities, many would value a chance to explore and learn about the area in other ways, with 30% (35 of 118 responses) reporting interest in interpretive or learning opportunities of one sort or another. Among this subgroup, the single most popular request was a self-guiding trail with brochure (10 responses, representing 28% of recreational learning responses, or 8% of the total



surveyed population), followed by live programs and a dunes guidebook on natural and cultural history (each representing 17% of the subgroup responses, or 5% of total population), wildlife viewing platforms (11%, 3% of total) and species identification aids (9%, 2.5% of total). Only two people (1.6% of responses) indicated interest in interpretive panels.

Given a second prompt list, visitors were asked to choose up to two dunes topics that would interest them (again with an option to supply original ideas). “OHV safety and riding tips” attracted the largest set of responses (20%, or 21 of 106 responses). However, the three next most-popular responses were wildlife, flowers and plants, and “how sand dunes form and change”, both at 16% (17 responses each), and efforts to protect and restore the dunes ecosystem (11%, 12). When combined, these three figures yield an interest in natural history of 47%—a very respectable figure. The “Ten Commandments” movie set 9% (10), tips for better fishing or clamming (8%, 9), Dunites (5.6%, 6), and Native American cultures (3.7%, 4) were also of interest.



Implications for Interpretation at Oceano Dunes

Riding is the main attraction at the SVRA, but users show remarkable interest in learning about natural and cultural history at the dunes. Unlike visitors surveyed at other sections of the dunes—Oso Flaco and Rancho Guadalupe—SVRA visitors have little interest in static displays such as wayside panels or visitor center exhibits. Transportable, printed information, however, ranks high.

The researcher noted that SVRA users, who camp in close proximity to others, were by and large a friendly group who seem to enjoy the company of their families, their peers, and those who share their interests. Additionally, the contention over land for habitat vs. riding areas has created a strong sense of solidarity among SVRA users. Several comments reveal that misinformation about species issues is not uncommon among users.

More than three quarters of users indicated awareness of habitat- and species-related issues. This trend, combined with a strong interest in recreational learning opportunities, represents an inroad to reaching visitors through interpretive experiences. At the same time, SVRA users strongly emphasize their desire to have fun at the dunes, and, naturally, visit the SVRA primarily to indulge their interest in riding. Interpretation, in other words, will face competition. Interpretive opportunities must be as entertaining, relevant, and compelling as off-road riding itself.

Visitors expressed interest in a recreation planning brochure, a dunes guidebook, and/or self-guiding trail brochures. These interests represent opportunities to take an interpretive approach to stewardship messages through printed word.

However, and most significantly, it should be noted that the vast majority of SVRA users (85%) learn about the site, learn how to ride, and learn the 'norms' of onsite behavior through friends and family, rather than through staff or publications. This peer-learning culture should not be ignored nor its potential for powerful and effective social marketing underestimated.

Despite SVRA users' lack of expressed interest in live programming at the dunes, the planners believe that evening and/or daytime programming may be used very effectively to fill an "activity gap" for riding families. Visitors are curious about the natural and cultural history of the dunes, they enjoy group and family activities, and, like all campers, have free time during the evenings. Many would likely take an interest in child-friendly activities during the daytime.

Programming that meets the needs of visitors and is relevant to their interests is likely to earn the respect of users and become a well-known and highly valued part of the visitor experience. Over time, if programming is entertaining, informative, unbiased, family-friendly, and thought-provoking, it can be remarkably effective in enhancing appreciation for, and understanding of, the natural and cultural history of the dunes.

Educator Needs Assessment: Summary

In October 2003, a needs assessment of educators was conducted as part of the planning process. Surveys were sent to all K-6 teachers at elementary schools in Guadalupe Union Elementary, Lompoc Unified, Lucia Mar Unified, and Santa Maria-Bonita school districts (1,083 educators contacted). Fifty-six surveys were returned, a response rate of 5%. One-third of those responding were from Guadalupe Union.

Ninety-six percent of educators have heard of the Guadalupe-Nipomo Dunes; 41% have taken students on a field trip there. As three of four educators indicate that state standards are the one source of information that most directly influences their teachings, it is not surprising that “relevance to class curriculum,” “quality of program,” and “relevance to standards” were cited as the top criteria considered when selecting field trips. For a trip to the dunes, funding availability and cost per person are chief limiting factors, followed by alignment to curriculum and standards.

Respondent trends favored two- to four-hour science or history/social science “guided discovery” field trips, led by Dunes staff and enhanced with hands-on learning. They indicated a 78% likelihood of participation in an on-site experience. Coastal dune habitat and Oso Flaco Lake topped the list of favored settings. Elements likely to improve outdoor student experiences include additional information and activities on the trails, restrooms, drinking fountains, and interpretive signs to describe points of interest.

Although only one in five teachers has participated in off-site (visiting classroom) dunes programs, the likelihood of future involvement ranked very high (86%), with cost and ease of scheduling the influential factors. Educators would also appreciate teacher guides, pre-trip visits by Dunes staff, video or CD-ROM aids, student booklets, post-trip staff visits, and traveling trunks. The overwhelming majority want strong conservation messages conveyed to their students during a field trip.



Please refer to the survey data in Appendix IV for a full list of narrative responses, all of which are very favorable. Notable among them are “We have at our backyard a treasure! Appreciate it,” “Nature is fun to learn about and preserve,” and “We must protect our natural resources, so our great-great-grandchildren will be able to enjoy the same beauty.”

Creating the Visitor Experience

Interpretation is a communication process that forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource⁸. The ultimate goal of interpretation is to help the visitor care about and care for the resource. To do so, it must provoke further interest and relate to the everyday life of the visitor. The ideal “visitor experience” at Guadalupe-Nipomo Dunes should begin with awe and wonder, move toward an understanding of the dunes’ place and purpose, and end with acceptance of personal responsibility for its care. Signage, architecture, personal contact, and direct experience should all focus on helping visitors cultivate a deeper appreciation for the ecosystem’s fragility and broaden their acceptance of efforts to protect it.



The spirit of cooperation among members of the Collaborative should resonate within all media and services—from interpretive panels to hotel brochures to personal contact with visitors. The dunes should be portrayed for what they are: a mosaic of landscapes, which, from a narrow perspective, serves diverse purposes for a diverse set of landowners and user groups, but from a broader perspective forms a much greater whole whose individual parcels are collectively managed for long-term sustainability.

At the same time, interpretive media, including institutional, directional, and regulatory signs, should provide the visitor with specific wayfinding resources. Expectations regarding permissible activities, park hours, and facilities need to be clearly defined; pathways and trailheads need to be well marked to allay fears of becoming lost. Once basic needs for security and comfort are met, a visitor is more likely to take the time to use the interpretive resources and glean new insight into this restless and unique landscape.

⁸ National Association for Interpretation, 2000.

Target Audiences

Identifying and understanding the intended audiences for dunes interpretation is critical to its successful implementation. The more defined and understood the audience—or, more properly, audiences—the more effectively messages can be developed and delivered through programming, media, and marketing.

The following list of target interpretive audiences was developed using information gathered from interviews with Collaborative staff; background documents such as Visitor’s Bureau demographic studies; observations made during site visits and visits to neighboring communities; and the planners’ experience with sensitive site and multiple-owner site interpretation. Because the categories span geographic, political, activity, and interest groups, some categories will overlap; for example, the population of “local residents” naturally will include some special recreation interests, field trip users, etc.

This list is only a first attempt at defining audience segments. It should be examined and adjusted as the Collaborative refines the draft interpretive master plan. This list may also have implications for off-site marketing planning.

Current visitors

- Local residents
- Independent travelers
- Commercial tourists
- Field trip participants
- Special recreation interests (OHV users, hikers, surfers, fishermen, etc.)

Potential visitors

- Established residents
- New residents
- Commercial tourists
- Field trip participants
- Special recreation interests
- Emerging recreation technology/activity interests

Off-site audiences

- Area tourism service providers
- Area tourism bureaus and chambers of commerce
- Potential Stewardship Collaborative
- Upstream residents and communities
- Agricultural interests
- Development interests
- City and county planners
- Elected officials
- Civic organizations
- Travel and tourism service providers
- Off-road vehicle equipment vendors and other recreational outfitters
- Philanthropic community; supporters of Dunes projects and programs

Interpretive Themes, Goals, and Objectives at the Dunes

Fulfilling the Mission

Interpretive themes, goals, and objectives provide the foundation for interpretation at the dunes complex. These in turn flow from the guiding principles of the Dunes Stewardship Collaborative.

Although the Collaborative has an agreed-upon vision and a clear sense of what it wishes to accomplish, it has not yet developed a true mission statement. For the purposes of developing goals and themes for this planning project, members of the Collaborative agreed to work with key concepts drawn from its 2002-2003 annual report. The guiding principle for this project, as excerpted from the annual report, reads:

The Stewardship Collaborative is...committed to restoration of coastal dune habitats, recovery of threatened and endangered species, and providing quality visitor experiences of this unique and fragile ecosystem.

The planners recommend that a mission statement be developed for the Collaborative. After its development, this plan should be re-examined, and, if necessary, its themes and audiences adjusted accordingly.

The Purpose of a Central Interpretive Theme

Interpretive audiences are non-captive audiences; their main focus is enjoyment, not learning. People focused on having fun can be expected to recall and retain only a few new concepts at best.

A central theme—one large concept that all visitors are meant to understand about the dunes and take away with them after their visit—should guide the focus, intent, and subject matter of all exhibits and programs within the complex. Although the central theme may or may not be articulated verbatim in media or programs, it is the conclusion that we hope visitors will reach on their own after experiencing the dunes and its interpretive offerings, and the impression that will linger long after the details of the visit have been forgotten.

Subthemes are subordinate concepts that expand on and illustrate the theme. They define the storylines and subject matter of interpretive media and programs.

The plan's central theme, subthemes, and goals were developed in a consensus-building process. The missions and goals of each Collaborative member vary by agency, individual or organization. The group, in reaching consensus, made many adjustments to key concepts and phrasing; the process was challenging. We feel that the end result serves as a testament to the Collaborative's remarkable spirit of cooperation and represents the best possible result for a group of such diversity.

Guadalupe-Nipomo Dunes Complex Central Theme

The ever-changing dunes are an enduring haven for wildlife and a valued place for people

Dunes Subthemes

- 1. Continually reshaped by the forces of wind and water, the dunes support a unique and fragile mosaic of ecosystems*
- 2. Over time, human relationships with this special place have shifted and changed*
- 3. The dunes serve as a vital sanctuary for wildlife, some of which is rare, threatened or endangered*
- 4. The dunes are a valued destination for those seeking outdoor recreation and other rewarding experiences in a natural setting*
- 5. People who value the dunes—both stakeholders and visitors—are working together to protect and manage the Guadalupe-Nipomo Dunes Complex*

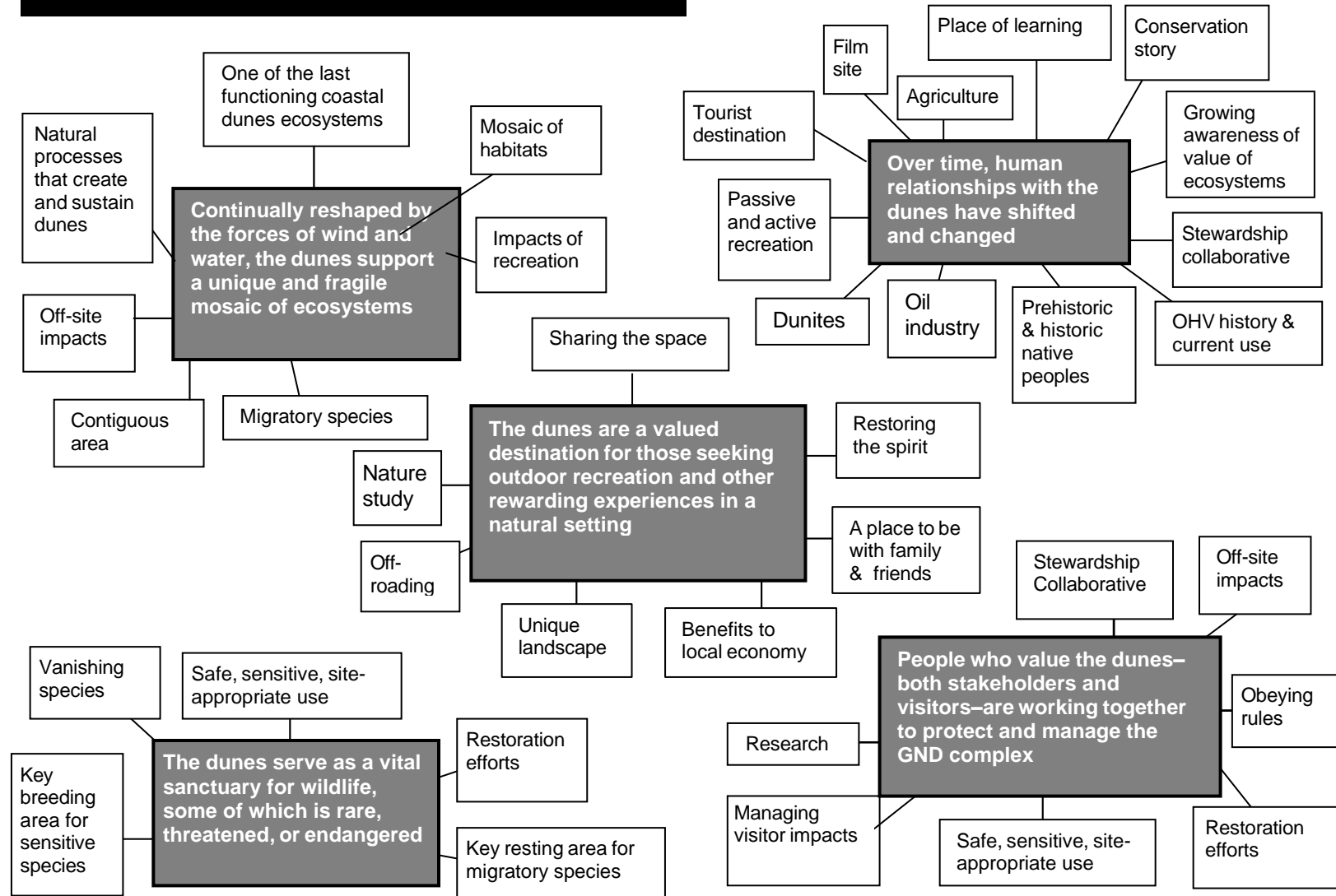
The schematic illustration on the next page illustrates how this dunes theme and its subthemes relate to key interpretive topics. Some dunes subthemes are well suited to on-site interpretation, while others will lend themselves to live programs or indoor exhibits at the new Dunes Interpretive Center. Some stories, as implemented in publications, wayside panels or programs, may illustrate more than one subtheme. The point is to align all interpretive communications to these core messages. In this way, dunes managers will be assured that visitors and community members will have every opportunity to uncover, and ultimately embrace, the essential meanings of this special place.

Ab

Central Theme

The ever-changing dunes landscape is an enduring haven for wildlife and a valued place for people

Conceptual Relationship between Dunes Theme, Subthemes, and Topics



Interpretive Goals

Goals are statements of desired outcomes that guide programs and management or operations functions. Interpretive goals articulate what interpretation is meant to do for a site, its visitors, and its management. They guide the formation of interpretive media and services during the planning process and permit accurate and meaningful evaluation of interpretive programming before, during, and after development.

Interpretation is meant to increase awareness, build personal connections, and foster stewardship relationships, resulting in caretaking behaviors. To influence behavior, interpretation must address both the cognitive and affective realms—the logical as well as the feeling aspects of the mind. People will not make behavioral changes if they only *understand* an issue; they must also feel that it has some relevance to their lives.

Every interpretive experience should be designed, therefore, to have an emotional or affective component as well as an intellectual component, leading ultimately to a desired behavioral change.

About Interpretive Objectives

Here at the dunes, goals ensure interpretation is aimed at fulfilling the mission of the Dunes Stewardship Collaborative. To ensure progress toward those goals, however, specific, quantifiable objectives must be established that will allow managers and planners to test messages, programs, and media before investing resources in full-scale development. They will also allow management to “take the temperature” of existing interpretive programs over time.

Visitor knowledge and visitor behavior are measurable. The cognitive and behavioral objectives presented in this report can be used in evaluations as direct measures of progress toward their corresponding goals. There is no accurate way to measure feelings or attitudes, although it can sometimes be inferred from measurement of visitor behavior (since behavioral changes are preceded by changes in attitude or affect).

Even though they are not directly measurable, affective goals and objectives are important, as they guide the tone of interpretation during its planning as well as its implementation phases. With this in mind, affective goals and objectives are offered in this plan; they are meant only to help future planners, designers, and managers consider the affective realm as they develop interpretive products and programs for the dunes.

Goals and Objectives for Interpretation at the Guadalupe-Nipomo Dunes Complex

Goals are numbered within each realm. Every goal is followed by one or more corresponding objective(s), expressed in quantifiable terms. Objectives form the basis for future evaluation of program effectiveness, as described in “Evaluation”, page 59.

Affective Goals and Objectives

Goal 1

People⁹ will appreciate the uniqueness of the Guadalupe-Nipomo Dunes Complex (dunes) and the role the dunes play in supporting rare and fragile natural habitat.

70% of visitors will indicate the plants, animals, and habitats of the dunes are inherently important and deserving of protection.

70% of visitors will express strong appreciation for the dunes and specifically for the role they play in supporting the natural habitat.

Goal 2

People will recognize recreational activities that are appropriate within specific areas in the dunes.

80% of visitors will indicate awareness that certain recreational activities are restricted to specific areas in the dunes.

Goal 3

People will respect and value the varied services the dunes provide.

⁹ The term “people” refers to the full array of target audiences for dunes interpretive communications (see page 29). Some goals are particularly relevant to certain audience segments. Actual interpretive messages and methods of delivery should be shaped to fit each target audience.

70% of visitors will indicate they value the benefits of the dunes to wildlife, visitors, and the surrounding human communities.

Goal 4

People will respect and value efforts directed at protecting the dunes.

70% of visitors will express support for the stewardship and management efforts necessary to protect the dunes.

70% of visitors will indicate awareness that their actions and behavior at the dunes may have a direct impact on the protection or degradation of the dunes habitat.

