

## CALIFORNIA COASTAL COMMISSION

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C.F.K. 1/16/03  
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## MEMORANDUM

## RECORD PACKET COPY

January 15, 2003

TO: Commissioners and Interested Parties

FROM: Charles Lester, Deputy Director  
Steve Monowitz, Coastal Planner

RE: **Annual Review of Coastal Development Permit Amendment 4-83-200-A5 for the Oceano Dunes State Vehicle Recreation Area (ODSVRA), San Luis Obispo County**

**I. Staff Recommendation:**

Staff recommends that the Commission take no action, which would renew Coastal Development Permit 4-82-300-A5 without change.

**II. Procedural Summary:**

In 1982 the Coastal Commission approved Coastal Development Permit (CDP) No. 4-82-300 for the construction of habitat fencing and entrance kiosks at Oceano Dunes State Vehicular Recreation Area (ODSVRA). That permit and subsequent amendments have established limits to the numbers of vehicles and campsites allowed, and required ongoing reviews to ensure that off-highway vehicle (OHV) recreation is managed consistent with the protection of sensitive dune habitats.

Various processes have been used to comply with this requirement. On February 14, 2001, the Commission endorsed (via Coastal Development Permit Amendment 4-82-300-A5) State Park's proposal to establish a Technical Review Team (TRT)<sup>1</sup> as an alternative to the carrying capacity approach established in 1994. The TRT was created to oversee monitoring of environmental and use trends in the Park and advise the Superintendent on resource management issues. As a condition of Commission approval, the TRT was required to include a scientific subcommittee that was to identify, develop and evaluate the scientific information needed by decision makers to ensure that the natural resources are adequately managed and protected. The Commission also required the amendment to be renewed annually. Specifically, Special Condition 2 states:

**Renewal of Permit.** Annually, the Commission shall review the overall effectiveness of the Technical Review Team in managing vehicle impacts at the OSDVRA. If the Commission is satisfied with the review, this

<sup>1</sup> The Coastal Commission adopted Revised Findings in support of this action on May 7, 2001.

amendment will remain in effect for an additional year. A longer permit may be requested in the future. Otherwise, an alternative approach to resource management, or set of management measures, may be instituted through this review process.

### **III. Analysis:**

The annual review required by 4-82-300-A5 provides the Commission with an opportunity to review whether the TRT is providing an effective means of managing vehicle impacts, and where necessary, institute alternative approaches and/or management measures. In order to analyze the effectiveness of the TRT in accordance with this condition, the Commission must consider the progress that TRT has made in identifying and analyzing resource management issues, and evaluate whether current management measures are adequately protecting coastal resources. A full set of the conditions established by 4-82-300-A5 is attached as Exhibit 3.

#### **A. TRT Effectiveness**

The TRT process formulated by State Parks and approved by Coastal Development Permit Amendment 4-82-300-A5 establishes specific annual requirements based on a three-year start-up period. Special Condition 5 requires the TRT and the ODSVRA Superintendent to submit annual reports that summarize recreational use and habitat trends at the park, and that highlight TRT accomplishments. The second annual report must also include a final charter for the TRT, a ranking of research and management questions and priorities, and a scope of work for those projects identified as the highest priority.

The annual report submitted pursuant to this condition (attached as Exhibit 1) generally satisfies the requirements of this condition and demonstrates that the TRT has made progress in both procedural and substantive areas during its second year of operation. Procedurally, the TRT has adopted refinements to its Charter, including a problem statement to guide future management and monitoring efforts. These and other structural improvements have effectively carried out the recommendations in the Facilitator's Report submitted during the first annual review.

Substantively, the TRT and its Scientific Subcommittee have, among other things, reviewed and commented on the Habitat Monitoring System and the predator management programs being implemented at the park, and identified and prioritized research and management issues that require further study. The research and management priorities adopted by the TRT in compliance with Special Condition 5 are included as Attachment 8 to the annual report.

The annual report demonstrates that the ODSVRA and the TRT have complied with the 4-82-300-A5 with one exception; the TRT has yet to develop a scope of work for the priority research and management studies. The Scientific Subcommittee has, however, drafted a preliminary list of questions that the studies would need to address, and will review the proposed design of the studies once they are developed. Further development and implementation of these studies will be an important step for the TRT to complete as soon as possible, so that the research can be applied to the development of long-term management measures in coordination with the Habitat

Conservation Plan currently under development. The ability of the TRT to effectively address these needs over the next year will be evaluated as part of the Commission's next annual review.

#### **B. Evaluation of Current Management Measures**

Data regarding use trends and environmental resources at the ODSVRA provides important information regarding the effectiveness of various management approaches. A detailed analysis of multiple years of data was contained in the staff report for 4-82-300-A5, adopted by the Commission in February 2001. Data for the 2001 Snowy Plover and Least Tern nesting season was documented in a report prepared by the Point Reyes Bird Observatory (PRBO), presented to the Commission during the first annual review of the TRT, in May 2002. PRBO prepared a similar report for the 2003 nesting season, which is attached to this memorandum as Exhibit 2.

As described in the current PRBO report, new management actions were undertaken to protect Least Tern and Snowy Plover nests and chicks during the 2002 nesting season. These measures included the provision of increased buffer widths around protected nesting areas, and the implementation of a predator management program. Implementation of the new management measures appears to have had a positive result on the protection of the Snowy Plover and Least Tern during the 2002 nesting season. As stated on page 12 of the PRBO report:

The 2002 season for plovers was the most successful since banding of the chicks, which allows a fledge estimate, began in 1998. One chick fledged per breeding male is the estimated number needed for population stability. The 35 chicks fledged in 2002 exceed the number of breeding males and provide for population growth. The number of chicks known fledged in both 2000 (4) and 2001 (3) was below the level needed to maintain the population.

Other issues regarding the 2002 nesting season, such as clutch hatching rates, nest abandonment, and chick mortality are addressed in detail by the PRBO Report.

As the Commission may recall, a significant management issue raised during the first annual review of the TRT was whether to extend the fencing that protects the habitat for the Least Tern and Snowy Plover, as recommended in the PRBO report on the 2001 nesting season. At that time, there were differing opinions regarding the appropriateness of extending the fencing, until the cause of the extremely low fledgling rates documented during 2001 nesting was better understood. Protective fencing at the ODSVRA during the 2002 nesting season was therefore placed in the same location as in 2001, so the effects of predator management on fledgling rates could be evaluated. As discussed at the 2001 annual review, the proposal to extend the protective fencing would be reconsidered for the 2003 nesting season if Snowy Plover fledgling rates improved during the 2002 nesting season.

On this topic, the PRBO report on the 2002 nesting season suggests maintaining the same size and configuration of protective fencing installed for 2002, with the addition of a new fence to delineate the 100 foot buffer area on the north side of the 7-8 enclosure (see Figure 10 on page

16 of the PRBO Report, attached as Exhibit 2). The Scientific Subcommittee has proposed a modification to this recommendation that calls for a single fence to be installed around the 100 foot buffer area established during the 2002 nesting season. This will result increase in the amount of protected shorebird nesting habitat, and was endorsed by the TRT at its meeting of January 13, 2003. The Scientific Subcommittee and the TRT will discuss the potential benefits of extending the fencing even further to the north (e.g., to post marker 6) in future meetings.

Another notable recommendation adopted by the TRT for the 2003 nesting season is to extend the period in which the seasonal protective fencing will be retained. Specifically, the TRT and Scientific Subcommittee have endorsed PRBO's recommendation that the 19-acre portion of the 7-8 Exclosure north of the 7.5 revegetation site remain closed through fall and winter. The objective of this recommendation is to facilitate the development of natural habitat features (e.g., topographic features) that enhance nesting and chick rearing habitat.

The TRT and Scientific Subcommittee recommendations identified in the 2002 annual report will now be transmitted for the consideration of the ODSVRA Superintendent. Based on discussions to date, it appears that the Superintendent is in general agreement with these recommendations, and will implement the recommendations during the 2003 nesting season provided the agreement of other regulatory agencies and the availability of the necessary finances.

#### **IV. Conclusion:**

During its second year of operation, the TRT has made progress in identifying the long-term resource management issues that need to be studied during the upcoming year, consistent with the timeframes and procedures envisioned by 4-82-300-A5. In the interim, the management measures being implemented within the ODSVRA by the Park Superintendent, in coordination with the TRT, Scientific Subcommittee, and other involved regulatory agencies, appear to be resulting in the improved protection of sensitive coastal resources. As a result, there does not appear to be a need for the Commission to revise the terms of 4-82-300-A5 at this point in time.

#### **Attached Exhibits:**

- Exhibit 1: 2002 Annual Report
- Exhibit 2: 2002 Nesting Season Report
- Exhibit 3: Special Conditions of 4-82-300-A5



DISPUTE RESOLUTION  
MEETING FACILITATION  
STRATEGIC PLANNING  
PROGRAM MANAGEMENT

**INTERACTIVE**  
**PLANNING AND MANAGEMENT**

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January 14, 2003

Mr. Peter M. Douglas  
Executive Director  
California Coastal Commission  
45 Fremont Street  
San Francisco, CA 94105

Re: Oceano Dunes State Vehicular Recreation Area (ODSVRA) Technical Review Team (TRT)  
Second Annual Report

Dear Mr. Douglas:

As required by the conditions and findings in Permit Amendment No. 4-82-300-A5, the TRT and the ODSVRA Superintendent are submitting this second annual report. Although the permit requires preparation of annual reports for the period of October through September, the first annual report covered TRT activities for October 2001 through mid-January 2002. Therefore, this 2<sup>nd</sup> Annual Report has been prepared to cover the period January 2002 through December 2002, and provide you and the Commission with a summary of the substantive and procedural accomplishments of the TRT during the 2002 calendar year, as well as key milestones.

**Context**

The TRT established its basic charter during its first three meetings in late 2001 and early 2002 as well as transmitting the recommendations of the Scientific Subcommittee regarding the management and monitoring recommendations for the 2002 nesting season for the California Least Tern and Western Snowy Plover in March of 2002. It also brought on a new facilitator to assist its work in January of 2002.

**Summary of Activities and Accomplishments – 2002**

The key substantive accomplishments of the TRT during 2002 focused on preparing for the 2002 nesting season, review and transmittal of the scientific subcommittee's monitoring and management recommendations (also for the 2002 nesting season), establishing research and management priorities and evaluating the preliminary results of the 2002 nesting season. From a structural perspective, the TRT revised and augmented its existing Charter to include more explicit guidance regarding meeting ground rules, operating procedures, alternates, public participation, and other matters. Most importantly, the TRT adopted a problem statement to guide its efforts and serve as a touchstone for its future efforts. This Amended Charter and Problem Statement were adopted by a consensus of those present at the TRT meetings. The TRT also began review of the Scientific Subcommittee's recommendations for the 2003 nesting season and will transmit its review to the Park Superintendent and Commission in early 2003.

The attachments evidencing this work and progress include the following:

1. Amended Charter (Attachment 1)
2. List of Current TRT Members and Alternates (Attachment 2)
3. Copies of TRT Meeting Summaries from each of the six meetings held during 2002 (Attachment 3)
4. ODSVRA Day Use, camping and OHV Use Numbers (Attachment 4)
5. List of Research and Management Questions and Priorities (Attachment 5)

**CCC Exhibit 1**  
**(page 1 of 59 page**

Mr. Peter M. Douglas  
Page 2  
January 14, 2003

6. Scientific Subcommittee Comments on the Park's Habitat Monitoring System (Attachment 6)
7. Scientific Subcommittee Comments on the Park's Interim Predator Management Plan (Attachment 7)
8. Scientific Subcommittee recommendations on Western Snowy Plover/California Least tern monitoring and management. (Attachment 8)

You will find additional commentary by the TRT on these attachments on pages 3 and 4 of the Meeting Summary for the December 10<sup>th</sup> meeting.

Overall, 2002 monitoring and management efforts resulted in both increased fledgling success for the Snowy Plover and implementation of a successful predator management program. According to the 2002 Nesting Report prepared by Douglas George of the Point Reyes Bird Observatory, the 2002 season for plovers was the most successful since banding of chicks, which allows for a fledge estimate, began in 1998. One chick fledged per breeding male is the estimated number needed for population stability<sup>1</sup>. The 35 chicks fledged in 2002 exceed the number of breeding males and provide for population growth. The number of chicks known fledged in both 2000 (4) and 2001 (3) was below the level needed to maintain the population.

**Key Highlights:**

**Increased Fines:** It is important to note that State Parks elevated the fines for illegal camping access at ODSVRA from \$64 to \$270 in mid-2002. State Parks took this action to maintain compliance with California Coastal Commission requirements to impose a limit on attendance during the summer months and to help reduce conflicts between riders and nesting birds<sup>2</sup>. The following number of \$270 citations were issued: July—271, August—125, September—138.

**TRT/Scientific Subcommittee Interaction:** The TRT conducted a question and answer session with the ODSVRA ecologist on data collection, monitoring, and management procedures. The TRT also conducted a site visit with State Park Representatives and Scientific Subcommittee members during the nesting season, which focused on plover/tern nesting exclosures, and provided the opportunity for TRT members to ask questions about monitoring, fledging success, alternative access, camping and speed limit enforcement, and night riding.

**Monitoring and Management Actions:** The following actions were taken during the year with regard to monitoring and management issues:

- Review, feedback and adoption of recommendations of the Scientific Subcommittee regarding plover and tern management, which were transmitted to the Coastal Commission in March 2002.
- Review feedback and adoption of recommendations of the Scientific Subcommittee regarding research and management questions and priorities (Attachment 5), ODSVRA monitoring protocols (Attachment 6), and plover/tern monitoring and management recommendations for 2003 (Attachment 9).
- Initiating review and discussion of the plover/tern 2002 breeding season.

<sup>1</sup> USFWS. 2001 Western Snowy Plover (*Charadrius alexandrinus nivosus*) Pacific Coast Population Draft recovery Plan. Portland OR.

<sup>2</sup> State Parks issues citations throughout the year, not just during the summer months.

**Process and Structural Refinements:** In April 2002, the facilitator prepared a report designed to provide "mid-course" feedback to the TRT regarding its overall effectiveness, as well as to suggest structural changes that could further its mission as described in the Charter. The key recommendations included in this report were implemented by the TRT, as follows: The TRT negotiated a problem statement to guide its future management and monitoring efforts, adopted ground rules, and revisited and refined its Charter. Specifically, the quorum requirements were modified to reflect the difficulty of achieving an 80% attendance rate<sup>3</sup>. The TRT also modified the circumstances under which public input is provided. However, it did receive comments from the public during a majority of its 2002 meetings.

#### Scientific Subcommittee Accomplishments

The Scientific Subcommittee met on January 18, February 15, March 18, April 30, June 4, September 30, October 23, and December 5, 2002. As one of the issues of greatest concern at ODSVRA is the status of western snowy plovers and California least terns, the Scientific Subcommittee has primarily focused on issues surrounding these species. Accomplishments of the Scientific Subcommittee during this period include:

- Receiving and discussing updates on plover/tern breeding throughout the 2002 season.
- Reviewing the plover/tern 2001 breeding season report by L. Henkel and drafting recommendations for 2002.
- Reviewing an unpublished report prepared by R. Burton and M. Kutilek titled "Nocturnal Habits of Western Snowy Plovers at Oceano Dunes State Vehicular Recreation Area."
- Reviewing and commenting on the Interim Predator Management Plan. The ODSVRA ecologist revised the plan to reflect the comments.
- Drafting recommendations for research and management, including prioritizing the areas of study and providing a list of questions to be answered by each study (Attachment 5).
- Reviewing and commenting on the Habitat Monitoring System used at ODSVRA, including protocols, techniques, and data sheets (Attachment 6).
- Conducting a site visit covering, revegetation and dune stabilization methodology, the results of recent botanical surveys conducted by Ecosystems West, the status of 2002 snowy plover and least tern nesting, enclosure configuration, and the status of shrike control and related predation issues.
- Conducting a workshop with outside experts focusing on the ODSVRA dune ecology and vegetation. Outside experts included Jack Biegle, local ecologist and Board member of People for the Nipomo Dunes, Glenn Clifton, Ecosystems West botanist, Bill Davilla, Ecosystems West botanist, Doug George, PRBO ornithologist, Phil Gross, formerly with ODSVRA, Nancy LaGrille, ODSVRA greenhouse manager, Jenny Langford, Guadalupe Dunes Natural Preserve ecologist and CalPoly graduate student, and Paul Young, Santa Cruz Predatory Bird Research Group researcher.

#### Other Issues:

<sup>3</sup> The TRT failed to achieve a quorum to take action in April and September of 2002 and had difficulty scheduling meetings at other times of the year because of the 80% rule.

Mr. Peter M. Douglas  
Page 4  
January 14, 2003

The TRT continues to be adversely impacted by budget and travel restrictions that preclude meeting attendance by Coastal Commission staff members who serve as members of the TRT and whose absence frustrates the achievement of a quorum on a regular basis. Because the TRT has consistently benefited from meeting attendance by Commission staff and the insights that are provided by such involvement, the TRT requests that the matter of in-person staff attendance at TRT meetings be reconsidered by the Commission and assigned a high priority for 2003.

**Looking Ahead:**

The TRT feels that good progress has been made during 2002. Working relationships have improved among members of the TRT over the past twelve months, and there is a better understanding of the technical issues involved in monitoring and management. At the same time, the TRT acknowledges that additional progress needs to be made with regard to the approval of a Habitat Conservation Plan (HCP) and the issuance of an Incidental Take Permit.

The TRT anticipates that in 2003 members will transmit comments on the Scientific Subcommittee's recommendations regarding the 2003 nesting season and continue to fine tune monitoring and management recommendations consistent with its newly adopted Problem Statement. While the TRT understands that it was charged with preparing a "scope of work", it has determined that the questions posed by the Scientific Subcommittee reflect its priorities and provide a framework for such a Scope of Work. Specific study designs will be developed through collaboration with State Parks and, where appropriate, through its consultants. Finally, the TRT will assist in reviewing State Parks' San Luis Obispo Coast and ODSVRA HCP in addition to reviewing the results of the 2003 breeding season. The TRT also looks forward to 2003 and the opportunity to assist the Superintendent of ODSVRA with adaptive management of the park's resources.

Overall, the TRT has shown considerable leadership in moving through the formation and capacity building stages of the process and is well situated to make meaningful and high quality contributions to the monitoring and management responsibilities assigned to it by the Commission.

Sincerely,



John C. Jostes,  
TRT Program Facilitator

JCJ/

cc: Paula Hartman  
Steve Yamaichi

Enclosures

# ATTACHMENT 1

## AMENDED<sup>1</sup> CHARTER

### TECHNICAL REVIEW TEAM OCEANO DUNES STATE VEHICULAR RECREATION AREA

#### A. Mission and Problem Statement

The mission of the Technical Review Team (hereafter referred to as the "TRT") is to provide on-going recommendations on the management of the Oceano Dunes State Vehicular Recreation Area (hereafter referred to as the "ODSVRA") to the ODSVRA Superintendent. In undertaking its mission, the TRT shall be guided by its adopted "Problem Statement" attached to this Charter.

#### B. TRT Responsibilities

(1) Assist the ODSVRA Superintendent in the protection of the ODSVRA natural resources by helping identify and review needed research and recommend management measures and restoration efforts to rebuild or protect ODSVRA resources. The TRT will rank research and management questions and priorities. In identifying and selecting the priority research and management questions and projects, the TRT shall consider information developed by the US Fish and Wildlife Service and shall include the following:

- a. Appropriate management techniques for the western snowy plover, California least tern, and steelhead trout including an evaluation of:
  - i. How the geographic location of nests, proximity of nests to foraging areas, and nest closure techniques affect the hatching and fledgling success of the species.
  - ii. What studies may be necessary to determine appropriate management techniques, or what known management techniques could be put in place, for protecting each species of concern.
  - iii. The potential environmental, recreational, and economic costs and benefits of alternative beach/dune habitat protection strategies.
- b. Appropriate management techniques for protecting water quality and dune habitats from potential pollutants that might result from motor vehicle fluids or other contaminants that might enter the ODSVRA and ocean through polluted runoff or direct discharges.
- c. The success of past revegetation efforts within the ODSVRA and the potential need for continuing or expanding those efforts, including expansion of vegetation enclosures.
- d. Conduct a comprehensive, long-term monitoring and comparative analysis of the resources impacts associated with varying levels of use, including the highest (peak-use) attendance periods.

If the TRT identifies alternative research and management questions and projects as a higher priority than items a through d above, it shall discuss the basis for such a determination in its Annual Report to the California Coastal Commission (see section H below).

(2) Create a scientific subcommittee to identify, develop, and evaluate the scientific information needed by decision makers to ensure that the ODSVRA's natural resources are adequately managed and protected. (see section F below).

(3) Evaluate monitoring results and reevaluate monitoring protocols contained in the ODSVRA annual reports for the Habitat Monitoring System; reports on the breeding, nesting, and fledgling success of the western snowy plover and California least tern populations in the ODSVRA; and other reports related to the environmental impacts of recreational activities.

<sup>1</sup> Reflects Changes adopted on 12/10/2002

(4) Develop recommendations to the ODSVRA Superintendent regarding additional monitoring focuses, adjustments to day and overnight use limits, and management strategies.

(5) Provide oversight review for various research studies.

(6) Assist the ODSVRA Superintendent in building community support for management and restoration efforts through problem solving, consensus building, new constituency development, and increasing understanding about the ODSVRA.

### C. TRT Membership and Member Commitments

The TRT shall be composed of no less than nine (9) and no more than thirteen (13) voting members employed by federal, state, or local agencies with expertise in management of natural resources, representatives of local user groups, conservation and other public interest organizations, scientific and educational organizations, and members of the public interested in the protection and multiple-use management of the ODSVRA resources.

(1) **Current Membership.** The current membership is ten (10) voting members: one representative from each of the following government agencies and constituent groups: California Coastal Commission, San Luis Obispo County, US Fish and Wildlife Service, California Department of Fish and Game, the California Department of Parks and Recreation (Off-Highway Motor Vehicle Division Commission), the off-highway vehicle community, the environmental community, local government from the five-cities area, the business community, and the residential community. The Superintendent of the ODSVRA is a non-voting member of the TRT.

(2) **Member Additions.** Without further approval by the California Coastal Commission, the TRT and the Superintendent of the ODSVRA may add up to three (3) members to the TRT to reflect a balance in interests or changing dynamics of stakeholder and/or issues. More than three (3) additional members will require Commission approval.

(3) **Member Principals and Alternates.** The TRT consists of one principal representative from each of the government agencies and constituent groups and may include one alternate representative from each agency and group. The alternate's role is to attend any meeting that the member cannot attend, participate on that member's behalf, and to provide information about the proceedings and results of the meeting directly to the member. Alternates are empowered to participate in the decision making process when members are not in attendance. The intention behind providing for alternates is to ensure a continuum of representation and constituent communication as well as to minimize back-tracking when principal representatives are not able to attend TRT meetings. Alternates are not empowered to participate in meetings when Principals are present.

a. **Participation.** Only the principal (or, in his or her absence, the alternate) may participate in TRT deliberations and actions.

b. **Member Terms.** There are no term limits to member participation.

c. **Member Resignations.** When a member principal or alternate finds the need to resign, the appropriate agency or constituent group shall provide a replacement.

(4) **Member Commitments:** By participating in the TRT, all member principals and alternates agree to:

a. Abide by the "Meeting Ground Rules" identified as Attachment "A" to this charter.

b. Take actions based on scientific criteria, data, findings, and conclusions.

c. Keep their agencies or constituencies informed about potential TRT actions and test the acceptability of those potential actions with their agencies or constituencies.

### D. TRT Meetings

(1) **Openness.** Each TRT meeting shall be open to the public and publicized at least one week prior to the meeting.

Amended TRT Charter

(2) **Meeting Frequency.** The TRT must meet no less than two times a year. The TRT may meet as frequently as it desires.

(3) **Meeting Quorum.** Seventy (70%) percent of the members (principals or alternates) shall be required to hold a TRT meeting.

(4) **Meeting Confirmation.** One week prior to the holding of any meeting, the California Department of Parks and Recreation (DPR) shall poll members to confirm whether a quorum is likely to be present at the meeting.

(5) **Meeting Agendas.**

a. Agenda items may come from a number of sources including, but not limited to, the Superintendent of the ODSVRA, TRT members, and TRT working groups, subcommittees, and task forces. Members of the public or constituency groups are encouraged to contact a member of the TRT to recommend an agenda item.

b. The TRT may prioritize agenda items.

c. The agenda for each meeting (and any supporting material) shall be distributed to TRT members at least one week prior to the meeting.

d. Each meeting shall be limited to items on the distributed agenda unless unanimous consent at the meeting allows additions.

e. Scheduled breaks for stakeholder caucusing shall be incorporated into each meeting to replace the informal practice of note-passing, whispering and other activities that may be disruptive or distracting to other members of the TRT while it is in session.

(6) **Meeting Facilitation.** Each meeting shall be chaired and facilitated by an independent professional facilitator.

(7) **Meeting Records.**

a. Actions and key discussion points of each meeting shall be recorded by the facilitator on an easel pad and the summary of those actions and key discussion points distributed to each member. Any additions, deletions, and corrections provided to the facilitator shall be incorporated into the summary for adoption at the next meeting

b. To provide a full backup record, the deliberations of each meeting shall be electronically recorded. Tapes of each meeting shall be provided to anyone on request.

(8) **Public Participation.** Each TRT meeting shall be open to the public. The TRT shall set the rules for public participation in each meeting.

a. **Meeting Notice.** DPR shall publicize each meeting at least one week prior to the meeting. Potential publicity measures include news releases distributed to the print media; display advertising placed in area print media; posting of the meeting notice on the ODSVRA web site; posting of the meeting notice at ODSVRA kiosks, chamber of commerce offices, and government offices; and mailings to individuals and organizations expressing a desire to receive the meeting notice. The notice shall include the meeting agenda.

b. **Public Mailing List.** DPR, on behalf of the TRT, shall maintain a list of nonmembers attending the TRT meetings and notify all persons on that list of upcoming meetings.

c. **Public Participation Rules.** All TRT meetings are open to the public and observers are welcome. Meetings of the TRT are meant to be working meetings focused on collaboratively developing recommendations to the Park Superintendent regarding monitoring and management within the ODSVRA. As such, the meetings are not designed to be opportunities for soliciting input from the general public. However, if time permits, and at the discretion of the TRT, a public comment period may be scheduled at each meeting for members of the public to address the TRT with brief comments.

## E. TRT Actions

(1) **Actions by Consensus.** In taking actions, the TRT shall seek consensus among all voting members, if possible. Consensus is defined as all voting members either supporting an action or abstaining (to be interpreted as "will not oppose").

(2) **Non-Unanimity Decision Rule.** If the TRT is not able to reach consensus on any action, the TRT will take action by overwhelming agreement: Seventy (70%) percent of all members (a principal or alternate representing each agency or constituency group) required for passage.

(3) **Action Reconsideration.** Following any meeting at which an action is taken by the TRT, a member not present at that meeting may ask the TRT to reconsider its action at the next subsequent meeting. Similarly, any member on the prevailing side of an action may ask the TRT to reconsider its action.

(4) **Dissenting Views.** If the TRT employs the non-unanimity decision rule on any action, dissenters shall have the opportunity to summarize their dissent and reasons—to be part of the action record.

## F. Scientific Subcommittee

(1) **Purpose.** The TRT shall create a scientific subcommittee to identify, develop, and evaluate the scientific information needed by decision makers to ensure that the ODSVRA's natural resources are adequately managed and protected.

(2) **Membership.** The subcommittee shall be composed of resource experts representing the five government agencies on the TRT (California Coastal Commission, San Luis Obispo County, US Fish and Wildlife Service, California Department of Fish and Game, California Department of Parks and Recreation) and at least two independent scientists with expertise in Western snowy plover, California least tern, steelhead trout, or other species of concern, as well as ecological processes to analyze technical data and provide scientific recommendations to the TRT.

(3) **Membership Approval.** The Executive Director of the California Coastal Commission shall approve the members of the scientific subcommittee.

(4) **Subcommittee Responsibilities.**

a. Recommend to the TRT the scientific studies and investigations that may be necessary to develop information needed by resources managers.

b. Advise the TRT regarding the protection of the ODSVRA's natural resources by helping identify and review needed research measures and restoration efforts to rebuild or protect the ODSVRA natural resources.

c. Evaluate monitoring results and reevaluate monitoring protocols contained in ODSVRA annual reports for the Habitat Monitoring System, reporting on the breeding, nesting, and fledgling success of the Western snowy plover and California least tern populations in the ODSVRA, and other reports related to the environmental impacts of recreational activities.

d. Provide comments on the adequacy of various scientific research studies and make management recommendations to the TRT.

e. Submit full scientific subcommittee recommendations to the California Coastal Commission and make them available to the public as part of the annual review process with respect to the Commission's consideration of permit renewal.

f. Receive and consider guidance from the TRT in carrying out its responsibilities.

(5) **Subcommittee Meetings.** The subcommittee shall establish the times, frequency, and rules of subcommittee meetings, subject to the approval of the TRT.

(6) **Subcommittee Actions.** A complete set of the scientific Subcommittee's recommendations shall be provided to the California Coastal Commission with sufficient lead time to be considered as a part of the Commission's Annual Permit Review.

### **G. Other Subcommittees, Working Groups, and Task Forces**

To aid in fulfilling its responsibilities, the TRT may create other subcommittees, working groups, and/or task forces. At the time such groups are created, the TRT will establish group rules consistent with applicable provisions of this charter.

### **H. Annual Reports**

The TRT and the ODSVRA Superintendent shall prepare and submit to the California Coastal Commission annual reports (October to September) summarizing annual recreational use and habitat trends at the ODSVRA, highlighting the TRT's major accomplishments (including progress made towards meeting the objectives of the TRT), projects, correspondence, and recommendations as well as a summary of subcommittee, working group, and task force activities. In addition:

- (1) The first annual report, due January 1, 2002, shall include:
  - a. A draft or final TRT Charter.
  - b. A description of the process by which the TRT will rank research and management questions and priorities.
- (2) The second annual report, due January 1, 2003, shall include:
  - a. The final TRT Charter (if not submitted with the first annual report).
  - b. The TRT's ranking of research and management questions and priorities.
  - c. A scope of work for those projects identified as the highest priorities.

(3) Subsequent annual reports shall include a status report on the progress of those projects as well as updates to research and management priorities and the corresponding scopes of work for addressing those new priorities.

### **I. TRT Correspondence**

- (1) All correspondence prepared or received by individual TRT members in relation to their TRT responsibilities shall be provided to all TRT members.
- (2) All correspondence received by the TRT as a whole shall be reviewed by the TRT, which shall either prepare a response or direct staff to prepare a response subject to review and approval by the TRT.

### **J. TRT Support**

- (1) DPR shall provide administrative support (meeting rooms, supplies, audio-visual equipment, etc.) to the TRT.
- (2) DPR shall maintain TRT records, including, but not limited to: meeting notices, agendas, and summaries (including electronic backup tapes); reports, correspondence, and other records considered by the TRT; records of subcommittee, task force, and working group deliberations and actions; and recommendations to Superintendent of the ODSVRA (including dissenting views, if any).

### **K. Charter Amendments**

Following the action rule in section E above, the TRT may amend this Charter so long as it is in accordance with the California Coastal Commission's permit for the ODSVRA.

**Attachment 1**

**Meeting Ground Rules**

(As per Amended Charter Section C(4), Member Commitments)

The following additional Ground Rules are intended to serve as guideposts for effective group interaction and productivity. They are intended to help the participants understand their roles and responsibilities, and to promote cooperation and collaboration among the organizations and agencies represented on the TRT.

1. **Basic Conduct:** The conduct of the discussions will include a commitment to refrain from personal attacks, focus on the future and avoid surprises.
2. **Problem Solving Approach:** Disagreements between participants will be regarded as problems to be solved rather than battles to be won. The deliberations and recommendations of the TRT shall be guided by a problem statement adopted by a consensus of the full TRT membership.
3. **Decision-Making:** The TRT will strive to achieve decisions by consensus. In seeking consensus, each member has an obligation to articulate interests, propose alternatives, listen to proposals and build agreements by negotiating in good faith. In exchange, each member has the right to expect
  - a full articulation of agreement and areas of disagreement, if any;
  - an opportunity to revisit issues on grounds of substantial new information becoming available during the TRT's deliberations.

When unable to support a consensus, a member has an obligation to demonstrate that the item at issue is a matter of such principle or importance that his or her constituents' interests would be substantially and adversely affected by the proposed decision. In addition, it is the responsibility of the dissenting party to: 1) state the reason(s) underlying their withholding of consent in sufficient detail, and 2) offer an alternative suggestion that seeks to satisfactorily address not only their concerns and interests, but also those of other members of the TRT as well.

4. **Facilitator Roles:** The role of the facilitator is to assist the parties to reach a consensual agreement. This includes the preparation of notes, agendas, and other items which are designed to move the discussions toward resolution. The Facilitator will also hold in confidence any discussions with individual members unless specifically instructed otherwise.
5. **TRT Member Responsibilities:** The following points are offered as examples of behavior consistent with constructive dialogue, mutual respect and a commitment to collaboration:
  - Offer respect of different viewpoints and attention when others speak.
  - Share the responsibility of ensuring the success of the process and the quality of recommendations.
  - Make our best good faith effort to work towards reaching an agreement.
  - Represent the perspectives, concerns, and interests of agencies or constituencies whenever possible to ensure that agreements and recommendations developed by the TRT are acceptable to the organizations, agencies, or constituents being represented.
  - Ask questions of each other for clarification and mutual understanding.
  - Verify assumptions when necessary.
  - Avoid characterizing the motives of others.
  - Acknowledge and try to understand others' perspectives.
  - Stay focused on the task at hand and share airtime with others

Amended TRT Charter

- Refrain from distracting others through side conversations; silence all cell phones during meetings.
  - Concentrate on the content of discussions and allow the Facilitator to focus on how to promote productive discussion.
  - Keep the TRT informed regarding constraints on decision-making authority within agencies or constituency groups.
  - Keep the Facilitator neutral.
6. **Clear and Timely Communication:** Every participant is responsible for communicating his or her position on issues under consideration. Each participant is also encouraged to clearly state their intentions and concerns at the earliest possible time in the course of the discussions.
7. **Integrity and Congruency:** Agreement to participate in this process carries with it a responsibility to uphold the integrity of the group decision-making process. This means that parties who vote in the affirmative on issues or packages agree to fully support the consensus decisions of the group.
8. **Information Sharing:** Relevant information can play an important role in the development of informed consent. At the same time, too much information or information of limited relevance can cause confusion and slow down the process. Where individual members wish to share written or printed information with the TRT as a whole, such information should be provided to the Facilitator at least 48 hours prior to any scheduled meeting.
9. **E-mail Communication:** Electronic communication shall be guided by the same general protocols for communication, problem solving and negotiation that are followed when the TRT is in general face-to-face session, and as prescribed by the Charter. All e-mail correspondence associated with TRT deliberations shall be directed through a moderator or facilitator chosen by the group.

**CCC Exhibit 1**  
**(page 11 of 59 pages)**

## Attachment 2

(As per Amended Charter Section A, Mission and Problem Statement)

### Adopted Problem Statement

The Oceano Dunes State Vehicular Recreation Area (ODSVRA) and the surrounding Nipomo Dunes complex is and has historically been used by a wide variety of active and passive recreational users including off-road vehicle enthusiasts, equestrians, fishing enthusiasts, hikers, campers, photographers, and naturalists, to name a few. The ODSVRA is one of the few beach locations in California designated for recreational activity that includes off-highway vehicle use.

This State Park unit represents important recreational, cultural and natural values which attract over 1 million annual visitors from all over the state. Additionally, this recreation area is of great significance locally and regionally to those who would include but not be limited to homeowners, communities, businesses, governmental entities as well as educational and scientific interests. All such stakeholders have an interest in the long-term stewardship of the resources unique to and dependent upon the 15,900 acre Oceano-Nipomo-Guadalupe dunes complex of which the ODSVRA is a part (see maps 1 & 2). As a legislated State Vehicular Recreation Area, containing habitat for threatened and endangered species, effective management of the ODSVRA is needed to achieve balance among sometimes competing uses and legal requirements.

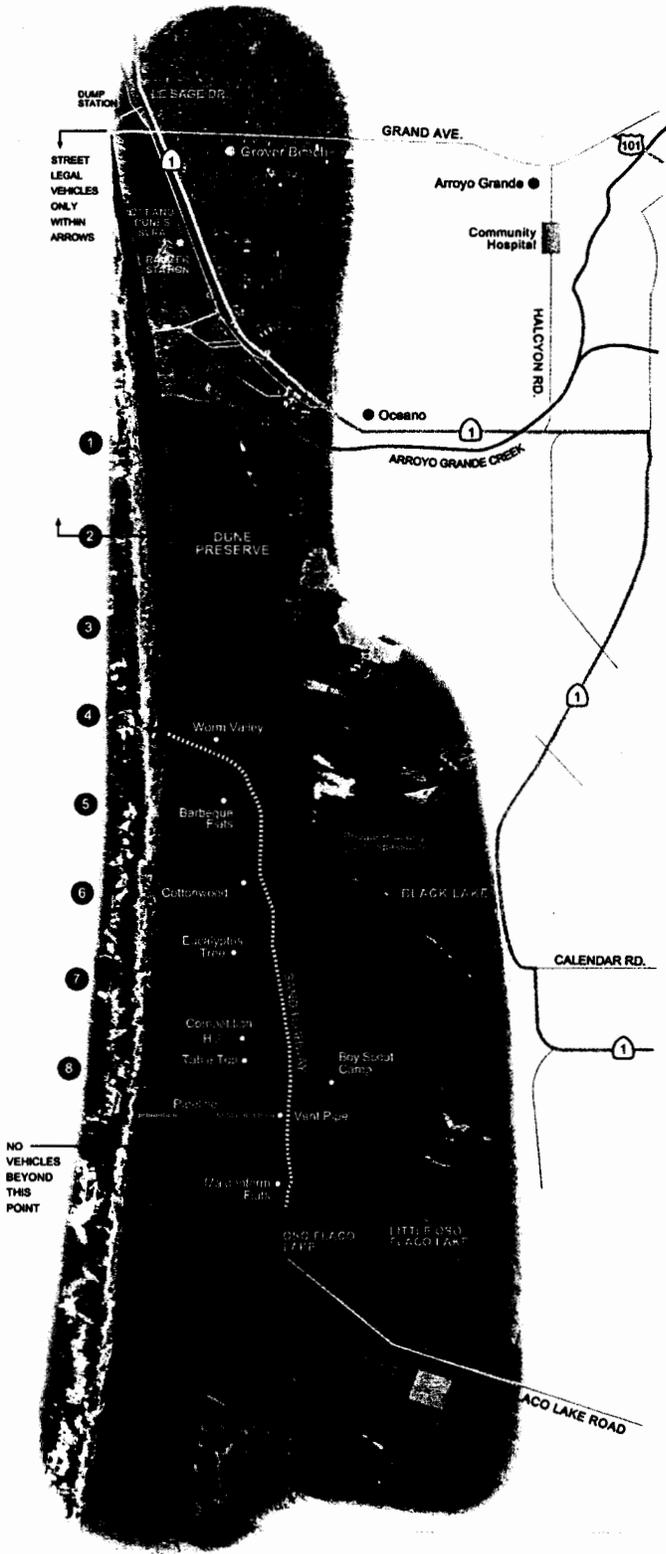
Everyone concerned desires to better understand the effects of these competing uses, economic impacts, recreation needs and ecosystem dynamics to work toward a balance between environmental protection, public access and compliance with applicable laws and mandates.

The TRT is an advisory body representing diverse and often competing interests and provides a significant opportunity to collectively facilitate, evaluate and enhance management effectiveness and monitoring of overall park operations. This problem statement is an explicit commitment by the TRT to make contributions to the minimization or avoidance of take of endangered or threatened species as well as the protection of environmentally sensitive habitat areas, while operating the ODSVRA consistent with its classification as defined by law.

**CCC Exhibit 1**  
**(page 12 of 59 pages)**

# Oceano Dunes SVRA

-  Area Open to Vehicle/OHV Use
-  Area Closed to Vehicle/OHV Use
-  250 acre seasonal enclosure for WSP and CLT nesting areas (2002)



# State Park Units Within The Nipomo Dunes

-  Nipomo Dunes
-  Oceano Dunes SVRA
-  Pismo State Beach
-  Pismo State Beach Dune Preserve



**Attachment 2**

**ODSVRA--Technical Review Team Members**

<b>Agency/Interest Group</b>	<b>Name</b>	<b>Title/Affiliation</b>
CCC	Steve Monowitz	Coastal Planner, Central Coast District Office, Santa Cruz
CCC Alternate	Charles Lester	District Manager, Central Coast District Office, Santa Cruz
San Luis Obispo County	Nancy Orton	Environmental Specialist, Dept. of Planning and Building
San Luis Obispo County Alternate	John Euphrat	Principal Planner, San Luis Obispo County Dept. of Planning and Building
USFWS	Steve Henry	Fish and Wildlife Biologist, Ventura Fish and Wildlife Office
USFWS Alternate	None	
CDFG	Bob Stafford	CDFG Biologist for SLO County
CDFG Alternate	None	
CDPR, OHV Division Commission	Rick LeFlore	Senior Park and Recreation Specialist, Sacramento
CDPR, OHV Division Commission Alternate	None at this time	
OHV Community	Jim Suty	Beach multi-use advocate; Founder and Co-President Friends of Oceano Dunes
OHV Community Alternate	Suzy Johnson	Member of OHV user groups, including Cal. Assoc. of 4 Wheel Drive Clubs
Environmental Community	Gordon Hensley	Biologist; Private Consultant
Environmental Community Alternate	Tarren Collins	Attorney; Co-chair SLO Coast Alliance and Chair of the Santa Lucia Chapter of the Sierra Club
Local Government	Ronald Arnoldsen	Councilman, Grover Beach City Council
Local Government Alternate	Dave Angello	Director, Oceano Community Services District
Business Community	Peter Keith	Businessman; Former Mayor, City of Grover Beach

<b>Agency/Interest Group</b>	<b>Name</b>	<b>Title/Affiliation</b>
<b>Business Community</b> Alternate	Jay Jamison	General Manager of Pismo Beach resort property (Pismo Coast Village)
<b>Residential Community</b>	Bobbi Brosnan	Strand Way Resident, Oceano
<b>Residential Community</b> Alternate	Christine Porter	
<b>Facilitator</b>	John Jostes	Interactive Planning and Management, Santa Barbara
<b>ODSVRA Superintendent</b> Non-voting member	Steve Yamaichi	ODSVRA Park Superintendent
<b>TRT Support</b>	Paula Hartman	Senior Associate, Thomas Reid Associates

**Attachment 3  
Meeting Summaries**

**MEETING SUMMARY**  
**Technical Review Team**  
**Oceano Dunes State Vehicular Recreation Area**  
**Oceano Community Service District Meeting Room**  
**1655 Front Street, Oceano**

**January 14, 2002, 6:00 pm – 9:00 pm**

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**1. Introductions and Preliminaries**

Paula Hartman, staff support to the California Department of Parks and Recreation, led the introductions of those present and introduced John Jostes of Interactive Planning and Management, as the newly retained facilitator for the group.

John Jostes provided a summary of his experience and approach to collaborative problem solving and meeting facilitation. He also reviewed the evening's agenda and noted that his "assignment" was to assist the group in being productive, dealing with differences as problems to be solved, not battles to be won, and building better working relationships.

**2. Administrative Matters**

**A. Adoption of Meeting Summary from December 4, 2001, TRT Meeting**

The TRT adopted, by consensus, the Meeting Summary from the December 4, 2001, TRT meeting with the stipulation that additional language be added to the discussion of the Draft TRT Charter (end of Paragraph 2) as follows: "...who advised that the TRT does not fall under the Brown Act because the TRT is an advisory body to the State Parks Superintendent."

**B. Authorization to Submit Draft Annual Report to Coastal Commission**

After a brief discussion of the permit conditions specifying the purpose of providing an annual report to the Commission, the TRT agreed, by consensus, to forward the draft Annual Report and Cover Letter on to Peter Douglas, Executive Director of the California Coastal Commission with the following changes and additions:

- Change date from December 21, 2001, to the date of transmittal.
- Annual Report to be signed by Paula Hartman on behalf of the Technical Review Team.
- Augment the cover letter with a short paragraph near the end of page to indicate that "The TRT has received and transmitted the Point Reyes Bird Observatory report on Western Snowy Plover and Least Tern nesting to its Scientific Subcommittee. The TRT anticipates receiving the Scientific Subcommittee's review and recommendations resulting from this review and will take appropriate action during its February meeting in anticipation of the March 1 nesting season."
- Update paragraph 2 of the cover letter to reflect that the TRT meeting held on January 14, 2002, resulted in adoption of the remaining portions of the draft Charter, ratification of the membership of the Scientific Subcommittee, adoption of criteria for adding subcommittee members, and specification of a process for ranking research and management questions.
- Include the full Draft Charter (Sections A-K) as adopted by the group as an attachment to the Cover Letter and Annual Report.

**CCC Exhibit** 1  
**(page 18 of 59 pages)**

### 3. Critical Path Items

#### A. Review and Approve Interim List of Scientific Subcommittee Members for Submittal to Coastal Commission

Paula Hartman provided an overall context for the topic, noting that the nesting season would begin on March 1<sup>st</sup>, and that it was imperative to convene the Scientific Subcommittee in the immediate future. She indicated that all five agencies had designated representatives and that participant solicitation had narrowed the number of interested and available independent scientists with appropriate expertise down to three. She noted that Elizabeth Cooper and Robert Patton had agreed to serve on the Subcommittee as a team, time permitting.

**ACTION:** After a brief discussion, the TRT agreed to augment the Scientific Subcommittee membership with the following Independent Scientists: Elizabeth Cooper; Gary Page; and Robert Patton..

#### B. Discussion and Adoption of Criteria for Adding Scientific Subcommittee Members

The TRT discussed the roles and responsibilities of the Scientific Subcommittee in the context of its membership and advisory nature.

**ACTION:** The TRT adopted the following additional criteria to guide the addition of members to the Scientific Subcommittee:

- *That the appointment of an additional member to the Scientific Subcommittee would provide valued expertise that is not currently present on the Subcommittee;*
- *That changes in the existing membership of the Scientific Subcommittee result in the need for additional expertise that is no longer represented on the panel; and/or,*
- *That the Subcommittee itself identifies the need for additional expertise that is not currently represented on the Subcommittee.*

#### C. Establish Process to Prioritize Research and Management Questions for Scientific Subcommittee

The conditions of the Coastal Permit direct the TRT to establish a framework for use in prioritizing research and management questions for the Scientific Subcommittee. John Jostes provided some introductory remarks about the options available to the TRT. Following those, considerable discussion ensued. Suggestions were offered that related to timeliness of the recommendations to be made, the relationship of the Subcommittee's activities and recommendations to specific permit conditions or anticipated environmental impacts, and the need to take into account predator management issues.

**ACTION:** Based upon material already provided in advance of the December 4 meeting dealing with "Ranking Research and Management Questions and Priorities", the TRT adopted a the following process for use by the Scientific Subcommittee in prioritizing research and management questions.

*The process recognizes the following six factors in establishing priority research questions and management recommendations:*

1. *That timing of the research activity or management strategy is critical to restoration or protection efforts;*

2. *That the research question or management activity is directly related to the satisfaction of a permit condition imposed by the California Coastal Commission;*
3. *That the research question or management activity is directly related to the satisfaction of a permit condition imposed by another regulatory body;*
4. *That the research question or management strategy is in direct response to a question posed by the California Coastal Commission; and/or,*
5. *That the research question or management strategy is directly related to the identification or mitigation of a potentially significant environmental or resource impact.*

In specifying these criteria, the TRT also explicitly recognized the need for flexibility at the discretion of the Scientific Subcommittee in prioritizing its research questions and management strategies as specific conditions warrant. Bob Stafford, a member of the TRT and Scientific Subcommittee suggested that the Subcommittee make use of a matrix for resolving conflicts, should they arise, between the various criteria noted above. The TRT as a whole concurred with this approach. It was also noted that the process for designating priorities for research and management should not only communicate the TRT's priorities to the Subcommittee, but also be responsive to permit acquisition as a primary goal.

#### 4. Public Input

An opportunity for the general public to address the TRT was provided and the following individuals made comments to the TRT:

Girard Forgnone, Friends of Oceano Dunes: Noted that he did not see the scientific effort focused on users or economic impacts; believes that the behavioral science aspects should be addressed by the Scientific Subcommittee. Also suggested that when looking into petroleum contamination, that the University of Michigan has good scientific studies.

Reginald Fagan, Central Coast Fishing Buddies: Noted losses in recreational opportunities and volunteered to provide assistance with regard to liaison with recreational angling community.

#### 5. Process and Procedural Issues

##### A. Adoption of Remaining Charter Sections

**ACTION:** After a brief discussion of the relationship between the Scientific Subcommittee's recommendations and the requirements of the Coastal Commission's permit, the TRT adopted by consensus the remainder of its Draft Charter with the substitution of the following language to replace that contained in Subsection F.(6), Subcommittee Actions

*(6) Subcommittee Actions: A complete set of the Scientific Subcommittee's recommendations shall be provided to the California Coastal Commission with sufficient lead time to be considered as a part of the Commission's Annual Permit Review.*

**B. Near-Term Meeting Schedule:** The TRT determined that, as a general rule, it hold quarterly meetings, and that monthly meetings over the next several months would be an appropriate meeting frequency given its current responsibilities. The TRT set the next meeting date for Monday, February 11, 2002, at either the Oceano Community Services District Meeting Room or another available venue. The meeting start time was not specified, but left up to the discretion of the Facilitator, depending upon the specific agenda items to be considered. It directed John Jostes to proceed with the appropriate meeting arrangements and report back to the TRT.

**C. Conflict of Interest Concerns:** Questions were raised with regard to what constitutes a conflict of interest on the TRT, particularly with respect to an individual TRT member with multiple interests. After a brief discussion and perspectives offered by the facilitator regarding interest-based

negotiation in other similar forums, the TRT came to an informal understanding that as long as any given TRT member principally represented the interests associated with their designated seat or caucus of interests, that such behavior was consistent with the charter and the permit conditions under which the TRT operates.

**D. Introduction of Information for TRT Consideration:** Concern was raised with regard to the appropriateness of information provided to the TRT by its members. No formal or informal decisions were made with regard to this issue. The facilitator indicated to the group that in other forums, the issue of information submittal was left to the participants and if problems arose that the facilitator could act as a "filter" for the group.

**E. Preparations for Next Meeting:** The TRT committed to reviewing the Point Reyes Bird Observatory (PBRO) Report prior to the next meeting.

**6. Status Reports, Briefings and Information Updates:** None provided.

**7. Next Steps, Action Items and Adjourn:** The meeting was adjourned at approximately 9:30 pm.

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**Meeting Attendance List:**

**TRT Members Present:**

Steve Monowitz, California Coastal Commission (Principal)  
Charles Lester, California Coastal Commission (Alternate)  
Nancy Rollman, San Luis Obispo County (Principal)  
Bob Stafford, California Department Fish and Game (Principal)  
Rick LeFlore, Calif. Department of Parks & Recreation, OHV Division (Principal)  
Jim Suty, OHV Community (Principal)  
Gordon Hensley, Environmental Community (Principal)  
Ronald Arnoldsen, Local Government (Principal)  
Jay Jameson, Business Community (Alternate)  
Bobbi Brosnan, Residential Community (Principal)

**TRT Support:**

John Jostes, Interactive Planning & Management, Facilitator  
Paula Hartman, Thomas Reid Associates, DPR Support  
Ben Badger, Interactive Planning and Management, Intern/Observer

**Public Attendees:**

Frank Owen, Resident  
Steph Wald, Resident  
Cara S. Wimer, Resident  
Dave Breeze, Alternate  
Reginald A. Fagan, Central Coast Fishing Buddies association  
Susy Johnson, Cal 4 Wheel, OHV Alternate  
Gerald Forgnone, Friends of Oceano Dunes  
David Angello, Alternate Local Government Representative  
Lori Angello, resident, business owner  
Craig Angello, Oceano firefighter

**MEETING SUMMARY**  
**Technical Review Team**  
**Oceano Dunes State Vehicular Recreation Area**

**Oceano Community Service District Meeting Room**  
**1655 Front Street, Oceano**

**February 11, 2002, 6:00 pm – 9:45 pm**

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**4. Introductions and Preliminaries**

John Jostes, Program Facilitator, led the introductions of those present. In opening the meeting, he noted for those in the audience that the meeting was intended as a working meeting to advise the Park Superintendent, not a traditional hearing to take testimony on the pros and cons of the State Vehicular Recreation Area. He then provided a brief overview of the agenda, noting the need to reorder the informative portions of the agenda to precede the critical path items in order to provide context for the discussions to follow.

**5. Administrative Matters**

**A. Adoption of Meeting Summary from January 14, 2001, TRT Meeting**

The TRT adopted, by consensus, the Meeting Summary from the January 14, 2002, TRT meeting with minor corrections. Two members of the TRT abstained. John Jostes also volunteered to provide TRT members with fax or hard copies of materials, as well as electronic versions of meeting materials.

**6. Status Reports, Information Items and Updates**

**A. Overview Presentation on ODSVRA Data Collection, Monitoring and Management Procedures:** Laura Gardner, Associate State Parks Research Ecologist provided an overview of endangered species, revegetation programs, data collection, mapping programs and monitoring efforts within the State Park. She provided responses to a variety of questions posed by members of the TRT. She referenced several documents prepared by the Department – the Oceano Dunes State Vehicular Recreation Area Wildlife Habitat Protection Plan (August 2001) and the Oceano Dunes State Vehicular Recreation Area 2000 Annual Report Habitat Monitoring, (August 2001). She also noted that the Predator Management Plan, being prepared for release in March, 2002 is being developed to target the Logger Head Shrike, crows and ravens, and coyotes. This plan will ultimately be made available to the Scientific Subcommittee. She also noted that the Park has not excluded the possibility of additional closures, but that no closure area is presently proposed in front of the residential units immediately north of Arroyo Grande Creek.

The TRT indicated that receiving general information updates on a regular basis would aid it in its efforts to advise the Superintendent. Ms. Gardner was encouraged to make future presentations to the TRT as conditions warrant.

**7. Critical Path Items**

**A. Review, Adopt and Transmit Consensus Recommendations from Scientific Subcommittee:**

Paula Hartman provided an overall context for the topic. She reported on the key points of discussion from the Subcommittee's January 18<sup>th</sup> meeting. She provided an overview of the February 5, 2002 draft Consensus Recommendations Report from the Subcommittee, noting that there were several points, notably recommendation #s 2, 4, 7, 8, 17, 19, & 20 that needed additional discussion at the Scientific Subcommittee's (SS) upcoming February 15<sup>th</sup> meeting.

There was some discussion by the TRT of the role of the Subcommittee. Members of the committee itself as well as Coastal Commission staff commented that its role was one of providing sound scientific advice to the TRT and the Superintendent. The TRT was asked to focus its discussion on crafting a cover letter to transmit the ultimate recommendations of the Subcommittee to the superintendent, and to provide the Subcommittee with its insight into the various draft recommendations contained in the February 5<sup>th</sup> preliminary report.

The TRT spent a large majority of the remainder of the meeting discussing the report and forwarding comments through Paula Hartman to the Subcommittee. It concurred with the following consensus recommendations either without change or with clarifications:

1. Band Adult Male Snowy Plovers – Not Recommended.
2. Float Least tern Eggs – Not Recommended but monitoring frequency should be increased. (subject to further SS Refinement)
4. Conduct Counts of adult Plovers and Terns – Recommended. (Subject to further SS Refinement)
5. Continue to Minimize Researcher Disturbance – recommended.
6. Maintain Consistency of Monitors – Recommended.
7. Enhance Habitat in Oso Flaco Section – Recommended (Subject to further SS Refinement)
9. Consider removing Non-native Vegetation in the dunes Preserve – Not recommended at this time.
10. Continue Use of 2x4 Mesh Fencing - Recommended
11. Consider use of single-nest Exclosures at Oso Flaco - Recommended
12. Consider Using More Symbolic Fencing at Oso Flaco - Recommended
13. Continue to Find and Protect Nests in the Open Riding Area – Recommended
14. Develop a Predator Management Plan – Recommended.
15. Reduce Shrike Perches – Recommended removal of all extraneous fencing and use of Nixalite as appropriate
16. Continue Enforcement of Closures and Leash Law - Recommended
17. Close Horse Trail South of Arroyo Grande Creek – Recommended. (Subject to further SS Refinement)

A break was called at 8:10 pm and public input scheduled for 8:20 pm to allow those present to address the TRT.

**Public Comment Period:**

The public comment period was opened to allow members of the public to address the Technical Review Team. The following individuals addressed the TRT:

Jeri Ferguson, California Association of 4 Wheel Drive Clubs  
Georgia Kinninger, Ride Nipomo  
Barbara Cross, State Park Volunteer Mounted Patrol  
Ed Muraski, Back Country Horsemen  
Bob Cardone, Santa Maria Resident  
Diane Muraski,  
Gerard Forgnone, Friends of Oceano Dunes  
Peggy Smith, Chair, Pathways Subcommittee of NCAC  
John Krueger, Coast Mounted Assistant, Montaña de Oro State Park  
Sara Williams, Pacific Dunes Ranch, Riding Stable Manager  
Peggy Dahle, Coastal Mounted Assistance, Oceano.

#### 4. Critical Path Items (Con't)

##### A. Review, Adopt and Transmit Consensus Recommendations from Scientific Subcommittee (continued):

After the break and public comments, the TRT continued its discussion of the Subcommittee's recommendations. Due to time limitations, the TRT did not discuss recommendations 18 – 23. However, some of the issues that were raised and comments offered during the discussion included the following:

- Is the Subcommittee looking at the larger Guadalupe-Nipomo Dunes complex, or just the State Vehicular Recreation Area?
- The scientific information needs to relate specifically to the TRT role and the responsibilities of the Superintendent.
- TRT feedback would be particularly useful if it relates to improving monitoring effectiveness.
- How does the recommendation regarding extension of closures north to Post 6 relate to meeting the regulatory requirements of the Endangered Species Act without a completed Habitat Conservation Plan (HCP) or Incidental Take Permit (ITP)?
- The extension of closures would concentrate people and activity in a smaller area, causing adverse impacts in the remaining areas.
- If closures were extended to Post 6, would the State reduce the annual access numbers?
- What techniques are available to reduce perching by shrikes?
- Potential inconsistencies between specific recommendations need to be considered, evaluated and resolved.
- The Predator Management Plan should be reviewed by the Scientific Subcommittee
- When equestrian access is closed, there is a need to provide for an alternative access point.

These issues, questions and concerns were forwarded to the Scientific Subcommittee for consideration at their February 15<sup>th</sup> meeting. No formal action was taken on the recommendations as reflected in the February 5<sup>th</sup> Consensus Recommendation report. The TRT expressed interest in crafting its own cover letter to convey the forthcoming recommendations to the Park Superintendent. It requested that a meeting be scheduled as early in March as possible so that it could forward its comments to the Superintendent early in this year's nesting season.

##### B. Discussion Leading to Prioritizing Questions for Scientific Subcommittee Review and Consideration

This item on the agenda was not discussed due to time limitations and was carried over to the next meeting of the TRT.

#### 5. Process and Procedural Issues

##### A. Future Meeting, Workshop and Site Visit Dates:

John Jostes noted that in sending out the draft meeting agenda, he had requested that TRT members provide an indication of which meeting dates were open for TRT members to attend during the months of April, May, June, August and October. He indicated that only one individual had responded, therefore, it was not possible to determine a meeting schedule that covered the remainder of the year. He requested that TRT members provide him with "black-out dates" for use in scheduling future meetings.

Regarding the next meeting, a date was set for March 12, from 3:00 to 5:00 pm and 6:00 – 8:00 pm. John Jostes took responsibility for identifying a location in or near the Oceano community. Discussion took place regarding whether it would be acceptable to hold meetings in San Luis

Obispo. Such a location was acceptable to a large majority of those present. However, Jim Suty expressed a strong preference to hold all meetings in the Oceano community.

**B. Preparations for Next Meeting:**

TRT members were requested to provide John Jostes with an indication of those dates that they could not make, based upon his agenda transmittal memo dated February 4, 2002.

**C. Other Matters:**

Jim Suty requested that the meeting facilitator consider adding a seat to provide for formal participation by a member of the equestrian community. John Jostes indicated that he would report back to the TRT at or before the next meeting.

A member of the public suggested that the TRT provide a website for access by the public to its meeting agendas, meeting summaries and other information relevant to the TRT process.

Facilitator John Jostes offered some closing observations, thanking the TRT members and others present for their hard work during the course of the meeting. He also noted that the current group dynamics were such that several members continued to deal with their differences as battles to be won, not problems to be solved. He cautioned the group regarding adversarial behavior and underlined the critical importance of constructive communication, within and outside of meetings, and the need to see things from alternative perspectives. He indicated that consensus on substantive issues, particularly at the next meeting would be difficult without a "team-based" approach.

**6. Next Steps, Action Items and Adjourn:** The meeting was adjourned at approximately 9:50 pm.

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**Meeting Attendance List:**

**TRT Members Present:**

Steve Monowitz, California Coastal  
Commission (Principal)

Nancy Rollman, San Luis Obispo County  
(Principal)

Bob Stafford, California Department Fish  
and Game (Principal)

Rick LeFlore, Calif. Department of Parks &  
Recreation, OHV Division (Principal)

Steve Henry, U.S. Fish & Wildlife Service  
(Principal)

Jim Suty, OHV Community (Principal)

Gordon Hensley, Environmental Community  
(Principal)

Tarren Collins, Environmental Community  
(Alternate)

Dave Angello, Local Government (Alternate)

Peter Keith, Business Community (Principal)

Jay Jameson, Business Community  
(Alternate)

Bobbi Brosnan, Residential Community  
(Principal)

Diane Griegleb Residential Community  
(Alternate)

**TRT Support/Observers:**

Steve Yamaichi, ODSVRA Superintendent

Laura Gardner, ODSVRA Resource Ecologist

John Jostes, Interactive Planning & Management, Facilitator

Paula Hartman, Thomas Reid Associates, DPR Support

**Public Attendees:** Approximately 90 individuals

**MEETING SUMMARY**  
**Technical Review Team**  
**Oceano Dunes State Vehicular Recreation Area**

**Location: San Luis Obispo City/County Library**  
**1<sup>st</sup> Floor Conference Room**  
**SE Corner Palm & Osos Streets**  
**San Luis Obispo, CA**

**March 12, 2002**  
**3:00 pm – 5:00 pm and 6:00 pm – 8:00 pm**

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**1. Introductions and Preliminaries**

John Jostes, Program Facilitator, led the introductions of those present and provided a brief overview of the agenda and the time constraints of the meeting room.

**2. Administrative Matters**

**A. Adoption of Meeting Summary from February 11, 2001, TRT Meeting**

The TRT adopted, by consensus, the Meeting Summary from the February 11, 2002, TRT meeting with corrections to reflect that the group discussed rather than concurred with the a series of recommendations put forth by the Scientific Subcommittee.

**3. Critical Path Items**

**A. Review, Adopt and Transmit Consensus Recommendations from Scientific Subcommittee:**

John Jostes introduced this action item and explained the written materials distributed to team members at the meeting. Paula Hartman provided an overall context for the topic. She reported that the Scientific Subcommittee had met via conference call on February 15, generated revisions to their recommendations and finalized those recommendations via e-mail for distribution to the TRT on March 6. Each member of the TRT was afforded an opportunity to ask questions and seek clarification from those members of the Scientific Subcommittee who were also present as TRT members. Considerable discussion focused on those recommendations that had been discussed at the February 11<sup>th</sup> meeting as well as refined recommendations that were provided by the Scientific Subcommittee as a part of their March 6, 2002 submittal.

The TRT agreed to provide a cover letter/transmittal memo to accompany the recommendations of the Scientific Subcommittee and spent the remainder of the available time refining the language of that memo. Consensus was reached on final language including an introductory paragraph, a listing of recommendations endorsed by a consensus of both the Scientific Subcommittee and the TRT, a list of recommendations not recommended, along with a statement expressing a minority opinion regarding recommendations not forwarded to the Superintendent. The transmittal memo also referenced four additional consensus points regarding prioritizing the development of a Habitat Conservation Plan, methods of refining and evaluating monitoring protocols, and suggested changes in wording. The memo concluded by providing for independent correspondence from individual TRT member regarding minority viewpoints. The adopted memorandum is attached to these meeting notes.

**ACTION ITEM:** The TRT approved, by consensus, the Transmittal Memorandum to accompany the Scientific Subcommittee's recommendations to the ODSVRA Park Superintendent.

**B. Discussion Leading to Prioritizing Questions for Scientific Subcommittee Review and Consideration**

The TRT briefly discussed potential research questions and management issues. It agreed by consensus to identify the development and implementation of the Predator Management Report as the highest priority for the Scientific Subcommittee, and the development and review of the Habitat Conservation Plan as the second highest priority for the Subcommittee. In doing so, it requested Paula Hartman to provide the TRT with a listing of potential research tasks following the upcoming Scientific Subcommittee meeting so that it could continue with its prioritization efforts at the next meeting. The TRT agreed upon a process whereby Ms. Hartman would delineate the research tasks, and John Jostes would convert those tasks into a matrix format to allow each member to prioritize them ("Now", "Soon", and "Later") prior to the next meeting.

**4. Process and Procedural Issues**

**A. Future Meeting, Workshop and Site Visit Dates:**

John Jostes distributed a preliminary listing of potential meeting dates and meeting topics for TRT review and discussion. The TRT set the next meeting date for Monday, April 29, 2002 from 3:00 pm until 8:00 pm at a location to be determined by the facilitator (preferably in proximity to the state park). The focus of this next meeting will be:

- Discussion of Predator Management Plan,
- Prioritization of Management Recommendations and/or Questions for Scientific Subcommittee.

The issue of a site visit was highlighted as both desirable and valuable to a meaningful discussion of key issues but was deferred to take place as a part of the May 2002 meeting of the TRT in order to accommodate the presence of both Western Snowy Plovers and California Least Terns.

Additional meeting dates which were offered for discussion included:

- May 20
- June 10 or June 24 (preferred)
- July – No Meeting
- August 19, 20, 23 or 26
- September – No Meeting
- October 7, 8, 21, or 28.

TRT members were requested to communicate their preferences and availabilities to the facilitator prior to next meeting so that a meeting schedule can be finalized at that time. John Jostes indicated that he would interpret a non-response from TRT members as an indication of availability for any given date.

**B. Representation on the TRT:**

In response to a request from members of the equestrian community at the February 11, 2002 meeting, the TRT discussed the option of adding a member as allowed by its Charter. John Jostes introduced the issue and outlined several options, including utilizing an existing sitting member of the TRT to represent equestrian interests, appointing a new member to represent their interests (and the associated need to revisit selected charter sections to deal with quorum and supermajority issues) or taking a broader look to evaluate the request in the context of requests from other community and non-vehicular recreational organizations for membership on the TRT. TRT members expressed a range of opinions supporting each of the options. In the end, the TRT tasked

John Jostes, as Facilitator, to make appropriate contacts with organizations who have voiced an interest in membership and report back to the team with a suggested approach that would be responsive to the roles and responsibilities of the TRT.

**5. Next Steps, Action Items and Adjourn:** The meeting was adjourned at approximately 8:00 pm.

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**Meeting Attendance List:**

**TRT Members Present:**

Steve Monowitz, California Coastal  
Commission (Principal)  
Nancy Orton, San Luis Obispo County  
(Principal)  
Bob Stafford, California Department Fish  
and Game (Principal)  
Rick LeFlore, Calif. Department of Parks &  
Recreation, OHV Division (Principal)  
Steve Henry, U.S. Fish & Wildlife Service  
(Principal)

Jim Suty, OHV Community (Principal)  
Gordon Hensley, Environmental Community  
(Principal)  
Tarren Collins, Environmental Community  
(Alternate)  
Peter Keith, Business Community (Principal)  
Diane Griegleb Residential Community  
(Alternate)

**TRT Support/Observers:**

Steve Yamaichi, ODSVRA Superintendent  
John Jostes, Interactive Planning & Management, Facilitator  
Paula Hartman, Thomas Reid Associates, DPR Support

**Public Attendees:** Approximately 6 individuals

**CCC Exhibit 1**  
**(page 28 of 59 pages)**

**ACTION ITEMS**

1. The Technical Review Team (TRT) adopted by consensus a cover memo to Steve Yamaichi, ODSVRA Park Superintendent, transmitting the recommendations of the Scientific Subcommittee regarding the 2001 PRBO Report prepared by Lance Henkel entitled "Nesting of the Western Snowy Plover and California Least tern at Oceano Dunes SVRA in 2001".
2. Paula Hartman was tasked with developing and distributing through the Facilitator, a list of research tasks and questions that the TRT would use to prioritize research and management questions. This list should be completed and distributed within two weeks of the March 12 TRT meeting to allow members sufficient time to comment and prioritize the research tasks and provide their responses back to the facilitator. John Jostes committed to providing a cover memo to facilitate the process of prioritization for TRT members.
3. The TRT set the date and time of the next meeting for April 29, 2002, at a location proximate to the ODSVRA, to be determined by the facilitator in concert with State Parks.
4. The TRT committed to provide the facilitator with feedback regarding future meeting dates in May, June, August and October, with the understanding that failure to comment implies assent to the dates listed above.
5. The TRT tasked John Jostes with making appropriate contacts with potential stakeholder groups with an interest in serving on the TRT and reporting back to the TRT at their next meeting with an approach and/or criteria for adding members.

**CCC Exhibit 7**  
**(page 29 of 59 pages)**

**MEETING SUMMARY**  
**Technical Review Team**  
**Oceano Dunes State Vehicular Recreation Area**

**Location: Oceano Community Service District Meeting Room**  
**1655 Front Street, Oceano**  
**April 29, 2002**  
**3:00 pm – 4:00 pm**

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**1. Introductions and Preliminaries**

John Jostes, Program Facilitator, opened the meeting and noted that because of the absence of three voting members and their alternates, that the TRT could not make decisions on action items listed on the agenda. He noted that because the Park Superintendent (non-voting member) was present, the TRT had a quorum (8 members) with which to open and hold a meeting. Those present introduced themselves and their respective organizations.