Goal 5

People will feel fulfilled by their experiences within the dunes.

90% of visitors will indicate their experiences at the dunes were enjoyable.

90% of visitors will express a desire to return to the dunes in the foreseeable future.

Cognitive Goals and Objectives

Goal 1

People will gain an understanding of how the dunes support a unique and fragile habitat that in turn supports numerous plants and animals.

70% of visitors will be able to describe in general terms how coastal dunes are formed.

70% of visitors will be able to state at least two ways in which dune habitat is fragile.

70% of visitors will be able to identify at least one species within the dunes that is endangered or threatened.

70% of visitors will be able to describe two ecological services the dunes landscape provides the human community.

Goal 2

People will gain an understanding of how rules and regulations help protect and manage the dunes habitat and why rules and regulations vary within specific dunes sites.

70% of visitors will be able to explain two specific reasons why rules and regulations are in place at the dunes.

70% of visitors will be able to explain why rules and regulations vary within specific dunes sites.

70% of visitors will be able to cite at least one example of how abiding by rules and regulations has a positive impact on wildlife at the dunes.

Goal 3

People will gain an understanding of the ongoing need for preservation and restoration and that such efforts are undertaken by a multi-partner collaborative effort.

70% of visitors will be able to describe at least one step that is currently being undertaken to restore the landscape.

60% of visitors will be able to list at least one partner within the Guadalupe-Nipomo Dunes Stewardship Collaborative.

Goal 4

People will understand the impacts of various recreational uses and that rules and regulations serve to balance recreational use with protection of habitat and species.

70% of visitors will be able to describe at least one impact of a specific recreational activity such as OHV use or walking into a protected nesting site.

70% of visitors will be able to describe at least one way they can (or already do) modify their recreational activities to preserve dunes values.

Behavioral Goals and Objectives

Goal 1

People will demonstrate heightened awareness of, understanding of, and support for the dunes through their adherence to rules and regulations.

70% of visitors will abide by posted rules and regulations at all times.

Dunes staff will witness a 25% reduction in citations once new interpretive media are in place.

Goal 2

People will engage in recreational activities that are safe, appropriate to the site, and suited to their abilities.

90% of visitors will limit themselves to site-specific, legal and suitable recreational activities within the dunes complex.

Goal 3

People will participate in programs offered by the Dunes Center.

Dunes staff and volunteers will witness a 25% increase in program attendance once new interpretive media are in place.

Goal 4

People will embrace a stewardship ethic toward the dunes, demonstrated through financial and volunteer support of the Dunes Center and involvement with dunes-related community activities.

Volunteerism at the Dunes Center will increase by 10% per year.

Financial contributions to the Dunes Center will increase by 10% per year.

Volunteerism in restoration and trail maintenance projects will increase by 10% per year.

Sign Considerations for the Dunes

Effective communication is the challenge and the imperative of interpretation. Well-developed signs communicate on several levels simultaneously, through the use of compelling text, sensory cues, and clear and engaging graphics.

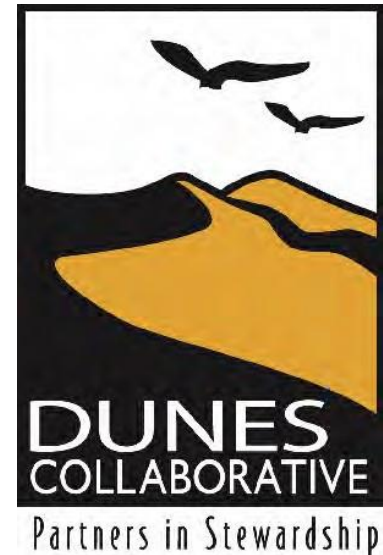
A Single Graphic Identity

One of the biggest challenges facing members of the Guadalupe-Nipomo Stewardship Collaborative is the establishment of graphic unity. While the separate identity of governmental agencies is important, themes and subthemes will not be communicated effectively unless visitors perceive the Collaborative as a single entity. We strongly urge members of the Task Force to adopt a single graphic identity, applied across all sites. The graphic should convey a united effort while simultaneously identifying the managing agency at each parcel. The prototype on the left, under development for the Collaborative by the Barnett-Cox Group, is an excellent example.

Further, because the “dunes experience” can be found across a widely varying stretch of land, we recommend that uniform graphic standards be established. These should be applied across all forms of sign media (identity, directional, orientation, regulatory, and interpretive) regardless of location, allowing design, materials, and placement of signs to present a consistent message. Entry architecture should also convey design unity while allowing for distinguishing features appropriate to each site.

Directional signs¹⁰

Visitors to the Guadalupe-Nipomo Dunes Complex should be made to feel comfortable, both psychologically and physically. Results of the visitor survey indicate that people have difficulty finding access points to the dunes and



¹⁰ For exact definitions of media terms, please see Glossary of Terms, Appendix I.

trailheads within them. Appropriate and sufficient directional and wayfinding signage can alleviate this problem, particularly when combined with the universal language of symbols.

On site, essential messages such as where to obtain information, locate a trailhead or restroom, or where to fish or drive an OHV can be communicated through symbols without posing a language barrier.

Off-site, wayfinding signs along major access roads can guide newcomers easily and clearly to appropriate sites while conveying the unity of dunes management efforts.

Because graphic unity is a tenet of the interpretive approach, we recommend development of a directional sign template that incorporates space for a universal symbol, but still maintains the unique dunes identity.

Regulatory signs

Regulatory signs are meant to help visitors understand what's expected of them. When visitors recognize how site rules and regulations benefit their on-site experiences, rule compliance increases. Most of the regulatory information currently posted in the dunes is neither worded in a positive tone nor accompanied by explanation. We strongly suggest an overhaul of dunes regulatory signs. Using a standardized sign template, new signs should present rules and regulations in a consistent, positive, and authoritative tone. Rules should be accompanied by a brief explanation that helps visitors understand how compliance contributes to the visitor experience as well as to preservation of dunes values.

In some cases, we also recommend strategic placement of small regulatory signs in sensitive areas such as archeological sites. Wording and placement of such signs should be carefully considered to avoid drawing undue attention to previously undisclosed sensitive areas.



Interpretive Panels

Interpretive panels are not simply information panels. Their purpose is to facilitate connections between the meanings in the resource and the interests of the visitor, provoking interest and effecting change in knowledge, attitude, and behavior.

There are three basic qualities of a “good” interpretive panel: attractiveness, brevity, and clarity.

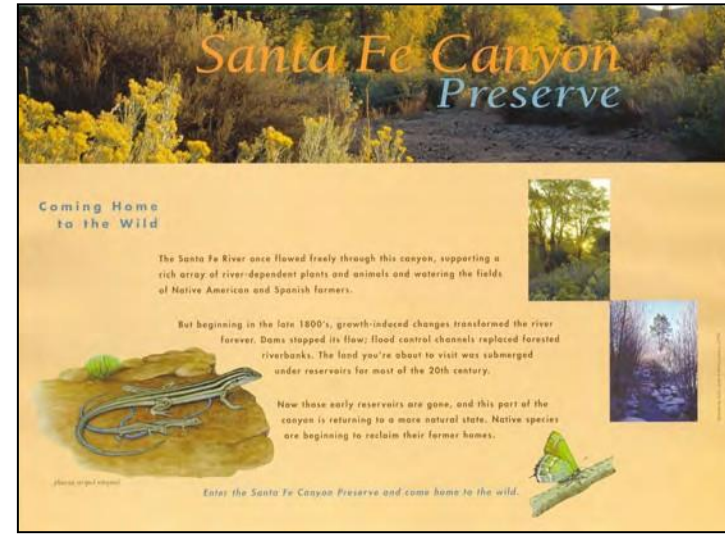
Attractiveness, as portrayed in appropriate colors, a striking layout, and legible typography, invites the visitor to read a sign. Visually appealing graphics serve to replace words, focus attention, and provide enjoyment.

Text brevity increases likeliness that a panel will be read. In addition, a message should be arranged in hierarchical form to reflect the “3-30-3 rule”, allowing the visitor to take in progressively deeper levels of information within three seconds, thirty seconds, or three minutes. The use of short sentences (20 words or fewer) and short paragraphs make reading a panel easy for the visitor.

Clarity also ensures that a thematic message is conveyed successfully. A theme-based title, followed by a provocative subheading and a main body of text with illustrations, complete sentences, and liberal use of metaphors, analogies, and familiar terms, will help interpret meaning regardless of the sequence in which the panels are read.

Appropriate Use of Signage

In all cases, the dunes’ wild character and natural appearance should be preserved by cautious use of signage to avoid over-use. We recommend mounting on low-profile framing systems positioned at a 30- to 45-degree angle. Angled panels provide an ideal balance of panel visibility by all visitors, including those in wheelchairs, while preserving dunes viewscapes.



Recommended Media

This preliminary study has revealed several opportunities to provide interpretive media for the enhancement of the visitor experience and the advancement of Collaborative goals. Site-specific media are listed first, followed by dunes-wide recommendations.

Phasing

As suggested, this interpretive master plan is a living document designed to be reviewed, applied, and altered as needs change and opportunities arise. It is not the intent of the planning team to suggest implementing all the following suggestions at one time. Rather, we suggest integrating changes in a phased approach, beginning with critical needs, such as development of new directional and regulatory panels. Later, changes can be implemented for identity signage, interpretive media, entrance portals, and other elements. A list of recommendations in priority order is included at the end of this report.

Planning for First Time and Regular Visitors

Most dunes visitors tend to be either regular users from surrounding communities or first-time visitors from out of the area. While new visitors will seek basic orientation to activities and features of the site, frequent visitors will appreciate changeable or updated information over time. To accommodate this need, we recommend a mix of permanent and temporary exhibits, live programming, and opportunities for hands-on involvement such as restoration work parties.

Interpretive Media by Location

Recommendations for Oso Flaco Lake Natural Area

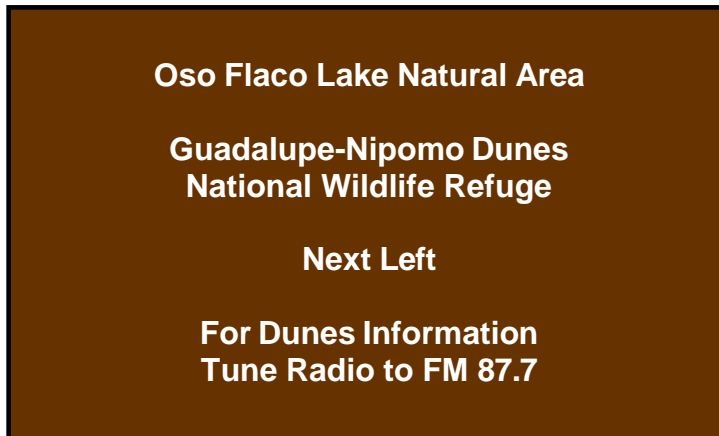
Wayfinding

In the visitor survey results, finding access points to the dunes was a frequently-cited problem. To help potential Oso Flaco visitors locate dunes sites, we recommend installation of directional highway signs, such as the one below, along US Highway 1.



Orientation to the Site

A low-power FM transmitter with a one-mile broadcasting range can orient visitors to seasonal information (e.g., species of interest, nesting season closures, high surf conditions) and other visitor information regarding Oso Flaco and the National Wildlife Refuge.



Broadcasts are easily updated. A local broadcasting station may be interested in providing studio space and equipment at no cost, as a sponsor. With the cooperation of a recording or broadcasting studio, periodic updates are easily developed at minimal cost.

If FM broadcasting is adopted, a sign should be installed just west of the Oso Flaco Lake Road/Highway 1 intersection. Exit ramp signs along US 101 may also be desirable.

Entry Experience

Existing entry signs at Oso Flaco can be improved. A new architectural feature at entry points within the dunes would help to communicate arrival at a special place.

In accordance with use of a consistent brand identity across the dunes, signage associated with the architectural feature should carry the dunes graphic and the State Parks logo, replacing the current pipe gate at the entrance as well as the identity and welcome sign currently at the site.

Current informational signage is posted at various places and in various styles on and around the gatekeeper structure. As funds become available, they can be replaced with one or two new panels conveying park hours, clear procedures for entry fee payment, rules, and contact and emergency information. The signs should adhere to the new dunes-wide graphic standards.

Within the parking lot, existing small signs reminding visitors to pay the parking fee could remain. Current signs regarding oil field restoration work are incongruous with the visitor experience and should be removed, or if regulations require their use, relocated to the information kiosk. Current signs warning visitors about wildlife can remain; as funds become available, they can be upgraded to the new graphic standard and incorporate positive language regarding ways to prevent problem encounters.

Portable restrooms can remain where they are, although screening for aesthetic purposes is recommended. Screening should be hinge-mounted for easy accessibility by maintenance crews.



This mock-up shows how the dunes-wide graphic might be used in conjunctions with a site owner's logo.

Existing Kiosk at Willow Causeway Trailhead

The existing kiosk is functional. In accordance with dunes themes and graphic standards, we suggest replacing the contents with the following:

- A Dunes Complex map, with a large Oso Flaco section inset, detailing information on trail routes, length, difficulty, and activities appropriate to each site. Use of symbols is encouraged for clarity and universal readability.
- Rules, regulations, and safety guidelines phrased in terms of how they preserve a quality visitor experience.
- Brochure rack for current program schedule and Guadalupe-Nipomo Dunes National Wildlife Refuge trail map
- Invitation to visit and support the Dunes Center (with locator map and hours)



Existing kiosk offers little information.

One or two interpretive panels at the kiosk can set the tone for arriving visitors. They should combine permanent and changeable panel areas, and communicate the fragility of the landscape, seasonal tips, and verbal and non-verbal messages about people sharing the site with nature. (1, 3, 4, 5)¹¹

The current kiosk may need to be expanded in size to accommodate the new configuration. As funding becomes available, a new kiosk is recommended, constructed of durable materials in a design that is compatible with the new entry portal.

¹¹ Numbers denote the particular subthemes illustrated by each panel. Dunes theme and subthemes are listed on page 46 for reference.

**Theme: The ever-changing dunes landscape is an enduring haven for wildlife
and a valued place for people**

Subthemes:

1. Continually reshaped by the forces of wind and water, the dunes support a unique and fragile mosaic of ecosystems
2. Over time, human relationships with this special place have shifted and changed
3. The dunes serve as a vital sanctuary for wildlife, some of which is rare, threatened or endangered
4. The dunes are a valued destination for those seeking outdoor recreation and other rewarding experiences in a natural setting
5. People who value the dunes—both stakeholders and visitors—are working together to protect and manage the Guadalupe-Nipomo Dunes Complex

Trailside Media

Wayside panels along the willow causeway, bridge, and boardwalk can offer many opportunities for visitors to enhance their understanding and enjoyment of dunes natural history. We recommend a series of panels along this route, the first focusing on the transformation of the dunes to a rich mosaic of habitats restored to functionality through the efforts of stewardship partners. (1, 2, 3)



Reaching the bridge, the visitor encounters Oso Flaco Lake, where ducks, coots, gulls, and herons provide excellent opportunities for wildlife observation. "Pullouts" on the bridge, some with benches, offer ideal stopping points for visitors as well as guided tours and other programs. Here, interpretation can discuss the importance of freshwater resources to the dunes ecosystem, the larger landscape, and the watchable wildlife species that depend on them. (1)



Past the lake, where the boardwalk begins, the visitor encounters a surprisingly diverse landscape rich with flowering plants, active songbirds, and animal prints in the sand. An interpretive panel at this point can further develop the "mosaic of life" concept in regard to dunes scrub flora and fauna (1, 3, 4)

Where the boardwalk intersects with a northern spur leading to the restroom and the OHV riding area beyond, visitors observe a marked contrast between the restored vegetation areas and the active OHV zone beyond the boundary fencing. This kiosk offers a prime opportunity to address the issues of co-existence of natural areas with OHV zones. (2, 4, 5)

Farther west, where scrub begins gives way to more active dunes, an interpretive panel can help the visitor "read" the aeolian landscape and link it to life forms adapted to shifting sands (1).



Near the western end of the boardwalk as it approaches the beach, we suggest a seasonal interpretive feature that will convey the sensitivity of nesting species while providing an enjoyable interactive experience for the visitor. A pullout area to the left can accommodate a large installation of outdoor-grade laminate "flooring" depicting a photo-realistic plover or tern nesting area. Visitors would have to walk over the flooring to read a colorful, attractive panel at the far edge. The panel discusses the cryptic adaptations of nesting birds and prompts the visitor to re-examine the flooring to realize the difficulty of walking over such habitat without causing inadvertent harm. The visitor would realize that they themselves play a role in conserving the integrity of the dunes. (3, 5)

To help visitors understand and comply with seasonal closures of nesting areas, small, attractive signs can be placed along the symbolic fencing. The message should take a lighthearted approach to serious stewardship messages, using text such as “Nursery area—please don’t disturb!” and a cartoon depicting a tern or plover in the role of a “baby delivery” stork (carrying a baby bird suspended in folded diaper). To meet regulatory requirements, small regulatory signs, worded as positively as possible, can be interspersed between the more lighthearted messages. (3, 5)

Recommendations for Rancho Guadalupe Dunes Preserve¹²

This popular park-preserve offers excellent opportunities for visitors to drive directly to the beach and foredunes areas. To aid in wayfinding, we recommend the installation of directional signs in both directions along Highway One near Main Street.

Easy Access to Information

Weather conditions at the preserve are critical to visitor access, enjoyment, and safety. We recommend use of a low-wattage FM transmitter along Main Street, with transmissions detectable at least a half-mile from the entry gate, to orient visitors to seasonal information (e.g. pet-restriction dates) and weather and access conditions (drifting sand on road, winter surf warnings, etc.). Information about National Wildlife Refuge access from the Preserve’s northern boundary should be included in the broadcast as well.



A consistent look and message will improve the entry experience at the Rancho Guadalupe Dunes Preserve.

Entry to the Preserve

We recommend the construction of an architectural portal at the entry gate along with the use of the dunes-wide graphic identity and County and/or Center for Natural Lands Management logo(s). As funds are identified, we recommend replacement of existing welcome, rules, and other informational signs at the entry.

¹² Interpretive concepts presented in this section should be refined in collaboration with the County as it moves toward implementation of planned site improvements at the Preserve. Panel concepts, topics, and themes can and should be revisited as plans progress.

Interpretation at the New Viewpoint

The new overlook area under development by the County is a prime setting for “big picture” interpretation of several dunes stories. We recommend low-profile, rail-mounted panels clustered in groups along the overlook’s safety rail. The center of the rail should be kept clear, preserving a section of the overlook for unobstructed views.

Particular dunes stories lend themselves to this spectacular viewpoint. We recommend the following preliminary storylines for overlook panels at this site. Each storyline is marked with numbers denoting their corresponding dunes-wide subthemes for reference (see page 55 for review of theme and subthemes).

- Ongoing formation of the dunes is linked to upstream processes in the Santa Maria River watershed (subthemes 1,2, 5)
- The Santa Maria Estuary is protected as one of California’s most productive shorebird-rearing and migratory bird habitats (3, 5)
- People have valued the dunes in many different ways over time (timeline showing Chumash occupation periods, agricultural and sand mining activities, oil industry, film industry, Dunite settlements, and recent conservation values) (2,5)
- Dunes topographic processes are inextricably tied to its plant life (1)
- The discarded set of the “Ten Commandments” film is now a fragile archaeological treasure (this panel should be mounted at the eastern or western edge of the overlook and turned to face south to the extent possible) (2,5)

Keeping in mind that visitors will seek the overlook in order to enjoy the view, these five panels should dominate neither the viewshed nor the visitor’s time. They should be kept brief, avoiding detail and instead provoking further inquiry by focusing on broad concepts.

Symbolic Fencing

During seasonal closures of nesting areas, signs along symbolic fencing reading “Nursery area–please don’t disturb!” will help visitors understand the boundaries of recreational areas and participate in the stewardship of breeding bird colonies.

In accordance with site management’s suggestion, we recommend installation of full-enclosure symbolic fencing around the Ten Commandments site, with small, low-profile regulatory signs posted along its length. The signs should be small enough to avoid attracting attention from a distance, yet large enough to be legible to visitors standing close by.



Orientation and Visitor Information

Visitors currently have access to quality orientation information at the parking lot kiosk, along with dunes brochures and interpretive panels on nesting birds. The development of new visitor parking facilities offers an opportunity to bring these features into better alignment with dunes-wide themes and graphic standards.

As new facilities are developed, we recommend that the County incorporate use of the graphic identity template and graphic standards into parking lot and directional signage. It is likely that the design of the new lot and its pedestrian routes for beach access will require the existing kiosk to be relocated. However, if funds allow, we would recommend taking this opportunity to replace the kiosk with a new array incorporating:

- Welcome panel (identity, brief rules and regulations, safety guidelines, contact information)
- Wayfinding map, including Refuge access information
- Rack for recreation and program schedule brochures
- Permanent and changeable interpretive panels similar to those at the Oso Flaco kiosk set the tone as a place shared by people and nature and highlighting seasonal phenomena in the Dunes. (subthemes 1,3,4,5)
- Interpretive panel featuring the influence of marine processes on dune formations. (1)



The “flooring” and panel nesting habitat interactive feature described under the Oso Flaco section (page 47) is recommended for use here. (3, 5)

The location of all signage and interpretive features should be coordinated with the final design of the parking lot and foot and vehicle traffic circulation. Every effort should be made to place informative and interpretive features where visitors will be attracted to them.

The interpretive trailer located seasonally at the beach parking lot can continue to offer interpretive opportunities for visitors. As funds are available, we recommend an evaluation of its resources and possible re-alignment of its media to the themes and goals outlined in this plan.

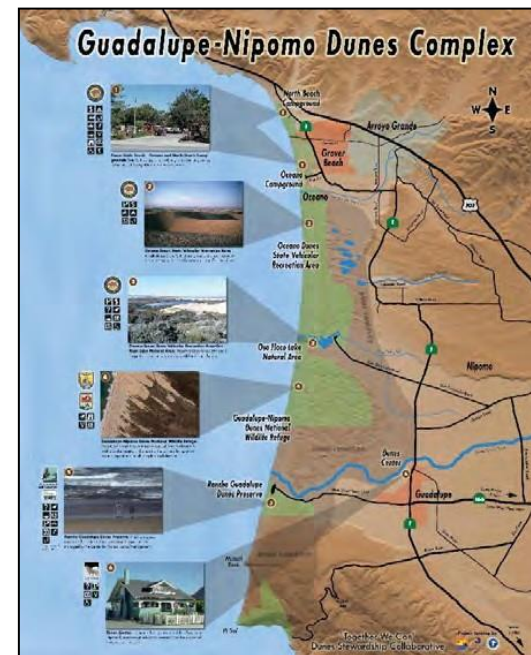
Recommendations for Guadalupe-Nipomo Dunes NWR

Access and wayfinding information for the Refuge should be included as part of off-site and on-site orientation at Oso Flaco and Rancho Guadalupe Dunes Preserve.

We recommend installation of identical sign treatments at the northern and southern property approaches to the Refuge. At each access point, a welcome/identity panel with map should show the Refuge’s location within the Dunes Complex, briefly outline rules and regulations, and provide contact information. The existing sign-in box within the Refuge can be restored and its location marked on the trail map to encourage visitors to sign in and share their impressions with others.

A low-profile interpretive panel is also appropriate at each entry site, featuring key charismatic and endangered species of the dunes and characterizing the Refuge in its role within the dunes as well as its role within the larger Hopper Mountain Refuge Complex. (2,3,5).

There is no boardwalk or other amenity to guide visitors at the Refuge. Trail markers and a trail map would help visitors navigate more



successfully within this site. Their design should be very low-key to preserve the “wild” experience visitors to the Refuge are seeking.

This is a fairly new Refuge, and additional properties may be acquired over the next few years. When and if such properties are added, public access issues and interpretive needs should be addressed with reference to the interpretive master plan. Adjustments to recreational brochures, site maps, and marketing materials may be necessary. To the extent that the Refuge expects to add properties, it may be wise to design the all-dunes map to accommodate new information easily and at low cost.

Further study and exploration of interpretive opportunities at the Refuge are warranted.

Recommendations for Oceano Dunes SVRA

Oceano Dunes State Vehicle Recreation Area users are best reached during the non-riding periods of their visit. Unlike the majority visitors to other parts of the dunes complex, SVRA visitors tend to spend at least one night in the area, whether at campground facilities, nearby hotels, or in recreational vehicles parked on the beach. During busy holiday weekends, the vast majority of users can be found camping on the beach.

Because of tides, winds, and shifting sands, interpretive signs are not an ideal medium at the SVRA. However, if retooled to fit the new thematic message structure, the complex’s interpretive trailer may serve as an effective delivery point. Although they will reach relatively few SVRA users, existing kiosks near Oceano Dunes and North Beach campgrounds and at SVRA entry points should be refitted to reflect membership in the Dunes Stewardship Collaborative and to deliver thematic messages.

Published materials were requested by several surveyed individuals. However, interpretive publications may or may not be successful in actual practice. Staff reports indicate few SVRA visitors read the materials currently handed out at the entry station, preferring to move directly into active recreation pursuits. Further study, using low-cost pilot materials, would clear up this question.



No data are available to indicate the percentage of SVRA visitors who tune in to the site's FM radio broadcasts. A study to determine the effectiveness of these broadcasts is recommended. If it is revealed that a majority of visitors would listen to and absorb FM broadcasts, brief interpretive messages framed in terms of OHV user interests may prove successful. The broadcasts could also market times and locations of the day's interpretive programs. The addition of incentive-based programming, such as games and contests with prizes for participation in ongoing quizzes or "challenges", should be investigated as well. Area OHV-related businesses may make excellent sponsors for these programs.

Regardless of the delivery method, it is imperative that interpretive programming be delivered by respected peers. Strong differences of opinion and points of view exist between OHV users and non-motorized-use advocates at the Dunes. The struggle to preserve riding opportunities on the one hand and ecological integrity on the other has bred suspicion and antagonism on both sides.

This does not mean that conditions cannot be improved, however. Social marketing is the single most effective force for attitudinal and behavioral shifts in any population. Among SVRA users, this phenomenon is particularly relevant. No change will take place among SVRA visitors unless messages move from peer to peer.

For this reason, it is strongly recommended that one or more top-notch professional interpreters be assigned to develop and deliver live programs at Oceano Dunes. Unless these interpreters are OHV users themselves, however, they will meet with little success. Only if they are peers will SVRA respect, trust, and be receptive to messages. Interpreters, like visitors, should ride four-wheelers or motorcycles, wear OHV gear, use the jargon of SVRA visitors, and spend the majority of their time building rapport with site users. Over time, they will develop a reputation for being resourceful, friendly, supportive cohorts instead of environmentalists, law enforcement officers, or other non-trusted staff.

Programs should be designed specifically to meet the expressed interests of SVRA visitors. Wildlife and dune formation were identified by the survey as popular topics. Although few visitors indicated riding safety as a topic of interest, within the population of parents of young riders, safety will very likely be an ongoing concern. Staff can easily collect more input from SVRA visitors on topics of interest and can fine-tune programs to their needs. All five subthemes should be delivered. However, under no circumstances should interpreters preach or use environmental rhetoric. Instead they should strive to increase understanding and support by weaving stories and messages from a peer perspective.

No matter the topic, programs must be directly and immediately relevant to the SVRA visitor experience. Programs should be offered during family time when they are likely to attract both adults and children. Evening campfire events on the beach or at state campgrounds may be well received. Socializing opportunities should be built into any SVRA event. Daytime alternative activities for children and non-riding adult family members will also be welcomed; these attendees can, over time, be expected to spread stewardship messages to other family members.

Although verbal and physical interactivity should form the bulk of such programs, visual aids should be used as well. Touchable props, large format maps, and photos and illustrations should be used. The feasibility of video or computer-based slide programs should be investigated. Regardless of delivery medium, it is imperative that OHV riders appear in all imagery.

OHV associations and businesses are respected members of the peer community. Mutually beneficial partnerships with these groups should be pursued. Again, the relationship should be developed by staff members who are clearly perceived as peers, not enforcement officers.

Survey respondents also expressed interest in the development of new exhibits at the Dunes Center, self-guiding trails, and construction of wildlife viewing platforms. It should also be noted that any redevelopment of the existing nature center at Oceano Dunes should take interpretive planning into account. Interpretive planning for a new or remodeled nature center should precede facility planning and fit the interpretive themes and goals in this report.

Recommendations for Black Lake Canyon Reserve

The Land Conservancy of San Luis Obispo County is interested in expanding interpretive opportunities at Black Lake Canyon Reserve. Interpretation here can serve visitor interests, help accomplish site management goals, and provide excellent opportunities for the organization to develop public support via mission-related marketing.

Two management issues, visitor safety and the impacts of development on sensitive wetland resources, are of particular concern at this site. An interpretive approach may be of help with both issues.



Visitor Safety

The bisection of this site by Highway 101 presents a major safety hazard for visitors who wish to reach either the north side of the wetlands or, during a guided event, the Black Lake site. Currently, visitors must walk on the narrow shoulder of the highway to reach the high ground north of the wetlands. A pedestrian bridge over the wetlands would offer a quieter, safer, more pleasant access to the upland site and allow for interpretive signage along a widened pullout mid-span. Alternatively, a pedestrian walkway along the highway, protected by a tunnel of strong yet open-design material such as gridwork, would allow visitors to reach the upland area safely. This alternative would accommodate excellent views along the east side of the tunnel and allow the visitor closer observation of the wetlands and riparian vegetation.

Local Impacts to Wetland Resources

Neighbors represent both potential supporters and potential threats to the water resources of Black Lake Slough. Any efforts to further develop interpretive opportunities at Black Lake should include print media and live programming specifically tailored to local residents. Programming should be of immediate relevance, interest and use to neighbors while delivering messages about impacts from pollution, erosion, pet waste, and exotic vegetation. School programming, in particular service-learning opportunities at the secondary level, could be particularly effective in these local neighborhoods.

Use of native vegetation on the surrounding lands can be promoted by enhancing interpretive programs with financial incentives to purchase dunes-compatible landscaping plants. Management is encouraged to pursue cooperative partnerships with any local nurseries that carry appropriate plant stock. Discount coupons for local residents would benefit both business and management interests. Further, if adequate funding can be secured, the Conservancy may wish to subsidize the purchase of native landscape materials to provide residents with economic incentives to replace invasive plant species.

Northeast (Upland) Area

Visitors to this scrub-covered ridge will appreciate interpretation of the 360-degree view. This site offers one of the most valuable opportunities for visitors to understand the diversity of landforms and habitats within the Guadalupe-Nipomo Dunes Complex and fully appreciate their role in its stewardship. One to three low-profile interpretive panels at this site should discuss the uniqueness and rarity of dunes ecosystems, impacts from human activity, and

efforts to maintain the ecological integrity of the dunes both here and throughout the Guadalupe-Nipomo Dunes system. These topics will address interpretive subthemes 1, 2, 3, and 5.

Southeast Area (adjacent to parking lot)

This site is suited to the interpretation of the wetlands, the Black Lake site as a whole, and the Conservancy's mission. Subtheme 3 will be addressed by a discussion of the many forms of life that rely on Black Lake Slough's wetlands. Subtheme 5 will be addressed by a discussion of the organization's mission, the Dunes Stewardship Collaborative mission, and the many contributions that visitors can make to their common cause.

Western Area (Black Lake site)

Guided walks and other special events are popular at this site and should be continued. Topics can address any of the five dunes subthemes. The only changes recommended for Black Lake Canyon Reserve programs are the alignment of tour program content to the theme/subtheme structure of this plan, and professional-level training of staff and volunteers in interpretive communication techniques.

Recommendations for The Dunes Center and the Stewardship Collaborative

Overall

The visitor and educator studies performed for this report are preliminary in nature. Prior to development of any interpretive media in the dunes, in-depth visitor research is recommended to develop an adequate understanding of visitors' interpretive needs and interests. Interpretive programming is likely to miss its mark if developed without an understanding of visitor educational levels, family group visitation patterns, etc.

Successful outdoor interpretation is simple and low-key, but topics of dunes restoration and its ownership history are complex. So that these important topics can be covered adequately, we recommend that they be treated as interior exhibits at the Dunes Center and new Interpretive Center.

As a member of the Collaborative, the Dunes Center should utilize the new Dunes Stewardship Collaborative identity in its signs and publications.

A wayfinding map with directions to dunes access points should be mounted outside the new interpretive building at the Dunes Center to accommodate visitors when the Center itself is closed.

Education Prospectus

An education prospectus highlights the uniqueness of program offerings and benefits to students and teachers. It can be a powerful tool to align education programs to dunes themes and goals. Further, it can allow the Dunes Center to distinguish itself as a desirable destination in an era marked by limited school funding and time.

Specifically, it explores new topics for learning and proposes development of content standards-based programs that support classroom curricula; programs that engage students in service-learning; professional development opportunities for educators; docent and volunteer training; new resources that promote scientific and environmental literacy in the classroom; and suggested refinement of current education programs, if needed.



Dunes-Wide Interpretive Publications

Recreation Brochure

We suggest the development of a dunes recreation brochure to help visitors plan their activities within the complex. The brochure should include a map showing the entire dunes complex, ownership of publicly accessible properties, access routes, and activities appropriate to each site. Posted on-site, this literature should also be available for distribution through area hotels, local chambers of commerce, and other venues where literature racks are available. A web-based, downloadable version, available in its entirety as well as divided into individual site segments, is also recommended.

Field Guide

During survey interviews, visitors voiced strong support for an abbreviated field guide on dunes resources—a small booklet of quality digital images of charismatic and common dunes species and other interesting features, with brief interpretive text. We believe such a resource would deepen enjoyment, understanding, and connection. The guide may be sold at the Dunes Center and other gateway sites such as hotels or bookstores for a nominal fee to cover the costs of printing. One or more business sponsors may be interested in funding development costs.

Language Issues

There are many populations of non-English speaking immigrants in the area. To ensure reaching the broadest possible audience, informational and interpretive media at the dunes should rely on non-verbal approaches to communication whenever possible. Spanish is by far the most prevalent second language here, and communities and workforces closest to the dunes are predominantly Spanish-speaking. Spanish-language panels, brochures, and programs are recommended, as is the addition of further bilingual staff and volunteers. Bilingual or Spanish-language books and field guides, properly marketed, would be welcome additions to the Dunes Center gift shop. Public service announcements and other promotional efforts should be translated into Spanish and offered through Spanish-language media.

Mission Statement Development

The Dunes Stewardship Collaborative has established good working relationships among its partners and has reached the point where a formal mission statement is appropriate and necessary. To ensure best results in this critical step, we recommend the use of a skilled outside facilitator, experienced in working with non-profit partnership organizations, to ensure all partners can fully participate in the process in an unbiased environment. This plan was developed without a mission statement to guide interpretation. Although it is unlikely, if the mission statement development process results in a change of focus for the Collaborative, the themes, goals, and target audiences identified in this plan may need to be re-visited before implementation of any of its recommendations.

Mission statement development can be undertaken as part of a larger marketing planning process.

Marketing Plan

The Collaborative should consider development of a strategic marketing plan to better understand and reach existing and target audiences. The process involves development of the organization's mission statement (if needed), analyzing the range of environments that surround and influence the organization (internal, external, market, competitive, etc.), analyzing internal resources (including organizational strengths and weaknesses), and developing a strategy to reach target audiences and advance the organizational mission.

During the development of a marketing plan, visitor studies, which may include on-site and off-site personal interviews, focus groups, and observational tracking, are used to better understand current and potential audiences. Such studies would gauge the levels of awareness of the Guadalupe-Nipomo Dunes among the larger community and the factors that influence visits, including cultural and ethnic considerations, social trends, levels of background knowledge, current perceptions of the dunes, audience interests, their needs and concerns, and any barriers to visitation. The information gathered from these efforts can be used in communication and outreach efforts, public relations, and marketing of dunes programs and resources. It may also be used to identify geographic, demographic, and/or behavioral market segments that allow the development of strategies to reach new audiences.

Although the marketing planning process will uncover exact needs and strategies, our work so far leads us to make a few specific marketing recommendations for consideration for the Collaborative. These include:

- Development of a brand identity with graphic "logo" and graphic standards for written and visual communications. The ultimate goal of brand identify is to reinforce a sense of "one dunes" system cared for by many parties.