John then provided a brief overview of the agenda and asked those present if there were any adjustments to the Agenda. Steve Monowitz, Coastal Commission representative, requested that he be provided the opportunity to give the TRT an update on his Staff Report to the Coastal Commission for their annual Permit Review scheduled for discussion on May 8, 2002. The Item was added to the agenda to immediately follow public comment.

**2. Administrative Matters**

**A. Adoption of Meeting Summary from March 12, 2001, TRT Meeting**

Those voting members who were present reviewed the meeting summary from March 12, 2002 and indicated that the summary was acceptable as written. Because of the lack of a decision-making quorum, the TRT deferred adoption of the Meeting Summary to the next meeting of the TRT.

**3. Public Comment Period**

Members of the public in attendance were provided with an opportunity to make comments to the TRT. Dianna Muraski addressed the TRT and noted the importance of TRT recommendations to non-vehicular users of the Park, including hikers and equestrians, with regard to access. She noted the discussion at the previous meeting regarding the suggested addition of representation from equestrian users and expressed an interest and willingness to serve on the TRT if its representation was expanded. The TRT expressed their thanks for her offer to volunteer.

**4. Update on Staff Report to Coastal Commission Regarding Annual Permit Review scheduled for May 8, 2002:**

Steve Monowitz handed out copies of his Staff Report, dated 4/25/02, and provided a summary presentation of the report to the California Coastal Commission with regard to the annual permit review. He indicated that the report recommended that the TRT be reorganized from a stakeholder group to a technical review panel. He stated that the recommendation was based upon the TRT's limited ability to expeditiously identify and resolve critical research and management issues identified by CDP 4-82-300-A5. He indicated that the reorganized TRT would be made up of Park managers, regulatory representatives, planning and support staff, and scientists, and that stakeholder input would be provided through the public hearing process associated with review of the Draft Habitat Conservation Plan, and annual Permit Review at the Commission level. He also indicated that the Staff Report did not recommend specific changes with regard to management actions or fencing within the Park. He noted that the next annual permit review would take place in April of 2003 instead of May due to a desire to accommodate the results of management actions and scientific recommendations

associated with the 2002-2003 nesting seasons. He asked for any comments by the Technical Review Team to be submitted to him no later than Friday, May 3, 2002 for inclusion in supplemental packets to be provided to Commissioners, and that written comments received between Friday and the close of business on Monday, May 6 would be handed out at the meeting on May 8. Following Steve Monowitz' presentation, Dave Angello, Gordon Hensley and Peter Keith asked clarifying questions regarding future TRT membership, a desire to include a scientist with expertise in experimental design, and the intentions behind the suggested changes.

Following responses from Mr. Monowitz, Peter Keith expressed his strong disagreement with the recommendations of the Staff Report to reorganize the TRT and eliminate representation by community interest groups; he subsequently excused himself from the meeting.

With the departure of Peter Keith, the TRT fell short of a quorum to conduct business and the meeting was adjourned at 3:45 pm.

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**Meeting Attendance List:**

**TRT Members Present:**

Steve Monowitz, Calif. Coastal Commission  
(Principal)

Nancy Orton, San Luis Obispo County  
(Principal)

Rick LeFlore, Calif. Department of Parks &  
Recreation, OHV Division (Principal)

Peter Keith, Business Community (Principal)  
Gordon Hensley, Environmental Community  
(Principal)

Dave Angello, Local Government (Alternate)  
Diane Briegleb Residential Community  
(Alternate)

**TRT Support/Observers:**

Steve Yamaichi, ODSVRA Superintendent (Non-Voting Member)

John Jostes, Interactive Planning & Management, Facilitator

Paula Hartman, Thomas Reid Associates, DPR Support

**Public Attendees:** Approximately 4 individuals plus

Jay Jameson, Business Community (Alternate)

Tarren Collins, Environmental Community (Alternate)

**MEETING SUMMARY**  
**Technical Review Team**  
**Oceano Dunes State Vehicular Recreation Area**

**Meeting Location: Oceano Community Service District Meeting Room**  
**1655 Front Street, Oceano**

**September 16, 2002**  
**Oceano Dunes Field Trip: 10:00 am – 12:30 pm**  
**Regular Meeting: 1:50 pm – 4:30 pm**

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**Field Trip Notes:**

**Field trip Attendance:**

Gordon Hensley	Peter Keith	Andy Zilke
Tarren Collins	Steve Henry	
Jim Suty	Rick LeFlore	State Parks Staff
Nancy Orton	Steve Yamaichi	Paula Hartman
Ron Arnoldsen	Laura Gardner	John Jostes

Park Superintendent Steve Yamaichi led the field trip which focused on familiarizing members of the Technical Review Team with the location, function and implementation of exclosures to protect nesting Snowy Plovers and California Least Terns at various locations throughout the Park. TRT members asked a number of general and specific questions pertaining to monitoring, fledging success during the 2002 breeding season, alternative access, camping and speed limit enforcement and night riding.

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**Regular Meeting Notes**

**1. Introductions and Preliminaries**

John Jostes, Program Facilitator, opened the meeting and noted that because of the absence of three voting members and their alternates, that the TRT could not make decisions on action items listed on the agenda. He noted that because the Park Superintendent (non-voting member) was present, the TRT had a quorum (8 members) with which to open and hold a meeting. Those present introduced themselves and their respective organizations.

John then provided a brief overview of the agenda and asked those present if there were any adjustments to the Agenda. He also noted that because of budget limitations and constrained staff resources at the Santa Cruz office of the Coastal Commission, that neither Steve Monowitz nor Charles Lester was able to attend the meeting.

**2. Administrative Matters**

**A. Adoption of Meeting Summary from the April 29, 2002, TRT Meeting**

Those voting members who were present reviewed the meeting summary from April 29, 2002 and indicated that the summary was acceptable as written. Because of the lack of a decision-making quorum, the TRT deferred adoption of the Meeting Summary to the next meeting of the TRT.

**3. Critical Path Matters**

**A. Presentation, Discussion, and Follow-up to Facilitator's Interim Report dated April 24, 2002:**

**CCC Exhibit   1**  
**(page   32   of   59   pages)**

John Jostes provided a brief overview of the Facilitator's Interim Report, its distribution, and the role it played in the development of a draft Problem Statement, proposed Ground Rules and suggested amendments to the TRT's Charter. Because a full quorum of members was not present, no formal actions were taken. However, the TRT did deliberate on a number of important issues and came to a consensus among those present on several matters of critical importance.

#### **Problem Statement Language**

There was considerable discussion of the language of and attachments to the draft Problem Statement (Version 4.0) that had previously received the unconditional support of Gordon Hensley, Jim Suty and Rick LeFlore. While not able to attend, Steve Monowitz Coastal Commission staff representative provided John Jostes with suggested changes to Version 4.0, which reviewed with those TRT members present. Steve's comments reflected the other beach areas within California that allowed off road vehicle access, and clarified the "balancing" and "TRT commitment" language of the draft. These comments were considered and reflected in language changes to Version 4.0.

Concerns were voiced by Steve Henry and Tarren Collins, Alternate for Gordon Hensley regarding the appropriateness of including the "Nipomo Dunes" map attachment showing pre- and post- 1982 areas open and closed to OHV use as part of the adopted Problem Statement. They indicated that the maps did not belong in a problem statement because they reflected past management actions and the TRT is focused on present and future management and monitoring issues. Another perspective was offered by Jim Suty who indicated that inclusion of the maps was critical to his support of a problem statement because they provided both an historical context of access limitation trends and a regional perspective that was important to framing the problem being addressed by the TRT. Peter Keith and Ron Arnoldson voiced support for Mr. Suty's perspective. Because the group as a whole was not able to resolve these competing viewpoints, the facilitator indicated that he would undertake additional discussions between representatives in hopes of resolving the matter prior to the next meeting. The group did reach a unanimous agreement on the language embodied within the problem statement itself, subject to resolution of the matter regarding whether and if so which map(s) should be attached to the Problem Statement.

#### **Charter Amendment Regarding Quorum and Decision-Making Issues**

The issue of what should constitute a quorum of the TRT for meeting and decision making purposes was discussed and it was unanimously agreed by those present that it was appropriate to modify the existing Charter Section D. (3) Meeting Quorum to state that 70% or 7 TRT members are required to hold a TRT meeting.

In addition, those present also unanimously agreed that it was appropriate to modify Charter Section E. (2) Non-Unanimity Decision Rule to reflect the same 70% standard, while still maintaining the opportunity for a minority opinion as currently provided by Charter section E. (4).

#### **Charter Amendment regarding Ground Rules to Augment Existing Member Commitments**

John Jostes reviewed the ground rules provided to the TRT as a part of his Facilitator's Interim Report and noted that he had only received one comment requesting changes. The proposed change was to delete Ground Rules #7 regarding Participation in Other Forums, and #8 regarding Public Statements. After a brief discussion, all TRT members present unanimously agreed that it was appropriate to revise the Charter to incorporate remaining ground rules as proposed by reference under Charter Section C. (4).

**ACTION ITEMS:** Because of the lack of a quorum of TRT members present, the above changes cannot be considered action items of the TRT.

**Facilitator's Note:** For purposes of expediency, the above actions will be reviewed with absent members prior to the next scheduled TRT meeting and presented as part of an amended TRT

Charter for ratification and transmittal to the Coastal Commission under its Annual Reporting process.

**B. Overview of 2<sup>nd</sup> Annual Report Contents:**

John Jostes provided a brief overview of the requirement to provide an Annual Report to the Coastal Commission before the end of the calendar year. He noted that the report would need to comply with Section III.5. of the existing Coastal Commission permit (Coastal Development Permit No. 4-82-300) and include: 1) the final TRT Charter, 2) the TRT's ranking of research and management questions and priorities, and 3) a scope of work for those projects identified as the highest priority. He indicated that he would be working closely with Paula Hartman to circulate a draft Annual Report by mid-October. Paula Hartman distributed a list of goals for the Scientific Subcommittee through 2002 that would serve as the basis for their input to the TRT and the Park Superintendent, consistent with their roles and responsibilities. She noted that the scientific Subcommittee would not actually design any studies but would identify questions that the studies should address. Those questions will form the basis of a scope of work consistent with the annual reporting requirements.

John and Paula indicated that in order to adopt the Second Annual Report at the TRT's December meeting, they would undertake the following three-step process:

1. Distribute a draft 2<sup>nd</sup> Annual Report in late October or early November for review and comment by the TRT with comments due within 2 weeks of distribution;
2. Collect and integrate comments into a revised draft of the 2<sup>nd</sup> Annual Report for distribution, discussion and adoption at the December meeting of the TRT. Individuals who do not comment on the draft report will be presumed to have no substantive comments; any comments made by alternates need to be coordinated through their principals to assure congruent comments.
3. Where conflicting comments or unresolved issues arise, John Jostes will contact those individuals individually or collectively to resolve any outstanding issues prior to the December TRT meeting.

**4. Status Reports, Information Items and Updates**

**A. Status report on Habitat Conservation Plan Development:**

Deferred until December 2002 meeting.

**B. Schedule of Meeting Dates and Topics – October 2002 – March 2003:**

John Jostes handed out a flow chart indicating proposed TRT meeting dates and topics. He noted that the TRT meetings themselves would require a full day commitment, but that the frequency of meetings had been reduced. TRT members present identified specific dates that were workable in terms of their attendance and participation. They agreed to schedule TRT meetings for Monday, December 9, 2002 and January 13, 2002, with both meetings lasting from 9:00 am until 4:30 pm with a break for lunch. The topics for these meetings are identified in the updated flowchart attached.

**Facilitator's Note:** It is important to note that as per direction at its May 2002 meeting, the Coastal Commission will be tentatively reviewing the ODSVRA permit at its February 2003 meeting in San Luis Obispo scheduled to take place between February 4-7, 2003.

**C. Announcements and Other Matters of Interest:**

John Jostes indicated to those present that if the matter of an adopted Problem Statement could not be resolved by the TRT at its December meeting that he would submit his offer to withdraw from the TRT process and urge the TRT to seek another facilitator or conclude its deliberations.

Jim Suty requested that a copy of the study on nocturnal use of the park by snowy plovers be distributed to TRT members. Paula Hartman agreed to provide the study.

**Regular Meeting Attendance:**

**TRT Members Present:**

Ron Arnoldsen, Local Government (Principal)  
Nancy Orton, San Luis Obispo County (Principal)  
Rick LeFlore, Calif. Department of Parks & Recreation, OHV Division (Principal)  
Peter Keith, Business Community (Principal)  
Tarren Collins, Environmental Community (Alternate)  
Jim Suty, OHV Community (Principal)  
Steve Henry, U.S. Fish and Wildlife Service (Principal)

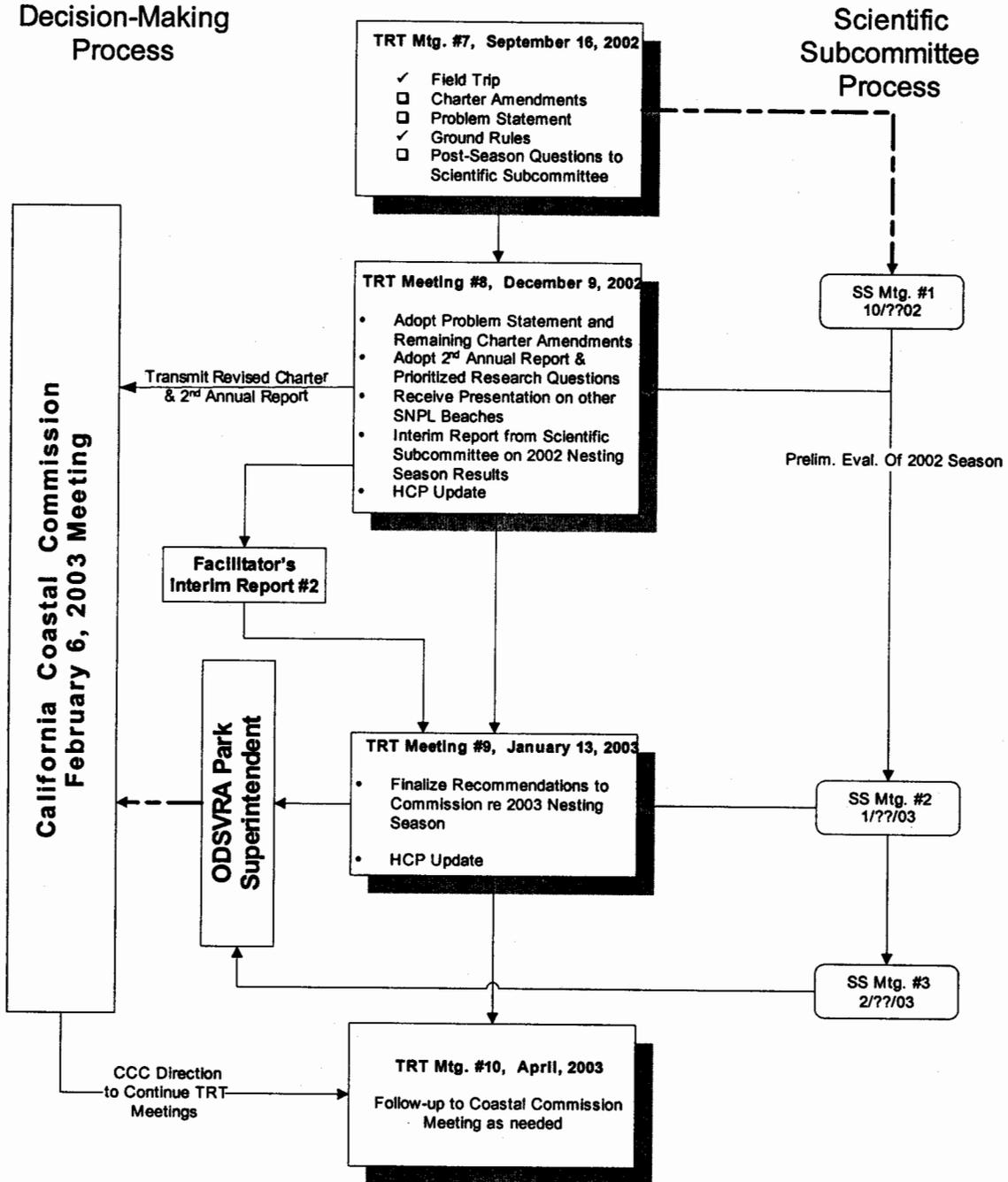
**TRT Support/Observers:**

Steve Yamaichi, ODSVRA Superintendent (Non-Voting Member)  
John Jostes, Interactive Planning & Management, Facilitator  
Paula Hartman, Thomas Reid Associates, DPR Support

**CCC Exhibit 1**  
**(page 35 of 59 pages)**

# Technical Review Team (TRT) Meeting Dates & Topics

September 2002 - March 2003



## DRAFT MEETING NOTES

Regular Meeting  
Oceano Dunes State Vehicular Recreation Area  
Technical Review Team  
December 10, 2002, 10:00 am – 4:00 pm  
Location: Oceano Community Service District  
1655 Front Street, Oceano

### 1. Introductions and Preliminaries

John Jostes, Program Facilitator, opened the meeting and provided an opportunity for introductions of those members present. Bobbi Brosnan, Residential Community Representative, noted that her current alternate, Diane Briegleb, was moving from the area and could no longer serve as her alternate. She introduced Christine Potter as her new alternate for this meeting and noted that Christine would be serving as the principal representative for the Residential Community and Bobbi would serve as her alternate for the coming year. Steve Monowitz, Coastal Commission Staff and member of the TRT was patched into the meeting via speakerphone. He expressed his disappointment at not being able to attend the meeting in person and thanked the TRT for their flexibility in letting him participate via conference call.

John then provided a brief overview of the agenda and asked those present if there were any adjustments to the Agenda.

### 2. Administrative and "Housekeeping" Matters

#### A. Adoption of Meeting Summaries from April 29, 2002 and Sept. 19, 2002 TRT Meetings

The meeting summaries from April 29 and September 19 were reviewed and adopted by consensus as an accurate characterization of the discussion topics and progress of the TRT on those two meeting dates.

#### B. Discussion of Effects of State Budget on Coastal Commission Staff Participation as a TRT Member

Steve Monowitz provided an overview of the basis for his not being able to attend recent and anticipated future meetings of the TRT. He indicated that because of the State Budget limitations, that a travel freeze had been imposed on Commission staff, that staff resources were constrained and budget limitations were being imposed on his office, as well as others. After a brief discussion, the TRT directed John Jostes to explore the feasibility of van pooling the group to a central location (e.g. Salinas) that would allow for the face-to-face participation of Coastal Commission staff. The TRT also directed John to explore videoconferencing as well as other meeting locations that could maintain the intimacy of the meeting's current configuration and provide for more effective use of a conference phone to patch in members who could not physically attend the meeting.

### 3. Critical Path Items

#### A. Adoption of Supplemental Ground Rules for inclusion in Amended Charter Action Item

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John Jostes reviewed the current version of the draft Ground Rules for the TRT. Steve Monowitz suggested a softening of language regarding the need for members to offer alternatives which could simultaneously meet the concerns and interests of all TRT members. With these revisions, the Ground Rules were adopted by a consensus of the TRT for integration into the Charter.

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NOTE: Because of the ambitious goals of this meeting and the Technical Review Team's quorum requirements, participating members (Principals and/or Alternates) are requested to make a special effort to arrive early, start promptly, and remain for the duration of the full meeting

CCC Exhibit 1  
(page 37 of 59 pages)

**B. Adoption of Problem Statement for inclusion in Amended Charter**  
**Action Item**

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John Jostes reviewed with the TRT the discussions which had taken place between several TRT members since the last meeting and indicated that there was no clear consensus regarding the inclusion or exclusion of maps with the Problem Statement. After considerable discussion, the group adopted by consensus the wording of the Problem Statement. The discussion then focused on the need for a "You are Here" map to accompany the Problem Statement and provide geographical context. The TRT reached a full consensus that the maps that would be included with the Problem Statement would be the "Post 1982 Oceano Dunes SVRA" map, designed to show the boundaries of the SVRA, including open and closed areas, as well as the "Post 1982 Nipomo Dunes" map, designed to show the ODSVRA within the overall context of the Nipomo Dunes system. In addition, the TRT also determined by full consensus that 1) any references to dates would be removed from the maps, and that 2) areas that were closed during the 2002 nesting season should also be indicated as part of the closed areas designation.

Jim Suty asked that the record reflect his frustration with the negotiation process wherein tentative agreements reached on a preliminary problem statement had been withdrawn by alternates not present during the initial negotiations.

**C. Adoption of Charter Amendments to streamline & clarify roles and responsibilities**  
**Action Item**

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John Jostes reviewed the proposed changes to the Charter for TRT Members to consider. The TRT adopted the following preliminary changes by consensus:

- Revised Charter Section C (3) language regarding Member Principals and alternates to add greater clarity to the role and participation of alternates. The TRT did not adopt suggested language designed to require the designation of alternates.
- Revised Charter Section C (4) to incorporate Ground Rules as noted above.
- Added Charter section D (5)(e) to provide for scheduled breaks to allow for stakeholder caucusing
- Revised Charter Section D (8)(c) to clarify public participation guidelines.

Several changes received less than a full consensus of the TRT, but still carried by 80% of the TRT members, including the following decisions:

- Revised Charter Section D (3) to reduce the meeting quorum requirement from 80% to 70%
- Revised Charter Section E (2) to reduce the definition of overwhelming agreement from 80% of all members to 70% of all members.

In both of the above two decisions, Gordon Hensley indicated he could not support the proposed changes because they could be interpreted to detract from the credibility of the TRT's decision-making.

The TRT then considered the proposed changes to the Charter in their entirety, and adopted the total package revisions by a full consensus of those present and participating.

**D. Review and Adoption of 2<sup>nd</sup> Annual Report Contents** **Action Item**

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**CCC Exhibit** 1  
**(page 38 of 59 pages)**

The TRT then turned its attention to review and refinement of the draft 2<sup>nd</sup> Annual Report. John Jostes provided a brief overview of the transmittal letter and attachments. The following discussion and decisions ensued:

Attachment 1: Amended Charter Language: As noted above, the Charter was amended by a full consensus of the TRT with the understanding that it would be forwarded to the Executive Director of the California Coastal Commission.

Attachment 2: Current List of TRT Members and Alternates: This attachment was augmented to reflect the anticipated change of alternates for the Residential Community Representative from Diane Breigleb to Christine Potter.

Attachment 3: Meeting Summaries from TRT Meetings in 2002: All meeting summaries for the calendar year, having been adopted, were directed to be included in the 2<sup>nd</sup> Annual Report as an attachment.

Attachment 4: ODSVRA Use Numbers: The ODSVRA Use numbers were discussed and authorized for inclusion in the 2<sup>nd</sup> Annual Report.

Attachment 5: List of Research and Management Questions and Priorities: The List of research and Management Questions and Priorities were authorized for inclusion in the 2<sup>nd</sup> Annual Report with the following qualifications and clarifications:

That the Facilitator indicate within his cover letter that:

- Item #1, Night Riding and Item #2, Wintering Snowy Plovers and other Shorebirds were ranked with the same essential priority status by the Scientific Subcommittee, as described by Paula Hartman and Laura Gardner;
- In allocating resources to the listed questions and priorities, the TRT identified the need to identify costs and allocate effort based upon the principle of getting the most "bang for the buck". By approaching the research and management questions and priorities in this manner, activities that have the greatest overall positive effect on the resources should be addressed prior to other activities which do not generate as clear and direct benefit; and
- Recognizing that the List does not qualify as a specific Scope of Work, the questions posed and perspectives offered by the list would be used by the Scientific Subcommittee when they work with the researchers preparing the Scope of Work to implement the conceptual framework outlined by the list.

Attachment 6: Scientific Subcommittee Comments on the Park's Habitat Monitoring System: This attachment was reviewed and authorized for inclusion in the 2<sup>nd</sup> Annual Report without change.

Attachment 7: Scientific Subcommittee's Comments on the Interim Predator Management Plan: This attachment was reviewed and authorized for inclusion in the 2<sup>nd</sup> Annual Report without change.

Attachment 8: State Park's Wildlife Habitat Protection Program Report: Inclusion of this document was deferred from consideration because the State Park had not completed its internal review of the document and therefore, it is not available for TRT review at this point in time.

Attachment 9: Snowy Plover/Least Tern Monitoring and Management Recommendations: As this report and the Scientific Subcommittee's review were only made available to the TRT within the preceding several days of the meeting, the TRT deferred comment and transmittal as a part of the 2<sup>nd</sup> Annual Report. The TRT agreed to provide comments on the PRBO report, and the Scientific Subcommittee's Recommendations to John Jostes prior to

December 20. This schedule will allow the TRT to finalize its recommendations at its next meeting. The report and associated recommendations could then be provided to the Park Superintendent and Coastal Commission Executive Director with sufficient lead time to be considered prior to the beginning of the 2003 Breeding season (March 1, 2003)

The Facilitator was directed by the TRT to revise the draft version of the Cover Letter to reflect the substance and tone of the discussion. John Jostes committed to providing the TRT with a revised draft by no later than January 2, 2003, with the assumption that TRT members would provide comments directly to him within one week. John was directed to note in the cover letter the progress that has been made over the year as well as the need for continued efforts to obtain an Incidental Take Permit and finalize the HCP. This approach was adopted to ensure that the 2<sup>nd</sup> Annual Report could be transmitted at the close of the January 13<sup>th</sup> 2003 TRT meeting.

#### **4. Status Reports, Information Items and Updates**

##### **A. Reports from Scientific Subcommittee regarding 2002 Nesting Season      Information Item**

This topic was fully discussed as a part of the previous item.

##### **B. Status Report on Habitat Conservation Plan Development Issues      Information Item**

Paula Hartman and Rick LeFlore provide an update on the status of the development and release of public review draft of the HCP. Paula noted that State Parks had met with representatives from the U.S. Fish and Wildlife Service and that a follow-up meeting had been scheduled for January to consider revisions. Both Paula and Rick expressed thanks to Steve Henry for the quality of his comments and desire to expedite its review. They indicated that a public review draft was likely to be available in late spring or early summer. Once drafted, the HCP would undergo a Federal (Coastal Zone Management Act) Consistency review because it is a Federal Activity. Moreover, the California Coastal Commission will use its Local Coastal Program (LCP) process to integrate the development standards the HCP with the State and Local processes.

##### **C. Announcements and other matters of Interest (Time Permitting)**

Steve Monowitz indicated to the TRT that the February meeting of the California Coastal Commission would take place in San Diego and the March meeting would take place in San Luis Obispo. He noted that consistent with direction provided by the Commission at its May 2002 meeting, he intended to schedule the permit review of the ODSVRA for the February meeting so as to allow some lead time prior to the start of the 2003 breeding season in March.

The next TRT meeting will be held on January 13, 2003 from 10:00 am to 4:00 pm at a location yet to be determined.

#### **5. Next Steps, Action Items and Adjourn**

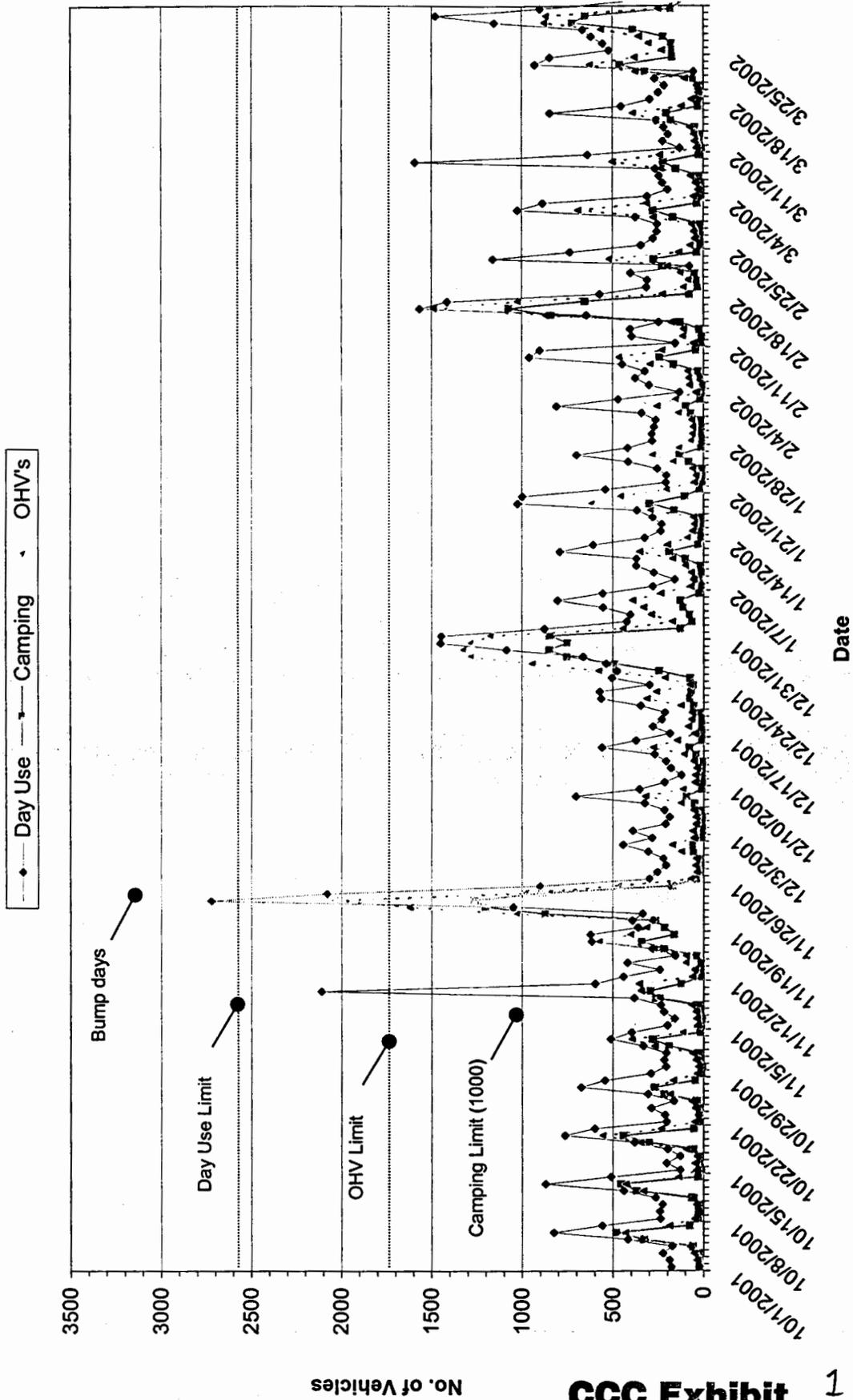
The meeting was adjourned at 3:35 pm

Meeting Notes prepared by John Jostes, Facilitator, December 12/2002

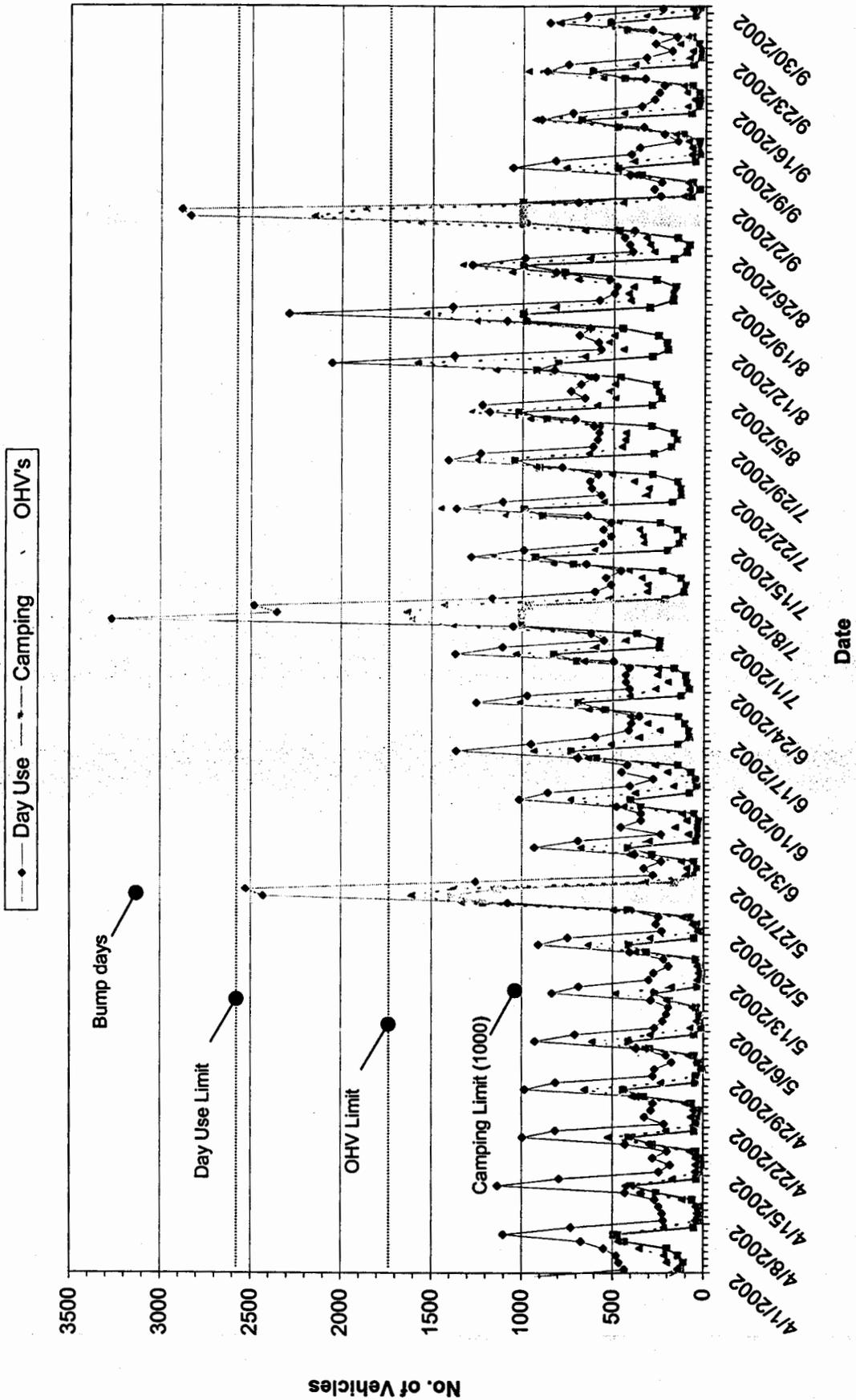
December 10, 2002

**CCC Exhibit** 1  
**(page** 40 **of** 59 **pages)**

ODSVRA Vehicle Use: Oct. 2001-Mar. 2002



ODSVRA Vehicle Use: April 2002-September 2002



## Attachment 5

### Recommendations of the ODSVRA Scientific Subcommittee re: Research and Management Questions and Priorities (January 4, 2003):

#### Introduction

As a part of identifying which research and management questions should be recommended by the Scientific Subcommittee, the members considered what they believe to be their charge from the Coastal Commission. They identified the following items as management concerns that the Sc. Subcommittee should address:

1. Understanding the biological potential of the ODSVRA area.
  - What species exist there now?
  - What could be there based upon alternative management regimes?
2. Estimate the Impact of ORV Use.
  - What has been the effect of off-road vehicular use on the natural dune habitats and associated aquatic habitats? What is known? What work needs to be done to make this determination for particular habitats?
  - What are the relative impacts associated with different levels of use (e.g., peak holiday periods vs. average use).
  - What are the mechanisms of impact (e.g., physical disruption of vegetated dunes, physical disturbance and increased turbidity of streams, compaction of beach habitat, impact injury to wildlife, etc)?
3. Identify Areas to Protect or Restore:
  - Which areas that are currently impacted by ORV use could potentially be restored to native vegetation?
  - Which areas serve, or could potentially serve, the needs of snowy plovers and least terns?
  - Are there conflicts between dune restoration and nesting activities? If there are conflicts, what is the optimal balance between the conflicting needs?
  - What other sensitive species should be part of a management plan? What are their restoration needs?
4. Recommend ORV Management Activities to Protect Natural Resources:
  - To which areas should ORVs be confined in order to protect natural resources?
  - During which hours of the day should vehicular use be allowed?
  - What uses should be allowed? Evaluate access routes and camping areas.
  - Should use restrictions have a seasonal component?
5. Review Natural Resource Management Activities and Make Recommendations:

- Monitoring of snowy plovers and least terns.
- Use of fencing and shelters.
- Predator monitoring and management.
- Vegetation restoration, including exotics removal and control.