- Identification of strategies to deliver messages regarding site awareness, visitation readiness, and opportunities for further involvement. Strategy development should carefully balance the need to reach the public with the need to protect sensitive areas. Several ideas should be examined during the marketing planning process, specific recommendations for consideration are public service announcements about Dunes programs on local radio and television, weekly two-minute “interpretive moment” drive-time radio features (possibly featuring perspectives of various partners), or outreach events held in communities where good neighbor relationships are critical.
- Use of the capital letter for written secondary references to the area, as in “the Dunes”. It is customary to capitalize secondary references when a place name has acquired its own distinctive identity (e.g., the American West/the West, San Francisco Bay/the Bay, etc.). Capitalization will reinforce a sense of a “one dunes” system.

Choosing a Marketing Expert

The services of an outside consultant are often retained to develop a marketing plan. Although there are many excellent and highly-skilled marketing consultants available in the business world, few also possess expertise in resource interpretation. Working with marketing consultants who share the Collaborative’s conservation interests will yield best results and save money and time. We strongly suggest selecting a firm with dual expertise.

Personal Interpretation

Personal interpretation—interpretive services delivered by paid or volunteer staff—includes but is not limited to live programs, guided walks, slide shows, demonstrations, and even informal, unplanned encounters with visitors.

Personal interpretation is interpretation at its most powerful. Because they are present in the moment, well-trained staff and volunteers can adapt their communications to fit any situation. They are the audience's personal facilitators, connecting the resource to the visitor both emotionally and intellectually. However, personal communication is expensive. Staff and volunteers cannot be everywhere at once, and training volunteers takes time and dedication. Compared to non-personal media such as interpretive exhibits and brochures, the cost per visitor contact is high.

Considering the financial realities facing stewards of the Guadalupe-Nipomo Dunes, we recommend a mix of personal and non-personal interpretive strategies. In particular, we recommend leveraging volunteer energy to accomplish Collaborative goals.

Current program offerings sponsored by the Dunes Center are varied and of good quality. Excellent photographers, artists, gardeners, teachers and other experts volunteer their time to lead hikes and conduct indoor programs, aided by a dedicated corps of volunteer docents and hosts. These programs should be continued. As marketing activities gain new audiences for Dunes messages, programs can be expanded to meet growth in demand.



Most training programs focus on providing the substantial body of information docents need to speak with authority about the resource. Having grasped the material, though, volunteers are often at a loss regarding how to organize and deliver the information. Such a lack of knowledge can lead to mixed or even poor results with public programs. Interpretive skills training is designed to fill this gap.

To ensure messages are delivered effectively and consistently dunes-wide, we recommend that the Collaborative harness the substantial energy of their volunteer corps by providing expert training in communication strategies, interpretive guide and host skills, and the art of interpreting Dunes themes using creative yet powerful venues.

People with excellent interpretive skills and experience can be found within the Collaborative; they would make valuable trainers and coaches. Training is a time-consuming activity, however. Outside trainers who specialize in interpretive skills for volunteers and staff can be brought in to provide one- or two-day workshops or certification courses as a supplement to existing dunes training programs. They can also work with management to fine-tune existing programs to align with Dunes goals and themes, or to develop entirely new in-house training programs and materials.

The National Association for Interpretation (NAI) offers two exceptional programs that are well suited to the Dunes. The Certified Interpretive Guide course, a four-day program focused on interpretive principles, program preparation and communication skills, is outstanding basic training for new volunteers and staff. It also makes an excellent refresher course for experienced individuals, who will value the review as well as new insights they gain from updates in state-of-the art interpretive communications. During the course, participants are individually coached as they prepare and deliver a short interpretive program.

Because the Collaborative has identified Dunes interpretive goals and themes, they will be able to reap double benefit from this course. Participants can work with Dunes goals and subthemes to produce enjoyable, effective programs that will advance Collaborative goals. Programs they develop will be useable at their next public event, while the practice they gained from working with themes and goals will enable participants to develop effective programs on other topics in the future.

We recommend that the Collaborative offer this training at no or little cost to key individuals within their staff and volunteer corps. The training can also be offered at reduced or full cost to any other individuals who express an interest.

The second NAI course we recommend is the Certified Interpretive Host workshop. This two-day training is designed for those who have contact with visitors but who do not have interpretive responsibilities—rangers, information desk workers, maintenance staff, etc. The workshop mixes interpretive principles and skills with customer service training. It is extremely effective in helping staff and volunteers understand the power of interpretation, how it helps to accomplish the organizational mission, and their role within the visitor-resource-agency “communication triangle”. It is a very powerful tool for bringing all levels and departments within an agency or partnership together for a common purpose.

Both NAI workshops offer a certification as an option in conjunction with the training curriculum. Arrangements can be made for certification trainers to come to your site.

Several excellent publications exist to support volunteers and/or staff in the development of their interpretive skills and techniques.

Pursuant to basic guide or host training for key personnel, and regardless of the route chosen, it is our strong recommendation that the Collaborative permanently incorporate core concepts of interpretive principles along with Dunes goals and themes into future training for all staff and volunteers.

Evaluation

Evaluation is an ongoing process that should be employed throughout all phases of program development and implementation, either internally by staff or externally by consultants. Its purpose is not to “grade” the organization, but rather to suggest specific improvements in the design and implementation of a program. The objectives developed in this draft plan are specifically designed for use in effective and meaningful evaluation processes.

Two methods are used for evaluation. Qualitative methods, such as field observations and staff interviews, can yield information from different perspectives about how a program is accomplishing results, while quantitative methods such as pre- and post-tests produce measurable results that can be statistically analyzed. Both methods have merits, and a balanced use of the two may provide the most useful feedback at the dunes.

There are three stages of evaluation: front-end, formative, and summative. Front-end evaluation helps establish the foundation of a project by assessing levels of knowledge, needs, and interests of the target audience before money is spent on program or exhibit planning. It may also include gap analysis of existing programs and media. Tools consist of surveys, personal interviews, focus groups, and observations of behavioral patterns. During the interpretive planning process at Guadalupe-Nipomo Dunes Complex, The Acorn Group conducted two small front-end studies: one focused on the visiting public and the other on K-6 classroom educators in four neighboring school districts. The results of both studies are summarized in this report in “Many Faces of the Dunes” while tabulated results appear in Appendices II and III.

Formative evaluation is the second stage. Its purpose is to determine if “mid-course adjustments” are needed to programs and media prior to final design. Before sending new interpretive panels to fabrication, for example, The Acorn Group routinely tests its design work with the visiting public. Individuals representing typical visitor populations are exposed to test programs or exhibit mock-ups, then asked to respond to specific questions regarding readability (i.e., are any words difficult to understand?), legibility (i.e., is the type size appropriate?), clarity and effectiveness of the underlying message, and general attractiveness. Results allow us to refine content and design elements to ensure they will be effective. Planners should also apply the Flesch reading scale to all interpretive text to ensure its reading level will be suited to that of target audiences.

We strongly suggest the Dunes Collaborative incorporate formative evaluation as part of the development of any interpretive element. Formative evaluation can be conducted by consultants, but it may also be performed in-house by staff or docents, provided questions are carefully developed and a specific protocol is followed.

Regardless of the care taken with planning and design, results of formative evaluation are invariably surprising and valuable. A relatively small investment of time and money at this stage ensures fabrication money will never be wasted.

Summative evaluation is the final stage of evaluation. It examines the overall effectiveness of a project once it has been in operation for a suitable period of time. While there is a range of methodologies, summative evaluation is typically more formally structured than front-end or formative evaluations. Because its purpose is to measure the impact of programs or media, it is essential to collect baseline data first. Summative evaluation tools range from the simple (head counts) to the complex (open-ended narratives, detailed case studies, behavioral observations, surveys, and pre- and post-tests). In the case of the Guadalupe-Nipomo Dunes Complex, we suggest employing summative evaluation means both at the new visitor center and within the dunes, first gathering baseline data at

both sites before media and program changes are implemented, and comparing it to data collected after installation of new media and programs.

Evaluation of existing interpretive media, services, and staff capacity

We recommend that existing interpretive media and programs be evaluated for alignment to the themes outlined in this master plan as well as for their effectiveness in fulfilling plan goals and objectives. Results will reveal whether modifications are needed. Interpretive elements that may benefit from evaluation include trailer displays; interpretive, directional, orientation, and regulatory signage; web sites; brochures and maps; and content and delivery of public programs such as guided walks.

Media and programs currently under development should also be evaluated in light of interpretive themes, goals and objectives.

Programmatic changes initiated by the interpretive planning process may tax existing staff and volunteers who will be responsible for their implementation. We recommend that analysis of staff and volunteer capacity, and resulting recommendations for increased capacity (and accompanying managerial issues), if any, should accompany further planning efforts for the Dunes.

Implementation of the Plan

We recommend the following priorities for interpretive communications. The Collaborative may find that funding and staff availability issues require adjustments to the priority order. However, it is our recommendation that mission statement development leads the list, as all other steps will affect subsequent planning and design efforts.

1. Mission statement development
2. Refinement and completion of the interpretive master planning process, including but not limited to:
 - Scoping for interpretive opportunities at remaining dunes sites (Black Lake, Coreopsis Hill, Hidden Willow Valley, Oceano Dunes, Point Sal, etc.)
 - In-depth visitor research
 - Evaluation of staff and volunteer capacity
 - Outline for live programming dunes-wide
3. Training for staff and volunteers
 - Interpretive principles
 - Interpretive guide skills and techniques
 - Interpretive host skills and techniques
4. Marketing plan, including but not limited to:
 - Brand identity with graphic “logo” and graphic standards
 - Focus groups with current and potential visitors and area businesses
 - Development of delivery strategies
5. Development of recreation planning and wayfinding tools
 - Recreational planning brochure
 - National Wildlife Refuge trail map and trail markers
 - Other media as identified in marketing plan
6. Development of interpretive media at identified sites
 - Design
 - Text development
 - Formative evaluation
 - Fabrication
7. Development of education prospectus; alignment of existing programming to its findings
8. Architectural design
 - Design and development of construction documents for entrance portals
 - Design and development of construction documents for nesting bird “flooring” exhibit

Estimated Costs of Development

Preliminary cost estimates for interpretive panel development are based on use of high-pressure laminate material, such as that produced by Folia or iZone. Due to exposure to ultraviolet (UV) radiation and wind-blown sand particles, we strongly advise the selection of Folia Sun or iZone Exterior Grade both of which are impervious to moisture and resistant to graffiti and UV rays.

A panel thickness of $\frac{3}{4}$ to 1" would be self-supporting, requiring only a back plate and pedestal mount, available at a reasonable price. For example, iZone, a well-known fabricator, can produce a 24" x 36" x $\frac{3}{4}$ " panel, including threaded inserts, polishing, and lab tests, for approximately \$425; one powder-coated pedestal will cost approximately \$240. These fees do not include design and text development or freight costs. While design and text development costs vary according to specific scope (i.e., photography versus original art, complexity of design, translation services, formative evaluation, and so forth), a range of \$1,750 - \$3,000 per panel is not unreasonable.

The ground-mounted interactive exhibit "floor" about nesting birds should be made of the same material as the low-profile panels, measuring approximately 36 square feet. To protect the nylon core laminate from abrasion and to prevent slippage, a clear protective steel-flake finish (commonly used in industrial flooring) should be added. The flooring should be mounted on a recycled plastic or wooden base. Cost of fabrication is estimated at \$3,000 per floor, but may vary substantially according to vendor specifications. Abrasive wear and tear and strong UV exposure is to be expected; flooring would probably require replacement every two to three years. However, fabrication costs are typically lower for replacement panels. Considering the importance of this exhibit's message and the number of visitors who will be reached with this "feet-on" experience, The Acorn Group feels that this would be money well spent.

Training costs are estimated at \$100 to \$400 per person, with a wide range of options in between. The upper figure reflects the costs of full Certified Interpretive Guide training, including certification fee and materials. Training program consultation and/or training materials development may start around \$1,000 and go up to \$10,000, \$20,000, or more, depending on the level of assistance desired.

Fees for developing an education prospectus would range from \$5,000 to \$10,000, depending on scope. Staff capacity for implementation of new or expanded programs should be considered as such plans are refined, taking in to account managerial implications of growth.

Estimated costs of development for architectural elements, graphic standards, brand identity, publication design, and mission statement development are beyond the scope of this project.

Operations and Maintenance Considerations

Sign Design and Placement

It is recommended that signs be placed within 19" of the trail's edge at a height of 30-34" from panel bottom to the trail surface. Standard, low profile interpretive panels should be mounted at a 45-degree angle for maximum viewing by all visitors, including those in wheelchairs. Vertical signs should be mounted at a height of 24-28" from panel bottom to the trail surface. Because birds love a good 45-degree panel, we recommend installing a bar a bit above and a few inches beyond the top edge of each panel. Birds will choose the perch rather than the panel, helping to keep the sign clean. Care should be taken to keep the bar short and as thin as possible, to minimize interference with the visitor's visual enjoyment of the scenery. Any new kiosks should be designed to ensure interpretive brochures and trail maps can be kept stocked and dry.

Point size should range between 60 and 72 points for titles, to 18 points for captions. For readability, the body text should be flush left and ragged right and colors and backgrounds should be chosen carefully. Visual images should be used consistently and frequently.

Maintenance Issues

Costs of replacing weatherworn or outdated outdoor panels should be included as part of the sites' management budget. Replacement schedules should be developed as media are developed, using recommendations obtained from the fabricator. Re-fabrication is typically less expensive than the first run.

At least once a week during routine ground maintenance, interpretive panels and frames should be wiped down with a clean damp cloth free of solvents and cleansers. Graffiti, if present, should be treated immediately, using guidelines developed by the manufacturer. To reinforce the subtheme "People who value the dunes are working together to protect and manage them," information at kiosks and on brochures should carry an invitation for visitors to alert management to graffiti or other problems. We also recommend trimming of vegetation be continued along the Oso Flaco Lake boardwalk to maintain the usable width of the trail.

Appendix I: Glossary of Terms

Interpretation – a communication process that forges emotional and intellectual connections between the interests of the audience and the inherent meanings in the resource (National Association for Interpretation, 2000)

Portal – Architectural feature through which the visitor passes that marks the entrance to each parcel.

Welcome (identity) sign – Sign that welcomes the visitor upon arrival and identifies the individual parcel, the landowner (i.e., governing agency) and the Stewardship Collaborative.

All-Dunes Map – Wayfinding graphic depicting the entire Dunes Complex. The base map can be used in a recreational brochure. It can also be modified for use at individual parcels within the Complex through the use of an insert map with details of the parcel.

Recreational brochure–Planning tool for use by visitors that features a map of the entire Dunes Complex, including public sites within the Complex, off-limits areas, access routes, activities appropriate to each site, contact information, etc.

Regulatory sign – Sign that states rules and regulations and explains the reasons for them.

Directional sign – [On site] Sign that incorporates international symbols, new symbols, and words to identify special features and areas for specific activities within the Complex.

Directional sign – [Off site] Sign that helps the visitor locate access points to the Dunes Complex from street or highway.

Informational sign – Any other sign conveying basic information such as hours of operation, emergency contact numbers, etc.

Low-power FM broadcast – Pre-recorded audio material broadcast on a restricted-distance basis through a low-wattage FM transmitter. Visitors are prompted to use their car radios to hear relevant information on visiting dunes sites.

Interpretive panel – Sign that incorporates compelling graphics and interpretive principles to pique interest and explain more than the 4Fs (form, function, flora, fauna) to visitors.

Interpretive media – Any written, recorded, or other non-personal material that interprets a site, such as interpretive panels, boardwalk features, radio broadcasts, field guides, etc.

Kiosk – Architectural structure that displays literature such as rules and regulations, brochures, and program announcements. Kiosks may also hold interpretive panels.

Appendix II: 2003 Visitor Survey Report

Part A: Grand total of survey results at Rancho Guadalupe Dunes Preserve and Oso Flaco Lake Natural Areas across two languages.

N = 57; three refusals. All surveys conducted between Oct. 24 and 31, 2003. Average weather conditions were unseasonably warm (sunny, highs in the 80s), drawing more visitation than might otherwise be expected.

1. Why are you visiting today? (up to two answers permitted)

Be with family: 17	Fishing: 3
See wildlife/nature/ be outdoors: 17	Do homework: 2
Exercise: 17	Preparing a guided walk: 1
Be with friends: 14	To get to know the place: 1
Relax and reflect: 13	It's cooler here on a hot day: 1
Surfing: 7	Attend a program: 0
Just happened by/curious: 3	

2. How long do you intend to visit?

1-2 hours: 33	More than 5 hours: 6
2 ¼-4 ¾ hours: 13	Less than one hour: 5

3. How did you first become aware of the Dunes?

Through a friend or family member: 40	Organization or program: 3
As a longtime/lifetime resident: 4	Web: 1
Just exploring/saw signs: 4	Map: 1
SLO Tribune: 3	As Univ. student: 1

4. Are you aware of any programs or activities about the Dunes?

No: 32 Yes: 25

4a. If so, have you ever attended:

No/unsure: 19

Yes: 6

5. How many times have you visited in the last year?

10+ times: 21

2-3 times: 19

First visit: 9

4-6 times: 6

7-9 times: 2

5a. Where do you usually go within the Dunes?

R-GD Co. Park: 31

Oso Flaco: 19

Oceano Dunes SVRA: 14

Pismo: 4

Avila: 3

Guadalupe-Nipomo Dunes NWR: 2

Not sure: 2

Point Sal: 2

Shell Beach: 2

6. What are the best times for you to visit or attend programs?

Weekend mornings: 23

Weekend afternoons: 22

Weekend evenings: 14

Weekday mornings: 10

Weekday afternoons: 9

Weekday evenings: 7

7. What is it about the Dunes that's important to you?

Peaceful/quiet/spiritual/getaway: 17

Natural/undeveloped: 16

Wildlife/ plants/ecology/nature: 12

Protected/preserved: 11

Ocean/beach: 10

Clean: 8

Public accessibility: 6

Place to be with family/friends/meet people: 3

Beauty/views: 3

Fishing: 1

Driving on beach: 1

Walking: 1

8. What two features would improve your experiences at the Dunes?

Interpretive panels: 15	Live person: 4
Rec. brochure to help plan visits: 15	Fewer signs of civilization: 4
Species lists with pictures: 13	Live programs: 3
Improvement of existing trails: 8	None, don't change: 3
New trails: 7	Dunes-specific guidebook: 2
Viewing platforms: 6	TV/Radio coverage: 1
Directional signs: 6	BBQ/swing: 1
Self-guiding trail with brochure: 5	Expanded hours: 1
Benches: 5	Any info at kiosk: 1

9. Which two Dunes topics would you like to learn more about?

Wildlife: 23	Efforts to protect and restore: 4
Plants: 15	Ten Commandments movie: 6
Dunes: 9	Tips for surfing/fishing: 8
Overall Dunes ecology: 13	None: 2
Native American culture: 11	Environmental impacts: 1
How dunes form and change: 6	

10. Do you read interpretive panels as a rule?

Yes: 41 Sometimes: 15 No: 1

10a. Usually read interpretive panels up to what level?

All of it if it's a brief panel: 29
All of it, even if it's long: 19
Above plus pictures and captions: 5
Just titles and subtitles: 3

11. How important is it to you to have information about available and permissible activities?

Very important: 28

Somewhat important: 16

Not very important: 8

Not at all important: 4

12. Do you feel you have adequate access to information about rules/regulations at the Dunes?

Yes: 31

No: 15

Not sure: 11

13. How important is it to you to know who manages or owns the land?

Very important: 21

Somewhat important: 16

Not very important: 16

Not at all important: 4

14. Do you know who owns or manages the land we're on now?

No/not sure/inaccurate answer: 41

Yes/accurate answer: 16

15. How easy is to find access points to the Dunes or its trailheads?

Very easy: 16

Somewhat easy: 15

Somewhat difficult: 17

Very difficult: 9

Note: Roughly half of respondents were asked the modified version of this question ("How easy is it for newcomers to find the Dunes?")

15a. Please elaborate:

Could use better (highway) signs/brochure/map to find sites: 13

Access issues: 2

Lack of interior wayfinding aids/trailheads: 1

16. How safe do you feel as a visitor here?

Very safe: 39
Fairly safe: 11

A little unsafe: 7
Not safe at all: 0

16a. Please elaborate:

No guard/lifeguard: 6 Dangerous animals: 3 Fear harm from people: 3

17. Have you ever visited the Dunes Center building?

No: 51

Yes: 6

Respondents live in

Santa Maria (24)
Arroyo Grande (6)
Pismo Beach (5)
Lompoc (3)
Guadalupe (2)
Laguna Niguel, Orange Co. (2)
Nipomo
San Luis Obispo
Los Alamos
Santa Clarita
Bakersfield

Avila Beach
Morro Bay
Templeton
Goleta
Camarillo
Orinda, Bay Area
Lomita, LA Co.
Moreno Valley, Riverside Co.
Brawley, Imperial Co.
Iowa

Appendix II, Part B: Combined results of interviews in Spanish at Oso Flaco and Rancho Guadalupe Dunes Preserve

N = 11; two refusals.

1. Why are you visiting today?

Be with family: 6

Be with friends: 3

Relax and reflect: 3

See wildlife/nature/ be outdoors: 2

Exercise: 2

To get to know the place: 1

It's cooler here than inland on a hot day: 1

Fishing: 1

2. How long do you intend to visit?

Less than one hour: 0 1-2 hours: 5 2 ¼-4 ¾ hours: 4 More than 5 hours: 2

3. How did you first become aware of the Dunes?

Through a friend or family member: 11

4. Are you aware of any programs or activities about the Dunes?

No: 11

5. How many times have you visited in the last year?

2-3 times: 6 10+ times: 1 4-6 times: 1 First visit: 3

5a. Where do you usually go within the Dunes?

Oso Flaco: 4
Rancho Guadalupe Dunes Co. Park: 7
Pismo: 1
Oceano Dunes SVRA: 2
Avila: 2
Guadalupe-Nipomo Dunes NWR: 1
Not sure: 1

6. What are the best times for you to visit or attend programs?

Weekend mornings: 4
Weekend afternoons: 6
Weekend evenings: 3

7. What is it about the Dunes that's important to you?

Clean: 3
Public accessibility: 2
Peaceful/quiet/spiritual/getaway: 2
Natural/undeveloped: 1

Place to be with family/friends: 1
Ocean/beach: 1
Walking: 1
Beauty/views: 1

8. What two features would improve your experiences at the Dunes?

Interpretive panels: 1
Species lists with pictures: 1
Rec. brochure to help plan visits: 5
New trails: 2
Improvement of existing trails: 1
Self-guiding trail with brochure: 1

Viewing platforms: 1
Benches: 1
Directional signs: 6
Dunes-specific guidebook: 1
Other: TV/Radio coverage: 1

9. What two Dunes topics would you like to learn more about?

Wildlife: 3
Plants: 3
Ten Commandments movie: 3
Tips for surfing/fishing: 3
Native American culture: 2

Overall Dunes ecology: 1
How dunes form and change: 1
Efforts to protect and restore: 1
None: 1

10. Do you read interpretive panels as a rule?

Yes: 9 Sometimes: 2

10a. Usually read interpretive panels up to what level?

Just titles and subtitles: 2
Above plus pictures and captions: 0

All of it if it's a brief panel: 6
All of it, even if it's long: 3

11. How important is it to you to have information about available and permissible activities?

Very important: 10 Somewhat important: 1

12. Do you feel you have adequate access to info about rules and regulations at the Dunes?

Yes: 2 No: 4 Not sure: 5

13. How important is it to you to know who manages or owns the land?

Very important: 4 Somewhat important: 4 Not very important: 3 Not at all important: 0

14. Do you know who owns or manages the land we're on now?

Yes/accurate answer: 1 Yes/inaccurate answer: 1 No/not sure: 9

15. How easy is to find access points to the Dunes or its trailheads?

Very easy: 0 Somewhat easy: 3 Somewhat difficult: 7 Very difficult: 1

15a. Please elaborate:

Lack of off-site directional signs: 7 Far away/need routes for easier access: 2

16. How safe do you feel as a visitor here?

Very safe: 1 Fairly safe: 4 A little unsafe: 6 Not safe at all: 0

16a. Please elaborate:

Dangerous animals: 1 No guard/lifeguard: 6

17. Have you ever visited the Dunes Center building? No: 11

Visitor Comments

Communication issues

Please advertise on Spanish TV/radio, as no one in my community knows about this beautiful place
Please give more information about this place in Spanish

Facilities, services, recreation

Would like restrooms at the beach
Please maintain the restrooms, they're in bad shape
You're doing a good job making this place better
Picnic tables & trash cans at beach, please

Would like a food/drink vendor
Would like to be able to make a fire, camp with my children
Thanks for asking for our opinions

Demographics

Group size ranged from 2 to 12; mean group size 5.5. Estimated age of respondents ranged from 19 to 45; mean age 31.7. 10 respondents were from Santa Maria; 1 from Bakersfield.

Appendix II, Part C: Combined results of interviews in English at Oso Flaco and Rancho Guadalupe Dunes Preserve

N = 46. One refusal.

1. Why are you visiting today (up to two answers allowed):

Exercise: 15
Be with friends: 11
Be with family: 11
See wildlife/nature/ be outdoors: 15
Relax and reflect: 10
Fishing: 2
Surfing: 7
Just happened by/curious: 3
Preparing to lead a nature walk: 1
Do homework: 2

2. How long do you intend to visit?

1-2 hours: 28
2 ¼-4 ¾ hours: 9
Less than one hour: 5
More than 5 hours: 4

3. How did you first become aware of the Dunes?

Through a friend or family member: 29
As a longtime/lifetime resident: 4
Just exploring/saw signs: 4
SLO Tribune: 3
Organization or program: 2

Web: 1
Map: 1
Bill Deneen (a docent): 1
CA student: 1

4. Are you aware of any programs or activities about the Dunes?

Yes: 25

No: 21

4a. If yes, have you or your family ever attended?

Had attended: 6

Never attended or were unsure: 19

5. How many times have you visited in the last year?

2-3 times: 13

10+ times: 20 (of these, most visit from once a week to daily, year round)

4-6 times: 5

First visit: 6

7-9 times: 2

5a. Where do you usually go within the Dunes (more than one answer allowed):

Rancho Guadalupe Dunes Co. Park: 24

Oso Flaco: 15

Oceano Dunes SVRA: 12

Pismo: 3

Point Sal: 2

Not sure: 1

Avila: 1

Shell Beach: 1

GND NWR: 1

6. What are the best times for you to visit or attend programs (more than one answer allowed):

Weekend mornings: 19

Weekend afternoons: 16

Weekend evenings: 11

Weekday mornings: 10

Weekday afternoons: 9

Weekday evenings: 7

7. What is it about the Dunes that's important to you (more than one answer allowed):

Natural/undeveloped: 15	Unique place: 2
Peaceful/quiet/spiritual/getaway: 15	Place to be with family/friends/meet pp: 2
Wildlife/ plants/ecology/nature: 12	Safe place to visit: 1
Protected/preserved: 11	Fishing: 1
Ocean/beach: 9	Water (lakes): 1
Clean: 5	Driving on beach: 1
Public accessibility: 4 Beauty/views: 2	Non-commercial: 1

8. What two features would improve your experiences at the Dunes?

Interpretive panels: 15	Fewer signs/fences/signs of civilization: 4
Species lists with pictures: 12	None/don't change anything: 3
Rec. brochure to help plan visits: 10	Live programs or activities: 3
Improvement of existing trails/roads: 7	Directional signs: 1
New trails: 5	Dunes-specific guidebook: 1
Self-guiding trail with brochure: 4	BBQ & swing set: 1
Viewing platforms: 5	Expanded hours: 1
Live person: 4	Any info at kiosk: 1
Benches: 4	

9. What two Dunes topics would you like to learn more about?

Wildlife: 20	Surfing/fishing tips: 5
Plants: 12	Efforts to protect and restore: 3
Overall Dunes ecology: 12	Ten Commandments movie: 3
Dunites: 9	Environmental impacts: 1
Native American culture: 9	Nothing-use money for maintenance: 1
How dunes form and change: 5	

10. Do you read interpretive panels as a rule?

Yes: 32 Sometimes: 13 No: 1

10a. Usually read interpretive panels up to what level?

Just titles and subtitles: 1
Above plus pictures and captions: 5
All of it if it's a brief panel: 23
All of it even if it's long: 16

11. How important is it to you to have information about available and permissible activities?

Very important: 18
Somewhat important: 15
Not very important: 8
Not at all important: 4

12. Do you feel you have adequate access to info about rules and regulations at the Dunes?

Yes: 29 No: 11 Not sure: 6

13. How important is it to you to know who manages or owns the land?

Very important: 17
Somewhat important: 12
Not very important: 13
Not at all important: 4

14. Do you know who owns or manages the land we're on now?

Yes (with accurate answer): 15 No/not sure: 31

Note: Interestingly, at Oso Flaco, most respondents who said it's very or somewhat important to know who owns the land were unable to identify who owned Oso Flaco. Conversely, the majority of those who assigned little to no importance to such knowledge accurately identified the State as the owner/manager.

15. How easy is to find access points to the Dunes or its trailheads?

Very easy: 16 Somewhat easy: 12 Somewhat difficult: 10 Very difficult: 8

Note: We regret that the accelerated schedule prevented testing of the survey tool before use, which would have revealed the flaw in this question. Most Dunes visitors are regulars, and naturally will feel that the Dunes are easy to find. After the first two or three interviews, realizing that the question was badly phrased, the Oso Flaco interviewer began to clarify the question by asking it a second time in terms of difficulty for newcomers. When the question was re-stated, most respondents quickly changed their answers to "difficult" or "somewhat difficult".

15 a. Please elaborate:

Need better access orientation (brochure/map/highway signs): 6
Lack of trailheads/ interior wayfinding aids: 2

16. How safe do you feel as a visitor here?

Very safe: 38
Fairly safe: 7
Somewhat safe: 1
Not safe at all: 0

16a. Please elaborate on your answer:

Isolation/fear harm from others: 3 Fear harm from cougars: 2

17. Have you ever visited the Dunes Center building?

No: 40 Yes: 6

17 a. If yes, what was the (most recent) reason for your visit?

Movie set exhibit; art exhibit; attend a field trip; attend dinner; obtain park information; see wildlife mounts

Additional Comments

Interpretive or other visitor communications

Please keep it natural/retain the charm/no more development: 6
Afraid that interpretation and/or directional signs will draw more visitors: 3
I've tried to visit the Dunes Center but didn't know the hours (2)
Would like an animal track guide as we see so many tracks and so few animals
Please increase public awareness; consider bus stop posters
Wants info that will help him feel assured that he isn't causing inadvertent damage when he visits
Likes the kids' program at Bob Jones Trail; please adopt similar program here

Needs clearer instructions regarding payment procedures
Not sure whom to call when there's a problem
Wish we had known our dog was not allowed here before bringing him
Please keep information at entry up to date
There's a lot to lose here and not enough info to help with protection
Education in newspapers needs to happen
Need a few signs regarding allowable access and property boundary
Need a panel on how to tread lightly and not destroy
Need small information area
Educate litterbugs; use jail time and fines

Ownership or management-related comments

Pleased that management is conducting a survey/feel part of the process: 5
Pleased that the dunes are being preserved, protected: 3
Appreciate the boardwalk for combining access with protection for nature
Identified The Nature Conservancy as current or past owner/manager: 3

Leave it as it is (2)
Please remove ORV users and expand protected areas: 3
Please ensure that these natural areas remain protected from ORV damage (*this comment from an ORV user who identifies himself as a hiker and natural history buff*)

Please ensure that ORV users will always have some use of dunes, it's their right (this comment from a non-ORV user)
 Don is an asset; friendly and helpful
 Please open more areas at Point Sal for hiking/dogs
 The Nature Conservancy broke our hearts when they left
 Budgets are low, but increase patrol and/or public awareness regarding trash, vandalism
 Please improve boardwalk surface, increase trails, facility maintenance
 Sandy access roads (at RGDCP) are bad for tourism
 Please keep sand off the lot
 No parking lots
 Blacktop is nasty
 Would like drinking water available
 Need a food stand
 Oso Flaco is a great place
 Goes to Oceano for the butterflies

Need a lifeguard—strong currents here
 Please clean up glass—I would like to go barefoot
 Thanks for making this a cool and nice place to be
 Would like a new bike trail from town to the dunes
 Sunrise to sunset access is vital
 Likes to know who manages land because he/she is concerned about scheming ideas
 Keep dogs restricted to area in front of parking lot
 You're doing a good job of running this place
 I want to return and bring my family next time
 This is my church
 I would like to volunteer at the dunes
 Chose this over miniature golf; close by, fun; grounds look like Jerusalem
 Feels like the mother's womb; takes more ownership than he does of his own home
 Likes to know who manages land so he/she knows whether or not to hide

Demographics

Group size range 1 to 13; mean group size 2.5. Estimated age range 21 to 80; mean age 45.6

Respondents live in

Santa Maria (14)
 Arroyo Grande (6)
 Pismo Beach (5)
 Lompoc (3)
 Guadalupe (2)
 Laguna Niguel, Orange Co. (2)
 Nipomo

San Luis Obispo
 Los Alamos
 Santa Clarita
 Avila Beach
 Morro Bay
 Templeton
 Goleta

Camarillo
 Orinda, Bay Area
 Lomita, LA Co.
 Moreno Valley, Riverside Co.
 Brawley, Imperial Co.
 Iowa

Appendix II, Part D: Rancho Guadalupe Dunes Preserve English surveys

N = 20; one refusal.

1. Why are you visiting today?

See wildlife/nature/ be outdoors: 6
Relax and reflect: 6
Surf: 6
Exercise: 4
Be with friends: 2
Be with family: 2
Doing homework: 2
Fish: 1
Just happened by/curious: 1

2. How long do you intend to visit?

1-2 hours: 7
2 ¼ - 4 ¾ hours: 7
Less than one hour: 3
More than 5 hours: 3

3. How did you first become aware of the Dunes?

Friend or family member: 13
Map: 1
Driving by/chance encounter: 3
Web: 1 (not specified)
Bill Deneen: 1
As a UC student: 1

4. Are you aware of any programs or activities about the Dunes?

Yes: 11 No: 9

4a. If yes, have you or a family member ever attended?

Yes: 5 -2 as work party volunteers;
3 on guided walks
No: 5
Not sure: 1

5. How many times have you visited in the last year?

10+ times: 14
7-9 times: 2
First visit: 2
2-3 times: 1
4-6 times: 1

5a. Where do you usually go within the Dunes?

Oso Flaco: 2
Rancho Guadalupe Dunes Co. Park: 16
GND NWR: 1
Oceano Dunes SVRA: 4
Point Sal: 1
Pismo: 2
Avila: 1
Shell Beach: 1

6. What are the best times for you to visit or attend programs?

Weekend mornings: 12 Weekday mornings: 13
 Weekend afternoons: 6 Weekday afternoons: 6
 Weekend evenings: 5 Weekday evenings: 5

7. What is it about the Dunes that's important to you?

Ocean/beach: 8
 Wildlife/ plants/ecology/nature: 7
 Peaceful/quiet/spiritual/getaway: 6
 Clean: 5
 Natural/undeveloped/no societal encumbrances: 4
 Public accessibility: 3
 Protected/preserved: 3
 Surfing: 2
 Driving on beach: 1
 No cars: 1
 Non-commercial: 1
 Place to meet people: 1
 Safe place to visit: 0
 Fishing: 0
 Unique place: 0
 Water (lakes): 0
 Beauty/views: 0
 Walking: 0
 Place to be with family/friends: 1

8. What two features would improve your experiences at the Dunes?

Interpretive panels: 3
 Species lists with pictures: 1
 Rec. brochure to help plan visits: 3
 New trails: 1
 Improvement of existing trails/roads:3
 Self-guiding trail with brochure: 1
 Viewing platforms: 3
 Live person: 2
 Benches: 2
 Directional signs: 0
 Dunes-specific guidebook: 0
 Live programs/activities: 2
 More primitive/less access/less signage (3)
 Nothing, keep it the same (3)
 Any info at kiosk
 BBQ & swing set
 Expanded hours

9. What two Dunes topics would you like to learn more about?

Wildlife: 6 Overall Dunes ecology: 7
 Tips for surfing/fishing: 5
 Native American culture: 5 Dunites: 3
 How dunes form and change: 2
 Efforts to protect and restore: 1
 Plants: 1
 Ten Commandments movie: 1
 How we destroy environment/how to keep intact
 Nothing—spend that money on maintaining access.