Using the above list as a guide, the Sc. Sub. identified and ranked the research and management questions in this report.<sup>1</sup> The Sc. Sub. members would not actually design any of these studies, but the members have drafted a preliminary list of questions that these studies would address. The Sc. Sub. members could also review the proposed design once a study has been designed. The six topics are listed in order of priority.

### **1. Night Riding**

The overall question that the Sc. Sub. identified as being the focus of such a study is: What are the impacts of vehicles on plovers, terns, and other shorebirds? Other shorebirds, such as sanderlings, should be included because the mandate of the Coastal Commission is not limited to listed species, plus observation of other shorebirds can provide insight into effects on plovers and terns. Carcass recovery could be one component. Additionally, reconnaissance work would need to be conducted prior to designing the study. The Sc. Sub. has identified the following questions and goals for such a study:

1. Define the area and amount of plover and tern use at night.
2. Define the area and amount of human use at night.
3. Determine what the birds are doing:
  - a. Does their location affect what they're doing, i.e., whether they are in or out of exclosures?
  - b. What are the differences between winter and summer use?
  - c. How do the tides affect their behavior?
  - d. How do various human activity levels affect their behavior?
  - e. How does motorized traffic affect winter flocks and breeding success?

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<sup>1</sup> Page 7 of the permit includes the following direction to the TRT and Scientific Subcommittee:

The TRT should develop recommendations to the Superintendent regarding "additional monitoring studies, adjustments to day and overnight use limits, and management strategies." The Sc. Sub. will "identify, develop and evaluate the scientific information needed by decision-makers to ensure that the ODSVRA's natural resources are adequately managed and protected." Among other things, the Sc. Sub. will:

1. Recommend to the TRT the scientific studies and investigations that may be necessary to develop information needed by resource managers;
2. Advise the TRT regarding the protection of the SVRA's natural resources by helping identify and review needed research measures and restoration efforts to rebuild or protect the ODSVRA resources.

## **2. Wintering Snowy Plovers and Other Shorebirds**

1. How many snowy plovers are there?
2. Where are they?
3. Where have they come from?
4. What are they doing (e.g., foraging, roosting)?
5. How are they affected by human activity (e.g., pets, vehicles, pedestrians, equestrians)?
6. What other shorebirds are using the area? The same questions (i.e., how many, where, what are they doing, how are they affected) would apply to these other species.
7. What potential predators are present in the winter?

## **3. Invertebrates**

Sandy beach invertebrates are of particular interest. Invertebrates are currently not monitored, but are critical to understanding plovers and terns, among other resources. Good baseline surveys of both terrestrial and intertidal species are needed. A study should determine what species are in ODSVRA. The study should include both open and closed areas.

## **4. Vegetation/Soils Management**

In 1999, the Off-Highway Motor Vehicle Recreation Division (OHMVRD) identified an issue Oceano Dunes needs to address.<sup>2</sup> Accelerated sand movement caused by recreation patterns is contributing to loss of vegetation in and around Oso Flaco Lake, as well as the vegetated islands within the SVRA. This sand movement is contributing to loss of open water at Oso Flaco Lake (due to sand inundation). Within the Oceano Dunes complex there are small, vegetated areas that are unprotected by fencing and signage. The "OHMVRD Adopted Recommendation for Sandy Soil Areas" (1999) identified six alternative management options to slow the rate of sand movement and recommended all six options be tested and evaluated for one year.<sup>3</sup> This work has not occurred.

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<sup>2</sup> This information is from the ODSVRA Wildlife Habitat Protection Plan, August 2001, p. 22.

<sup>3</sup> The six options are:

1. Fence 1 to 5 acre foredune areas utilizing sand barriers/fences to trap the sand and gradually build up the dunes and actively revegetate with native plants.
2. Fence ¼ to 1-acre foredune areas utilizing sand barriers/fences to trap the sand and gradually build up the dunes and actively revegetate with native plants.
3. Fence ¼ to 5-acre foredune areas and allow both vegetation and sand to grow and /or move naturally.
4. Construct artificial sand dunes with heavy equipment between ¼ to 5 acres in size before fencing and revegetating.
5. Fence and revegetate a minimum ¼ acre utilizing sand barriers/fences to trap the sand and gradually build up the dunes to duplicates the original foredune system (aligned with the prevailing wind direction).
6. Use heavy equipment to reduce the height of existing sand dunes 1.5 feet in front of the slack dune vegetated islands. The sand would then be pushed north or south of the islands and allowed to move down-wind naturally away from the vegetated islands.

The big-picture question is: Can areas that are appropriate for restoration be identified? With this goal in mind, specific questions would include:

1. To what extent has the area of the vegetation communities changed?
2. To what extent have the communities been altered by invasions of exotics?
3. What areas have potential for restoration with appropriate vegetation?
  - a. Can they be restored? How?
  - b. Should they be restored (keeping in mind specific habitat needs of various species, e.g., plovers and terns)?

#### **5. Fish Surveys**

Tidewater goby and steelhead would be of particular interest. Grunion would also be of interest. Some data should already exist for Arroyo Grande Creek.

#### **6. Water Quality**

Water quality is especially relevant to juvenile least terns and gaining an overall understanding of the dunes. A watershed assessment may be underway soon.

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Three control/comparison areas were identified: the Dune Preserve north of pole 3, the protected foredune area south of pole 8, and areas of existing OHV use.

January 12, 2003

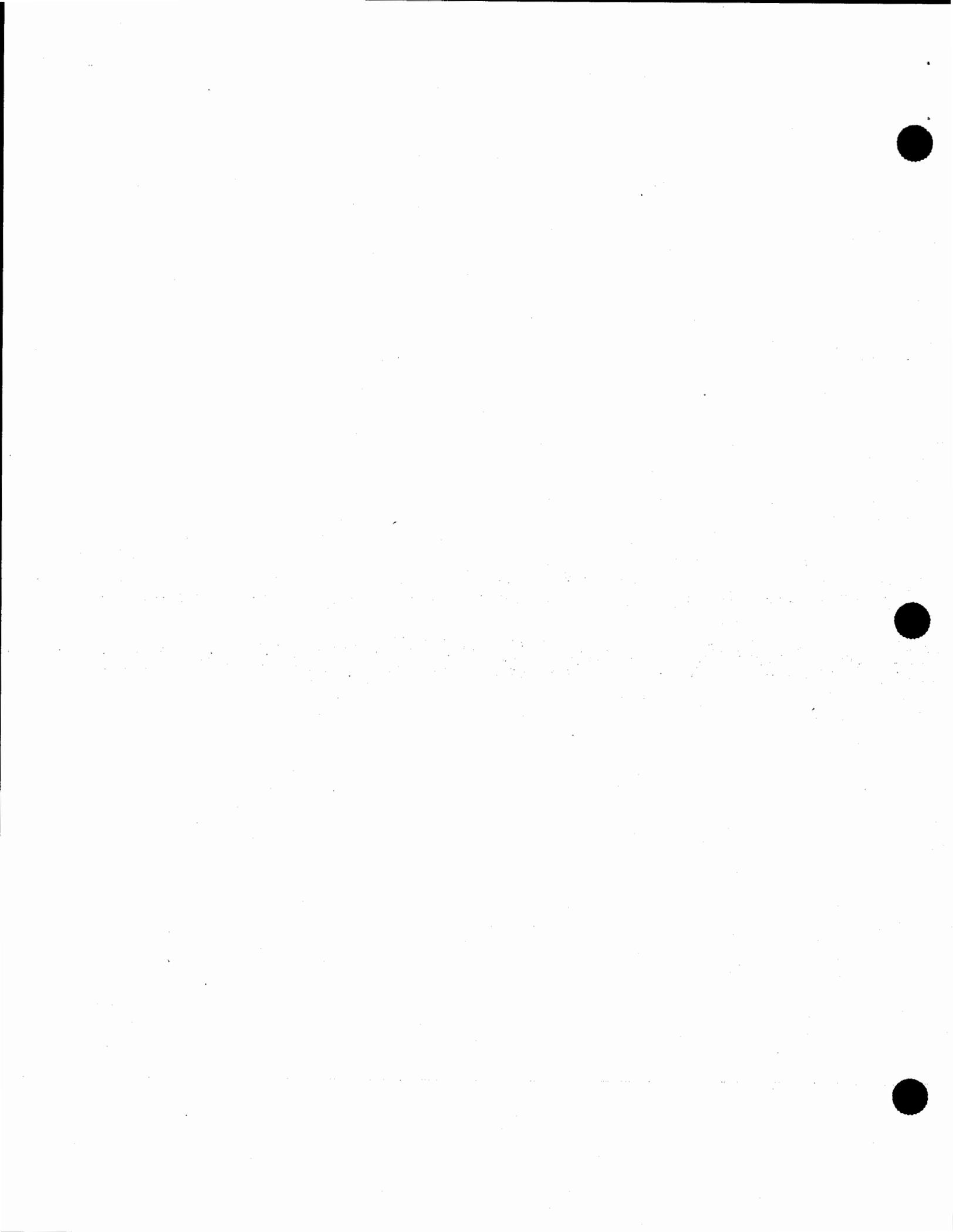
**CCC Exhibit 7**  
**(page 46 of 59 pages)**

## Attachment 6

### Comments and Recommendations of the ODSVRA Scientific Subcommittee re: HMS Methodology (January 4, 2003):

At its June 4, 2002, September 30, 2002, and October 23, 2002, meetings, the Scientific Subcommittee discussed the Habitat Monitoring System (HMS) protocols used by ODSVRA. The members provided the following comments and recommendations:

1. The HMS Diversity Index does not account for overall abundance. If the population of each species declines at about the same rate, the formula will not catch the overall decline.
2. Shoreline bird survey transects should be the same length.
3. More shoreline bird transects in the control area are needed.
4. Shorebirds likely congregate at the mouth of Oso Flaco Creek but are probably not evenly distributed on either side. The control shoreline bird transect, which currently ends at Oso Flaco Creek, should thus be extended beyond the creek.
5. Ebb tide surveys may increase both the numbers of species and individuals recorded. ODSVRA should consider testing the concept of ebb tide surveys, but the current low tide protocol should be maintained to maintain consistency.
6. Shorebird surveys are currently done in March, June (when most shorebirds are not even present), September, and December. The timing of the surveys must be modified to reflect actual species use.
7. More thought must be put into sample size to ensure that system variability is captured. The monitoring must attempt to determine what species are present, how many are present, and where they are. At a minimum, surveys should be conducted a total of four times per month, including two high tide and two low tide surveys.
8. The monitoring regime should account for riding v. non-riding areas.
9. Horned larks are sometimes encountered in the same areas where terns and plovers nest. The Park should consider having monitors track any horned lark nest that is encountered during the normal course of plover and tern monitoring.
10. Invertebrate monitoring should be conducted.
11. The Park should establish and monitor soil loss standards that are applicable to dune ecosystems. This information may assist with addressing sand movement into Oso Flaco Lake. "Lidar" may be the most appropriate technology to monitor sand movement.



## Attachment 7

### Comments and Recommendations of the ODSVRA Scientific Subcommittee (*Revised April 5, 2002*):

#### Review of "Interim Predator Management Plan for Protection of Breeding Western Snowy Plovers and California Least Terns at Oceano Dunes State Vehicular Recreation Area 01 March 2002 Through 30 September 2002" prepared by Laura Gardner, ODSVRA Resource Ecologist, February 1, 2002

*Note: These comments were incorporated by Laura Gardner, Associate State Park Resource Ecologist, into the Revised Predator Management Plan in Mid-2002.*

The Scientific Subcommittee convened via conference call on Monday, March 18, 2002, to discuss the above referenced plan. The meeting roster is included in Attachment 1. Their comments and recommendations follow. Specific recommendations are included here in italics. Where specific changes to existing text are proposed, new text is underlined and deleted text is ~~in~~ ~~strikeout~~. The comments and recommendation reflect consensus (e.g., all members agree).

The group discussed the myriad of potential SNPL/LETE predators and the specific predators that have been identified at ODSVRA. Laura Gardner noted that the Plan is designed to be modified as needed and would incorporate additional predators as needed as part of adaptive management. The group was satisfied with this approach.

Laura Gardner noted that the Santa Cruz Predatory Bird Group (PBG) will be conducting the work under the Plan. The current proposal for loggerhead shrikes is to hold them in Santa Cruz for temporary observation, color band them, and then release them. The birds may be released into another SVRA. The difficulty of tracking the survival and movement of color-banded shrikes was discussed. Absent radio telemetry, it may prove difficult to determine what happens to the shrikes. The small size of shrikes makes the use of radio telemetry more difficult. It was noted that by releasing the birds into an SVRA, in which monitoring is required, the chances of tracking survival rates would be increased somewhat. *The Sc. Sub. asked that the Plan be modified to clarify that the proposed banding methodology will not allow for comprehensive tracking of shrike survival.*

*The Sc. Sub. asked that the Plan be modified to specify that the PBG should report to the ODSVRA ecologist frequently—at least weekly.*

Injured gulls can become, of necessity, major predators of tern and plover chicks. *The Sc. Sub. noted that the Plan should be modified to address the great importance of removing injured gulls from exclosures.*

Paragraph 2 on page 2 of the Plan states "To increase the nesting area without a predator management plan may cause this area to become a biological sink." The use of the term "biological sink" has a very specific meaning in the context of metapopulation biology and is not appropriate as used in the Plan. *The Sc. Sub. asked that the sentence be replaced with the*

*following: To increase the nesting area without a predator management plan may reduce regional plover productivity.*

The group discussed the potential for new predator species to appear over time and the importance of monitors being able to identify these predators. For example, shrikes could be removed but productivity could remain low because northern harriers moved in. Northern harrier predation can be difficult to detect. Laura Gardner noted that monitors will maintain a list of all predators observed. The group also discussed the ability of monitors to identify the predators based on depredation evidence. *The Sc. Sub. asked that the Plan be modified to reflect the following bulleted items:*

- *Language should be added to the Plan stating that photographs of potential predator tracks or other depredation evidence will be taken. All photographs should include an item, such as a small ruler, providing a standard reference of scale.*
- *Part of the daily monitoring protocol should include recording any potential predators seen, including their location, behavior, time, duration of observation, and observed response (or lack thereof) by terns and/or plovers. Any documented or suspected predation should be noted. Monitors should have a list of all potential predators available for reference in the field. The PBG should be asked to create the list of all potential avian predators.*
- *Specific training and protocol for predator monitoring should be provided to the monitors. Methodology for monitoring northern harriers should be included. The PBG may be the appropriate group to design such a protocol. Such training should include recognition of avian tracks.*
- *The Plan should include a detailed predator monitoring plan, including training, field protocol, frequency of monitoring, and number of monitors active. Although predator monitors may have other responsibilities at the site, the Plan should be clear that predator monitoring is not an ancillary duty or done purely incidental to other monitoring.*

Once monitors observe predation, significant time may lapse before the predator can be located and removed. Because of this concern, Laura Gardner had directed the PBG monitors to locate all shrike and harrier nests (and potentially other raptors) as soon as feasible and prior to plover chick hatching. Doing so will allow any necessary trapping or removal to take place in a timely manner. Nest location information will also make it possible to monitor nest areas for evidence of predation (plover bands, tern or plover parts, etc.). *The Sc. Sub. asks that the Plan be modified to reflect this information.*

Currently, monitoring for nocturnal predators is only conducted as part of the Park's biannual habitat monitoring. Specific monitoring for potential nocturnal plover and tern predators is not conducted. *The Sc. Sub. asks that the Plan be revised to reflect the following bulleted items:*

- *For 2002, staff will be requested to report any anecdotal owl or mammalian predator sightings encountered during the course of their regular duties.*

- *Nighttime surveys for owls and possibly other nocturnal mammalian predators on at least a monthly basis are recommended.*

The group briefly discussed the feasibility of electronic fencing discussed on page 4 of the Plan. Laura Gardner noted that she will revise the text to clarify that the reference is to single-strand electric wire.

Loggerhead shrikes are currently listed as California Species of Special Concern (CSSC), but the avian CSSC list is under review. The proposed revised avian CSSC list does not include loggerhead shrikes. *The Sc. Sub. asked that a footnote be added on page 5 noting that while loggerhead shrikes are currently listed as CSSC, the avian CSSC list is under review.*

The group noted that all shrikes will need to be removed to determine whether shrikes are the key problem at ODSVRA. *The Sc. Sub. asked that the following paragraph on page 5 be revised as noted:*

*Relocation is a practical and feasible alternative for some wildlife species, but not viable or ecologically sound for others. Ecologically, relocation can have the same effect as lethal removal of the predator from the ecosystem. Relocation efforts, like lethal control, must therefore be limited, highly selective, and include evaluation of potential ecological effects. In addition, relocated animals may compete with resident animals at the relocation site, with potential consequences to the stability of predator populations there. Some species that are territorial, such as coyotes, would also be expected to have poor survival rates, as they would likely be excluded from the new habitat by the resident coyotes. However, in Monterey the Point Reyes Bird Observatory (PRBO) in partnership with the SCPBG has successfully relocated some raptor species (e.g. Loggerhead shrikes and Northern harriers) to reduce predation on SNPL, with subsequent monitoring confirming survival of the birds and no return to the vicinity of the capture site. Relocation of problem shrikes will be conducted in 2002 at ODSVRA and if needed for other raptor species. It will be assumed that all shrikes in the vicinity of the nesting area are potentially problem birds and should be removed. Relocation of other "problem" raptor species will be considered on a case-by-case basis.*

The Sc. Sub. noted that the correct name of the marine mammal rescue organization mentioned on page 5 under "Carcass and Trash Removal" is the Marine Mammal Center. *The Sc. Sub. asked that this name be corrected. Regarding marine mammal rescue, the Sc. Sub. asked that the following sentence be added: Rescuers should be escorted by monitors if the marine mammal is in an area with known plover or tern chicks.*

Regarding carcasses, the group discussed that while maggots can provide a food source for chicks, the carcasses can become a lure for plover and tern predators. *The Sc. Sub. asked that the discussion of "Carcass and Trash Removal" on pages 5 and 6 be modified to reflect that carcasses will be removed immediately rather than waiting for predators to arrive.*

*Interim Predator Management Plan Comments and Recommendations  
ODSVRA Scientific Subcommittee*

The group discussed the appropriate groups or agencies to conduct lethal removal of avian predators and concluded that the Plan should not specify PRG for this work. *The Sc. Sub. asked that the following paragraph on page 7 be revised as noted:*

*Removal of crows or ravens will be done by authorized personnel ~~from the SCPBG~~. ~~The SCPBG~~ Authorized personnel may be directed by the ODSVRA District Ecologist to lethally remove crows observed accessing SNPL and LETE nesting areas. Removal will take place from pre-determined locations to avoid disturbance to nesting SNPL and LETE. If a particular situation requires ~~SCPBG to enter~~ entry into nesting habitat to remove crows, this action will be carefully coordinated between SNPL monitors, PRBO banding personnel, and the ODSVRA District Ecologist. However, past experience suggests that this circumstance will likely arise very rarely or not at all.*

*The Sc. Sub. asked that the following sentence on page 7 be revised as noted: Additionally, there has been no documented evidence that any other avian predators, with the possible exception of whimbrels removing one egg, have occurred at ODSVRA.*

Regarding coyote predation on page 8 of the Plan, the group noted that coyotes can do a lot of damage quickly. The group determined that the use of the term "considered acceptable" on page 8 in reference to coyote predation needs clarification. *The Sc. Sub. asked that the discussion of "Coyote Predation Control for the 2002 SNPL and LETE Nesting Season" on page 8 be modified to specify that if coyotes get into exclosures and a nest is lost, then the coyotes must be removed. Wildlife Services should be contacted to remove the coyotes.*

Attachment 1. Scientific Subcommittee Meeting Roster

March 18 Meeting

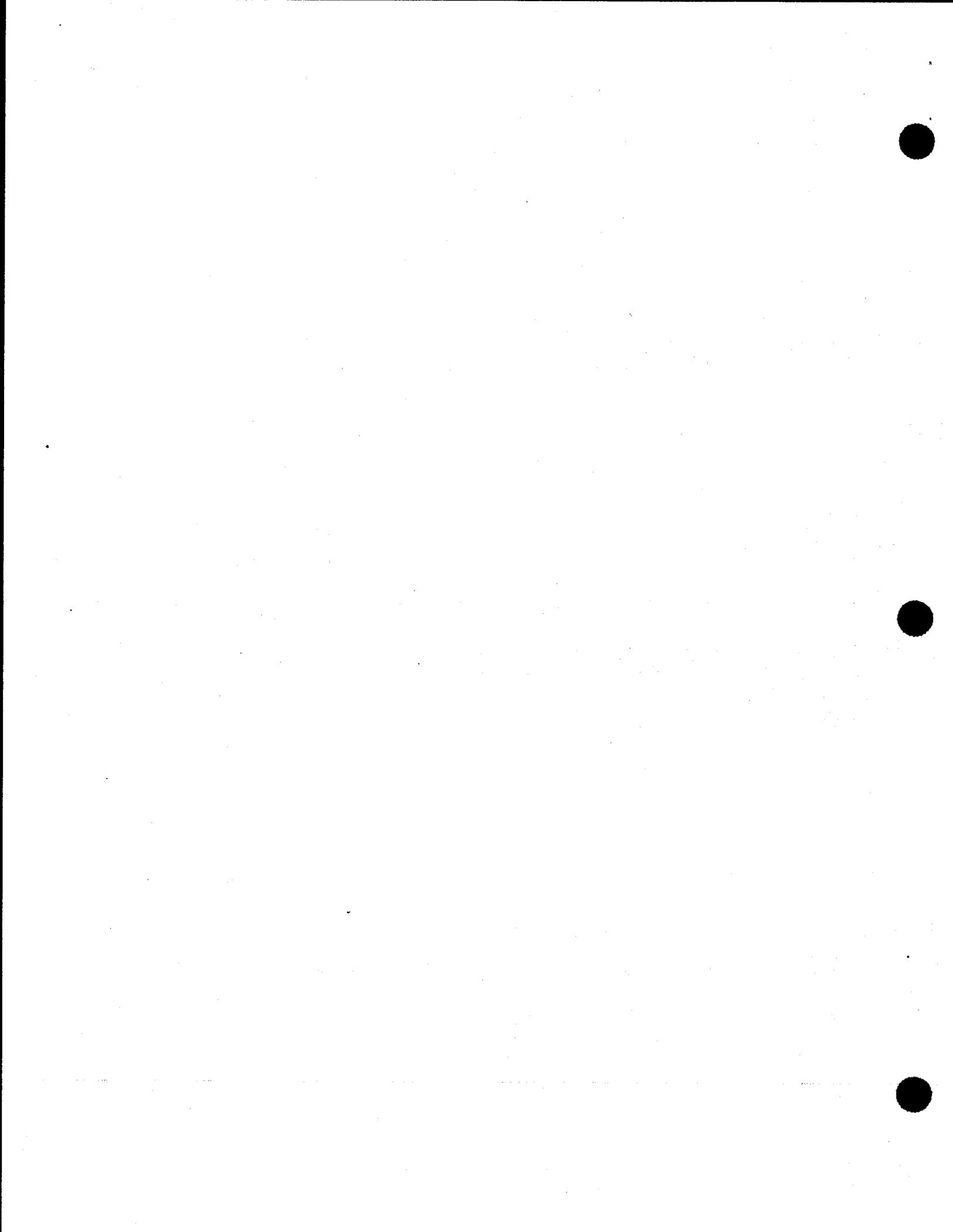
Scientific Subcommittee Members:

Elizabeth Copper, Independent Scientist  
John Dixon, California Coastal Commission  
Laura Gardner, OSDVRA  
Steve Henry, U.S. Fish and Wildlife Service  
Gary Page, PRBO, Independent Scientist  
Robert Patton, Independent Scientist  
Bob Stafford, California Dept. of Fish and Game

Other Participants:

Paula Hartman, Thomas Reid Associates

**CCC Exhibit 1**  
**(page 52 of 59 pages)**



## Attachment 8

### **Recommendations of the ODSVRA Scientific Subcommittee re: Western Snowy Plover and California Least Tern Monitoring and Management (Revised January 12, 2003):**

Subcommittee members reviewed numerous monitoring-related documents, including survey objectives, protocol, techniques and various data sheets, and the overall review of the 2002 nesting season. At the April 30, June 4, and September 30, 2002, meetings, the Scientific Subcommittee discussed the western snowy plover and California least tern monitoring protocols, including the data sheets. Bolded items 1-6 represent the outcome of these discussions. The Subcommittee discussed the 2002 ODSVRA plover/tern nesting report authored by Doug George of PRBO and attachments at its December 5, 2002, meeting. The members finalized their discussion of that report at a January 7, 2003. Bolded items 7 and 8 represent the outcome of this discussion. On January 7 the members also responded to comments provided by Jim Suty, OHV representative on the TRT. The responses are provided in Attachment 1. The members provided the following recommendations; background discussion is provided as needed:

#### **1. Survey Forms/Data Sheets:**

1. Monitors should note whether birds are foraging or just roosting. A column should be added to this effect.
2. The more detailed Snowy Plover Data form should add a column indicating the number of fledglings from each nest.
3. Monitors should provide greater details in the comments column, e.g., "band in shrike pellet."
4. Separate banded bird data sheets should be used for plovers and terns.

#### **2. Plover/Tern Egg Disposal**

It is critical to both 1) Prevent premature destruction of "bad" eggs and 2) Categorize failure. For example, some eggs hatch after the standard incubation time. The group recommended the following to achieve both objectives:

1. The protocol should clearly state that eggs should not be removed from nests simply because they have failed to hatch within the standard incubation period.
2. Monitors should note:
  - a. If eggs failed to hatch within some period in addition to the standard incubation period, or,
  - b. If eggs were abandoned by the adults prior to the expected hatch date. If abandoned, then monitors should differentiate where possible between abandonment due to adult mortality or due to other reasons.

#### **3. Monitoring Protocols**

Two approaches to least tern monitoring exist: Type 1, in which monitors can go into the colony, and Type 2, in which monitors stay out of the colony. Type 2 monitoring is very

difficult to implement in large colonies and basically does not work in such colonies. Type 1 monitoring is used at ODSVRA for snowy plovers. Somewhat less intensive monitoring was used for least terns in 2002 (modified Type 1). The most aggressively monitored least tern colonies are the most successful, where the monitoring is associated with appropriate management.

Monitoring of both plovers and terns must be effectively integrated so that each is valuable and not detrimental to the other.

1. A plover/tern monitoring protocol specific to ODSVRA should be developed.
2. Monitors must be permitted and trained for both species so they monitor both. This approach will maximize data gathering for each disturbance event.
3. Chicks are less threatened by vehicles than by people on foot. ODSVRA should consider monitoring by vehicle from shore during low tides of similar levels.

The varying levels of least tern monitor training and abilities were discussed. A lack of standards is a concern throughout the species' range. The Subcommittee identified the need for a test providing minimum standards for all least tern monitors—both agency and non-agency.

#### **4. Budget Constraints**

Although the Scientific Subcommittee recognizes that the money available for plover and tern management and other biological obligations is subject to limits, the park's Resource Ecologist should be consulted prior to submittal of annual budget requests or commitment of funds to biological resource management projects to ensure that available financial resources are allocated in the most beneficial manner.

#### **5. Retain Monitors for Consistency**

Plover monitoring training can be divided into five categories (levels): 1. finding nests, 2. erecting exclosures, 3. monitoring, 4. floating eggs, 5. banding. Generally it takes at least a full season for monitors to be adequately trained through level 3. Monitors at ODSVRA must complete classroom time and a minimum amount of supervised field time prior to starting monitoring. Monitors with that level of training do not float eggs or band. Retaining well-trained monitors is a problem everywhere because monitoring is a seasonal job.

1. ODSVRA should explore whether personnel conducting plover/tern monitoring could perhaps do other monitoring (e.g., HMS) during the off-season to provide year-round employment and increase retention.

#### **6. Carcass Surveys and Necropsy**

Currently, monitors are out every day during the breeding season and keep logs of all bird carcasses found. No such logs are kept during the rest of the year. Carcass surveys provide valuable information throughout the year. Each year, a number of nests are deserted, some possibly due to death of an adult. Necropsy of carcasses could provide insight into the cause of death and thus potentially into the causes of nest abandonment. Surveys are important during the winter as well when birds are not concentrated in protected exclosures.

1. Beach carcass surveys should be conducted year-round and include formal control sites. Oso Flaco or the Refuge would be good control sites. Preferably the carcass surveys would be conducted separately from live bird surveys. In order of preference, based on the greatest likelihood of finding carcasses, surveys would be conducted on foot, using ATVs, or from a vehicle. An ATV probably represents the best compromise between search ability and surveyor safety.
  2. The park should conduct necropsies on all fresh shorebird carcasses. Mass die-offs of red phalaropes would not require necropsy, but one or two phalaropes should be necropsied.
  3. A log of all dead shorebirds found in the park should be kept.
  4. An annual summary of carcass survey results, necropsy results, and incidental carcasses found should be included in the HMS report.
- 7. Comments on Appendix F. Interim Predator Management Project Report (Brian Walton, SCPBRG)**

Predator management during the 2002 nesting period was very effective as evidenced by the much greater fledging success compared to 2001. However, the predator management report was a relatively brief summary that did not include much methodological or observational detail. The subcommittee recommends that the report for 2003 be expanded to include detailed methods, including the level of effort throughout the season, and a presentation of the actual field observations. The report should indicate when each observation occurred and what behavior was observed. It should also indicate the frequency and location of observations. The increased detail will allow the reader to make independent judgments regarding the potential significance of the various avian predators present at the site and will provide the basis for temporal comparisons of their behavior.

**8. 2002 Plover/Tern Report (Doug George, PRBO)**

**Retain Skilled Monitors—Recommended**

See discussion under Item 5, above.

**More Frequent Monitoring of Least Tern Nests—Recommended**

No additional discussion occurred.

**Banding Least Tern Chicks—Recommended**

If banded, monitors could better spot newly fledged juveniles once they joined the flock. It is hard to spot them otherwise. If it is not possible to observe the chicks, then banding is appropriate. Bands are also useful to determining predation. Banders must be sure to adapt their approach to conditions, e.g., do not band on hot days. The group thus agreed that banding would be useful in 2003 with a specific assessment in the 2003 report describing the impacts of banding.

**Option to Band Adult Snowy Plovers—Recommended**

Banding adult plovers can be very disruptive, so it is critical to have a very skilled bander. Banding itself is not complicated, but deciding when it is appropriate to band is hard; you do not

want to drive birds out of the enclosure and into the riding area. The key is that it is good to have the *option* to band; you would not try to band every adult.

**Size of the 7-8 and Boneyard Enclosures and Fenced Buffer—Modified: Recommended Using Buffer Fenceline as Enclosure Boundary; Recommended Northern Expansion of the 7-8 Enclosure and Eliminating the Arroyo Grande Creek Enclosure on a Trial Basis in 2003**

The Subcommittee recommended that all of the shaded area on page 26 should be within the enclosure in 2003. In other words, the enclosure fencing would be placed along the buffer fenceline, and no internal fencing would be installed. The 100-foot no camping buffer would be enforced and signed, but visitors could approach the enclosure fence. Until a take permit is issued that allows the disturbance, if birds nest near the fence the enclosure would need to be expanded to protect the nest. Once an HCP is in place with adequate habitat protected, then the expansion might not be required.

Based upon the results of the 2002 breeding season, moving the enclosure northward toward Pole 6 would provide additional breeding habitat and thus be beneficial to the birds. Initially, the birds may spread out more, but eventually the expansion would likely lead to an increase in the population. The Subcommittee recognizes that the expansion has logistical and political problems, but the members agreed that biologically it is the right thing to do.

The Subcommittee thus recommends that the 7-8 enclosure be expanded north to approximately 200 feet south of the Pole 6 restroom. The 200-foot gap between the enclosure and the restroom would allow continued use of that facility while providing an adequate buffer for the birds. The expanded enclosure should be the same width as the 2002 enclosure (i.e., out to the edge of the 2002 buffer area), with the detailed configuration to be dictated by topography.

The Subcommittee further recommends that the Arroyo Grande Creek enclosure be eliminated in 2003 due to the lack of use in 2002 and limited use of the area for nesting prior to that. Additionally, the site is a high risk nesting area due to its separation from the shoreline by the riding area. The park should continue to monitor the Arroyo Grande Creek area, and if any nests occur, then enclosures should be erected per protocol. The need for an enclosure in the area should be evaluated at the end of the 2003 breeding season.

**Management for Habitat Quality in 7-8 Enclosure—Recommended**

The group emphasized that the effect of leaving the enclosure up should be documented. The group recommended that photo documentation of the closed area plus at least one control site that is subject to vehicular use be undertaken. Preferably six photo points minimum each would be established in both treatment and control areas.

**Enhance Habitat in Enclosures by Distributing Natural Materials—Recommended**

Materials distributed should be limited to those naturally found on the site; do not bring in foreign material. The Park should remove exotics, except for sea rocket. Sea rocket has habitat value for plovers.

### **Predator Management—Recommended With Proposed Text Changes**

On page 18 the report states that a predator management plan should be developed. An interim predator management plan has already been prepared. Paragraph one should thus be changed as follows:

TheA predator management plan should be updated~~developed~~ to identify appropriate responses to mammalian and avian predators in light of this past season. Protocols should ensure~~be established~~ that clarify~~management actions are to be~~ implemented in a timely manner for individual predators posing serious threats to tern and plover reproductive success. Shrikes, raptors, corvids, and coyotes should continue to be among the avian and mammalian predators covered in the management plan.

The Subcommittee agrees with Doug's recommendation to provide an internal predator fence in the Boneyard Exclosure. The configuration would need to be modified somewhat from that shown in Figure 11 to accommodate the expansion of the exclosure fence recommended by the Subcommittee. Although the Maintenance Chief indicated that he prefers that no internal fences be installed due to maintenance logistics, the Subcommittee concluded that the park is more likely able to maintain the integrity of the smaller, internal fence. The smaller fence would contain the portion of the Boneyard Exclosure area in which tern nest sites have been located since 1998 and would thus protect the most critical area.

Since the exclosures do not appear to be detrimental, it is ok to keep putting them in. The Park should experiment with the shelters; keep using them, but also consider using tiles. The Subcommittee would like to have more information in terms of how many shelters were placed and where. Ideally, the group would like to see a diagram of shelters in relation to nests and other vegetation.

### **Oso Flaco—Recommended**

The area is fairly narrow and has pedestrian use. Symbolic fencing was helpful to avoid trampling but some disturbance still occurs because the area is so narrow.