10. Do you read interpretive panels as a rule?

Yes: 7 Sometimes: 12 No: 1

10a. Usually read panels up to what level?

Just titles and subtitles: 1
Above plus pictures and captions: 2
All of it if it's a brief panel: 7
All of it even if it's long: 9

11. How important is it to you to have information about available and permissible activities?

Very important: 4 Not very important: 7
Somewhat important: 7 Not at all important: 2

12. Do you feel you have adequate access to info about rules and regulations at the Dunes?

Yes: 17 No: 1 Not sure: 2

13. How important is it to you to know who manages or owns the land?

Very important: 12 Not very important: 6
Somewhat important: 1 Not at all important: 1

14. Do you know who owns or manages the land we're on now?

Yes, County: 5 CNLM: 3 No/not sure: 12
Both "County" and "CNLM" were counted as correct answers

15. How easy is to find access points to the Dunes or its trailheads?

Very easy: 7 Somewhat difficult: 4
Somewhat easy: 7 Very difficult: 2

Note: We regret that the accelerated schedule prevented testing of the survey tool before use, which would have revealed the flaw in this question. Most visitors at Rancho Guadalupe Dunes Park/Preserve are regulars, and naturally will feel that it is easy to find. Some who rated the Dunes as easy or somewhat easy to locate remarked that although they have no trouble, newcomers might due to lack of signs or maps. Others remarked that there are plenty of signs, although it is not clear whether they were referring to off-site highway directionals or on-site signs.

15a. Please elaborate:

Heard of Oso Flaco but can find no map or directions
Believes other access points exist but is not aware of them
Lack of trailheads
No signs

16. How safe do you feel as a visitor here?

Very safe: 17 Not very safe: 1
Fairly safe: 2 Not safe at all: 0

16a. Please elaborate on your answer:

Isolated, long drive, no protection, no phones; there are times when shady characters are around

17. Have you ever visited the Dunes Center building?

No: 16 Yes: 4

17 a. If yes, what was the (most recent) reason for your visit?

Art exhibit; find info about park; see wildlife mounts; attend "Guadalupe Speaks" dinner

Additional comments

Ownership or management-related comments

Need a food stand

Need a lifeguard—strong currents here

Please clean up glass—I would like to go barefoot

Leave it as it is (2)

Thanks for making this a cool and nice place to be

Would like a new bike trail from town to the dunes

Sunrise to sunset access is vital

Please keep sand off the lot

Concerned about scheming ideas

Keep dogs restricted to area in front of parking lot

You're doing a good job of running this place

No parking lots

Blacktop is nasty

I want to return and bring my family next time

This is my church

Likes the survey and the coordinators asking questions

I would like to volunteer at the dunes

Thanks for doing the survey; makes me feel like a part of the process before any decision-making

Chose this over miniature golf; close by, fun, grounds look like Jerusalem

Feels like she/he is in the mother's womb; takes more ownership here than s/he does of his/her own home.

Interpretation and other communication issues

I've tried to visit the Dunes Center but didn't know the hours (2)

There's a lot to lose here; there's not enough info to help with protection

Education in newspapers needs to happen

Need a few signs regarding allowable access and property boundary
Need a panel on how to tread lightly and not destroy
Need small information area
Educate litterbugs; use jail time and fines
More (non-alcoholic) activities such as games, music

Demographics

Group size ranged from 1 to 4; mean group size = 1.6
Age ranged from 21 to 55; mean age = 36.9

Respondents were from:

Santa Maria (9)	Los Alamos
Arroyo Grande (4)	Santa Clarita
Lompoc (2)	Brawley (Imperial Co.)
Guadalupe	Iowa

Appendix II, Part E: Oso Flaco Lake English surveys

N= 26; no refusals.

1. Why are you visiting today?

Exercise: 11
Be with friends: 9
Be with family: 9
See wildlife/nature/ be outdoors: 9
Relax and reflect: 4
Just happened by/curious: 2
Fishing: 1
Surfing: 1
Preparing to lead a nature walk: 1

2. How long do you intend to visit?

1-2 hours: 21
2 ¼-4 ¾ hours: 2
Less than one hour: 2
More than 5 hours: 1

3. How did you first become aware of the Dunes?

Through a friend or family member: 16
As a longtime/lifetime resident: 4
SLO Tribune: 3
Hiking club program: 1
Audubon/ Off Road: 1
Saw sign on road: 1

4. Are you aware of any programs or activities about the Dunes?

Yes: 14 No: 12

4a. If yes, have you or a family member ever attended?

Yes: 1 (hike) No or not sure: 13

5. How many times have you visited in the last year?

2-3 times: 12
10+ times: 6 (of these, many visit from weekly to daily, year round)
4-6 times: 4
First visit: 4

5a. Where do you usually go within the Dunes?

Oso Flaco: 13
Rancho Guadalupe Dunes Co. Park: 8
Oceano Dunes SVRA: 8
Point Sal: 1
Pismo: 1
Not sure: 1

6. What are the best times for you to visit or attend programs?

Weekend mornings: 19	Weekday mornings: 10
Weekend afternoons: 16	Weekday afternoons: 9
Weekend evenings: 11	Weekday evenings: 7

7. What is it about the Dunes that's important to you?

Natural/undeveloped/no societal encumbrances: 10

Peaceful/quiet/spiritual/getaway: 9

Protected/preserved: 8

Wildlife/ plants/ecology/nature: 5

Beauty/views: 2

Unique place: 2

Water (lakes): 1

Ocean/beach: 1

Public accessibility: 1

Safe place to visit: 1

Place to be with family/friends: 0

Fishing: 1

Clean: 0

Driving on beach: 0

No cars: 0

Non-commercial: 0

Spiritual: 0

Place to meet people: 0

Walking: 0

8. What two features would improve your experiences at the Dunes?

Interpretive panels: 12

Species lists with pictures: 11

Rec. brochure to help plan visits: 7

New trails: 4

Improvement of existing trails: 3

Self-guiding trail with brochure: 3

Viewing platforms: 2

Live person: 2

Benches: 2

Directional signs: 1

Dunes-specific guidebook: 1

Live programs: 1

Fewer signs/fences/signs of civilization: 1

9. What two Dunes topics would you like to learn more about?

Wildlife: 14

Plants: 11

Dunites: 6

Overall Dunes ecology: 5

Native American culture: 4

How dunes form and change: 3

Efforts to protect and restore: 2

Ten Commandments movie: 2

Tips: 0

10. Do you read interpretive panels as a rule?

Yes: 25 Sometimes: 1

10a. Usually read panels up to what level?

- Just titles and subtitles: 0
- Above plus pictures and captions: 3
- All of it if it's a brief panel: 16
- All of it even if it's long: 7

11. How important is it to you to have information about available and permissible activities?

- Very important: 14
- Somewhat important: 9
- Not very important: 1
- Not at all important: 2

12. Do you feel you have adequate access to info about rules and regulations at the Dunes?

- Yes: 12
- No: 10
- Not sure: 4

13. How important is it to you to know who manages or owns the land?

- Very important: 5
- Somewhat important: 11
- Not very important: 7
- Not at all important: 3

14. Do you know who owns or manages the land we're on now?

- Yes, the State: 7
- No/not sure: 19

Interesting note: most respondents who indicated that it's very or somewhat important to know who owns the land were unable to identify who owned Oso Flaco. The opposite also held true: the majority of those who assign little to no importance to such knowledge accurately identified the State as the owner/manager.

15. How easy is to find access points to the Dunes or its trailheads?

- Very easy: 9
- Somewhat easy: 5
- Somewhat difficult: 6
- Very difficult: 6

Note: We regret that the accelerated project schedule prevented testing of the survey tool before use, which would have revealed the flaw in this question. Most visitors at Oso Flaco are regulars, and naturally will feel that the Dunes are easy to find. After the first two or three interviews, realizing that the question was badly phrased, the Oso Flaco interviewer began to clarify the question by asking it a second time in terms of difficulty for newcomers. When the question was re-stated, most respondents quickly changed their answers to "difficult" or "somewhat difficult".

15a. Please elaborate:

- Could use better (road) signs: 3
- Better brochure: 1
- No interior wayfinding aids: 1

16. How safe do you feel as a visitor here?

- Very safe: 21
- Fairly safe: 5
- Somewhat safe: 0
- Not safe at all: 0

16a. Please elaborate on your answer (from those who felt less than very safe):

- Visits alone, so feels a little nervous: 1
- Cougar warnings make a little nervous: 2

17. Have you ever visited the Dunes Center building? No: 24 Yes: 2

17 a. If yes, what was the (most recent) reason for your visit? Movie set exhibit: 1 Attend a field trip: 1

Visitor Comments

Pleased that management is conducting a survey: 4
 Pleased that the dunes are being preserved, protected:
 3
 Identified The Nature Conservancy as current or past
 owner/manager: 3
 Please remove OHV users and expand protected areas:
 3
 Please ensure that these natural areas remain protected
 from OHV damage (this comment from an OHV user
 who also identifies himself as a hiker and natural
 history buff)
 Please ensure that OHV users will always have some
 use of dunes, it's their right (from a non-OHV user)
 Don (ranger) is an asset; friendly and helpful
 Please open more areas at Point Sal for hiking/dogs
 The Nature Conservancy broke our hearts when they
 left
 I realize budgets are low, but please increase patrol
 and/or public awareness regarding trash, vandalism
 Please improve boardwalk surface, increase trails,
 facility maintenance

Sandy access roads are bad for tourism
 Would like drinking water available
 I appreciate the boardwalk for combining access with
 protection for nature
 Oso Flaco is a great place
 Goes to Oceano for the butterflies
 Please keep it natural/charm/no more development: 6
 Afraid that interpretation and/or directional signs will
 draw more visitors: 3
 Would like an animal track guide as we see so many
 tracks and so few animals
 Please increase public awareness; consider bus stop
 posters
 I'd like info that will help me know/feel assured that I'm
 not causing inadvertent damage when I visit
 Like the kids' program at Bob Jones Trail; please adopt
 similar program here
 Need clearer instructions regarding payment procedures
 Not sure whom to call when there's a problem
 Wish we had known our dog was not allowed here
 Please keep information at entry up to date

Demographics

Group size ranged from 1 to 13; mean group size = 3.2
Estimated age ranged from 25 to 80; mean age = 51.6

Respondents were from

Santa Maria (5)
Pismo Beach (5)
Arroyo Grande (2)
Nipomo
Guadalupe
Lompoc
San Luis Obispo
Goleta
Avila Beach
Camarillo
Templeton
Morro Bay Orinda (Bay Area)
Lomita (Los Angeles Co)
Laguna Niguel, Orange Co. (2)
Moreno Valley (Riverside Co)

Appendix II, Part F: Oso Flaco Lake Spanish Surveys

N = 5. One refusal.

1. Why are you visiting today?

Exercise: 1

Be with friends: 2

Be with family: 3

See wildlife/nature/ be outdoors: 2

To get to know the place: 1

It's cooler here than inland on a hot day: 1

Relax and reflect: 0

Fishing: 0

Surfing: 0

Attend a program: 0

2. How long do you intend to visit?

1-2 hours: 2

2 ¼-4 ¾ hours: 2

Under one hour: 0

More than 5 hours: 1

3. How did you first become aware of the Dunes?

Through a friend or family member: 5

4. Are you aware of any programs or activities about the Dunes?

No: 5

5. How many times have you visited in the last year?

2-3 times: 3

10+ times:

4-6:

First visit: 2

5a. (for return visitors) Where do you usually go within the Dunes?

Pismo: 1

Rancho Guadalupe Dunes Co. Park: 2

Oso Flaco: 1

6. What are the best times for you to visit or attend programs?

Weekend mornings: 2

Weekend afternoons: 2

Weekend evenings: 1

7. What is it about the Dunes that's important to you?

Natural/undeveloped/no societal encumbrances: 1

Peaceful/quiet/spiritual/getaway: 1

Protected/preserved:

Wildlife/ plants/ecology/nature:

Beauty/views: 1

Clean: 1

Unique place:

Water (lakes):

Ocean/beach: 1

Walking: 1

8. What two features would improve your experiences at the Dunes?

Rec. brochure to help plan visits: 5

Directional signs: 4

Interpretive panels: 1

Picnic tables: 1

Self-guiding trail with brochure: 1

Other: TV/Radio coverage: 1

9. What two Dunes topics would you like to learn more about?

Wildlife: 3

Native American culture: 2

Plants: 1

How dunes form and change: 1

Efforts to protect and restore: 1

Ten Commandments movie: 1

Tips for surfing/fishing: 1

10. Do you read interpretive panels as a rule?

Yes: 4

Sometimes: 1

10a. Usually read up to what level?

Just titles and subtitles: 0

Above plus pictures and captions: 0

Above plus all the text:

if it's a brief panel: 3

even if it's long: 2

11. How important is it to you to have information about available and permissible activities?

Very important: 5

12. Do you feel you have adequate access to info about rules and regulations at the Dunes?

Yes: 1 No: 1 Not sure: 3

13. How important is it to you to know who manages or owns the land?

Very important: 1 Somewhat important: 0 Not very important: 2 Not at all important: 2

14. Do you know who owns or manages the land we're on now?

No/not sure: 5

15. How easy is to find access points to the Dunes or its trailheads?

Somewhat difficult: 4

Very difficult: 1

Note: Spanish-speaking respondents were asked the modified version of this question ("How easy is it for newcomers to find the Dunes?")

15a. Please elaborate:

Lack of off-site directional signs (5); far away (1)

16. How safe do you feel as a visitor here?

Very safe: 0 Fairly safe: 3 Somewhat safe: 2 Not safe at all: 0

16a. Please elaborate:

Dangerous animals; no lifeguard

17. Have you ever visited the Dunes Center building?

No: 5

Visitor Comments

Facilities, services, recreation

Would like restrooms at the beach

Picnic tables and trash cans at beach, please

Would like a food/drink vendor

Would like to be able to make a fire and camp overnight with my children

Communication issues

Please advertise on Spanish television and radio, as no one in my community knows about this beautiful place

Please give more information about this place in Spanish

Thanks for asking for our opinion

Note: the interviewer observed that although all respondents interviewed at Oso Flaco were quite cooperative, Spanish-speaking respondents seemed especially pleased and somewhat surprised to be asked to participate.

Demographics

Group size ranged from 3 to 12; mean group size = 6.8

Estimated age ranged from 19 to 40; mean age 27.6

All five respondents were from Santa Maria.

Appendix II, Part G: Rancho Guadalupe Dunes Preserve Spanish Surveys

N = 6; one refusal.

1. Why are you visiting today?

Relax and reflect: 3
Be with family: 3
Exercise: 1
Be with friends: 1
For the beach: 1
Fishing: 1
See wildlife/nature/ be outdoors: 0
Attend a program: 0

2. How long do you intend to visit?

1-2 hours: 3
2 ¼-4 ¾ hours: 2
Less than one hour: 0
More than 5 hours: 1

3. How did you first become aware of the Dunes?

Through a friend or family member: 6

4. Are you aware of any programs or activities about the Dunes?

No: 6

5. How many times have you visited in the last year?

2-3 times: 3 4-6 times: 1 10+ times: 1 First visit: 1

5a. Where do you usually go within the Dunes?

Oso Flaco: 3
Rancho Guad. Dunes Co. Park: 5
Oceano Dunes SVRA: 2
Avila: 2
Not sure: 1
GND NWR: 1

6. What are the best times for you to visit or attend programs?

Weekend mornings: 2
Weekend afternoons: 4
Weekend evenings: 2

7. What is it about the Dunes that's important to you?

Public accessibility/parking: 2
Clean: 2
A chance to come and eat: 1
Place to be with family/friends: 1
Peaceful/quiet/spiritual/getaway: 1

8. What two features would improve your experiences at the Dunes?

New trails: 2	Picnic tables: 1
Directional signs: 2	Improvement of existing trails: 1
Species lists with pictures: 1	Dunes-specific guidebook: 1
Benches: 1	Viewing platforms: 1

Note: request for picnic tables came from a first-time visitor who may not have noticed existing tables

9. What two Dunes topics would you like to learn more about?

Ten Commandments movie: 2
Tips for surfing/fishing: 2
Plants: 2
Overall Dunes ecology: 1
None: 1

10. Do you read interpretive panels as a rule?

Yes: 5
Sometimes: 1

10a. Usually read up to what level?

Just titles and subtitles: 2
Above plus pictures and captions: 0
Above plus all the text:
if it's a brief panel: 3
even if it's long: 1

11. How important is it to you to have information about available and permissible activities?

Very important: 5 Somewhat important: 1

12. Do you feel you have adequate access to info about rules and regulations at the Dunes?

Yes: 1 No: 3 Not sure: 2

13. How important is it to you to know who manages or owns the land?

Very important: 3 Somewhat important: 2 Not very important: 1 Not at all important: 0

14. Do you know who owns or manages the land we're on now?

Yes/government: 1

Yes/state: 1

No/not sure: 4

15. How easy is to find access points to the Dunes or its trailheads?

Very easy: 0

Somewhat easy: 3

Somewhat difficult: 3

Very difficult: 0

15a. Please elaborate:

Lack of off-site directional signs (2)

Need additional routes so we can get here more easily

16. How safe do you feel as a visitor here?

Very safe: 1

Fairly safe: 1

Somewhat safe: 4

Not safe at all:

16a. Please elaborate:

No guard (2)

No lifeguard/dangerous sea (3)

Note: "no guard" may have meant either a land-based security presence or a lifeguard.

17. Have you ever visited the Dunes Center building?

No: 6

Additional comments

Please maintain the restrooms, they're in bad shape
You're doing a good job making this place better

Demographics

Group size ranged from 2 to 9; mean group size = 4.3
Estimated age of respondents ranged from 30 to 45; mean age = 35.2

Respondents were from: Santa Maria (5) and Bakersfield (1)

Appendix III: 2005 Visitor Survey Results, Oceano Dunes SVRA

N = 60; All surveys conducted between September 3-5, 2005. Weather conditions were breezy to windy.

1. Why are you visiting today?		
to ride off-road	25	23%
physical fitness		0%
relax and reflect	22	20%
watch wildlife	3	3%
go fishing	2	2%
be with friends	27	24%
be with family	21	19%
attend a program		0%
surf	1	1%
recreation	1	1%
weather	2	2%
holiday weekend	2	2%
play	1	1%
dig in sand	1	1%
chill out on vacation	1	1%
vacation	1	1%
cause it's fun	1	1%
	111	
2. About how long will your visit be this time?		
1 day	12	20%
2 days	17	28%
2-3 days	1	2%
2 nights	1	2%
3 days	18	30%
3-4 days	1	2%
3 nights	4	7%
4 days	4	7%
5 days	1	2%
one week	1	2%

	60	
3. How did you first become aware of the Dunes?		
friend or family	51	85%
kiosk	1	2%
website	1	2%
don't recall	2	3%
fishing, clamming	1	2%
by accident/just driving by/visit to area/random encounter	4	7%
	60	
4. Are you aware of any programs or organized activities available about the Dunes?		
yes	23	38%
no	37	62%
	60	
4a. Have you or any family members ever participated in such programs?		
yes	16	27%
no	3	5%
	19	
4b. If yes, who attended & what program?		
OHV runs and comp hill activities	1	
Parents-Friend of the Dunes event in Tulare	1	
Friends of Oceano Dunes events	2	
myself, Pismo Dune Center walk	1	
family did campfire talk	1	
nature center	1	
Friends of Dunes	2	
dad-OHV training	1	
off road vehicle	1	
clean-up programs, preservation & wildlife	1	
butterfly grove	2	
races kids with nature center programs too	1	

sand days in Tulare-family wildlife preservation	1
buggy rental	1
sand rail digs	1
Friends of Oceano (ticket booth fundraising)	1
	19

5. About how many times have you visited the Dunes in the past year?

1st time	13
2-3	22
4-6	14
7-9	5
10 or more	6
	60

5a. When you visit the Dunes, where do you typically go?

Oceano Dunes SVRA (Pismo Dunes)	44	73%
Oso Flaco Lake Natural Area	3	5%
Rancho Guadalupe Dunes Preserve	4	7%
Guadalupe-Nipomo Dunes NWR (Mobil Coastal Preserve)	1	2%
Dunes Center	1	2%
North Beach campground	4	7%
Pismo Pier	1	2%
Avila	1	2%
Sand Hwy	1	2%
	60	

6. What are the best times for you to visit the Dunes or its programs?

weekday mornings	6	4%
weekday afternoons	6	4%
weekday evenings	6	4%
weekend mornings	45	30%

weekend afternoons	46	30%
weekend evenings	42	28%
	151	
7. What is it about the Dunes that's important to you?		
be able to drive on the beach	10	17%
ability to bring children in safe environment and get out of heat	1	2%
stay open!	2	3%
it's fun to ride and watch the ocean	1	2%
release stress	1	2%
watching off-road riding	1	2%
weather	1	2%
unique, large open nature	1	2%
safety, open space	1	2%
maintain nature of Dunes conservation	1	2%
ocean/dunes	1	2%
ocean	2	3%
ride quads	8	14%
dunes/comradeship	1	2%
clean, wild state	1	2%
get out of town	1	2%
cleanness	1	2%
recreation area-it's fun	1	2%
beach, sun, relaxing, fun	1	2%
quiet	1	2%
peace/quiet on weekdays	1	2%
location, services	1	2%
fishing	2	3%
lots of fun-go camping use quads-family time	1	2%
to have fun	1	2%
riding and camping	1	2%
the set up-day camping with vehicles on the beach-good family time	1	2%
enjoy the ocean and relax	1	2%

access and being able to drive on the beach	1	2%
stay open-accessible to people to use/enjoy	1	2%
access to the beach	1	2%
atmosphere, activities for both young and old	1	2%
that they open some back up. The sand/ dunes!	1	2%
best place to bring all granddads-love ocean-to be together-we love it	1	2%
weather, getting away from towns	1	2%
no trees, nothing to run into!	1	2%
safety/speed in camp areas, wildlife	1	2%
clean and beautiful	1	2%
fun, excitement, kids like it	1	2%
drive up and down	1	2%
	59	

8. What two items might improve your experiences at the Dunes?¹

improved riding areas	10	8%
improved camping facilities	11	9%
Recreation brochure to help you find various Dunes sites & plan your activities	12	10%
(more) on-site FM broadcast information	2	2%
(more) picnic tables or benches	14	12%
more riding area	3	3%
just to ride	1	1%
more riding area and more patrol	1	1%
more camping areas at dunes	1	1%
Directional signs	11	9%
parking	1	1%
improved or expanded walking trails	10	8%
subtotal	77	

¹ 53% (63) of responses deal with active recreation enhancements; 20% (24) deal with heritage resource interpretation or learning opportunities.

wildlife viewing platforms	4	3%
species lists with pictures	3	3%
self-guiding trail w/ brochure	10	8%
signs about interesting features & stories	2	2%
full guidebook on Dunes area	6	5%
guided walks, evening programs, etc.	6	5%
live person to answer questions	1	1%
new exhibits at the Dunes Center	2	2%
wildlife education about awareness of habitat	1	1%
	subtotal	35
clean bathrooms	1	1%
clean portapotties (with no sand in them)	1	1%
more bathrooms and benches	1	1%
more bathrooms and trash cans	1	1%
better and more bathrooms	1	1%
trash dumps/trash stations	1	1%
	subtotal	6
9. Which two topics, if any, would you be interested in learning more about at the Dunes? ²		
Dunes wildlife, flowers, & plants	17	16%
how sand dunes form & change	17	16%
OHV safety and riding tips	21	20%
Native American culture	4	4%
early 20th c. residents (Dunites)	6	6%
efforts to protect & restore the Dunes ecosystem	12	11%
Ten Commandments movie set	10	9%
tips for better fishing, surfing, clamming	9	8%
history of the area-in the past sardines used to swim here	1	1%
none	9	8%
	106	

² 28% deal with recreation tips; 63% deal with heritage resources

10. Can you list any reasons why some areas of the Dunes are closed to riding?³

environmental concerns	1	2%
birds and plants	9	16%
preservation	1	2%
protect and preserve wildlife	4	7%
because of that bird	1	2%
no	11	19%
endangered flowers and birds	1	2%
safety, noise	2	3%
snowy plovers; erosion control; vehicles and people	1	2%
endangered species, habitat	1	2%
to protect some of the dunes; safety	1	2%
snowy plover, steelhead trout	1	2%
endangered species, erosion	2	3%
snowy plover	2	3%
preserve ecosystem/riding area balance of life	1	2%
bird nesting, birds, erosion	1	2%
endangered birds	3	5%
private land, birds	1	2%
protection of plants and wildlife	1	2%
not safe?	1	2%
protected species	3	5%
environmentalists at work	1	2%
the damned Sierra Club	1	2%
snowy plover, fauna and wildlife	1	2%
ecosystems and snowy plover	1	2%
They say the snowy plover should be protected but they are finding the species is reproducing other places-originally it's from Colorado or back east.	1	2%
protect ecosystem	1	2%
something living in bushy areas?? guess	1	2%

³ Only 24% of respondents were unaware that species preservation is the reason for closure

protect plants and wildlife	1	2%
snow bird	1	2%
	58	
11. How important is it to you to have information about activities that are available & permissible when you visit the Dunes?		
4 very important	22	37%
3 somewhat important	27	45%
2 not very important	8	13%
1 not at all important	3	5%
	60	
12. Do you feel that you have adequate access to information about rules & regulations at the Dunes?		
yes	40	67%
no	11	18%
not sure	9	15%
	60	
13. How important is it to you to know who manages the Dunes?		
4 very important	16	28%
3 somewhat important	16	28%
2 not very important	19	33%
1 not at all important	7	12%
	58	
14. Do you happen to know who owns or manages the area we're standing on?		
yes (who)		
national parks/rangers	2	3%
state/state parks	35	58%
county	2	3%
"Arnold Schwarzenegger"	1	2%
no/not sure	20	33%
	60	
15. How easy is it to find Dunes access points & trailheads?		
4 very easy	23	42%
3 fairly easy	20	36%

2 somewhat difficult	11	20%
1 very difficult	1	2%
	55	
15a. Could you tell me more about your answer		
unknown	3	
don't know-don't hike	1	
don't know-don't care!	1	
too much traffic-too many campers on beach	1	
not aware of what's out there	1	
signs would help or proper brochures	1	
need more access	1	
could be better	1	
too many vehicles and not enough signs for special	1	
not well marked certain times of the year	1	
We had no idea that our campground reservations would not allow access to beach. Our only transportation is our motor home	1	
have to drive around taped area	1	
too many people on beach. To see signs, dig them out.	1	
	15	
16. People enjoy themselves more when they feel safe. How safe do you feel while visiting the Dunes?		
4 very safe	35	58%
3 fairly safe	19	32%
2 not very safe	6	10%
1 not safe at all		0%
	60	
16a. Could you tell me more about your answer		
idiots drive too fast and too recklessly on the beach	1	
not enough rangers to catch people doing stupid things	1	
have had items stolen from campsite	1	

areas unsafe due to crowded areas	1	
no kids' tracks	1	
People stole our gas. Competition Hill-some stupid drivers; we need more cops out there.	1	
	6	
17. Have you ever visited:		
a. Dunes Center building in Guadalupe?		
yes	6	10%
no	55	92%
b. Pismo Nature Center at the Oceano campground?		
yes	15	25%
<i>reason:</i>		
grandkids/kids/ exhibits show kids	2	
museum, walk	1	
kids activity	1	
don't remember	3	
look	1	
no	44	73%
c. Butterfly Grove near North Beach campground during monarch season?		
yes	17	28%
<i>reason for visit:</i>		
love of nature	1	2%
saw in newspaper	1	2%
attend talk	2	3%
vacation	1	2%
to see Monarch butterflies	3	5%
butterflies, nature walk	1	2%
no	42	70%

18. Are you aware of any endangered species that exist here at the Dunes? (please list)

no	19	32%
snowy plover	23	38%
little bird	2	3%
killdeers	1	2%
bird	4	7%
plants/flowers	3	5%
steelhead trout	5	8%
some bird	2	3%
tern	3	5%
yes	1	2%
I'm sure there are some-but don't know which ones	1	2%
can't think of name	1	2%
forgot the birds name	3	5%
A bird that we also have in Texas. I can't think of its name in English right now.	1	2%
I've never seen any! We know where they're at-why are we protecting species no one can see-no real purpose. We can't even enjoy them? PS-I'd love the opportunity.	1	2%
another bird	1	2%
little white bird	1	2%
snow bird	1	2%
a fish	1	2%
	74	

20. Is there anything else you'd like the planners to know?

Access Issues

Open more beach area to OHVs. It's a family activity we enjoy. We keep area clean and vehicles well maintained to CA standards. We have a lot of fun.	1
Keep Dunes open	2
Keep it open. Work with everybody.	1
Keep it open for driving-access to the beach	1

More riding area please	1
Keep the beach itself open to passenger cars and people; get rid of OHVs on beach.	1
Facility improvements	
Open new access point for campers. We try to be careful, not tear up nature! We also want to enjoy ourselves-this is all we have left.	
Better and more bathrooms-camp area on beach without OHVs.	1
Need more speed limit signs	1
Expand state campgrounds more spaces	1
Picnic tables between Grand and pier on beach; porta-potties	1
Need more places to throw trash	
More trees for shade	1
Better bathroom-camping area	1
More bathrooms along beach	1
More campgrounds on beach	1
Would like hook-ups in N. Beach campground	1
Offer overnight camping farther north, away from ATV area. Benches would be too orderly. On-web info please. We really like it here for the kids. If it weren't here it would be worse.	1
Need a hot dog stand on beach.	1
More bathrooms along beach	1
Please add an express lane for prepaid entries to SVRA.	
Services and Staffing	
Maintenance currently cleans during bathroom "rush hour"-please clean in middle of day instead.	1
Better grooming of vegetation	1
More trees, continue recycling (signs for recycling)	1
Need to clean up place	1
Clean bathrooms and toilet paper	3
Young people are clearly the ones who rent equipment; they need education. What bugs me most is enforcing things. People are inconsiderate, blocking roads-rangers even do it; we can get stuck!	1
People rope off too much space in the camping area, need some controls	1

More patrol on the beach to slow down cars and OHV riders	2
Ice chest and gas can burglary	1
More rangers	1
More outside events, family stuff, keep it open, utilize OHV clubs	1
Beach should be safe for kids and need more patrol on beach. We are the ones that follow rules and try to keep it a nice place.	1

Other comments and feedback

Had a great time here compared to Sand and Surf. We're prepared to book all our holidays here! Everyone's been nice.	1
Website helps	1
Brochure we're given needs prices, times, reservation info. We liked newsletter-info was helpful.	1
Great area to relax and enjoy the ocean, camping and riding	1
I loved all the choices in questions 8 & 9	1
They do a great job, best they can with state funding. We'd understand raising rates to improve funding. This is our favorite place in county; if it were \$50.00 we'd keep coming.	1
Sure glad we can rent quads. It's cheaper than buying & hauling them up here.	1
Good place	1

Respondents came from:

Aguanga	1	Hanford	3	Sanger	1
Apple Valley	1	Los Angeles	1	Santa Clarita	1
Arroyo Grande	1	Madera	1	Santa Maria	2
Bakersfield	8	Modesto	3	Saratoga	1
Barstow	1	Newman	1	Shafter	1
Ceres	2	Oceanside	1	Simi Valley	1
Chino	1	Pismo Beach	1	SW Riverside County	3
Corcoran	1	Porterville-Tulare	4	Torrance	1
El Cajon	1	San Jose	3	Visalia	4
Fresno	7	San Luis Obispo	2	Vista	1

Appendix IV: Results of Guadalupe-Nipomo Dunes Complex Educator Needs Assessment (N=56)

1. What is your current teaching position?

classroom teacher	54
administrator	0
special ed teacher	2
other	0

2. What grade level(s) do you teach?

k-8	1	3	13
k	5	3/4	1
k/1	1	3-5	1
k/1/2	1	4	5
1	7	5	6
2	10	6	1
2/3	2	7/8	1

3. How many years have you taught?

5 months	1	10	3	22	3
1	1	11	2	24	1
2.5	1	12	2	25	2
3	2	13	4	28	2
4	5	14	3	30	1
5	1	15	3	32	1
6	1	16	2	36	1
7	2	17	2	39	1
8	2	18	4		
9	3	20	2		

4. At what school do you teach?

Adam	1	La Honda	2
Bonita	1	Los Berros	1
Branch	1	Los Padres	2
Buena Vista	1	Mary Buren Elementary	16
Crestview Elementary	2	McKenzie Jr. High	1
Dana Elementary	1	Nipomo El	1
Fairlawn	1	North Oceano	3
Fillmore	2	Oakley Elementary	1
Grover Beach	1	Ocean View	2
Grover Heights	2	Ontiveros	1
Hapgood	1	Robert Bruce	2
Harloe	2	Taylor	6
La Canada	1	Tunnell	1

5. In what district do you teach?

Guadalupe	17	Lucia Mar	13
Lompoc	12	Santa Maria-Bonita	14

6. On average, how many students are in your classroom each period?

small group pullout	1	26	1
9	1	27	1
18	3	29	1
18-20	1	30	6
19	1	31	2
20	34	32	1
25	2	35	1

7. Which one of the following sources of information most directly influences your teaching?

district standards	5
national standards	0
scope and sequence	0
state standards	43
state frameworks	1
adopted textbooks	5

8. Have you heard of the Guadalupe-Nipomo Dunes?

yes	54
no	2

9. If yes, through what means?

newspaper	18	district-approved list	7
website	1	sign on building a long	
highway sign	13	time ago (down the street)	1
direct mailing	5	I live in the area	3
friend	31		

10. Have you ever been to the Guadalupe-Nipomo Dunes?

yes	40
no	13

11. Have you taken your students on a field trip to the Guadalupe-Nipomo Dunes?

yes	23
no	32

12. If yes, where exactly did you go?

Oso Flaco Lake Natural Area	21
Guadalupe-Nipomo Dunes NWR	2
Rancho Guadalupe Dunes Preserve	0
Dunes Center	15
Cannot remember	0

13. Have you participated in a visiting classroom program by dunes staff or volunteers?

yes	12	no	43
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14. If yes, which program?