### **Reduce Trespass Along Shoreline of 7-8 Exclosure—Recommended**

The Park needs to step up enforcement.

**Attachment 1. Response to Jim Suty's Comment Letter dated December 23, 2002**

**1. The report fails to acknowledge the success of ODSVRA as compared to all other California plover sites.**

While the Subcommittee agreed that such information would be invaluable, due to the lack of available data it could not be accomplished in the 2002 ODSVRA report. Monitoring is done differently in different places making comparisons difficult. Furthermore, no repository of the available data exists. The Subcommittee noted that ideally the Service would have a recovery team coordinator to do this work and create a data repository. Such a responsibility should not fall on ODSVRA.

The Subcommittee also noted that the Acreage Comparison pie chart provided in the comment letter is misleading in that much of the 15,000 acres of the Nipomo Dunes complex would not be used by snowy plovers for nesting. A realistic pie chart would only include the acreage of potential snowy plover habitat (i.e., a narrow strip along the beach plus some limited inland area).

**2. The report fails to compare successful methodology applied to ODSVRA v. other California sites.**

As discussed under Comment 1, although it would be useful, a complete data set is not available. Gathering and analyzing such data is outside of the scope of the 2002 ODSVRA report.

**3. The report fails to make concrete recommendations on how the southern beach area could be modified to entice plover nesting.**

The beach in this area is very narrow, and few plovers and terns stay around Oso Flaco. Most are found around posts 6-8. The loss of the foredunes would cause sand movement into Oso Flaco Lake. Oso Flaco Lake is a very rare and sensitive resource, in that it is a freshwater lake in very close (<0.5 mile) proximity to the ocean. Other special-status species, such as California red-legged frogs (federally listed), would be harmed by the sand movement and subsequent harm to the lake. Even if the ammophila is ultimately removed, the park would presumably replace it with native vegetation to protect Oso Flaco. Furthermore, the closer nests are to the lake, it is more likely they will be exposed to predators due to the more favorable predator habitat provided by the riparian vegetation.

**4. The report fails to provide a balanced approach for protection and recreation.**

Striking a balance is outside the scope of the 2002 ODSVRA report. Regarding the size of the buffer zones, the Subcommittee disagrees that the buffer zones were excessive. The buffers at the north end of the 7-8 enclosure had to be expanded to address repeated disturbance to plover nests at the edge of the enclosure. This disturbance is cited in the first paragraph on page 15 of the 2002 ODSVRA report. That same paragraph notes that a brood of tern chicks moved into the buffer established out from the north side of the Boneyard enclosure and east side of the 7-8 enclosure. The observations from 2002 thus indicated that the birds used the entire 7-8 enclosure area and needed the buffers. The Subcommittee was not aware of any evidence suggesting that the results of 2003 will be different. The members noted that 1998 was a very strong El Niño

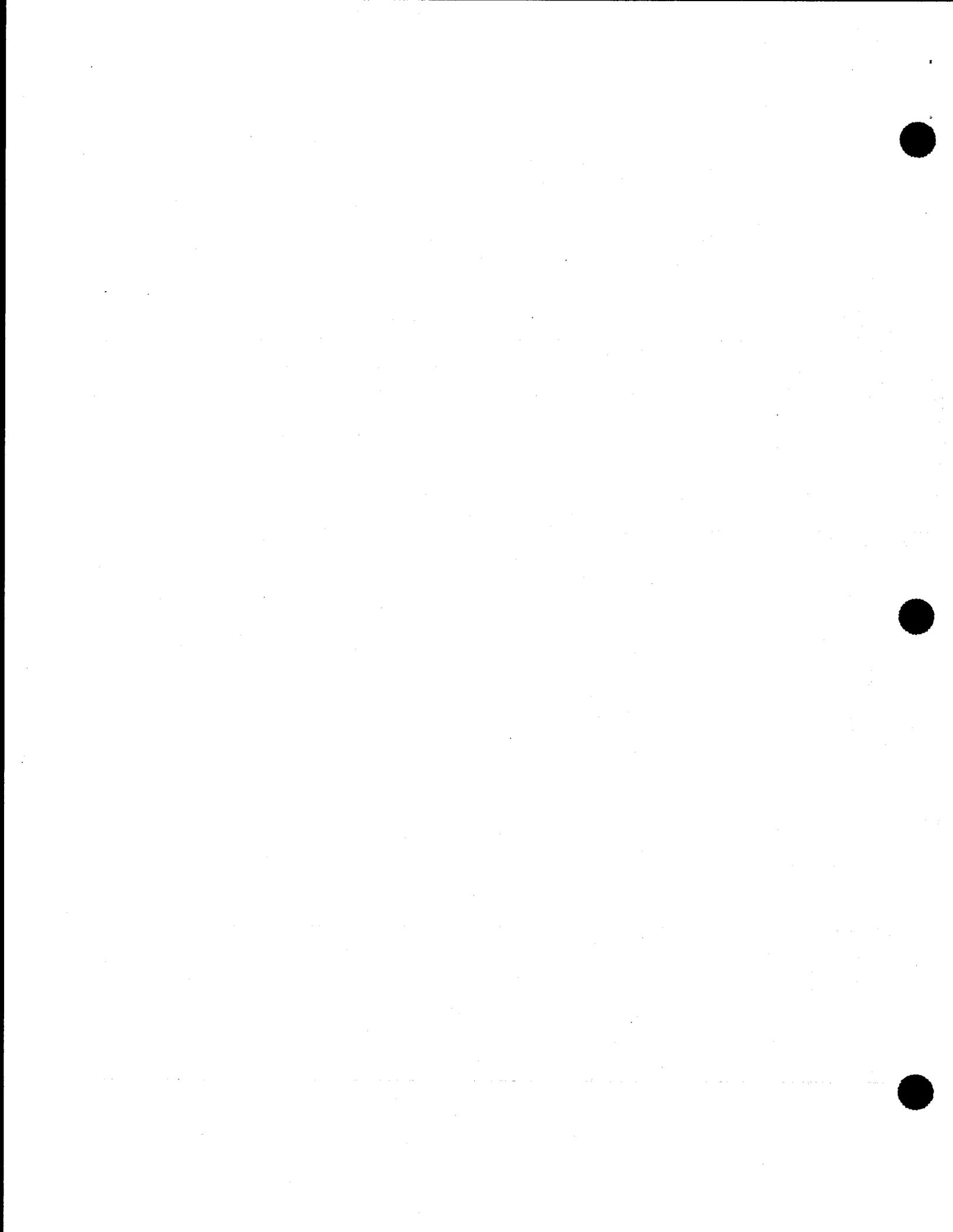
and yet was quite good for plover and tern breeding. Because of the increase in plovers in 2002, the members agreed that 2003 is likely to be a good year as well.

**5. The report fails to provide a matrix of all beaches measuring success and approaches.**

Although useful, as discussed at Comment 1, the data is not available. Gathering the data that is available was beyond the scope of the report.

**6. The report failed to account for costs to perform these activities.**

The Subcommittee considers this analysis to be out of the scope of the annual breeding report.





**NESTING OF THE  
CALIFORNIA LEAST TERN AND SNOWY PLOVER AT  
OCEANO DUNES STATE VEHICULAR RECREATION AREA,  
SAN LUIS OBISPO COUNTY, CALIFORNIA IN 2002**

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**Prepared for  
California Department of Parks and Recreation  
Off-Highway Motor Vehicle Recreation Division  
Oceano Dunes District**

November 2002

**CCC Exhibit 2  
(page 1 of 48 pages)**

# TABLE OF CONTENTS

SUMMARY .....	1
INTRODUCTION .....	1
SITE DESCRIPTION .....	2
MONITORING METHODS .....	4
MANAGEMENT ACTIONS .....	4
RESULTS .....	6
DISCUSSION .....	11
RECOMMENDATIONS .....	17
NOTES .....	20
ACKNOWLEDGEMENTS .....	20
Appendix A. Snowy Plover nests at ODSVRA in 2002. ....	28
Appendix B. Least Tern nests at ODSVRA in 2002. ....	29
Appendix C. Least Tern and Snowy Plover numbered nest locations. ....	30
Appendix D. Banded Snowy Plovers seen at ODSVRA 28 February to 10 October 2002. ....	33
Appendix E. U.S. Department of Agriculture Wildlife Services report: Oceano Dunes State Vehicular Recreation Area (SVRA) 2002 Predator Management Report. ....	35
Appendix F. Santa Cruz Predatory Bird Research Group report: Interim Predator Management Project: Trapping and Relocation of Problem Loggerhead Shrikes Oceano Dunes State Vehicular Recreation Area. ....	37

## List of Tables

Table 1. Nesting success of California Least Terns at ODSVRA in 2002. ....	6
Table 2. Causes of California Least Tern nest loss at ODSVRA in 2002. ....	7

Table 3. Nesting success of Snowy Plovers at ODSVRA in 2002. .... 8

Table 4. Causes of Snowy Plover nest loss at ODSVRA in 2002. .... 8

Table 5. Nesting success of California Least Terns at ODSVRA, 1991-2002. .... 11

Table 6. Nesting Success of Snowy Plovers at ODSVRA, 1998-2002. .... 13

List of Figures

Figure 1. Number of Snowy Plover nests initiated and their subsequent fate (hatch, fail to hatch) per ten-day period at ODSVRA in 2002. .... 10

Figure 2. Number of Snowy Plover chicks hatching and their subsequent fate per ten-day period at ODSVRA in 2002. .... 10

Figure 3. Number of California Least Tern nests at ODSVRA, 1991-2002..... 14

Figure 4. Number of Snowy Plover nests at ODSVRA and Dune Preserve, 1993-2002. .... 14

Figure 5. ODSVRA with 2002 seasonal exclosures. .... 21

Figure 6. Least Tern and Snowy Plover nests at ODSVRA in 2002. .... 22

Figure 7. Least Tern nests at ODSVRA in 2002. .... 23

Figure 8. Snowy Plover nests at ODSVRA in 2002. .... 24

Figure 9. Fenced buffer zones added in 2002 to increase protection for Least Tern and Snowy Plover nests and chicks in 7-8 and Boneyard Exclosures. .... 25

Figure 10. Recommended size of 7-8 and Boneyard Exclosures and fenced buffer for 2003 breeding season. .... 26

Figure 11. Least Tern nests located in Boneyard Exclosure 1998-2002 with proposed added fencing inside exclosure for 2003 breeding season. .... 27

## SUMMARY

Staff of Oceano Dunes State Vehicular Recreation Area (ODSVRA) and Point Reyes Bird Observatory (PRBO) monitored breeding California Least Terns (*Sterna antillarum browni*) and Snowy Plovers (*Charadrius alexandrinus*) at ODSVRA, San Luis Obispo County, California in 2002. All tern nests and almost all plover nests were inside two large seasonally fenced exclosures in the southern portion of the vehicle riding area. There were at least 20 pairs of breeding Least Terns. Of 22 tern nests a minimum of 68% hatched. Four nests were known to fail; 1 was abandoned, 2 were depredated by coyote (*Canis latrans*), and 1 had non-viable eggs. A minimum of 27 chicks hatched. Tern chicks were not banded; consequently an accurate estimate of fledging rate was not obtained. There were at least 32 breeding Snowy Plovers (18 males and 14 females). One breeding bird was a male banded as a chick and fledged from ODSVRA in 2001. Of 35 plover nests, 71% hatched. Thirty-three nests were in a seasonal exclosure and 2 were at Oso Flaco. Of 10 nests that failed, 8 were abandoned, 1 was depredated by coyote, and 1 failed to unknown cause. All 62 chicks were banded. Thirty-five of the 62 chicks fledged for a chick fledging rate of 56%. In 2001, 3 of 69 banded chicks fledged for a rate of 4%. One chick fledged per breeding male is the estimated number needed for Snowy Plover population stability.<sup>1</sup> The 35 young fledged in 2002 allows for population growth.

The early and later periods of the Snowy Plover breeding season showed differences in clutch hatching and chick fledging rates. The early period had fewer nests (15), a lower hatch rate (60%), and a high fledge rate (77%). The later period had more nests (20), a higher hatch rate (80%), but a lower fledge rate (42%). Of 25 hatching nests, broods from the first 10 all fledged at least 1 chick. Of the later 15 hatching nests, 8 broods are not known to have fledged any young.

New management actions were undertaken at ODSVRA in 2002 to protect Least Tern and Snowy Plover nests and chicks. The extent of protected habitat, including a surrounding buffer area, was increased at exclosures in the southern riding area from that available in 2001. Predator management included for the first time at ODSVRA included; limited and selective removal or relocation of mammalian and avian predators which posed a threat to reproductive success of terns and plovers.

## INTRODUCTION

The ODSVRA, located in southern coastal San Luis Obispo County, California, is visited by over 1.2 million people annually for a variety of recreational opportunities including driving vehicles on the beach and dunes.<sup>2</sup> In 2001, an estimated 217,000 street-legal vehicles and 80,000 off-highway vehicles were driven on the shoreline and dunes in the designated riding area of the park.<sup>3</sup> Within ODSVRA is

<sup>1</sup> USFWS. 2001. Western Snowy Plover (*Charadrius alexandrinus nivosus*) Pacific Coast Population Draft Recovery Plan. Portland, OR.

<sup>2</sup> ODSVRA 2001 Habitat Monitoring Report.

<sup>3</sup> ODSVRA 2001 Monthly Carrying Capacity Summaries.

breeding habitat for two special-status ground-nesting birds, the state and federally endangered California Least Tern (Least Tern, tern) and the federally threatened Pacific Coast population of the Snowy Plover (plover). Monitoring of the Least Tern and Snowy Plover during the breeding season at ODSVRA began in 1991 and 1992, respectively. The Least Tern is present at ODSVRA only during the breeding season, migrating to wintering areas well south of California. The Snowy Plover population at the park is comprised partly of resident birds present year-round and partly of birds present only during the breeding or wintering season.

This report summarizes results of the 2002 nesting season for Least Terns and Snowy Plovers at ODSVRA. In the 2001 season report, 2 of 69 banded Snowy Plover chicks were confirmed as fledging.<sup>1</sup> An additional fledged young from 2001 was seen and confirmed at ODSVRA in August 2002. The known number of fledged plovers (3) in 2001 is herein corrected and used in this year's report. ODSVRA resource staff reviewed the data used in earlier park reports (1991-2000) on breeding Least Terns and Snowy Plovers and made several clarifications. Their updated nest numbers and hatch rates are used in this report. Maps in Figures 5 to 11 and Appendix C use digital orthophotos taken in June 2002.

## SITE DESCRIPTION

ODSVRA is part of the, approximately 18-mile long, Guadalupe-Nipomo coastal dunes complex. The 3,600-acre park, with a shoreline of approximately 6.5 miles, is bordered on the north by Pismo State Beach, on the east primarily by dunes, coastal scrub, and adjoining agricultural lands, on the south by Guadalupe-Nipomo Dunes National Wildlife Refuge, and on the west by the Pacific Ocean. Dunes inside the park that are open to vehicles extend inland in some areas for over 1 mile. Within the riding area along the coastal strand are numbered marker posts spaced approximately 0.5 miles apart. Street-legal vehicles are allowed throughout the riding area. Off-highway vehicles, as well as overnight camping, are allowed along the beach and dunes south of marker post 2 (approximately 1 mile south of Pier Avenue). In the southern portion of ODSVRA is the Oso Flaco Lake Natural Area with a shoreline of approximately 1.2 miles. Pedestrians are allowed at Oso Flaco but it is closed to vehicle and equestrian use. Relative to the riding area, the beach at Oso Flaco in front of the foredunes is narrow.

The following are descriptions of terms and sites as used in this report (Figure 5).

- ODSVRA: the entire park, including the riding area and Oso Flaco Lake Natural Area. Administered by the Oceano Dunes District, California Department of Parks and Recreation (CDPR).
- Dune Preserve: area adjacent to east boundary of ODSVRA approximately from marker post 1 to 3 and administered by the San Luis Obispo District, CDPR. Site is monitored for

<sup>1</sup> L.A. Henkel. 2001. Nesting of the Western Snowy Plover and California Least Tern at Oceano Dunes SVRA in 2001. 2

breeding terns and plovers by ODSVRA resource staff. Pedestrian use is allowed, vehicle or equestrian use is not allowed.

**Riding area:** area within ODSVRA open to recreational vehicle use when no seasonal restrictions are in place. Street-legal vehicles are allowed a distance of approximately 5.3 miles from the park's north boundary at Grand Avenue to the south boundary of the riding area (approximately 0.4 miles south of marker post 8). Off-highway vehicles are allowed south of marker post 2, approximately 2 miles south of Grand Avenue.

**Open riding area:** area within ODSVRA open to recreational vehicle use during the nesting season.

**Seasonal enclosure:** area within the riding area that is fenced and closed to entry during the breeding season to protect nesting habitat. In 2002 there were three seasonal enclosures.

*Arroyo-Grande Enclosure:* located along the upper beach between Arroyo Grande Creek and marker post 2. Habitat included areas of bare sand, sparse to moderate vegetation, and sparse to heavy cover of driftwood.

*7-8 Enclosure:* located in the southwestern portion of the riding area. Habitat included extensive areas of bare sand, limited areas of vegetated hummocks, limited areas of organic surface debris (shells, driftwood, dried algal wrack), and moderate to heavy vegetation in the 7.5 revegetation site within the 7-8 Enclosure. The adjoining shoreline, although unfenced, is also part of the 7-8 Enclosure site and is closed to public entry during the nesting season. In June 2001, protected habitat within the 7-8 Enclosure and shoreline was extended from the 7.5 revegetation area north to marker post 7 (Figure 5). This extended size of the enclosure was the configuration in 2002.

*Boneyard Enclosure:* located in the southern portion of the riding area and southeast of the 7-8 Enclosure. Habitat is bare sand and active sand dunes. The 7-8 and Boneyard Enclosures are connected.

**Buffer area:** area adjacent to a portion of a seasonal enclosure that is closed to provide added protection for adults, eggs, and chicks within an enclosure. A fence delineates the outer perimeter of the buffer area.

**Oso Flaco:** shoreline and dunes in ODSVRA located south of the riding area. The approximately 1.2 mile long beach is narrow, and the dunes typically heavily vegetated, relative to the riding area. Area is part of the Oso Flaco Lake Natural Area, open to pedestrian use but closed to vehicles.

## MONITORING METHODS

A minimum of two monitors worked in the field each day. Monitoring goals included locating all tern and plover nests in ODSVRA and Dune Preserve, protecting nests when necessary, ascertaining nest fate, and banding plover chicks to provide an accurate estimate of fledging rate. Snowy Plover clutch hatching dates were estimated from known egg laying dates or by floating eggs. A nest was considered to have hatched if at least one egg hatched. Each brood of chicks was given a unique color band combination. Plover chicks surviving to 28 days or older from the time of hatch were considered fledged. As in previous years, tern chicks were not banded; consequently accurate estimates of the chick fledging rate and reproductive success are not available.

Monitors mapped the location of nests, seasonal exclosures, and buffer areas using Global Positioning System (GPS) technology. The presence of potential mammalian and avian predators was detected by direct observation of the predators and signs (e.g., tracks, scat, prey remains). The integrity of exclosure fencing was checked and maintenance needs noted.

The open riding area was monitored by vehicle on a daily basis as any nest initiated in this area would be at risk and require immediate protection. The Dune Preserve and Oso Flaco were monitored on foot. Seasonal exclosures were monitored by periodic entry on foot as well as extensive observations with binoculars and spotting scopes from outside the exclosures. Monitoring of the shoreline and west side of the 7-8 Exclosure by using a vehicle as a blind proved very effective. These surveys were conducted during low tide by driving very slowly on the smooth, hard-packed sand in the lower exposed intertidal zone. Observations were made from the parked vehicle with the area in front of the vehicle carefully scanned before proceeding to the next observation point.

Monitoring was conducted in a manner to minimize disturbance or adverse effects on adult birds, nests, or chicks. Monitoring activities at ODSVRA were conducted under U.S. Fish and Wildlife Service permits 10(a)(1)(A) TE-815214-2 (ODSVRA) and 10(a)(1)(A) TE-807078-2 (PRBO) and a Memorandum of Understanding (MOU) from the California Department of Fish and Game.

## MANAGEMENT ACTIONS

ODSVRA management actions undertaken in 2002 to protect breeding Least Terns and Snowy Plovers included the following:

### **Monitoring**

Monitoring of tern and plover habitat was conducted daily to locate nests and broods and, when needed, to trigger protective measures for vulnerable nests or broods. Clutch success was documented for both

species. Snowy Plover chicks were banded, allowing monitors to obtain an accurate estimate of the chick fledging rate.

### **Individual Nest Enclosures**

The protocol for a nest found in the open riding area was for it to be protected with a 164 ft (50 meter) diameter circular enclosure, consisting of 2 x 4 inch mesh wire fencing with a height of 5 feet (bottom 8 inches buried). If needed, similar but smaller individual enclosures were also available for use in other locations (Oso Flaco, 7-8 Enclosure shoreline) to protect nests.

### **Seasonal Enclosures**

Three large areas were fenced within the riding area throughout the nesting season. One (Arroyo-Grande Enclosure) was located in the northern portion of the park and two (7-8 and Boneyard Enclosures) were located in the southern portion of the riding area (Figure 5). Wire fencing 5 feet high (bottom 8 inches buried) with 2 x 4 inch mesh was used to discourage entry by large mammalian predators.

### **Buffer Area**

Fencing was placed out from the north side of the Boneyard Enclosure and the east side of the 7-8 Enclosure to create a closed buffer area to reduce disturbance to terns and plovers resulting from recreational activities (Figure 9). The wire fence was 5 feet high with large mesh openings and the bottom was not buried. Its purpose was to restrict pedestrian and vehicle intrusion into the buffer area. It did not function to discourage predator entry.

### **Oso Flaco**

Symbolic fencing, consisting of a single strand of rope strung between metal posts and delineating areas of upper beach closed to public entry, was used from Oso Flaco Creek north to the southern boundary of the riding area. The shoreline remained open to pedestrian use.

### **Predator Management**

Predator management provided for the limited and selective removal or relocation of mammalian and avian predators threatening reproductive success of Least Terns and Snowy Plovers. Maintenance of enclosure fencing was ongoing to discourage large mammalian predators (e.g., coyotes) from entering protected breeding habitat. Marine mammal carcasses (primarily California sea lions) were removed from the shoreline to reduce food sources attracting scavengers that might also prey on tern and plover eggs and chicks. Tern chick shelters were set out in the 7-8 and Boneyard Enclosures to serve as possible protective cover from certain predators.

### **Habitat Enhancement**

Driftwood and beach-cast marine algae were distributed in selected areas in the 7-8 Enclosure and shoreline to provide disruptive cover for tern and plover adults and chicks. This was done on a very limited basis.

### Information/Education for Park Visitors

Interpretive panels at access points, fliers given to vehicle drivers entering the park, and signs identifying closed areas served to increase public awareness of threats to nesting terns and plovers. These measures also informed the public of the park's requirement and management efforts to protect these special-status species.

### Enforcement of Resource Protection Regulations

All closed areas were clearly signed in English and Spanish. State park rangers had the responsibility of enforcing park regulations enacted to protect terns and plovers. In addition, resource staff monitors contacted visitors violating park regulations and, when appropriate, contacted rangers.

## RESULTS

### California Least Tern

During the 2002 breeding season, Least Terns were first noted at ODSVRA on 15 May when birds were observed engaging in courtship behavior. The last tern sighting of the season, an adult with two juveniles, was on 28 August. There were 22 nests initiated from the last week of May through June. Nests were distributed broadly within two seasonally protected sites, the 7-8 Exclosure (17 nests) and the Boneyard Exclosure (5 nests) (Figure 7). The number of eggs in completed clutches ranged from 1-3 (mean = 2.0). There were at least 20 breeding pairs based on the number of concurrently active nests and broods.

### Clutch Hatching Rate

Of the 22 nests, 68% (15 of 22) hatched, 18% (4 of 22) failed, and the fate of 14% (3 of 22) was not determined (Table 1). Of the 4 nests known to fail, 2 were depredated by coyote, 1 was abandoned (and buried by sand), and 1 had non-viable eggs incubated for 45 days before being abandoned (Table 2).

Table 1. Nesting success of California Least Terns at ODSVRA in 2002.

Area	No. Nests	No. Eggs Laid	No. Nests Known to Hatch <sup>1</sup>	% Nests Known to Hatch	No. Chicks	No. Chicks Fledging <sup>2</sup>	% Chicks Fledging <sup>2</sup>	Juveniles Fledged per Nest <sup>2</sup>
7-8 Exclosure	17	34	11	65	19	n/a	n/a	n/a
Boneyard Exclosure	5	10	4	80	8	n/a	n/a	n/a
<b>Total</b>	<b>22</b>	<b>44</b>	<b>15</b>	<b>68</b>	<b>27</b>	<b>n/a</b>	<b>n/a</b>	<b>n/a</b>

<sup>1</sup> It was not determined if three nests hatched or failed.

<sup>2</sup> Chicks were not banded; therefore, accurate estimates of fledging rates not available.

### ***Chick Fledging Rate***

Because Least Tern chicks were not banded, it was not possible to document the fledging rate. At least 27 chicks were known to have hatched. Within days of hatching, many chicks moved to areas with vegetated hummocks in the southeast or west side of the southern portion of the 7-8 Exclosure. Chicks were periodically seen here from distant observation points as were adults returning with fish to feed chicks. For the most part, however, these chicks were not in view. The 7-8 Exclosure shoreline west of this area was a roosting and loafing site for adult terns throughout the season and recently fledged young (and in one case a chick) joined the group. The maximum number of juvenile terns seen here at one time was 10 on 29 July. While it is suspected that many of the juveniles observed here may have fledged from ODSVRA, without banding this could not be confirmed.

**Table 2. Causes of California Least Tern nest loss at ODSVRA in 2002. <sup>1</sup>**

<b>Area</b>	<b>Abandoned</b>	<b>Coyote</b>	<b>Non-viable Eggs</b>
7-8 Exclosure	1	2	
Boneyard Exclosure			1
<b>Total</b>	<b>1</b>	<b>2</b>	<b>1</b>

<sup>1</sup> Three of the 22 nests unknown if hatched or failed.

### ***Snowy Plover***

Thirty-five nests were located, with an average of 2.8 eggs per clutch. The first nest was initiated approximately 25 March and the last approximately 7 July. No nests were found in the open riding area, Arroyo-Grande Exclosure, or Dune Preserve. The majority of nests (28) were inside the 2 x 4 inch fence of the 7-8 Exclosure and distributed along its length. Five nests were located 20 to 45 feet outside of the 2 x 4 inch fence of the 7-8 Exclosure: 4 were along the shoreline and 1 was to the east (Figure 8). These nests, within habitat closed to public entry, were provided with individual exclosures (tied into the existing fence) to protect them from predators and, in the case of the shoreline, pedestrian and vehicular trespass. Two nests at Oso Flaco were protected with single nest exclosures.

Few of the adults had bands, which provide the most accurate means of assessing the breeding population size. There were at least 32 breeding adults (18 males and 14 females) at ODSVRA in 2002 based on the number of nests and broods present at the same time and the time required to initiate a new nest after loss of a nest or chicks.

Clutch hatching and chick fledging rates are for all of ODSVRA. Information specific to the riding area and Oso Flaco is presented in Table 3.

### ***Clutch Hatching Rate***

Of the 35 nests: 71% (25 of 35) hatched and 29% (10 of 35) failed (Table 3). This compares to a clutch hatching rate of 82% in 2001 (Table 6). Eight of the failed nests were abandoned, 1 was depredated by a coyote, and 1 failed for unknown reasons (eggs gone or possibly buried and not found) (Table 4). The

number of abandoned nests was high, representing 23% of the total number of nests produced. Eggs of some abandoned nests were found completely buried, while in others eggs were partially buried to fully exposed. Burial with sand during high winds may have caused some to all of the abandonment of nests that were found with buried eggs. However, the question remains whether there were contributing factors preventing the adults from remaining with the nest during periods of high wind to protect eggs from being buried. The possibility of adult mortality also warrants consideration in circumstances of high levels of nest abandonment. Adult mortality was not possible to detect because so few birds were banded.

Clutch hatching success varied between an early and later period of the nesting season with the early season having a hatch rate of 60% (n = 15 nests initiated from 25 March to 18 May) and the later season having a high hatch rate of 80% (n = 20 nests initiated from 19 May to 7 July) (Figure 1).

**Table 3. Nesting success of Snowy Plovers at ODSVRA in 2002.**

Area	No. Nests	No. Eggs Laid	No. Nests Hatching	% Nests Hatching	No. Chicks	No. Chicks Fledging	% Chicks Fledging	Juveniles Fledged per Nest
7-8 Exclosure	33	93	25	76	62	35	56	1.06
Oso Flaco	2	6	0	0	-	-	-	0.00
<b>Total</b>	<b>35</b>	<b>99</b>	<b>25</b>	<b>71</b>	<b>62</b>	<b>35</b>	<b>56</b>	<b>1.00</b>

**Table 4. Causes of Snowy Plover nest loss at ODSVRA in 2002.**

Area	Abandoned	Coyote	Unknown Cause
7-8 Exclosure	6	1	1
Oso Flaco	2		
<b>Total</b>	<b>8</b>	<b>1</b>	<b>1</b>

**Chick Fledging Rate**

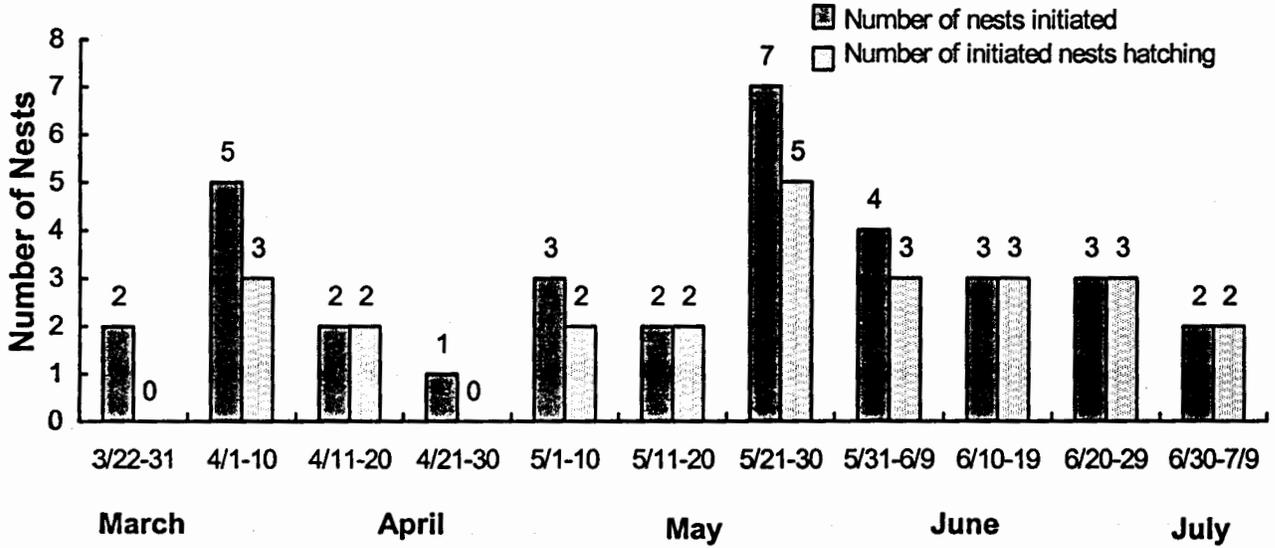
All 62 chicks that hatched were banded. Thirty-five chicks are known to have fledged for a fledging rate of 56% (Table 3). This compares to a chick fledging rate in 2001 of 4% (3 of 69 banded chicks known to have fledged) (Table 6). Two chicks from different broods were found dead from unknown causes in the 7-8 Exclosure. The proportion of chicks reaching fledge age differed between the early and later periods of the chick rearing portion of the breeding season (Figure 2). Fledging success early in the season was high at 77% (n = 26 chicks hatching from 1 May to 19 June). In contrast, the later period of the season had a much lower fledge rate of 42% (n = 36 chicks hatching from 20 June to 8 August).

The causes of chick loss at ODSVRA in 2002 are not known. Possible causes of significant chick mortality include: predation, separation from adults, mortality of adults, and movement of broods into the open riding area with the inherent risks of separation or being crushed. Plover chicks are highly

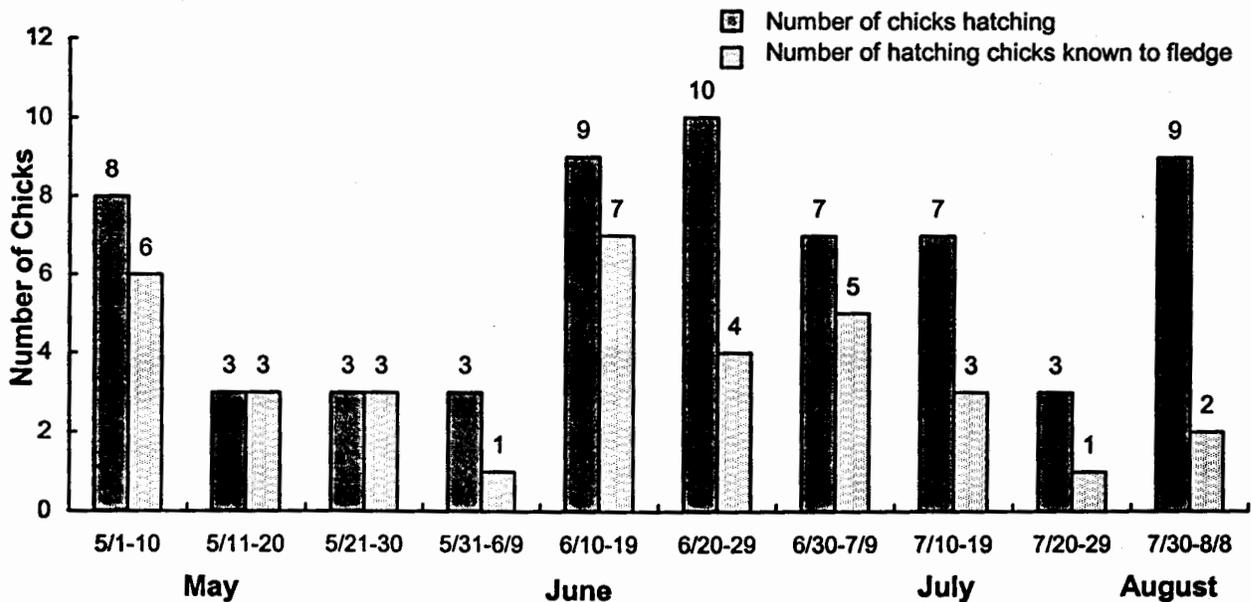
mobile and brood movement over long distances is not unusual. Brood movement outside of the exclosures could also occur as an avoidance response to the presence of predators. One brood, hatched from a nest in southwestern 7-8 Exclosure, was raised in the southwestern portion and shoreline of this exclosure and the adjoining northern portion of Oso Flaco. The only other brood observed outside the 7-8 Exclosure (including shoreline and fenced buffer area) was a chick approximately 300 feet east of the exclosure in the open riding area. This chick was directed back into the exclosure by monitors. Snowy Plover tracks were frequently noted east of the 7-8 Exclosure, both before and after this area was protected with a buffer fence.