Docent lead field trip	1	Tidepools	1
Habitats/Sea Life	1	Xanadunes	2
Mammals	3	Special	1
Summer for teachers	1	don't remember name	2

15. What are the two most important criteria for selecting field trips for your class?

quality of the program	30	hour of program	0
proximity to school	4	relevance to	
availability of bus	3	your class curriculum	38
cost	13	relevance to standards	16

16. Can you use public transportation for a school field trip?

yes	14	no	39
-----	----	----	----

17. What are the two most significant factors that limit your selection of a field trip?

distance to site	10	availability of bus	7
cost per person	23	administrative policies	4
curricular alignment	17	standards alignment	14
availability of funds	31	no. of chaperones	1

18. Which two of the following would enhance or justify your field trip experience the most?

pre-trip material	22	post-trip material	5
scholarships	13	bilingual material	1
evaluation of student learning	5	alignment to standards	41
loan of "hands-on" materials	20		

19. Which two curricular areas would you like to see field trips emphasize the most?

science	49	history/social science	35
visual/performing arts	12	mathematics	1
English/language arts	8	health/physical ed	0

20. What field trips do you currently participate in with your students?

AG Historical Old Town	1	California Missions	1
AG Museum	1	Channel Islands	1
AHC Dance Spectrum	1	Cold Canyon landfill	2
Apple orchard	2	Cuesta College Carnival	1
Avila Barn	2	Discovery Museum	1
Avila boat trip	1	Dunes Center	1
Butterfly trees/Sanctuary	3	Farm	1
Cabrillo Aquarium	1	Farmers Market	1
Cachuma Lake	1	Fire Station	2
Cal Poly Performing Arts	2	Halloway pumpkin patch	1

Hearst castle	1	Performance at Clark Center	2
IMAX	1	Performing Art Center	4
IWMA	1	Pismo Beach Monarch	
La Purisima Mission	7	Butterfly Preserve	2
LA Science Center	1	Pismo State Park Chumash	2
Lake Cachuma Nature Center	1	Poly Royal Science Dept. tours	1
Lake Lopez trout release	1	Prison Dairy if available	1
Landfill use	1	Pumpkin patch	6
Library	2	Rancho El Chorro	19
Lompoc history tours	1	Recycling center	1
Lompoc Museum & bus tour	1	Santa Barbara Museum of Art	2
Long Beach Aquarium	1	Santa Barbara Natural History	
Lopez Lake/Trout in Classroom	1	Museum	3
Mission, walkthrough program	1	Santa Barbara Symphony	2
Monterey Bay Aquarium	3	Santa Barbara Zoo	6
Morro Bay National Estuary tour	1	Santa Manuela Old School	
Morro Bay Natural History Museum	3	SLO Symphony	1
Morro Bay	1	SLO, 2nd grade life cycles	1
Nature center and butterflies	1	SM Libra	1
Nipomo pumpkin patch/farm	2	SW Children's Museum	1
No more field trips due to funds	1	Swimming lessons	1
Oceano Nature Center	1	Walking trip	3
Oso Flaco Dunes walk	2	Whale watching	1
PCPA	1		

21. What two elements would likely improve your students' experiences at the Dunes Center?

live animals	12	"hands on" learning	36
a place to rest	1	guided discovery (staff)	42
larger exhibit area	1	do not know	6
changing exhibits	3	other	0
access to a library	0		

22. What would likely improve your students' experiences outdoors at the dunes?

different trails and trail surface	5	do not know	11
restrooms, drinking fountains	19	other:	0
signs to describe points of interest	15	critter talk with animal exhibits	1
more info/activities on trails	25	plant labels	1
improved wildlife habitat	7		

23. What field trip format do you prefer?

1 hr	12	full day	10
2 hr	20	overnight	0
½ day	20	multiple visits	0

24. What additional classroom activities would be of greatest benefit to your students?

guided tour, coastal dune habitat	37	hands-on investigations in the field	41
guided tour of Oso Flaco Lake	26	service-learning opportunities	7
exhibit viewing in the new center	14		

25. What additional classroom resources and opportunities would you like to see the Guadalupe-Nipomo Dunes offer?

pre-trip visit to school	33	video or CD-ROM	26
post-trip visit to school	20	teacher guides	30
traveling trunk	17	booklets for students	26

26. On a scale of 1-4 with 1 being low and 4 high, indicate the likelihood of your participation in programs at the Guadalupe-Nipomo Dunes:

1 rank	3	3 rank	22
2 rank	8	4 rank	20
2.5 rank	1		

27. Please explain the reason for your rank:

- 1 Depends on cost! I would love to come.
- 1 I didn't know much about it and have others planned already
- 1 We have funding for two field trips per year. It's possible our 2nd grade team could choose different places next year.
- 2 Funds, last time there was a problem with no bathroom at Oso Flaco
- 2 I am not sure how it fits in the curriculum
- 2 I was told in the past-2 yrs ago-that teachers would have to be the "docents"
- 2 Lack of time and lack of focus on the science standards
- 2 My science units are rotated, and I often don't use dunes in the lessons
- 2 Not sure how the dunes fit into fifth grade science standards
- 2 our field trips meet the bulk of our curriculum
- 2 we currently have no funds to pay for a bus
- 2.5 State standards alignment
- 3 Any trip we want to take is based on availability of school funds and alignment to the standards
- 3 Bus trips are difficult
- 3 Close enough for us to go if we have funds!
- 3 Depends on cost and how it's aligned with standards
- 3 I am looking forward to coming, but our funds for buses are limited
- 3 I don't know enough about the educational program, but I'm interested
- 3 I want to do a unit on the ocean
- 3 I would like to see what is being offered first
- 3 I've been on the Oso Flaco walk and I love it
- 3 If field trip curriculum match standards and if we could raise the money
- 3 Love to come, lots of things on our plate-time
- 3 Haven't heard of an opportunity yet, would love to
- 3 I don't know much about it
- 3 Proximity to school
- 3 Proximity, curricular area
- 3 Sounds like a great place
- 3 Students should know about their area
- 3 We can walk to the center (no cost)
- 3 We have never been to a field trip at your site-sounds interesting but I would need information about what students would learn
- 3 Would like to incorporate them in must be part of state standards!
- 3 Would like to know more about it
- 3 Would tie in with ocean unit, but could we afford it?
- 4 A great local natural resource. I wouldn't miss it!
- 4 Able to work with young children.
- 4 Clint Knallenberg told me this was a great field trip
- 4 Close to school, students can study "native animals", Chumash, etc...cost of transportation is huge for our district
- 4 Done it and liked it

- 4 I would ask my students parents to meet on a Saturday using their own transportation-it presents additional challenges and logistics
- 4 It would be a great experience for our students
- 4 It's a great resource that is close and feasibly economic
- 4 The programs will enhance student learning
- 4 We had a fabulous educational experience on our trip to Oso Flaco
- 4 Close proximity, docents, no charge
- 4 Have participated and found the experience wonderful
- 4 I am interested in what the dunes have to offer

- 4 I love the dunes and lake
- 4 Programs for the last few years have made direct contract
- 4 I love that this is a very close trip-one that I hope the kids will urge their parents to visit again and again
- 4 Past trips have been of high quality!
- 4 Proximity to the school
- 4 Students enjoy the resources and info provided to them
- 4 Ties into social study standards, but it would be nice to have 2 docents, not a requirement for a training day for the teacher before the trip

28. Using the same 1-4 scale, indicate the likelihood of your participation in a visiting classroom program by dunes staff or docents:

1 rank	0
2 rank	5
3 rank	20
3.5 rank	1
4 rank	30

29. Please explain the reason for your rank:

- 2 Haven't experienced
- 2 I don't know if you present to 1st grade standards
- 2 Lack of time
- 2 My science units are rotated, and I often don't use dunes in the lessons
- 2 Time constraints
- 3 After going to the dunes, a docent visit would reinforce what they learned
- 3 Again, time will limit the opportunities for science experiment
- 3 Availability of funds and alignment with standards
- 3 I don't know enough about the educational program, but I'm interested
- 3 I don't know much about it
- 3 I need more info
- 3 I would like to see an overview of the program

- 3 I would need to know that the site had K, 1, 2 grade relevance
- 3 If field trip curriculum match standards and if we could raise the money
- 3 It seems easier to attend a visiting classroom program
- 3 It would be easier to incorporate
- 3 Love to come, lots of things on our plate-time
- 3 More accessible for classes
- 3 Nice to have classroom visit in conjunction with or instead of field trip depending on funding
- 3 Would depend on cost
- 3.5 We visited last year
- 4 A visiting speaker would enliven our study of life science, earth science, and local history
- 4 Clint Knallenberg told me this was a great field trip
- 4 Done it and liked it
- 4 Easier to have someone come to our class
- 4 If it ties into our studies and isn't too costly, I't love to try it!
- 4 In K we love having special visitors
- 4 Just tell me when...
- 4 May interest children to visit with their families
- 4 More likely (\$)
- 4 Probably less costly

- 4 Probably less expensive to have visiting classroom than to go to the dunes center. No bus fare.
- 4 Since we cannot go on a bus we invite speakers into the class
- 4 The subjects are appropriate, standards oriented and I assume the docents are well versed with hands on activities
- 4 To prepare the students for the field trip
- 4 Cheaper than a field trip
- 4 Curious to see what they will do. I enjoyed the docents on our field trip
- 4 Docents are knowledgeable and offer interesting activities
- 4 I've been there and I know what a great learning opportunity it is
- 4 If they had someone for younger students
- 4 Love in class programs-easier to coordinate
- 4 Outstanding docents
- 4 Proximity to the school
- 4 That makes it easy-no bus to pay for. It still would be best to tie the two together
- 4 The ones that we've attended in the past have been excellent!
- 4 Would be free! (I think)
- 4 Would love to have a visitor!
- 4 Xanadunes-will visit in Dec

30. What would be the most important message you would want conveyed to your students during a field trip to the dunes?

We have at our backyard a treasure! Appreciate it!
Habitat, local history and plants

Conservation
Nature is fun to learn about and preserve

Conservation and ecosystem
Science is exciting, fun, and it's all around us!
Locality/availability to habitats
That the dunes are a fun place to visit, but must be kept clean because wildlife live there
Ecology, community prior to us, and now
Information about area, learn to become protectors of environment
We must protect our natural resources, so our great great grandchildren will be able to enjoy the same beauty
Preservation/interconnectedness of life forms
Respect nature
How lucky we are to live here
Preserving our beautiful habitats
Field trip is another learning opportunity for them
Don't "break" anything you can't fix!
(environmentally speaking)
We need to preserve native plants for native animal preservation
Respecting our natural environment
Habitat protection
The animals and their habitat and landforms
Animal habitats
Our shared responsibilities and our shared experiences with nature
This is our natural area, we need to protect it and know about it
Benefit of open spaces/environmentalism
Conservation-They can make a difference!
Conservation

It is a special habitat which includes
Conservation
Protect our ocean/land
The uniqueness of this habitat/environment
Why they need protection
"Outdoor school"
We need to protect and preserve the natural habitats of plants and animals
Not sure-maybe environment issues
Conserve
Ecology
Respect for nature and awe for life
Wildlife, conservation, human recreation on coast
The world is exciting and we need to take care of it
Respect for nature
Preservation, conservation, history of this unique area
Relationships between animals, plants, and us
Care of environment
Honoring, protecting, and appreciating various local protected (we hope) habitats.
Conservation, scientific wonder, respect for nature
Diverse habitat, protection
Land forms/habitat, history and conservation
Protection of natural habitat and respect for other living things
Conservation
That what they are learning in class and on field trips is relevant to their lives
Ecological awareness

31. What services offered by the dunes staff would make your job easier as a classroom teacher?

Staff has been great!

#26-No teacher inservice prior to trip-2 docents to lead 2 groups
Hands-on field trips and student packets
Contact us regarding possible field trips and available times
Hands-on experiments and activities, actual artifacts, etc.
Discussing the different type of wildlife that live on the dunes
Hands on materials, visuals
Ratio of docents to students (hands on), strong leadership experience with program times I could sign up for
Advertising Dunes Center programs, field trip opportunities for the year (in advance)
Just docents so I could handle the kids behaviors and not worry about content
You do a great job!
A visiting dunes center teacher to speak with class
All of you have always gone out of your way to help
Docents to explain the area
Good presentation

Videos, classroom visits
I don't know what they are
Being able to contact them and set up a field trip
A guide to do the instruction at the dunes
Pre-trip material and booklets for students
Come into the classroom to speak to the class
Pre-information
Skilled docents
Don't know what is offered
To present a lesson to the class
Class visits and presentations
A field trip watered down for kindergarten
I would like some kind of partnership with the dune center
This is a great start-much appreciated
Guided tours and information prior to visit
A visit to the class, materials to prep the students
What "outcomes" can your site meet? Let me know
Guided field trip experiences and classroom visitation
Docents were trained in dealing with children and ratio of docent to # of students was low

Appendix V: Summary of Guadalupe-Nipomo Dunes Neighboring Facilities and Programs

Central Coast Natural History Association

The Central Coast Natural History Association supports education and interpretation activities in the San Luis Obispo Coast District parks, including Pismo State Beach, Morro Bay State Park and the Museum of Natural History, Morro Strand State Beach, Los Osos State Reserve, and Estero Bluffs.

Over 200 volunteers provide park programs including free school group tours to 14,000 children annually, special events and exhibits, Monarch Butterfly grove tours, and nature walks.

Central Coast Salmon Enhancement

Central Coast Salmon Enhancement (CCSE) is a non-profit volunteer organization dedicated to the enhancement and restoration of the central coast salmon fishery and local creeks. CCSE presentations are offered to the community on local watersheds, salmon/trout life cycle, and fisheries history. Other educational activities include creek monitoring, and Classroom Creek Monitors, Trout in the Classroom, and special projects.

CCSE also sponsors the Arroyo Grande Creek Water Monitoring Program in which groups adopt a site along Arroyo Grande Creek or its tributaries to monitor once each month. Groups receive training with test kits and learn how to undertake biological monitoring.

From February through June, Trout in the Classroom allows classrooms to receive equipment to hatch, raise, and release rainbow trout. The program includes curriculum, field trip opportunities, and a teacher workshop annually.

Creek Watchers

Creek Watchers is sponsored by the Community Environmental Council in Santa Barbara County. The Creek Watchers program offers a way for individuals to become involved in solving water pollution problems by training volunteers to collect water quality data on creeks throughout Santa Barbara County. In addition,

the program reaches hundreds of school children a year through in-school education programs including in-class water testing (using buckets of creek water brought to the classroom), docent-guided creek walks, ongoing creek monitoring with water quality test kits, and Latino Outreach efforts that culminate with a Family Night in which activities are led in both English and Spanish.

KEEP Ocean

Kern Environmental Education Program (KEEP) Ocean is located on a secluded ten-acre site within Montaña de Oro State Park. This residential environmental education program enables students to explore chaparral, riparian, sand dune, open coast, rocky intertidal, and estuarine habitats. Students perform a wide variety of field studies and investigations throughout their one-week. The campus also features a multi-purpose geodesic dome structure that houses displays, marine touch tank, terraria and aquaria, library, games and computers; and a large open lawn area with recreational equipment and a campfire.

La Purisima Mission State Historic Park

Located in Lompoc and administered by the California State Park System, Misión la Purísima Concepción de María Santísima (1787) is one of the most completely restored missions of the 21 Spanish missions in California. The park contains the church, shops, quarters, springhouse, cemetery and mission gardens. A visitor center features information, displays, and artifacts (a new building is under construction with an anticipated opening in 2004). Self-guided tours focus on life in the early 1880s. Special living history events are scheduled throughout the year. Guided tours are available for schools groups (kindergarten through twelfth grade) free of charge when advance reservations have been made.

Montano de Oro State Park

Montaña de Oro State Park is located south of Morro Bay and is well known for its sand- spits and dunes to the north and cliff and headlands to the south. The 8,000-acre park is administered by the California State Park System and includes Spooner Ranch House, camping and horse facilities, trails, and day use picnic facilities. A small visitor center is housed in the Spooner Ranch House and managed by the docents of the Morro Bay Natural History Association.

Morro Bay Museum of Natural History

The Museum of Natural History is located within Morro Bay State Park and is managed by the Central Coast Natural History Association and California State Parks. A new series of exhibits focus on the natural history of the Central Coast; specifically, estuary and bay ecosystems, tidal forces, geology, erosion, and human impacts on the land. A Chumash ethnobotanical display is located along one side of the museum.

Four school programs are offered for grades three through seven: estuary, marine mammals, birds, and Native Americans. Each is two hours in length and involves outdoor activities organized by trained docents.

Pismo School Programs

The Pismo Beach Docent staff offers several youth interpretive programs for teachers and students. School programs are available at either 10:00 a.m. or 1:00 p.m. These include the Monarch Butterfly Program, available at the Monarch Grove from November to February (grades 1 – 6); Nature Center – Lagoon Program which focuses on mammals and their habitats, and includes a nature walk along the lagoon (grades 1 – 4); Chumash Program which includes a discussion on Chumash culture, a "walk" to observe native plants used by the Chumash and a "hands-on" station where students grind acorns, dig roots, play a Chumash game using walnuts and make an acorn/wood necklace to take home (grades 3 – 4); and Turtles and Tortoises from around the World (grades 2 – 5). This latter program is viewed at the Arroyo Grande Turtle Farm or can be adapted to the classroom using live turtles and tortoises are available for viewing by students.

Project Clean Water and Agua Pura Program

Established in 1998 by the County of Santa Barbara, Project Clean Water and Agua Pura consist of a coalition of government agencies, community groups (Urban Creeks Council, National Audubon Society, Surfrider Foundation, Heal the Ocean, Community Environmental Council, and Coalition of Labor, Agriculture & Business), and individuals "dedicated to identify and implement solutions to creek and ocean pollution of the South Coast." Educational programs include Watershed Women (K – 2nd), Watershed Model(3rd – 6th), Mountains to the Sea Watershed Curriculum (4th – 8th), and a speaker's bureau.

Rancho El Chorro Outdoor School

Operated by the San Luis Obispo County Office of Education, Rancho El Chorro Outdoor School serves elementary and secondary school students along the central coast and counties beyond (Los Angeles, Kern, Monterey, San Luis Obispo, Santa Barbara, and Ventura). The day program is two hours in length for K-4 students or those in grades 5-6 who are unable to participate in the residential program. Topics include basic ecological concepts, habitats (including on-site pond and creek), Chumash life, ancient mythology, and the Morro Bay Estuary.

The residential program is offered to 5th and 6th grade students in a five day, four day or two and one-half day format. Teachers receive a Teacher's Resource Guide and students receive journals in which to record their observations from coursework in astronomy, estuary studies, marine studies, freshwater ecology, and geologic changes.

San Luis Obispo Botanical Garden

The mission of the San Luis Obispo Botanical Garden is to display the diverse plant life of the five Mediterranean climate zones of the world and to provide opportunities for education, recreation, conservation and research. The Garden is located on Highway 1 in El Chorro Regional Park. The two-acre Preview Garden is open during daylight hours, and admission is free. Ultimately, the Garden will comprise 150 acres.

Free class tours of the Preview Garden are now offered for preschooler – secondary level students. Topics include discovery-based programs for younger students, as well as plant communities, Mediterranean plant adaptations, world ethnobotany, and biogeography for older students. Each outing involves students in extended inquiry into conservation and ecosystem issues related to managing the 150 acres of open grassland that are designated to become the San Luis Obispo Botanical Garden.

UCCE 4-H Program in San Luis Obispo County

The University of California Cooperative Extension supports the 4-H Program through which approximately 1,500 youth and nearly 400 adult volunteer leaders are involved in a variety of learning experiences. SLO Scientists is an evening hands-on program for 3rd – 5th grade students accompanied by adults who

participate in 10 – 12 sessions on watersheds, oak woodland wildlife, botany, agriculture, and other science-based topics. The SLO office also offers the Ridges to Rivers Watershed program, which is based on material presented in three different grade-group curriculum manuals and a watershed model construction manual. Each manual offers activities that raise awareness of land as a watershed and to encourage exploration of erosion, surface water pollution, movement and contamination of groundwater.

Appendix VI: List of References Used in Preparation of this Report

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Appendix VII: Planning Committee Members, Acknowledgements, and Contact Information

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