Potential predators of chicks and/or adults documented at the 7-8 and Boneyard Exclosures included coyote, Northern Harrier (*Circus cyaneus*), Loggerhead Shrike (*Lanius ludovicianus*), American Kestrel (*Falco sparverius*), Peregrine Falcon (*F. peregrinus*), Barn Owl (*Tyto alba*), Great Horned Owl (*Bubo virginianus*) and gulls (*Larus spp.*). In addition to sightings of Barn Owl and Great Horned Owl, owl tracks were seen in both exclosures. ODSVRA monitors observed an increase in the number of avian predators and their frequency of occurrence in the later period of the breeding season. The number of days avian predators were seen at the 7-8 and Boneyard Exclosures in the three-month period July to September was five times that in the three-month period April to June. Hunting behavior (once to occasional) by peregrine, kestrel, harrier, and shrike was observed at the 7-8 Exclosure. The fresh remains of two Sanderlings (*Calidris alba*), fed on by an avian predator, were found in the 7-8 Exclosure in early September. On 15 September another Sanderling was seen being eaten by a Peregrine Falcon in this exclosure. On 10 September a ranger reported a large raptor feeding on a small shorebird east of the 7-8 Exclosure.

**Figure 1. Number of Snowy Plover nests initiated and their subsequent fate (hatch, fail to hatch) per ten-day period at ODSVRA in 2002.**  
 One of the 35 nests not included as it was found abandoned and the initiation date is unknown.



**Figure 2. Number of Snowy Plover chicks hatching and their subsequent fate per ten-day period at ODSVRA in 2002.**



## DISCUSSION

### Comparison of ODSVRA 2002 Breeding Season with Previous Years

Area of comparison includes ODSVRA (riding area and Oso Flaco) and the Dune Preserve. Least Tern nests have only been found in the riding area. The majority of Snowy Plover nests have been found in ODSVRA, with occasional nests found in the Dune Preserve. Prior to 2000, coverage in the Dune Preserve and Oso Flaco was often less thorough than the riding area.

#### *Least Terns*

Twenty-two nests were found in 2002. This was an increase from the 18 nests found in 2001 and higher than the average of 11.9 nests from 1991-2001 (Table 5). The clutch hatching rate of 68% in 2002 was similar to the 72% in 2001. Nests were found in 9 of the 11 years from 1991-2001. The mean clutch hatching rate for this period was 39% (range = 0%-80%). Clutch hatching rates are minimum values for some years as fate (hatch or fail) was not determined for all nests (Table 5). Fledging estimates are not available, as tern chicks were not banded.

**Table 5. Nesting success of California Least Terns at ODSVRA, 1991-2002.**  
Numbers in parentheses are the number of nests whose fate (hatch or fail) was determined.

Year	No. Nests	No. Nests Known to Hatch	% Nests Known to Hatch
1991	6 (6)	2	33
1992	4 (4)	1	25
1993	0	-	-
1994	2 (2)	0	0
1995	1 (1)	0	0
1996	0	-	-
1997	21 (10)	3	14
1998	40 (32)	26	65
1999	34 (30)	21	62
2000	5 (5)	4	80
2001	18 (18)	13	72
2002	22 (19)	15	68

#### *Snowy Plovers*

The 35 nests found at ODSVRA in 2002 were similar to the 33 nests in 2001 and 35% higher than the average of 26 nests (range 13-42) from 1998-2001 (Table 6). The clutch hatching rate in 2002 (71%) was lower than 2001 (82%) and similar to the minimum average rate (76%) from 1998-2001 (fate unknown

for 9 of 104 nests in 1998-2001) (Table 6). The high nest abandonment rate in 2002 (23%) raises some concern about possible adult mortality.

In 2002 all 62 plover chicks were banded. The number of chicks banded in the preceding 4 years was 1998 (30 of 65), 1999 (11 of 23), 2000 (27 of 33) and 2001 (69 of 71-74). The fledge rate of banded chicks in 2002 was 56%. This compares to an average fledge rate for banded chicks of 17% for 1998-2001, with a high of 27% in 1999 and a low of 4% in 2001 (Table 6).

The early and later periods of the 2002 plover breeding season showed differences in reproductive success. The early period had fewer nests (15), a lower hatch rate (60%), and a high chick fledge rate (77%). The later period had more nests (20), a high hatch rate (80%) but a lower fledge rate (42%). Of 25 hatching nests, broods from the first 10 all fledged one or more chicks. Of the later 15 hatching nests, 8 broods are not known to have fledged any chicks. Although it is not known what caused the lower rate of chick survival during the later season, there was an increase in the occurrence of avian predators at the 7-8 and Boneyard Enclosures. This may not be unexpected, as post-breeding adults and young of these species are dispersing. If an influx of avian predators can be anticipated in the later part of the season, efforts to maximize reproductive success of terns and plovers early in the season would be beneficial.

The Oso Flaco section within ODSVRA has had a relatively low level of nesting activity in recent years. In 2002 there were two nests and both failed. The average number of nests in the preceding 4 years (1998-2001) was 3.8 (range = 0-9) (Table 6). In 2001, 2 of 4 nests hatched, produced 6 chicks (all banded), and 1 chick fledged. In 2000, both nests hatched, produced 4 chicks (2 banded), and no chicks were known to fledge. There were no nests located in 1999. In 1998, 4 of 6 known fate nests hatched (an additional 3 nests had unknown fate), produced 10 chicks (none banded), and the fledge rate was undetermined (Table 6).

The 2002 season for plovers was the most successful since banding of chicks, which allows a fledge estimate, began in 1998. One chick fledged per breeding male is the estimated number needed for population stability.<sup>1</sup> The 35 chicks fledged in 2002 exceed the number of breeding males and provide for population growth. The number of chicks known fledged in both 2000 (4) and 2001 (3) was below the level needed to maintain the population.

#### **Banded Snowy Plovers Breeding at ODSVRA in 2002**

Five color banded Snowy Plovers, 2 males and 3 females, nested at ODSVRA in 2002. A breeding male (BB:YB) is one of three known fledged young produced at ODSVRA in 2001. The other breeding birds were banded as chicks in coastal California at Monterey Bay, Monterey Co. (2), Vandenberg Air Force Base, Santa Barbara Co., and San Diego Co.

<sup>1</sup> USFWS. 2001. Western Snowy Plover (*Charadrius alexandrinus nivosus*) Pacific Coast Population Draft Recovery Plan. Portland, OR.

**Table 6. Nesting success of Snowy Plovers at ODSVRA, 1998-2002.**

Numbers in parentheses are the number of nests whose fate (hatch or fail) was determined.

Year	Area	Number Nests	Number Nests Known Hatching	Percent Nests Known Hatching	Number Chicks	Number Chicks Banded	Number Banded Chicks Fledged	Percent Banded Chicks Fledged
1998	Riding Area	33 <sup>1</sup> (28)	23	70	55	30	6	20
	Oso Flaco	9 (6)	4	44	10	0	-	-
	<b>Total</b>	<b>42 (34)</b>	<b>27</b>	<b>64</b>	<b>65</b>	<b>30</b>	<b>6</b>	<b>20</b>
1999	Riding Area	13 (13)	9	69	23	11	3	27
	Oso Flaco	0	-	-	-	-	-	-
	<b>Total</b>	<b>13 (13)</b>	<b>9</b>	<b>69</b>	<b>23</b>	<b>11</b>	<b>3</b>	<b>27</b>
2000	Riding Area	14 <sup>2</sup> (13)	12	86	29	25	4	16
	Oso Flaco	2 (2)	2	100	4	2	0	0
	<b>Total</b>	<b>16 (15)</b>	<b>14</b>	<b>88</b>	<b>33</b>	<b>27</b>	<b>4</b>	<b>15</b>
2001	Riding Area	29 (29)	25	86	65-68	63	2	3
	Oso Flaco	4 (4)	2	50	6	6	1	17
	<b>Total</b>	<b>33 (33)</b>	<b>27</b>	<b>82</b>	<b>71-74</b>	<b>69</b>	<b>3</b>	<b>4</b>
2002	Riding Area	33 (33)	25	76	62	62	35	56
	Oso Flaco	2 (2)	0	0	0	-	-	-
	<b>Total</b>	<b>35 (35)</b>	<b>25</b>	<b>71</b>	<b>62</b>	<b>62</b>	<b>35</b>	<b>56</b>

<sup>1</sup> Includes 2 nests at Dune Preserve (both hatch).

<sup>2</sup> Includes 1 nest at Dune Preserve (unknown fate).

Figure 3. Number of California Least Tern nests at ODSVRA, 1991-2002.

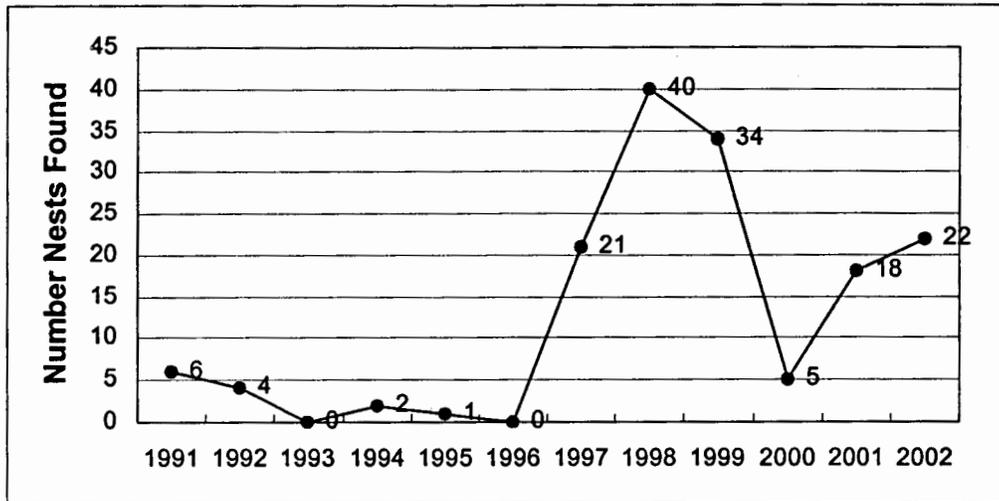
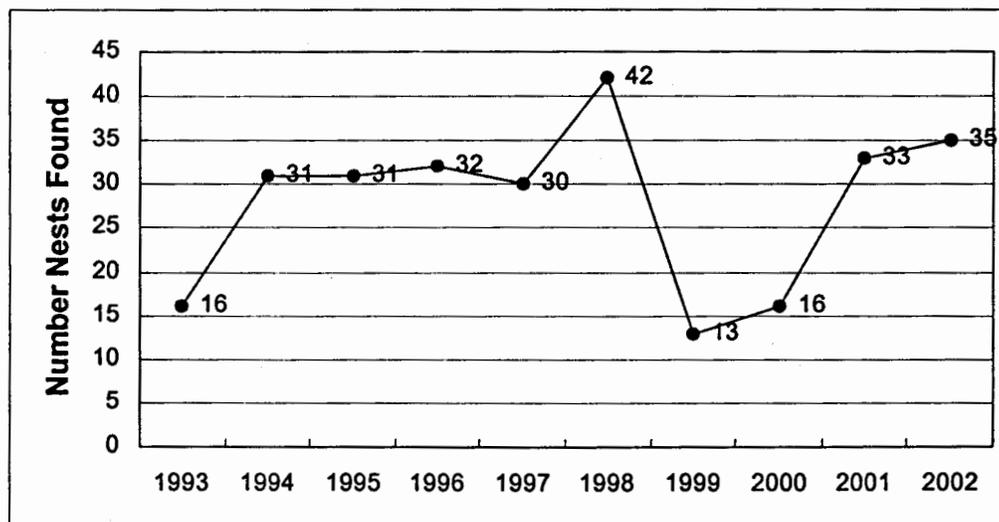


Figure 4. Number of Snowy Plover nests at ODSVRA and Dune Preserve, 1993-2002. Prior to 2000, monitoring at Oso Flaco and Dune Preserve was intermittent.



## New Management Actions Undertaken in 2002

### *Buffer Area Added at 7-8 and Boneyard Exclosures*

A buffer area delineated by fencing was established out from the north side of the Boneyard Exclosure and east side of south 7-8 Exclosure (Figure 9). This was done in response to an agreement with the California Department of Fish and Game to provide a closed area extending 1,000 feet from the tern colony. Subsequently a brood of tern chicks did move into the buffer that was formerly open riding area. A buffer area was later established along the east side of north 7-8 Exclosure (Figure 9) due to repeated flushing of some plovers from nests by vehicle activity and a plover chick seen by monitors in the open riding area approximately 300 feet east of the exclosure. (Resource staff and a ranger directed vehicle traffic away from the chick, which was directed back into the exclosure.)<sup>1</sup>

### *Predator Management*

Compared to 2001, increased efforts were made, using hand labor and heavy equipment, to maintain the integrity of the 2 x 4 inch fencing around the Boneyard and 7-8 Exclosures to discourage entry by coyotes. This was not a simple undertaking as high winds and extensive sand movement would bury fencing or scour openings under fencing. When extreme difficulty was encountered in trying to maintain the Boneyard Exclosure fence, a 300-foot length of 2 x 4 inch mesh, 5 foot high wire fence (buried 8 inches) was placed across the connecting corridor of the 7-8 and Boneyard Exclosures. With this addition, the capability of maintaining a functional fence barrier around the 7-8 Exclosure was improved. Another measure tried, with some success, was attaching jute netting to the lower fence with 2-3 feet of the netting laying flat (and shallowly buried) along the outer perimeter of the fence. This was done in areas where scouring took place or coyotes continued to dig under the fence.

In 2002, for the first time, there was limited removal or relocation of predators. Two coyotes that were persistently entering the 7-8 Exclosure were removed by USDA Wildlife Services personnel after the loss of 3 nests to coyotes (Appendix E). Loggerhead Shrikes were live-trapped in the immediate vicinity of the 7-8 and Boneyard Exclosures and relocated away from the area by the Santa Cruz Predatory Bird Research Group (Appendix F). This action was taken after monitors in 2000 and 2001 documented shrikes depredating plover chicks by direct observations and finding the bands of 8 chicks in shrike pellets. Both the 2000 and 2001 nesting seasons had very poor chick survival rates.

### *Oso Flaco*

Individual exclosures were erected around 2 nests initiated in Oso Flaco. Symbolic fencing was erected from Oso Flaco Creek north to the south boundary of the riding to reduce human disturbance in the upper beach. The shoreline remained open.

<sup>1</sup> This was a banded chick but the band combination was not confirmed. Based on the partial combination seen and the size and location of the chick, it likely belonged to a brood that was later confirmed to fledge all three chicks.

### **Size of 7-8 and Boneyard Exclosures**

The 7-8 and Boneyard Exclosures are critical to terns and plovers breeding at ODSVRA and need to be of adequate size for nesting and chick rearing. For plovers this includes spacing out nests and broods. There must also be sufficient sources of invertebrate prey for plover chicks or adults will move chicks outside the exclosure. The 7-8 Exclosure shoreline, an important foraging area for plover chicks, would often have large numbers of roosting shorebirds, Brown Pelicans, and gulls. These birds may in part have been displaced from the heavily disturbed shoreline of the open riding area. Gulls are known predators of plover eggs and are suspected of opportunistically taking chicks. A protected shoreline large enough for plovers to feed away from the immediate presence of gull flocks is a requirement. In their present configuration, a buffer between the 7-8 and Boneyard Exclosures and the open riding area is needed to reduce disturbance to incubating birds and chicks in the exclosures and to reduce the risk of mobile chicks coming into direct conflict with vehicles.

### **Factors Influencing Habitat Quality in 7-8 Exclosure**

The types and quality of habitat inside the exclosures are important components in tern and plover breeding success. Currently, exclosure fencing is removed at the end of each breeding season (with the exception of the 3.4 acre 7.5 revegetation site) and the sites reopened to recreational vehicle use. During the 2002 breeding season, habitat in the 7-8 Exclosure slowly became more diverse and favorable for terns and plovers. More areas developed features such as small-scale topographic relief, sparse vegetation, vegetated hummocks, and accumulated organic debris (shells, driftwood, marine algal wrack, etc.). This provided areas of disruptive cover for nests, which reduced exposure of incubating adults and eggs to some predators and moderated movement of windblown sand. Areas of vegetation, hummocks, and other cover also provided shelter for chicks from sun, wind, and predators. Along the shoreline, accumulated debris and decomposing marine algae provided cover and a source of invertebrate prey for adult plovers and chicks. When fencing is removed at the end of the breeding season and the site opened to recreational vehicles, surface relief in the 7-8 Exclosure can be flattened and vegetation and organic debris crushed into the sand. The results can be a compromised quality of habitat available at the start of the next breeding season.

### **Trend in Management During Breeding Season at ODSVRA Riding Area**

At ODSVRA the trend in protection for Least Terns and Snowy Plovers has been toward more proactive management to make available functional breeding habitat and promote reproductive success. These efforts are guided by information obtained by monitoring both species throughout the breeding season. There is recognition of the inherent vulnerability of nests initiated in the unprotected areas of the open riding area and the management difficulties to protect such nests and the mobile chicks. Also the high level of disturbance resulting from recreational activities in the open riding area can discourage birds from nesting. The seasonally fenced exclosures in the southern portion of the open riding area are intended to provide a protected area for nesting and raising chicks. In the past two years the majority of nesting of terns and plovers has occurred at these sites.

## RECOMMENDATIONS

### **Monitoring**

Monitoring is crucial for effective protection of nesting terns and plovers. As problems arise for adult birds, nests, or chicks, appropriate management actions can be recommended and evaluated. Monitoring efforts at ODSVRA should have adequate funding, resources, and flexibility to address anticipated problems (e.g., nesting failure, causes of chick loss, predator pressure) and unanticipated problems. Specific recommendations for monitoring are the following:

#### ***Retain skilled monitors***

Maintaining a core of trained monitors with site-specific field experience at ODSVRA is important for consistency of monitoring quality and availability of experienced personnel to train new monitors. This is especially the case at this site with its intermixed breeding populations of Least Terns and Snowy Plovers.

#### ***More frequent monitoring of Least Tern nests***

Obtain permits from the U.S. Fish and Wildlife Service to allow more frequent checks of tern nests to increase accuracy in identifying clutch fate, the number of eggs hatched, and threats to and impacts on nests and young chicks.

#### ***Banding Least Tern chicks***

Banding Least Tern chicks could be done simply and quickly to provide the necessary means to estimate fledging success. Without this information the seasonal productivity of Least Terns at ODSVRA remains unknown and management effectiveness cannot be assessed. Bands also provide an opportunity to gain insight into predator impacts on chicks. The documentation of Loggerhead Shrikes depredating a significant number of plover chicks at ODSVRA in 2000 and 2001 came primarily from finding bands in shrike pellets. Over time banding would also provide information on natal site fidelity of terns fledged at ODSVRA.

#### ***Option to band adult Snowy Plovers***

During the 2002 breeding season at ODSVRA there were circumstances that raised concerns about possible mortality of adult plovers. These included the high abandonment rate of 23% of plover nests and nests with chicks (and subsequent brood observations) with only the female present. Typically it is the male that raises the chicks. If events persisted suggesting possible elevated adult mortality, banding some of the adults would be necessary to verify if this was occurring and to possibly identify the causes.

### **Size of the 7-8 and Boneyard Exclosures and Fenced Buffer**

For the 2003 breeding season the size of the 7-8 and Boneyard Exclosures and the fenced buffer area around them should be the same size and configuration established during the 2002 season (Figure 10).

Additionally, provide a fenced buffer for the north side of the 7-8 Exclosure. Fencing for the buffer areas should be in place at the beginning of the breeding season.

### **Management for Habitat Quality in 7-8 Exclosure**

The 7-8 Exclosure should be managed to provide habitat favorable for tern and plover nests and chicks throughout the breeding season. This would not take the form of a permanent closure but rather extending closure periods over all or portions of the site to maintain desired habitat features or allow these features to become reestablished. These periodic extended closures would occur during the off-peak season (October to February) when overall visitor use demands on the park are lower. For 2002-2003 it is recommended that the 19-acre portion of the 7-8 Exclosure north of the 7.5 revegetation site remain closed through fall and winter. The desired outcome would be enhanced nesting and chick rearing habitat for the 2003 breeding season.

Currently fencing is removed at the end of the breeding season (30 September) from the 7-8 Exclosure (with the exception of the 3.5-acre 7.5 revegetation area) to open the site to recreational vehicles. Fencing is replaced at the start of the next breeding season (1 March). Vehicles repeatedly driving over the site when it is open degrade habitat by flattening surface relief and hummocks and crushing vegetation and organic debris (e.g., shells, driftwood, marine algal wrack) into the sand.

### **Enhance Habitat in Exclosures by Distributing Natural Materials**

Natural materials such as driftwood, shells, small rocks, and kelp could be distributed within exclosures to enhance the habitat. To be reasonably effective, large amounts of material need to be scattered prior to the beginning of the nesting season. Planting out some vegetation in areas within the exclosures might also be done and evaluated for effectiveness. These measures should augment rather than substitute for the surface relief and cover that would develop over time by protecting sites.

### **Predator Management**

A predator management plan should be developed to identify appropriate responses to mammalian and avian predators. Protocols should be established that clarify management actions to be implemented in a timely manner for individual predators posing serious threats to tern and plover reproductive success. Shrikes, raptors, corvids, and coyotes should be among the avian and mammalian predators covered in the management plan.

Maintain the integrity of the 2 x 4 inch mesh wire fencing to reduce entry into the 7-8 and Boneyard Exclosures by large mammalian predators such as coyotes. This is especially important at the 7-8 Exclosure, which over the past 2 years has had the majority of nesting terns and plovers.

Provide a length of 2 x 4 inch mesh wire fence (buried 8 inches deep) inside the Boneyard Exclosure to deter coyotes and increase protection for nesting Least Terns, which have typically nested in the western portion of this exclosure (Figure 11). The addition of this fence is prompted by the extreme difficulty,

due to site conditions, of maintaining the integrity of the fence along the east side of the Boneyard Enclosure.

Chick shelters (made of snow fencing) provided for terns in 2002 were not observed being used. The use of chick shelters, as well as the design, number, and placement, should be evaluated in consultation with researchers at other tern colonies.

#### **Oso Flaco**

Continue to use symbolic fencing along the northern half of Oso Flaco to reduce human disturbance at the upper beach. This symbolic fence should be placed as low on the shoreline of this narrow beach as is practical. There are no protected areas on the beach along the southern half of Oso Flaco. Consider protecting upper beach areas with symbolic fencing or, as is done at the adjoining Guadalupe-Nipomo Dunes National Wildlife Refuge, with spaced signs. Closely monitor any individual nest enclosures used along Oso Flaco.

#### **Reduce Trespass Along Shoreline of 7-8 Enclosure**

Work to reduce the level of trespass that occurs along the sensitive habitat of the 7-8 Enclosure shoreline. Trespass occurs during both day and night and includes pedestrians, joggers, and motor vehicles. Such trespass poses a threat of crushing nests and chicks, separating chicks from adults, and inadvertently pushing broods from the enclosure into the open riding area.

## NOTES

The following information on two Snowy Plovers, one struck and killed by a ranger's vehicle and one found dead, was provided by ODSVRA.

On the evening of 10 September 2002 a ranger in a vehicle responding code 3 to assist another ranger struck and killed a Snowy Plover in flight on the beach south of marker post 2. The ranger retrieved the carcass, examined the area, and did not find any other dead or injured birds. The following morning a resource monitor also searched the area and found no dead or injured birds.

On 25 September 2002 a visitor found a dead Snowy Plover at the tide line on the beach between Grand and Pier Avenues. The preliminary necropsy report on the bird, a banded juvenile fledged from Monterey Bay, California, found evidence of "acute trauma." A resource monitor searched the area and no other dead or injured birds were found.

## ACKNOWLEDGEMENTS

The following people and organizations were part of a collaborative effort to protect breeding Least Terns and Snowy Plovers at ODSVRA. District Superintendent Steve Yamaichi, Oceano Dunes District, CDPR. Chief Ranger Andrew Zilke, Maintenance Chief Curt Linse, and the entire staff of ODSVRA. State park Associate Resource Ecologist Laura Gardner oversaw the program and was actively involved and committed to solving problems. ODSVRA resource staff members Danielle Beauharnois, Samantha (Sam) Kaisersatt, Regina Organo, and Jim Walth did the majority of the monitoring. Danielle Beauharnois and Jim Walth assisted in assembling information from this and previous years and in map preparation for this report. Paul Young and the Santa Cruz Predatory Bird Research Group. The Wildlife Services unit of the U.S. Department of Agriculture. Thanks are also due to the great majority of visitors who, by complying with park regulations, participated in ODSVRA's management program to protect breeding terns and plovers.

Figure 5. ODSVRA with 2002 seasonal exclosures.

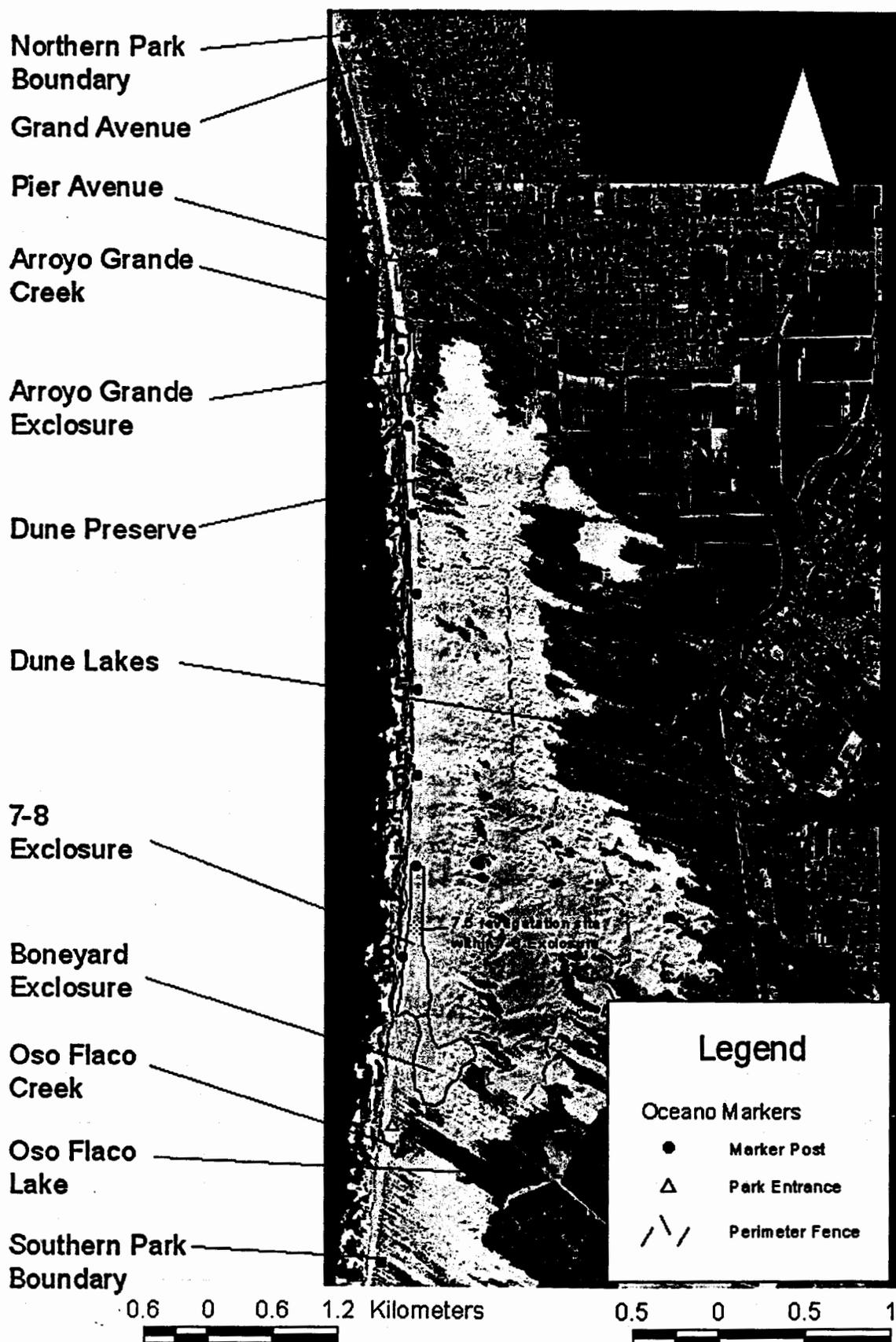
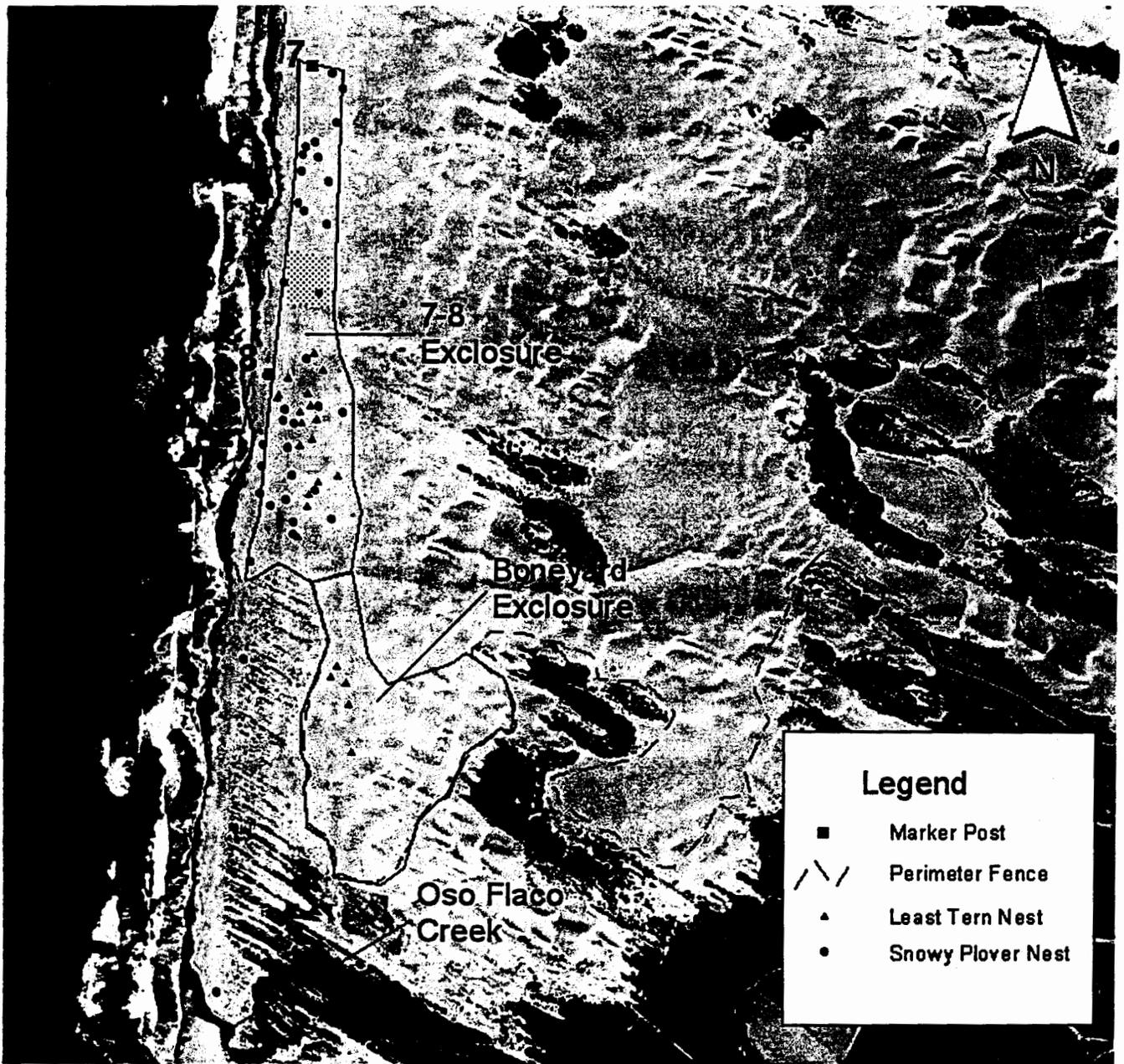


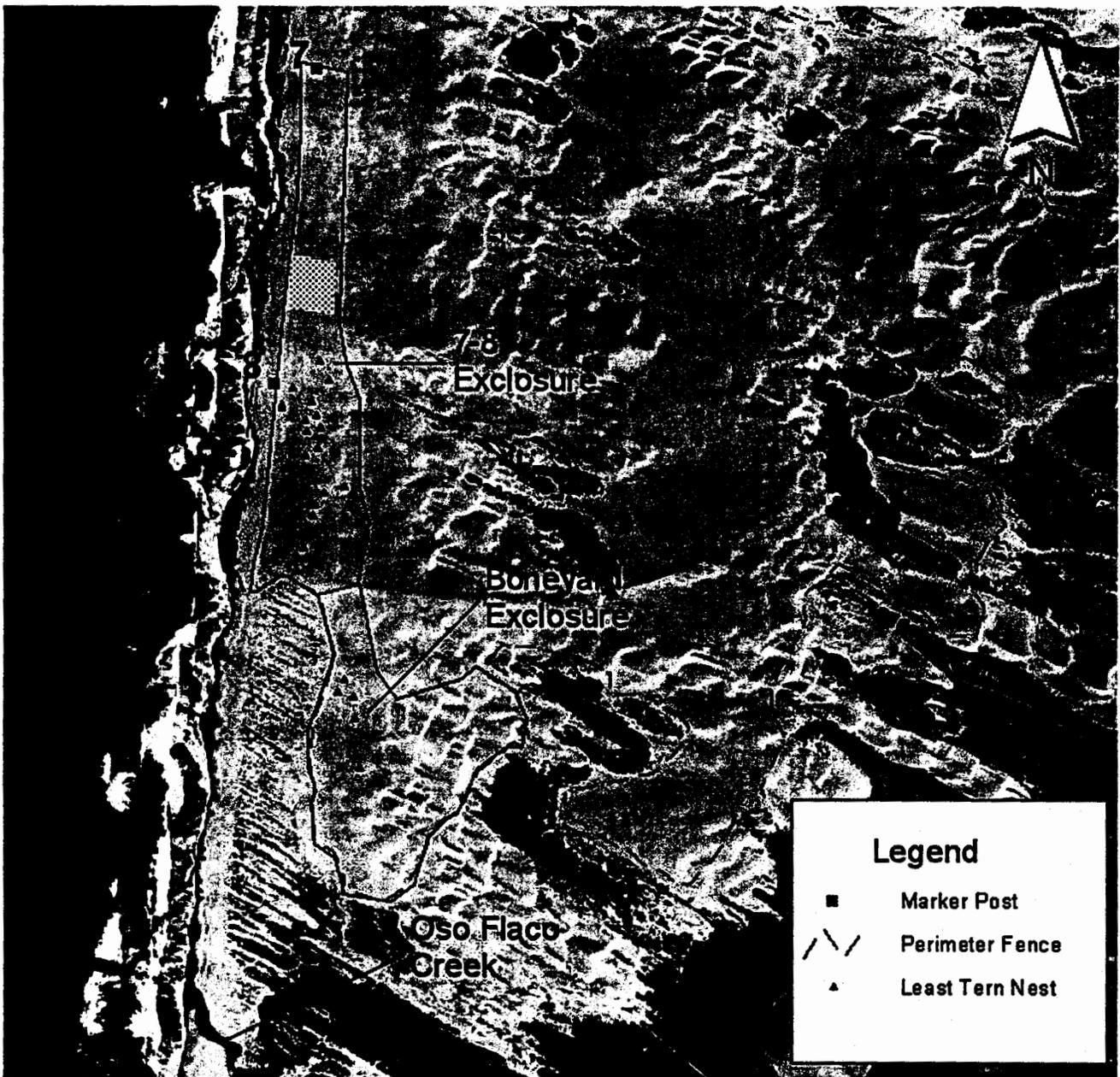
Figure 6. Least Tern and Snowy Plover nests at ODSVRA in 2002.



0 0.5 1 Miles

0 0.5 1 Kilometers

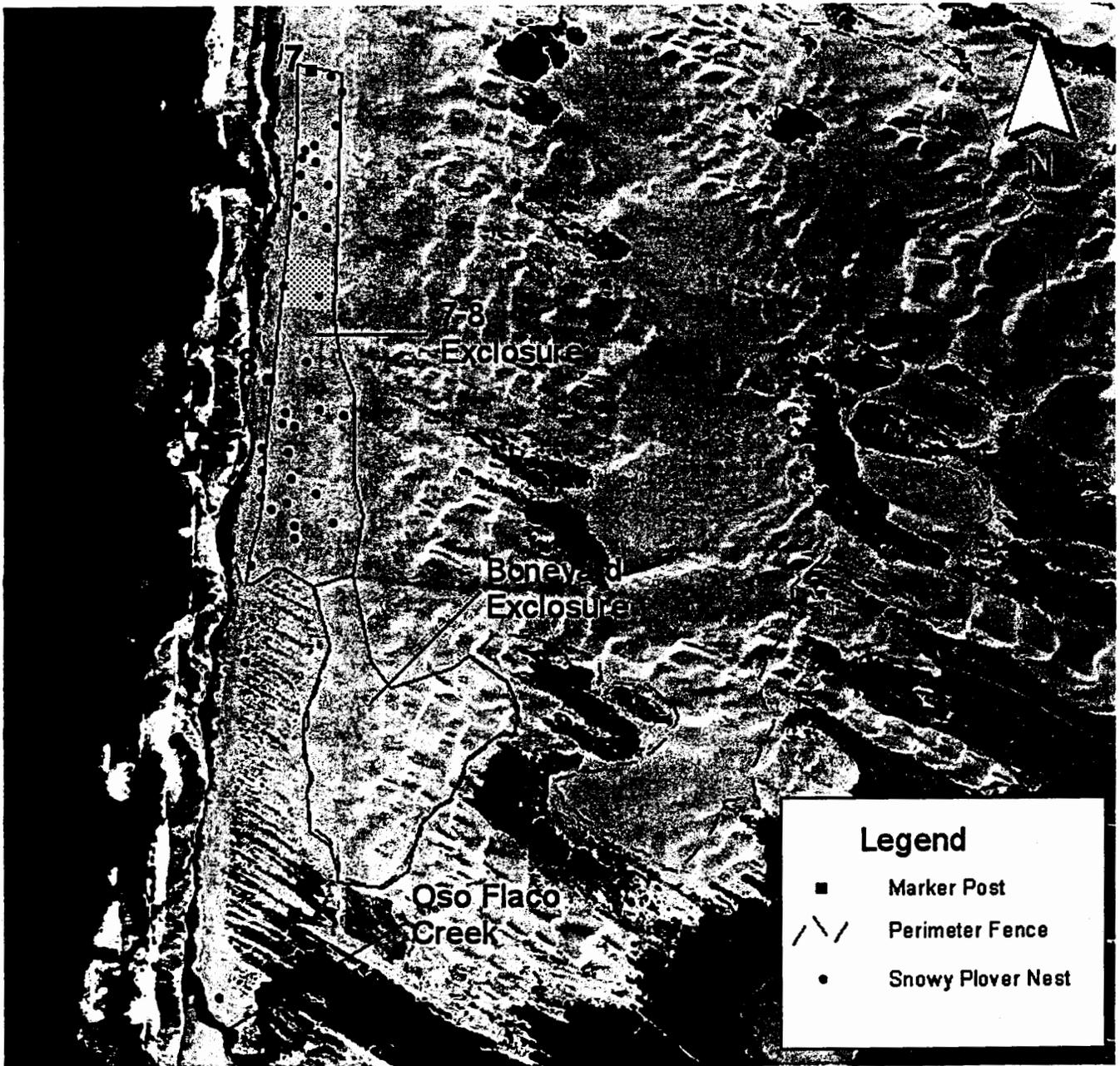
Figure 7. Least Tern nests at ODSVRA in 2002.



0 0.5 1 Miles

0 0.5 1 Kilometers

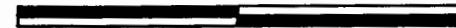
Figure 8. Snowy Plover nests at ODSVRA in 2002.



0 0.5 1 Miles



0 0.5 1 Kilometers



**Figure 9. Fenced buffer zones added in 2002 to increase protection for Least Tern and Snowy Plover nests and chicks in 7-8 and Boneyard Exclosures.**

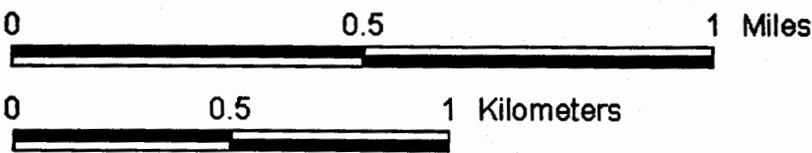
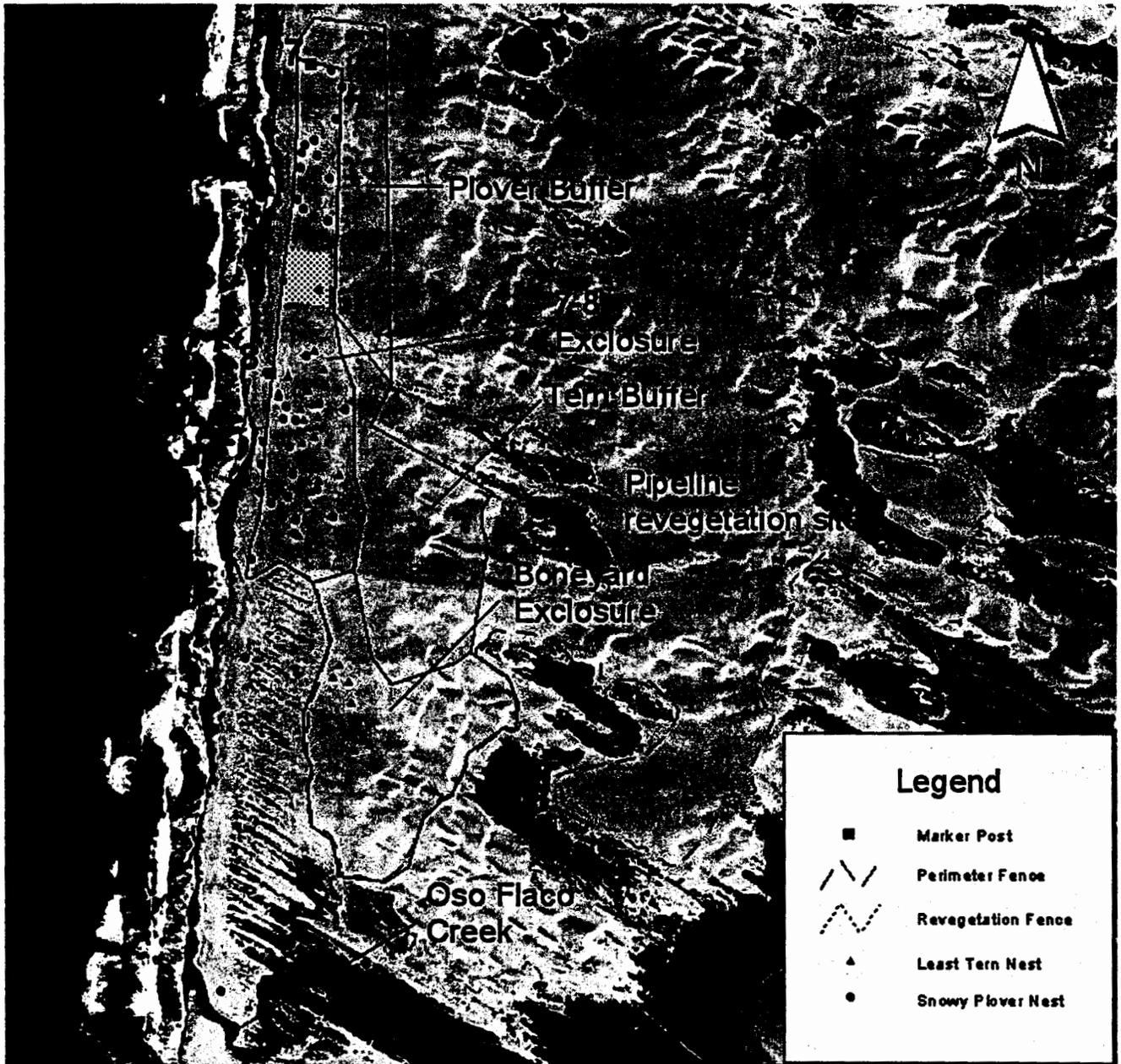


Figure 10. Recommended size of 7-8 and Boneyard Exclosures and fenced buffer for 2003 breeding season.

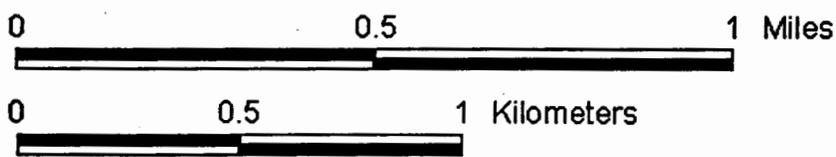
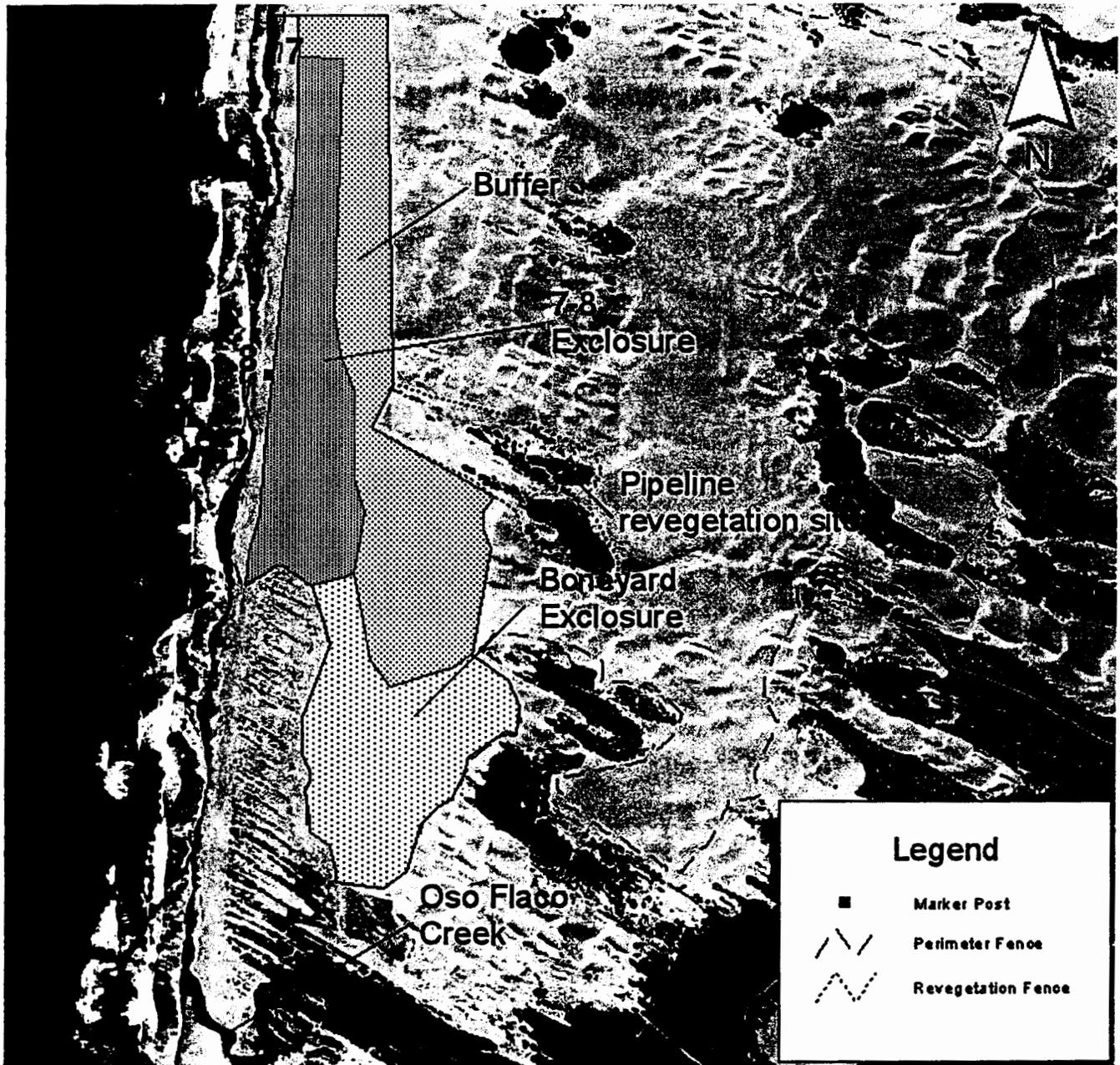
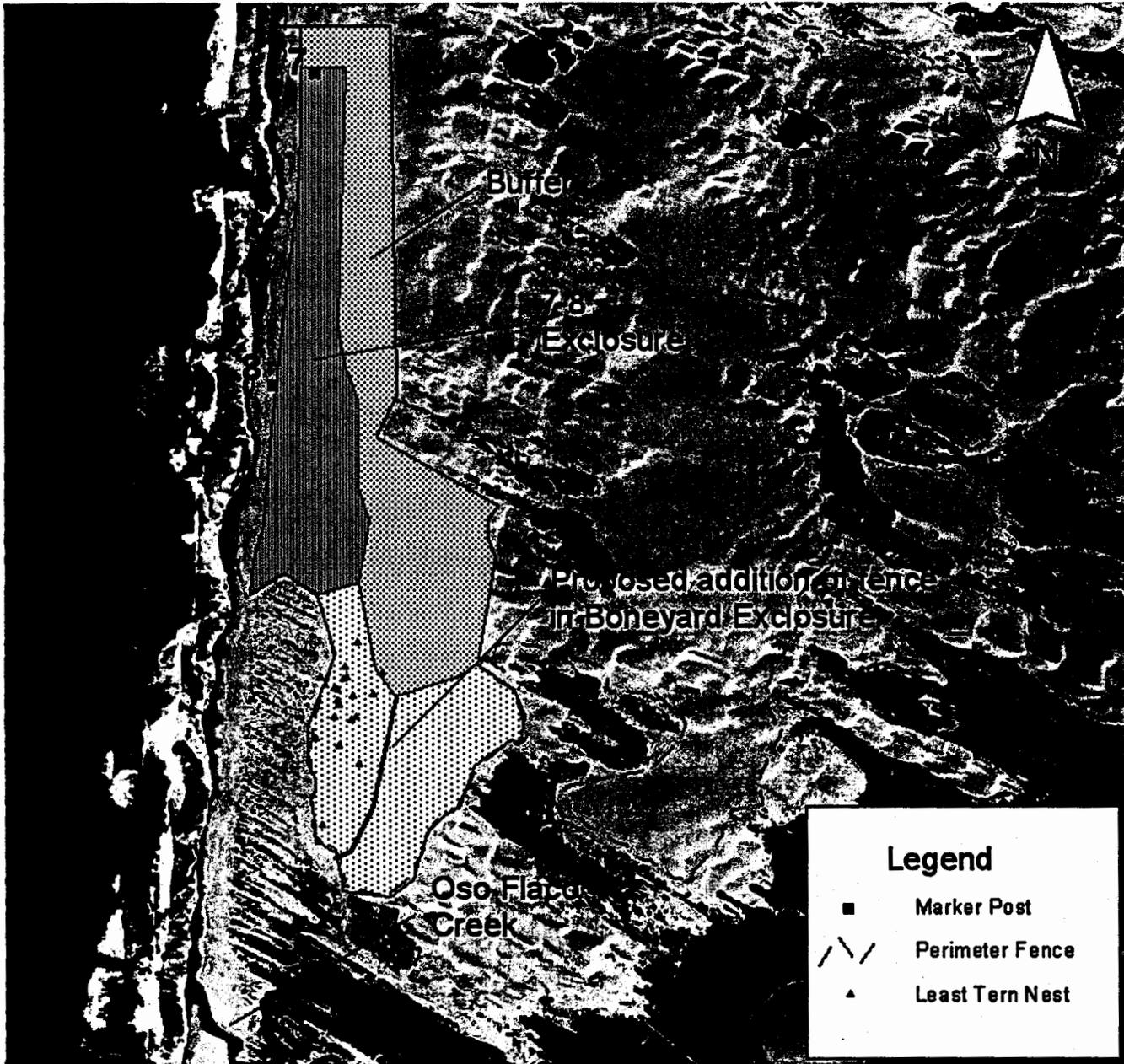


Figure 11. Least Tern nests located in Boneyard Exclosure 1998-2002 with proposed added fencing inside exclosure for 2003 breeding season.



APPENDIX A. Snowy Plover nests at ODSVRA in 2002.

Nest	Location	Date Found	Fate/Date	No. Chicks	Band Combo	No. Fledge
1	Post 8 enclosure	25-Mar	abandoned	0		
2	Oso Flaco	26-Mar	abandoned	0		
3	Post 8 enclosure	1-Apr	hatch 5/5	2	BB:AR	1
4	Post 8 enclosure	1-Apr	hatch 5/4	3	BB:OW	2
5	Post 7 enclosure	5-Apr	hatch 5/7	3	BB:YY	3
6	Post 8 enclosure	13-Apr	abandoned	0		
7	Post 8 enclosure	13-Apr	fail (unknown cause)	0		
8	7.5 reveg	25-Apr	hatch 5/20	3	BB:WW	3
9	Post 7 enclosure	27-Apr	hatch 5/23	3	BB:OR	3
10	Oso Flaco	27-Apr	abandoned	0		
11	Post 8 enclosure	3-May	abandoned	0		
12	Post 7 enclosure	12-May	hatch 6/11	3	BB:RY	3
13	Post 7 enclosure	17-May	hatch 6/4	3	BB:AW	1
14	Post 7 enclosure	21-May	hatch 6/22	3	BB:AB	3
15	Post 7 enclosure	23-May	abandoned	0		
16	Post 8 enclosure	30-May	hatch 6/29	2	BB:OG	2
17	Post 8 enclosure	30-May	hatch 6/29	2	BB:WY	1
18	Post 8 enclosure	30-May	hatch 6/19	3	BB:YW	2
19	Post 8 enclosure	1-Jun	abandoned	0		
20	7.5 reveg	2-Jun	hatch 6/18	3	BB:OB	2
21	Post 7 enclosure	6-Jun	hatch 7/13	2	GG:YB	
22	Post 8 enclosure	6-Jun	hatch 6/22	2	BB:OY	
23	Post 8 enclosure	7-Jun	hatch 6/29	3	BB:AY	
24	Post 8 enclosure	7-Jun	hatch 7/3	3	BB:YR	1
25	Post 8 enclosure	7-Jun	hatch 7/2	2	BB:GB	2
26	Post 8 enclosure	12-Jun	Predated (coyote) 7/4	0		
27	Post 7 enclosure	16-Jun	hatch 7/11	3	BB:AG	3
28	Post 8 enclosure	23-Jun	hatch 7/18	2	GG:WR	
29	Post 8 enclosure	24-Jun	hatch 7/21	1	GG:WG	
30	Post 8 enclosure	25-Jun	abandoned	0		
31	Post 7 enclosure	30-Jun	hatch 7/27	2	GG:YY	1
32	Post 7 enclosure	2-Jul	hatch 8/2	3	GG:YR	
33	Post 7 enclosure	15-Jul	hatch 7/30	3	GG:OW	
34	Post 7 enclosure	16-Jul	hatch 8/8	1	GG:AY	
35	Post 8 enclosure	18-Jul	hatch 7/30-31	2	GG:WW	2

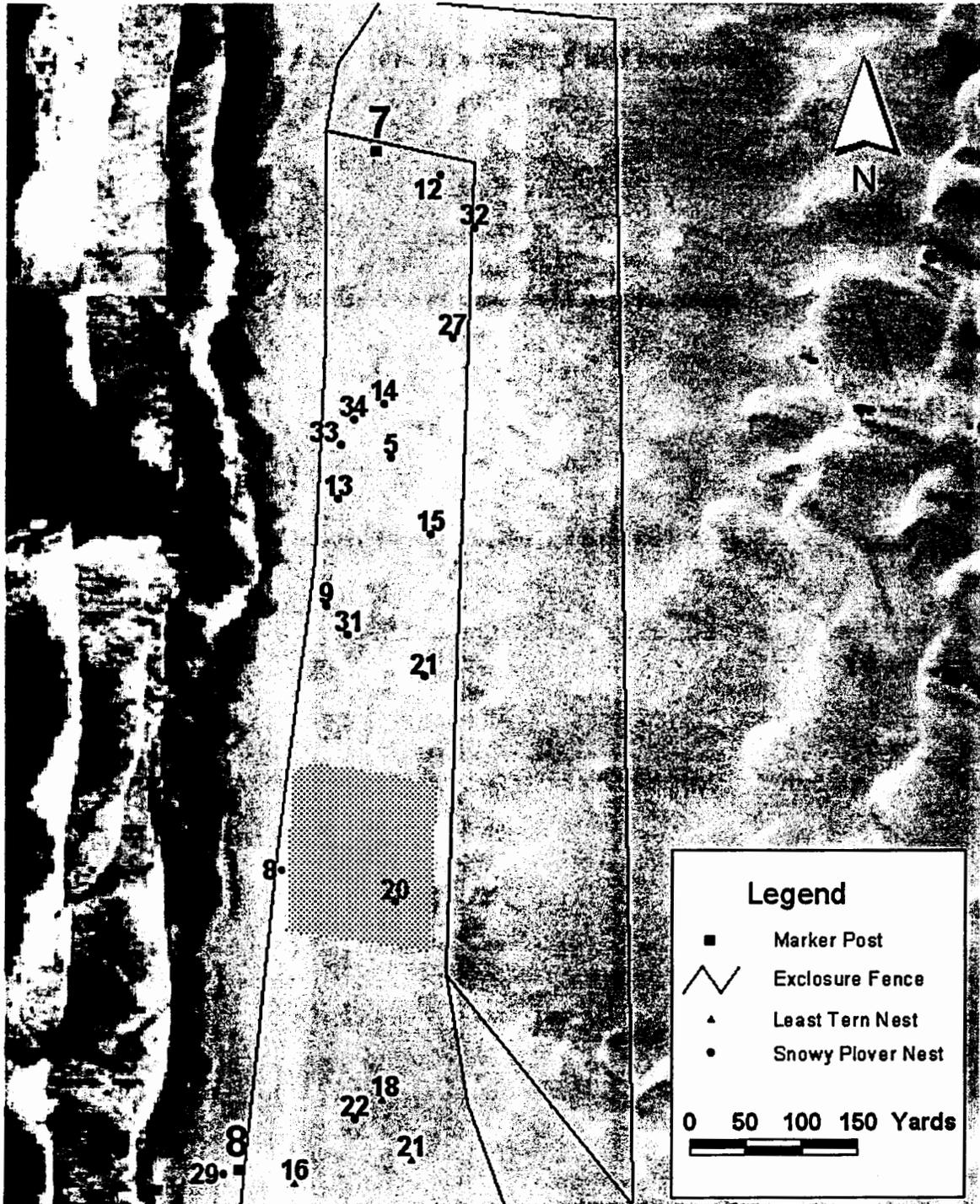
**Band Color Codes**

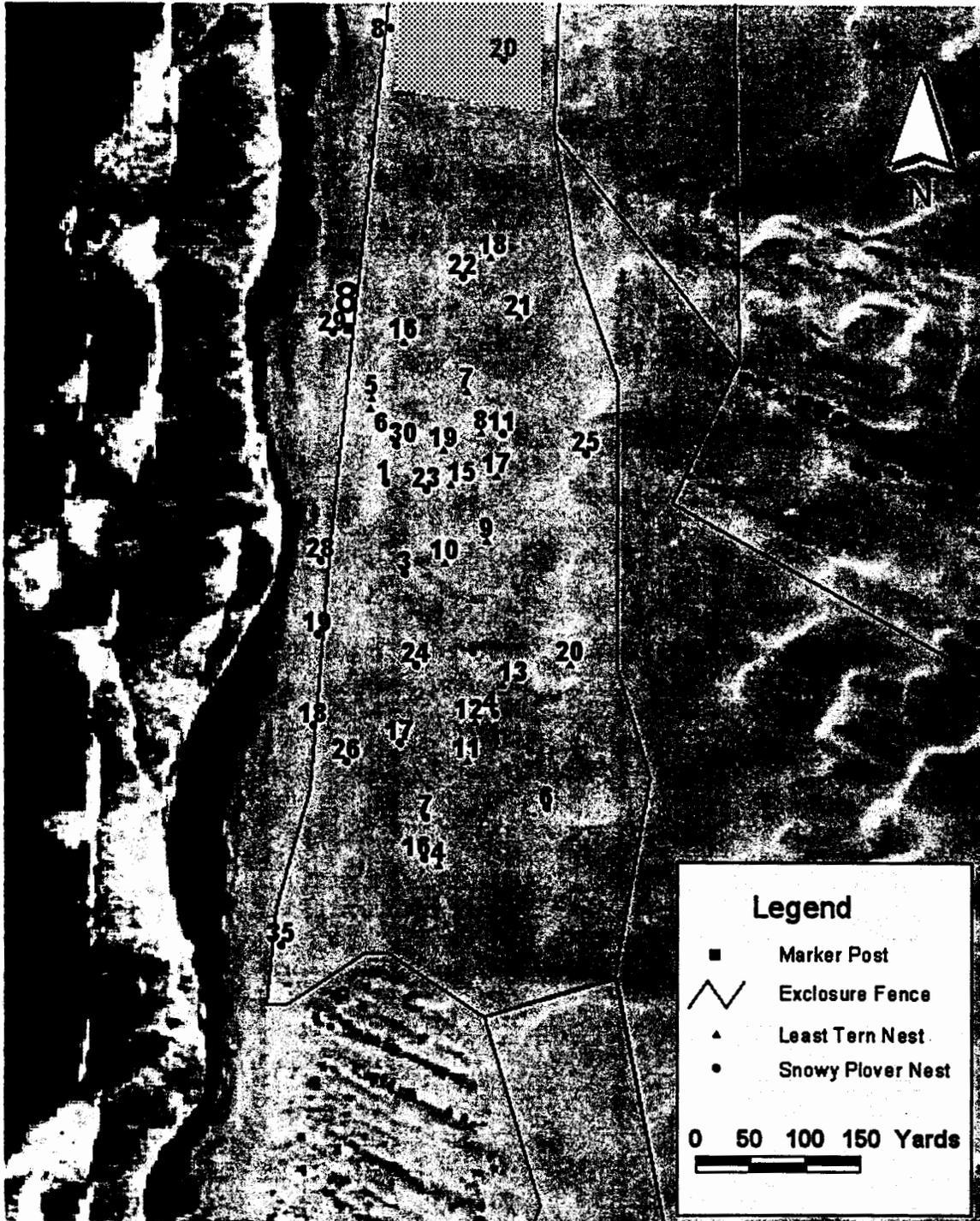
A = aqua (light blue)  
 B = blue  
 G = green  
 O = orange  
 R = red  
 W = white  
 Y = yellow

**APPENDIX B. Least Tern nests at ODSVRA in 2002.**

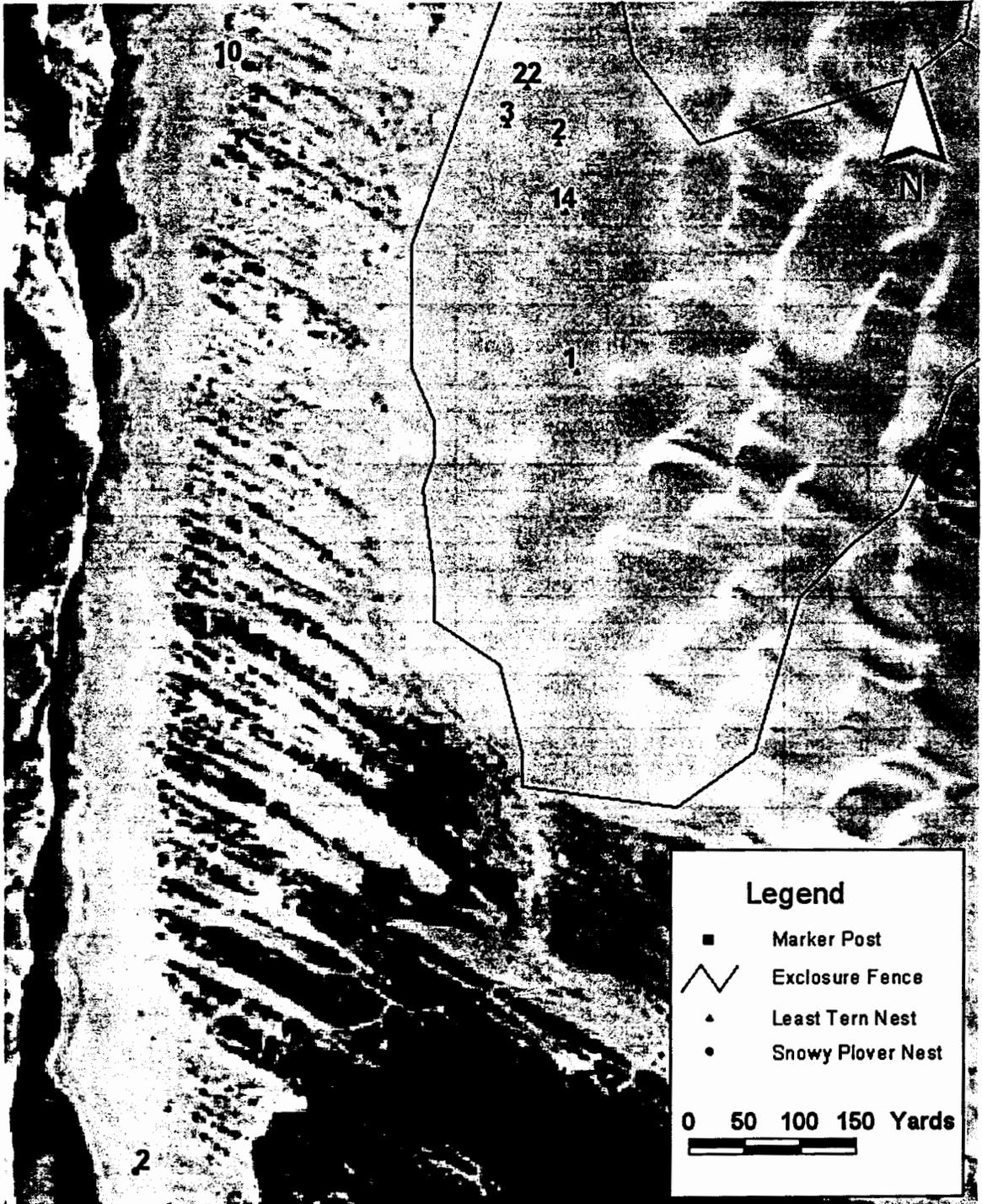
<b>Nest</b>	<b>Location</b>	<b>Date Found</b>	<b>Fate/Date</b>	<b>No. Chicks</b>	<b>Comments</b>
1	Boneyard	26-May	Hatch, 6/17	2	
2	Boneyard	5-Jun	Hatch, 6/23	2	
3	Boneyard	5-Jun	non-viable	0	Incubated for 45 days.
4	Post 8 Exclosure	3-Jun	Hatch, 6/24	1	
5	Post 8 Exclosure	5-Jun	Hatch, 6/20	2	
6	Post 8 Exclosure	5-Jun	unknown	0	
7	Post 8 Exclosure	5-Jun	abandoned	0	
8	Post 8 Exclosure	5-Jun	Hatch, 6/25	2	
9	Post 8 Exclosure	7-Jun	Hatch, 6/17	1	
10	Post 8 Exclosure	7-Jun	Hatch, 6/20	1	
11	Post 8 Exclosure	7-Jun	unknown	0	
12	Post 8 Exclosure	7-Jun	unknown	0	
13	Post 8 Exclosure	7-Jun	Hatch, 6/25	2	
14	Boneyard	12-Jun	Hatch, 6/30	2	
15	Post 8 Exclosure	13-Jun	Hatch, 7/1	2	
16	Post 8 Exclosure	20-Jun	Hatch, 7/11	2	
17	Post 8 Exclosure	20-Jun	Hatch, 7/5	2	
18	Post 8 Exclosure	21-Jun	Hatch, 7/18	2	
19	Post 8 Exclosure	25-Jun	Hatch, 7/14	2	
20	Post 8 Exclosure	28-Jun	Predated	0	Coyote
21	Post 8 Exclosure	30-Jun	Predated	0	Coyote
22	Boneyard	30-Jun	Hatch, 7/23	2	

APPENDIX C. Least Tern and Snowy Plover numbered nest locations.





**CCC Exhibit** 2  
 (page 34 of 48 pages)



**APPENDIX D. Banded Snowy Plovers seen at ODSVRA 28 February to 10 October 2002**  
**List does not include Snowy Plovers banded as chicks at ODSVRA in 2002.**

Date	Band Combination	Sex	Origin	Notes
2/28	L:W/G	F	2001 Vandenberg	Bred at Oceano Dunes in 2002.
				Also seen 3/2, 3/6, 3/14, 4/10, 4/15, 4/16, 7/18, 7/21, 7/25, 7/31, 8/12, 8/17, 8/26, 9/12.
3/2	W:P/Y	F	2001 Marina S.B	Bred at Oceano Dunes in 2002.
				Also seen 3/3, 3/14, 3/25, 4/10, 4/14, 4/17, 7/17, 7/19, 8/5, 8/9, 8/12-8/14, 8/31, 9/5, 9/9, 9/14, 9/16, 9/22, 9/26, 9/30.
5/20	BB:YB	M	2001 Oceano Dunes	Bred at Oceano Dunes in 2002.
5/24	WG:RP	M	2001 Moss Landing Salt Ponds	Bred at Oceano Dunes in 2002.
6/11	:BR	M?		
6/3	A:BP	M	2001 Pajaro Spit	
6/20	KV S:	F	San Diego	Bred at Oceano Dunes in 2002.
7/6	:K/P S		San Diego	
7/10	GY:RW	F	2001 Eel River, Humboldt County	
7/10	O:Y/G		2001 Vandenberg	Also seen 7/11, 7/21, 7/25.
7/10	WN:YG	Juv	2002 Guadalupe	Also seen 8/15, 8/21, 8/25, 8/28, 8/29, 8/31, 9/1, 9/4-9/9, 9/11, 9/12, 9/14, 9/24-9/26, 9/30, 10/28.
7/13	AR:AP		2001 Monterey Bay	
7/13	WR:GY	M	2000 Salinas N.W.R	
7/15	YA:GY	Juv	2002 Pajaro River Spit	
7/17	BA:WR	Juv	2002 Zmudowski S.B.	Also seen 7/24.
7/17	W:W/G	Juv	2002 Vandenberg	
7/17	B:W/G			Also seen 7/19.
7/18	GO:RV	Juv	2002 Moss Landing Salt Ponds	
7/19	(LG:WR)?			
7/21	WN:AY	Juv	2002 Guadalupe	Also seen 7/24, 7/30, 8/28, 8/30, 9/1, 9/3, 9/4, 9/9, 9/10, 9/12, 9/16, 10/23, 10/28.
7/23	OY:AV	Juv	2002 Moss Landing Salt Ponds	Also seen 7/26, 7/27.
7/23	YB:RY	F	Marina S.B. (banded as adult)	Also seen 7/25, 7/31, 8/5-8/9, 8/12-8/17, 8/21, 8/25, 8/26, 8/30, 8/31, 9/11, 9/14, 9/17-9/20, 9/30, 10/14, 10/28.
7/23	OY:OV	Juv	2002 Moss Landing Salt Ponds	Also seen 7/24, 7/25, 7/26, 7/28.
7/23	PA:OV	F	1998 Moss Landing Salt Ponds	Also seen 7/31, 8/3, 8/6, 8/9, 8/15, 8/21, 8/25, 8/26, 8/30, 9/5, 9/11, 9/12, 9/14.
7/24	GO:WB	Juv	2002 Monterey Bay	
7/25	YA:WY	Juv	2002 Moss Landing Salt Ponds	
7/28	WN:RY	Juv	2002 Guadalupe	Also seen 7/30, 8/3, 8/5, 8/6, 8/14, 8/15, 9/8, 9/14, 9/15, 9/17-9/19, 9/22.
7/28	WN:RB	Juv	2002 Guadalupe	Also seen 8/7.
7/29	OG:BY	Juv	2002 Zmudowski S.B.	Also seen 8/15.
8/3	G:R/B or G:RB			Also seen 8/8, 8/9, 9/12, 9/15, 9/17, 10/28.
8/5	BB:GG		2001 Oceano Dunes (SP 13)	
8/6	WN:OG	Juv	2002 Guadalupe	Also seen 8/7, 8/9, 8/20, 8/26(2).
8/6	WB:RY	F	Marina S.B. (banded as adult)	
8/9	WN:AR	Juv	2002 Guadalupe	Also seen 8/12, 8/16, 8/25, 8/28, 8/30.
8/12	G:G/Y	Juv	2002 Vandenberg	Also seen 8/14, 8/17, 8/29, 9/4, 9/12, 9/14, 9/15, 9/17, 9/19, 9/20, 10/7, 10/28.
8/14	AO:YV	Juv	2002 Moss Landing Salt Ponds	
8/16	OV:OA		2001 Salinas S.B.	

**CCC Exhibit** 2  
 (page 36 of 48 pages)

Date	Band Combination	Sex	Origin	Notes
8/17	Y:P/B		2001 Pajaro River Spit	Also seen 8/22, 8/25, 8/27, 8/30, 8/31, 9/4, 9/5, 9/14, 9/16, 9/17.
8/20	WN:AB	Juv	2002 Guadalupe	Also seen 8/27, 8/28, 8/29, 8/30, 9/2, 9/3, 9/7-9/10, 9/17, 9/19, 9/24, 10/23, 10/28.
8/20	RA:YG	Juv	2002 Marina S.B.	Also seen 8/22, 8/23, 8/26, 8/27, 8/29, 9/4, 9/6, 9/10, 9/15, 9/17, 9/19, 10/7, 10/28.
8/20	WN:GB	Juv	2002 Guadalupe	Also seen 9/6, 10/28.
8/22	W:G/Y	Juv	2002 Vandenberg	
8/22	RB:AB	Juv	2002 Pajaro River Spit	Also seen 8/29, 9/1, 9/5, 9/9, 9/12, 9/14, 9/17, 9/25, 9/30.
8/26	OG:GW	Juv	2002 Zmudowski S.B.	
8/28	YW:RR	M	2002 South Spoils, Oregon (banded as adult)	
8/29	OG:BG	Juv	2002 Zmudowski S.B.	
9/3	OW:BG	Juv	2002 Sunset S.B., Santa Cruz	Also seen 9/9, 9/12.
9/5	AR:YB			Probably AR:YV-2002 Moss Landing S.B
9/5	RY:YB	M	2002 Salinas River (banded as adult)	
9/5	WN:WR	Juv	2002 Guadalupe	
9/5	G:P/B		2001 Salinas Wildlife Refuge	
9/9	AR:YV	Juv	2002 Moss Landing Salt Ponds	Also seen 9/10.
9/11	OG:AR	Juv	2002 S. Salinas	Also seen 9/12.
9/14	BO:RY	Juv	2002 Sunset S.B., Santa Cruz	Also seen 9/15, 9/16, 9/18.
9/18	WN:WB	Juv	2002 Guadalupe	Also seen 9/19, 9/22, 9/25, 9/26, 10/23.
9/23	WN:GR	Juv	2002 Guadalupe	
9/23	WN:AW	Juv	2002 Guadalupe	
9/24	AG:BV	Juv	2002 Moss Landing Salt Ponds	
9/24	GL:R	Juv	2002 Oregon	Also seen 9/26, 10/2, 10/14.
9/29	OG:BW	Juv	2002 Pajaro River Spit	Also seen 9/30, 10/7, 10/23.
9/29	AO:YG	F	S. Salinas	
9/30	L/G/L:Y	Juv	2002 Oregon	
10/7	WN:RW	Juv	2002 Guadalupe	Also seen 10/23.
10/28	WN:OY	Juv	2002 Guadalupe	

**Snowy Plovers fledged from ODSVRA in 2002 seen outside of San Luis Obispo County through 30 September 2002**

8/10 BB:YY at Coal Oil Point, Santa Barbara Co.  
8/16 BB:AW at Vandenberg Air Force Base, Santa Barbara Co.  
8/16 BB:WW at Vandenberg Air Force Base, Santa Barbara Co.  
8/17 BB:RY at Coal Oil Point, Santa Barbara Co.  
9/1, 9/2 BB:YR at Ventura River mouth, Ventura Co.  
9/2, 9/20, 9/28 BB:YW at Dillon Beach, Marin Co.  
9/15, 9/16 BB:RY and BB:OG at Zuma Beach, Los Angeles Co.  
BB:OR in San Diego Co.

**Band Color Codes**

A = aqua (light blue)      V = violet  
B = blue                      W = white  
G = green                     Y = yellow  
L = lime (light green)      S = USFW aluminum band without tape  
O = orange                    K = black  
P = pink                        N = brown  
R = red

**CCC Exhibit** 2  
**(page 37 of 48 pages)**

**APPENDIX E.**



United States  
Department of  
Agriculture

Animal and  
Plant Health  
Inspection  
Service

Wildlife  
Services

P.O. Box 255348  
Sacramento, CA 95865-5348

July 26, 2002

**Oceano Dunes State Vehicular Recreation Area (SVRA) 2002 Predator Management Report.**

During the 2002 California Least Tern (LETE) and Western Snowy Plover (SNPL) nesting season, USDA Wildlife Services was contacted by Laura Gardner, Associate Resource Ecologist with the Oceano Dunes SVRA concerning issues with coyotes and coyote predation at the Oceano Dunes SVRA LETE and SNPL nesting areas.

On several occasions, Wildlife Services was contacted concerning predation on LETE and SNPL nest sites. Technical assistance was provided in the form of non-lethal recommendations in an attempt to solve the problems. Recommendations included fencing techniques and other methods to discourage predation to LETE and SNPL nests. Despite these non-lethal attempts, coyote predation continued to occur.

On 7-15-02, Oceano Dunes SVRA and the USDA Wildlife Services entered into an agreement to remove the offending coyotes. A cooperative service field agreement and a categorical exclusion were completed by Joe Bennett (District Supervisor, USDA Wildlife Services, San Luis District). Captain Doug Huckins with the California Department of Fish and Game was consulted concerning the proposed project and during the completion of the categorical exclusion.

On 7-15-02, control methods were implemented by Eric Covington (Wildlife Services Specialist (WSS), USDA Wildlife Services, San Luis District). After completing a site survey with State Park Ecologists, six # 3 padded leg-hold traps were set near the locations where the offending coyotes were entering the nesting enclosure. Traps were checked every morning.

On 7-16, all of the traps were checked with negative results. WSS Covington spent several hours surveying the area and located two locations where coyotes had entered the enclosure. Several traps were moved to the new locations. The next morning, 7-17, an adult female coyote was caught and dispatched. All traps were inspected on 7-18 with negative results. On 7-19 another adult coyote was caught and dispatched. WSS Covington felt the offending coyotes had been removed. All WS equipment was removed at that time. On 7-23, WSS Covington checked the perimeter of the nesting areas and again felt confident that the offending coyotes had been removed. Several inspections were also done by Oceano Dunes SVRA personnel. Both coyotes taken were adult females in very good condition.



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**CCC Exhibit 2**  
**(page 38 of 48 pages)**

Future recommendations for 2002 and upcoming 2003 nesting season:

USDA Wildlife Services recommends maintaining the fencing around the nesting sites.

WS recommends the removal of any food sources left by humans or carrion washed on the beach near the nesting enclosures that might attract mammalian or avian predators.

WS recommends spotlight surveys and track surveys to determine mammalian predators near the Oceano Dunes SVRA LETE and SNPL nesting sites.

WS recommends removal of coyotes predating on LETE or SNPL at Oceano Dunes SVRA or coyotes that continually frequent areas of concern.

Thank you,

Joe R. Bennett (District Supervisor)  
Eric L. Covington (Wildlife Specialist)  
San Luis District  
CA Wildlife Services Program

**APPENDIX F.**

**Interim Predator Management Project:  
Trapping and Relocation of Problem Loggerhead Shrikes  
Oceano Dunes State Vehicular Recreation Area**

**Award Number CO1V0083**

**Submitted To:**

Laura Gardner, Ecologist  
California Department of Parks and Recreation  
Oceano Dunes State Vehicular Recreation Area  
576 Camino Mercado  
Arroyo Grande, CA 93420  
Lgard@parks.ca.gov

**Submitted By:**

Brian James Walton  
UC Santa Cruz Predatory Bird Research Group  
Long Marine Lab, UCSC  
100 Shaffer Road  
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walton@cats.ucsc.edu

**CCC Exhibit** 2  
**(page** 40 **of** 48 **page**

**Interim Predator Management Project:  
Trapping and Relocation of Problem Loggerhead Shrikes  
Oceano Dunes State Vehicular Recreation Area**

**Introduction**

Oceano Dunes State Vehicle Recreation Area (ODSVRA) is located in southern San Luis Obispo County, California. The park encompasses approximately 3600 acres of coastal sand dunes and approximately six (6) linear miles of coastline. The ODSVRA contains nesting habitat for California least terns (*Sterna antillarum browni*) and western snowy plovers (*Charadrius alexandrinus nivosus*). Contiguous nesting habitat continues to the south for approximately twelve miles in the Guadalupe-Nipomo Dunes complex (Henkle 2001 Report). The California least tern is listed as a state and federal endangered species. The Pacific Coast population of the western snowy plover is federally listed as threatened.

Due to the activities of humans that alter the coastal environment, modern California coastal shorebird colonies are usually located in islands of partially native habitat surrounded by acres of farmland, housing tracts, recreational use areas, marinas, and other developments. This has resulted in concentrations of rare or declining bird species in these remnant refuges or "natural" areas. This also results in concentrations or localizations of predators since the prey they require is located mainly in these small islands of habitat. Predation can be a problem for certain species of declining birds, although all predation is not harmful and it is never the actual cause of the original population declines of California's shorebirds. Biologists have set up programs to control predators when they have been identified as a problem in specific areas or for specific species. It is essential that all parties understand that the presence of a predator does not mean that predation on all prey species will occur. Predators have evolved with the ability to locate good areas of prey species so there will always be a local presence of a wide range of predators in any area of prey concentration. Biologists have found that in any one area, most of the predatory bird population will not attack or cause problems for the rare or declining species. As a result, predator removal and translocation is designed to address specific predatory individuals that are actually utilizing the prey species in need of protection.

During the 2001 nesting season, loggerhead shrikes (*Lanius ludovicianus*) were regularly seen hunting within the nesting colony exclosure fencing, and ODSVRA staff discovered at least seven USFWS snowy plover bands in loggerhead shrike castings. In February 2002, the California Department of Parks and Recreation contracted with the UC Santa Cruz Predatory Bird Research Group (SCPBRG) to monitor raptor activity proximate to nesting colony exclosures, evaluate the threat of avian predators to nesting birds and young, and determine which predators posed an unacceptable threat to nesting colonies in consultation with ODSVRA ecologist Laura Gardner. Such avian predators were live-trapped, relocated, and monitored at the release site by SCPBRG staff with the vast majority of the results due to the efforts and perseverance of Paul Young.

The UC Santa Cruz Predatory Bird Research Group is a member of the UC Santa Cruz Long Marine Laboratory research community and the Division of Natural Sciences. Since 1975 SCPBRG has led population recovery efforts regionally for peregrine falcons, Harris' hawks, bald eagles, and elf owls, and assisted with captive breeding, planning and management of other species. Today, the UC Santa Cruz Predatory Bird Research Group offers innovative solutions for avian predator management problems with declining prey species, electrocutions and wire strikes, and other unique raptor or endangered species issues. SCPBRG is fully permitted to conduct such activities and reports such actions weekly and annually to state and federal authorities.

## Monitoring and Trapping

We surveyed the ODSVRA for avian predators and their nest sites, paying close attention to the areas proximate to highest concentration of nesting least terns and snowy plovers, and prioritizing individuals, particularly shrikes, to be trapped. The Park was continuously re-surveyed throughout the nesting season of March through mid-September. Our observations confirmed that loggerhead shrikes presented a threat to plovers and terns, and we monitored each individual shrike to determine: a) whether it had a mate, b) if it was nesting, c) if there were eggs or young in the nest, d) age of young, e) size of territory, and, f) a strategy for trapping the individual. We used a large, remote-controlled bow net that provided a high level of confidence for trapping the target individual on the first try and a low risk of injury to the target bird. Mice were placed in a small cage to protect them from injury and used as bait for the trap. Trapping activities did not commence for individuals with eggs or young until the young were confirmed to be five to seven days of age—the time when they are known to be capable of thermoregulation and survival without parental brooding during transport. Fourteen (14) loggerhead shrikes were captured in the ODSVRA.

**Table 1: Loggerhead Shrikes captured at Oceano Dunes and released at Grizzly Island.**

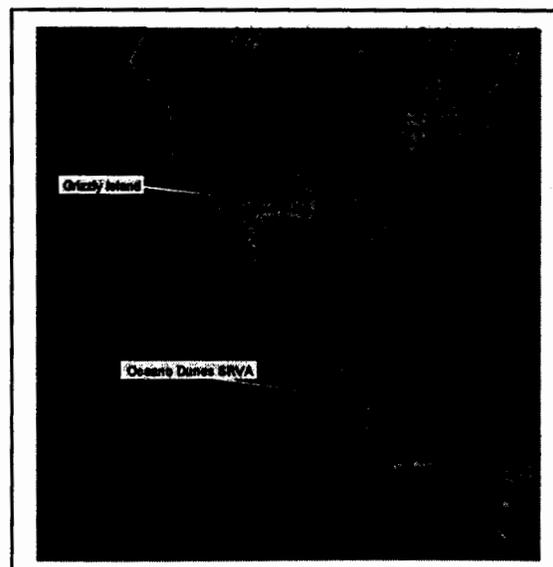
USFWS Band Number	Captured	Released
902-30039	3/27	3/28
891-72641	4/02	4/03
891-72642	4/02	4/03
891-72643	4/04	4/05
891-72644	4/08	4/09
891-72645	4/16	4/18
951-25201	4/23	4/25
1681-17943*	5/07	5/08
951-25202	5/08	5/10
951-25203	5/15	5/17
951-25220	7/16	7/17
951-25221	7/18	7/23
951-25222	7/25	7/31
951-25223	8/14	8/20

\*Previously banded individual, Oso Flaco Lake August 1999, Paloma Nieto bander.

## Relocation

Every effort was made to relocate captured shrikes as soon after trapping as possible. No adult shrikes died or were injured during capture and handling. Shrikes were placed in a padded animal carrier in the field, which was used for transport. As soon as possible, they were taken from the field to a cool, dark, quiet place until transport. Giant mealworms were provided to and consumed by the shrikes. A USFWS band was applied to each shrike prior to its release.

Captured birds were transported approximately 275 miles from the ODSVRA to Grizzly Island in the





*Shrike being banded prior to release.*

Sacramento River Delta. The release area is characterized by braided wetlands and vast expanses of agricultural land in grain and alfalfa production. It contains optimal shrike hedgerow and brush habitat and is within our permitted area of release. SCPBRG personnel monitored released shrikes at the release site. Banded shrikes were regularly seen in the area through October 2002 with up to six individuals seen on return visits to monitor released birds. Over 18 visits were made to the release site and at least one banded shrike was observed in 17 visits. No nesting was observed. We did not anticipate that the released birds would remain localized. Monitoring will be conducted in future years to determine whether translocated shrikes return to Oceano or remain near Grizzly Island.

### **Nestling Shrikes**

Seventeen (17) nestling shrikes were collected alive with their nests following the capture of adult shrikes. The entire nest, including young shrikes, was placed inside a small animal carrier, which was kept in a warm, quiet location. The nestlings were fed mealworms after capture and during transport to our cooperators at Native Animal Rescue in Santa Cruz, California. Native Animal Rescue personnel hand-reared the nestlings until they gained flight ability. They were then returned to our Oceano Dunes Project personnel and briefly housed in a flight facility. They were fed live food to gain experience capturing prey in a large flight pen. They were provided a variety of prey species covertly, to avoid development of behavior relating food to human sources. Barbed wire was provided inside the flight pen for the shrikes to practice impaling and dismembering larger prey items.

A soft release process known as "hacking" was used to gradually facilitate the transition to wild independence. For as long as the shrikes remained in the area after release, food was provided outside of the flight facility in a container similar to the food source in the flight facility. Six (6) shrikes died or escaped during hand-rearing at Native Animal Rescue. Eleven (11) were successfully released.

**Table 2: Loggerhead shrikes taken as nestlings at Oceano Dunes following the capture of adults, and placed in rehabilitation center for later release.**

USFWS Band Number	Date Taken
951-25204	4/02
951-25205	4/02
951-25206	4/02
951-25207	4/02
Escaped during rearing	4/02
Died during rearing	4/02
Died during rearing	4/02
951-25208	4/16
951-25209	4/16
951-25210	4/16
951-25211	4/16
Escaped during rearing	4/16
Died during rearing	4/16
951-25212	5/15
951-25213	5/15
951-25214	5/15
Died during rearing	5/15

**Other Survey Results (including some observations by tern/plover ecologists)**

**American Kestrels:** No American kestrel nests were found within the Park boundaries, which lacks suitable nest sites. Kestrels were seen hunting in the vicinity of Oso Flaco Creek and Arroyo Grande Creek, and there were likely nests inland from these locations. There were four sightings of kestrels at or near the large 7/8 enclosure in August and September. These birds were watched closely by SCPBRG personnel and were not observed to be hunting the plover and tern breeding exclosures. There are large numbers of non-breeding kestrels in any area of their range.

**Northern Harriers:** No northern harrier nests were found within Park boundaries. Harriers were seen hunting the Oso Flaco and Arroyo Grande Creek area and the revegetative exclosures east of the main concentrations of nesting terns and plovers in the 7 and 8 exclosures. On three occasions during the plover and tern nesting season, harriers were seen to fly low over the 7/8 enclosure area. On scores of occasions harriers were seen flying high over the exclosures and harriers were seen hunting on a daily basis to the east through the many revegetative exclosures. Since harriers hunt on the wing and very low to the ground, observations indicated that harrier predation impact within the tern and plover nesting enclosure was negligible. No harrier predation upon tern or plover adults or their chicks was observed. Individual harrier hunting behavior is watched carefully for early signs indicating an individual could become a "problem" bird that requires translocation. This has been required in other areas of plover nesting in California.

**Owls:** On three occasions SCPBRG personnel surveyed the Park for owls at night. Great horned owls were located in the Oso Flaco Creek and Arroyo Grande Creek area. No great horned or barn owl nests were found within the park. No owls were flushed from any of the many revegetative exclosures within the Park during daylight hours. Several barn owls were seen flying east of the Oso Flaco Area over farmland at dusk. On 17 July, a dead barn owl was found on the beach west of the 7 exclosure. On 8 August, a barn owl was found by plover ecologists in the morning, perched on a mound of kelp on the shoreline north of Post 8. Ecologists were able to approach the animal to within a few feet, whereupon it flushed into the revegetative exclosure and then flushed again into the pipeline revegetative exclosure. Flat, sandy beaches are not normally roosting sites for barn owls and the reasons for this behavior remain unknown.

Great horned owl predation upon adult snowy plovers and adult least terns is always a matter of concern. Predation by great horned owls is usually indicated by the disappearance of adult terns and plovers and the presence of owl tracks within the nesting area. Large avian tracks were observed by plover ecologists within the nesting exclosures on three occasions. On 5 May and 2 June, shorebird remains, mostly feathers, were found by plover/tern ecologists in the 7/8 and 7 exclosures, respectively. In addition to feathers, a shorebird beak and a few drops of blood were discovered. In the vicinity of these remains, large avian footprints were seen in the sand. Although SCPBRG personnel were not able to inspect these tracks, circumstantial evidence suggests shorebird predation by an avian predator, possibly a great horned owl. It is very likely that owls of various species were present on the site and not involved in any predation on shorebirds as it is an unusual prey for them. We have found that individuals of several species of owls prey on plovers in some situations elsewhere, but in 2002 it was not observed at Oceano.

**Peregrine Falcons:** There is an active peregrine falcon nest approximately three miles north of the Park. This pair fledged three young this season. In addition there are two active eyries on Vandenberg Air Force Base, one near Avila Beach and one near Edna. All of these pairs successfully fledged young in 2002. It is also known that there are a few non-breeding adult and immature peregrines in the area. Peregrine adults, immatures and juveniles were seen fairly regularly within the Park.

In the early part of the season peregrines preyed heavily upon the thousands of shorebirds staged on the shoreline prior to northern migration. After these shorebirds had largely departed, peregrines turned their attention to other species including red-winged and Brewer's blackbirds in the foredunes area. Peregrine adults and juveniles were seen hunting in the vicinity of the plover and tern nesting areas and on several occasions were seen perched on the ground within the large 7/8 exclosure and on exclosure perimeter fences. The peregrine activity was closely monitored and indicated that prey species other than terns and plovers were being targeted. No terns or plovers were observed to be attacked by the falcons.

**Other Raptors:** White-tailed kites and Cooper's hawks were seen occasionally. An osprey set up a temporary territory in the Oso Flaco area. Large numbers of sighting occur and many different groups had observations of predators in the Oceano study area during the study. The great majority of these sightings were of predators using the area but not preying on or a threat to plovers or terns. In any area, a few individuals of almost any species could feasibly select shorebirds for prey and our efforts were designed to remove and translocate those individuals.

## **Discussion and Recommendations**

No shrikes fledged within the Park during the plover/tern nesting season and there was no known avian predation upon plovers/terns. Plover fledging success was encouraging compared to past seasons. Preemptive trapping of resident, local predators was essential to success, rather than waiting for predation events by raptors occupying immediately adjacent habitat to occur. We began trapping in mid-March 2002. Based on experiences in 2002, we recommend that future monitoring and trapping efforts be initiated earlier to allow a longer period to identify and remove predators of concern before plover and tern chicks hatch. The available information for shrike nesting in previous seasons suggested that nesting would begin later than it did in 2002. Some shrikes had laid eggs by mid-March, postponing trapping of adults and collection of young until the shrike chicks were one week of age. An earlier start in future seasons will reduce shrike nesting altogether.

Until mid-July kestrel and harrier sightings were not at a level to cause concern. Peregrine falcon sightings were more numerous throughout the season. Peregrines did not target adult terns or plovers, and no attacks were witnessed. As the plover/tern nesting season progressed, observations of northern harriers and American kestrels increased within the Park. Although they were a concern, observations of their behavior did not indicate they were taking plover/tern chicks. The increase probably resulted from adults that had completed their nesting cycle outside the Park, and young of the year. We recommend that future efforts include coordination with other groups and earlier avian predator monitoring and trapping in areas surrounding the ODSVRA. We can then anticipate and reduce tern and plover mortality by the adjacent predators, which move into the ODSVRA later in the season. In addition, during the same period new shrikes began appearing in territories that had earlier been cleared of adult shrikes. These new unpaired adult shrikes were trapped and removed (map numbers 11-14) so trapping needs to continue until July or perhaps August in some years.

There will be continuing threats to plovers and terns from raptors and shrikes following the measures that were taken this season. New birds will find these prey resources and readily fill these territories. Based on our experiences at other colonies, each year the threat of predation will be from slightly different combinations of raptor and non-raptor species that occur in the region. A plan for future activities needs to include options for dealing with a variety of species that could occur in different numbers, in different areas, and at different times of the breeding cycle each season.

It has been our experience that limited coyote management can be helpful in combination with raptor translocation. However if red fox or other species are impacted by changes in coyote population, the impacts can be greater than the current problems with coyotes. A very careful and selective program needs to occur. In addition, it may be desirable to increase the analysis by biologists through banding of tern chicks to assess fledging rates and the efficacy of predator management efforts. However the tern or plover banding effort if not done appropriately by highly skilled and sensitive biologists can also have negative impacts that make its value to assessments not a worthwhile risk.

## Acknowledgements

UC Santa Cruz Predatory Bird Research Group staff members and cooperators wish to thank Laura Gardner and Park Ecologists of ODSVRA, and Doug George of Point Reyes Bird Observatory for their assistance with the success of this project. We also would like to thank our volunteers and staff for volunteer assistance at crucial times of the season, the Lindgren family for donation of the four-wheel drive vehicle used for the project, and donors of unrestricted funds to SCPBRG that helped supplement this management effort in 2002. Park biologist Jim Walth initially created the GIS map in this report.

**CCC Exhibit** 2  
**(page** 48 **of** 48 **pages)**

# OCEANO DUNES STATE PARK

- ▲ Shrike Trap Location
- Nests
  - ▲ California Least Tern
  - Western Snowy Plover
  - Loggerhead Shrike
- Marker Post
  -
- Perimeter Fence
- Exclosure Fence



Executive Director or the Commission.

4. **Assignment.** The permit may be assigned to any qualified person, provided assignee files with the Commission an affidavit accepting all terms and conditions of the permit.
5. **Terms and Conditions Run with the Land.** These terms and conditions shall be perpetual, and it is the intention of the Commission and the permittee to bind all future owners and possessors of the subject property to the terms and conditions.

### III. SPECIAL CONDITIONS OF APPROVAL

1. **Scope of Permit.** This permit amendment replaces Special Conditions 3B, 3D, and 6 of CDP 4-82-300. This permit amendment also authorizes the institution of interim vehicle (street-legal, off-highway vehicle, and camping) limits at the ODSVRA, and the establishment of an ODSVRA Technical Review Team, for an initial one-year period from the date of approval of the revised conditions and findings.
2. **Renewal of Permit.** Annually, the Commission shall review the overall effectiveness of the Technical Review Team in managing vehicle impacts at the ODSVRA. If the Commission is satisfied with the review, this amendment will remain in effect for an additional year. A longer permit term may be requested in the future. Otherwise, an alternative approach to resource management, or set of management measures, may be instituted through this review process.
3. **Interim Vehicle Limits.**
  - a. **Interim Day-Use Vehicle Limits.** Except as qualified by 3d, interim limits on motor vehicle use on the beaches and dunes of Oceano Dunes SVRA shall be no more than 2,580 street-legal vehicles per day. This limit does not include off-highway vehicles, or street-legal vehicles attributable to allowed overnight camper use within the ODSVRA.
  - b. **Interim Camping Limits.** Except as qualified by 3d, interim limits on overnight motor vehicle use on the beaches and dunes of Oceano Dunes SVRA shall be no more than 1,000 camping units (i.e. 1,000 street-legal vehicles) per night. This limit does not include off-highway vehicles or street-legal vehicles attributable to allowed day-use within the ODSVRA.
  - c. **Interim Off-Highway Vehicle Limits.** Except as qualified by 3d, interim limits on off-highway vehicle use on the beaches and dunes of Oceano Dunes SVRA shall be no more than 1,720 off-highway vehicles at any given time. This limit does not include the street-legal vehicles used to tow or trailer the OHVs into the ODSVRA.
  - d. **Holiday Periods.** Interim street-legal and off-highway vehicle limits may be exceeded only during the four major holiday periods of Memorial Day (Saturday through Monday), July 4<sup>th</sup> (one day and any adjacent weekend days), Labor Day (Saturday through Monday), and Thanksgiving (Thursday through Sunday).



- 4. Technical Review Team.** The Technical Review Team (TRT), advisory to the Superintendent of the Oceano Dunes State Vehicular Recreation Area, shall be established within three months, and shall meet within six months, from approval of the revised conditions and findings of this coastal development permit amendment (4-82-300-A5). A Charter for the TRT, establishing members\*, roles and procedures for the Team, shall be submitted to the Executive Director for review within one year of approval of the revised conditions and findings of this coastal development permit amendment.
- a. The Charter shall establish a specific structure and process in order for the TRT to do at least the following:
    - i. Assist in building community support through problem solving, consensus building, new constituency development, and increasing understanding about the ODSVRA; and
    - ii. Develop recommendations to the Superintendent of the ODSVRA regarding additional monitoring studies, adjustments to day and overnight use limits, and management strategies.
  - b. The Charter shall also include at least the following:
    - i. A provision to create a scientific subcommittee to identify, develop and evaluate the scientific information needed by decision-makers to ensure that the ODSVRA's natural resources are adequately managed and protected. The subcommittee shall be composed of resource experts representing the five government agencies (CCC, SLO County, USFWS, DFG, DPR) and at least two independent scientists with expertise in Western snowy plover, California least tern, steelhead trout or other species of concern, as well as ecological processes to analyze technical data and provide scientific recommendations to the TRT: and
    - ii. A provision to submit a list of proposed members of the scientific subcommittee to the Executive Director for review and approval.
  - c. The Charter shall establish a specific structure and process in order for the scientific subcommittee to do at least the following:
    - i. Recommend to the TRT the scientific studies and investigations that may be necessary to develop information needed by resource managers;
    - ii. Advise the TRT regarding the protection of the SVRA's natural resources by helping identify and review needed research measures and restoration efforts to rebuild or protect the ODSVRA natural resources;
    - iii. Evaluate monitoring results and reevaluate monitoring protocols contained in Oceano Dunes SVRA annual reports for the Habitat Monitoring System, reports on the breeding, nesting and fledgling success of the western snowy plover and California least tern populations in the SVRA, and other reports related to the environmental impacts of recreational activities;



- iv. Provide comments on the adequacy of various scientific research studies and make management recommendations to the TRT: and
- v. Submit the full recommendations of the scientific subcommittee to the Commission and make them available to the public, as part of the annual review process required in Special Condition 2.

\* Members of the TRT shall include, but are not limited to, those listed in the Department of Park & Recreation's amendment submittal (noted on page 10-11 of this staff report) and a representative of the residential community adjacent to the ODSVRA.

5. **Annual Reports.** The TRT and the ODSVRA Superintendent shall prepare annual reports (for the period of October to September) summarizing annual recreational use and habitat trends at the Park; and highlighting the TRT's major accomplishments (including progress made towards meeting the objectives of the TRT), projects, correspondence, and recommendations as well as a summary of subcommittees, working groups, and task force activities. The first annual report shall include (1) a draft or final Charter for the TRT, and (2) a description of the process by which the TRT will rank research and management questions and priorities. The second annual report shall include (1) the final Charter for the TRT (if not submitted with the first annual report), (2) the TRT's ranking of research and management questions and priorities, and (3) a scope of work for those projects identified as the highest priority. Subsequent reports will include a status report on the progress of those projects as well as updates to research and management priorities and the corresponding scopes of work for addressing those new priorities. One component of the Commission's annual review will be to evaluate the progress of the TRT's work as measured against the submitted work plans.

In identifying and selecting the priority research and management questions and projects, the TRT shall consider information developed by the USFWS and shall include the following:

- a. Appropriate management techniques for the western snowy plover, California least tern, and steelhead trout including an evaluation of:
  - i. How the geographic location of nests, proximity of nests to foraging areas, and nest closure techniques affect the hatching and fledgling success of the species,
  - ii. What studies may be necessary to determine appropriate management techniques, or what known management techniques could be put in place, for protecting each species of concern, and
  - iii. The potential environmental, recreational and economic costs and benefits of alternative beach/dune habitat protection strategies.
- b. Appropriate management techniques for protecting water quality and dune habitats from potential pollutants that might result from motor vehicle fluids or other contaminants that might enter the ODSVRA and ocean through polluted runoff or direct discharges; and



- c. The success of past revegetation efforts within the ODSVRA and the potential need for continuing or expanding those efforts, including expansion of vegetation enclosures.
- d. Conduct a comprehensive, long-term monitoring and comparative analysis of the resources impacts associated with varying levels of use, including the highest (peak-use) attendance periods.

If alternative research and management questions and projects are identified as a higher priority than those listed in a through d above, the annual reports shall discuss the basis for such a determination. Annual reports shall be submitted to San Luis Obispo County and the California Coastal Commission for informational purposes no later than January 1<sup>st</sup> of the following year. The first annual report (or portion thereof) shall be completed and submitted to the Commission no later than January 1, 2002.

## IV. FINDINGS AND DECLARATIONS

### A. Project Description and Background

#### 1. Project Location

Oceano Dunes State Vehicular Recreation Area (ODSVRA), formerly Pismo Dunes SVRA (PDSVRA) is located on the central California coast along the southern coastal region of San Luis Obispo County. Primary access to this area is via Highway 101 and California State Highway 1. The ODSVRA is bordered on the north by the non-vehicular section of Pismo State Beach, on the west by the Pacific Ocean, on the south by Oso Flaco Lake and along its eastern and southeastern boundaries by the City of Grover Beach and Oceano.

ODSVRA encompasses 3,590 acres and includes approximately six miles of sandy beach; about 1,500 acres are available for OHV use. It varies in width from a few hundred yards along its northerly two miles to up to three miles wide along its southerly portion (see Exhibit 2). ODSVRA itself is divided into different regions based upon allowable activities and include areas set aside strictly for resource protection, street legal vehicle use, and a combination of street legal/off-highway vehicle use (see Exhibit 3). The separation and delineation of these specific areas was developed through the past cooperative efforts of the Coastal Commission and County of San Luis Obispo Board of Supervisors, the California Department of Fish & Game (DFG) and the California Department of Parks & Recreation (DPR).

Land use patterns of the lands adjoining the study area are characterized (from north to south) as ranging from urban commercial and industrial, and eventually shifting to rural agricultural and industrial. Specifically, along ODSVRA's narrow northern end, urban retail establishments, commercial campgrounds and urban residential land uses characterize the eastern border. Progressing south, land use is characterized by a small rural airport, a State Park dune preserve, agricultural fields, an oil refinery and its associated oil fields, and open ranch lands.

