

# CALIFORNIA COASTAL COMMISSION

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# Th23b

## CDP 3-12-050 (ODSVRA DUST CONTROL)

SEPTEMBER 14, 2017

### EXHIBITS

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- Exhibit 1: Project Location and Site Photos
- Exhibit 2: ODSVRA Photos
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- Exhibit 6: DPR's Proposed Dust Control Program
- Exhibit 7: Dust Control Measures Photos
- Exhibit 8: Letter from the California Air Resources Board (CARB)
- Exhibit 9: Letter from the San Luis Obispo County Air Pollution Control District (APCD)
- Exhibit 10: Memorandum from Coastal Commission Staff Ecologist Dr. Laurie Koteen



Pier Avenue Access

Interim Staging Area

La Grande Tract

Post Markers

Open Riding Area

Seasonal Exclosure Area  
(Southern Exclosure)

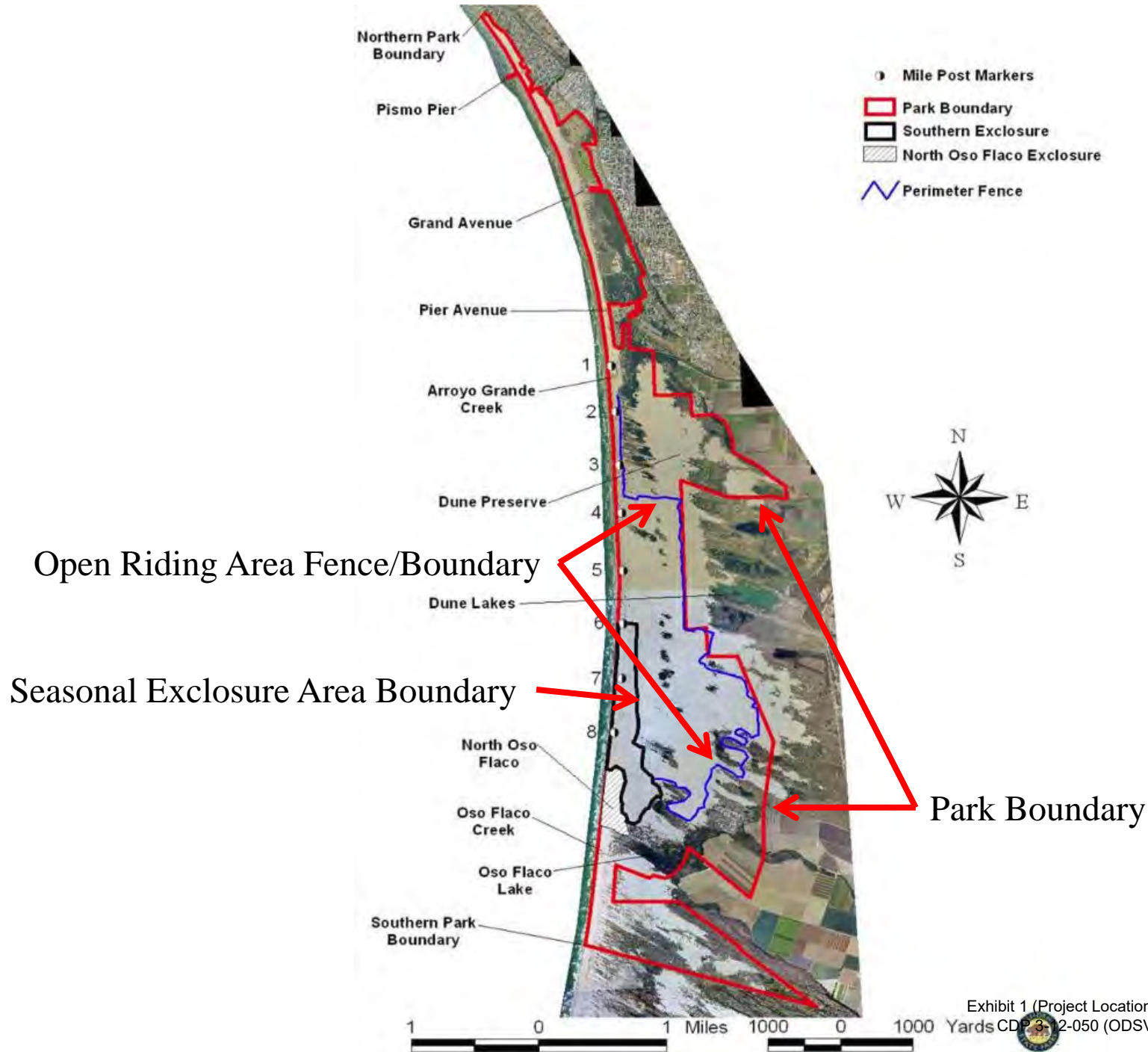
Oso Flaco Access  
(pedestrian only)



Oceano Dunes and Vicinity

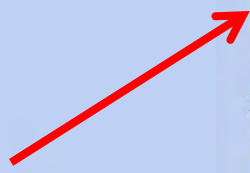
- Post Markers
- Off-Highway Vehicle Riding Area
- Oceano Dunes SVRA State Park Boundary
- Seasonal Exclosure for Plover
- Dune Preserve







Interim Staging Area



Sand Highway



Seasonal Exclusion Area Boundary

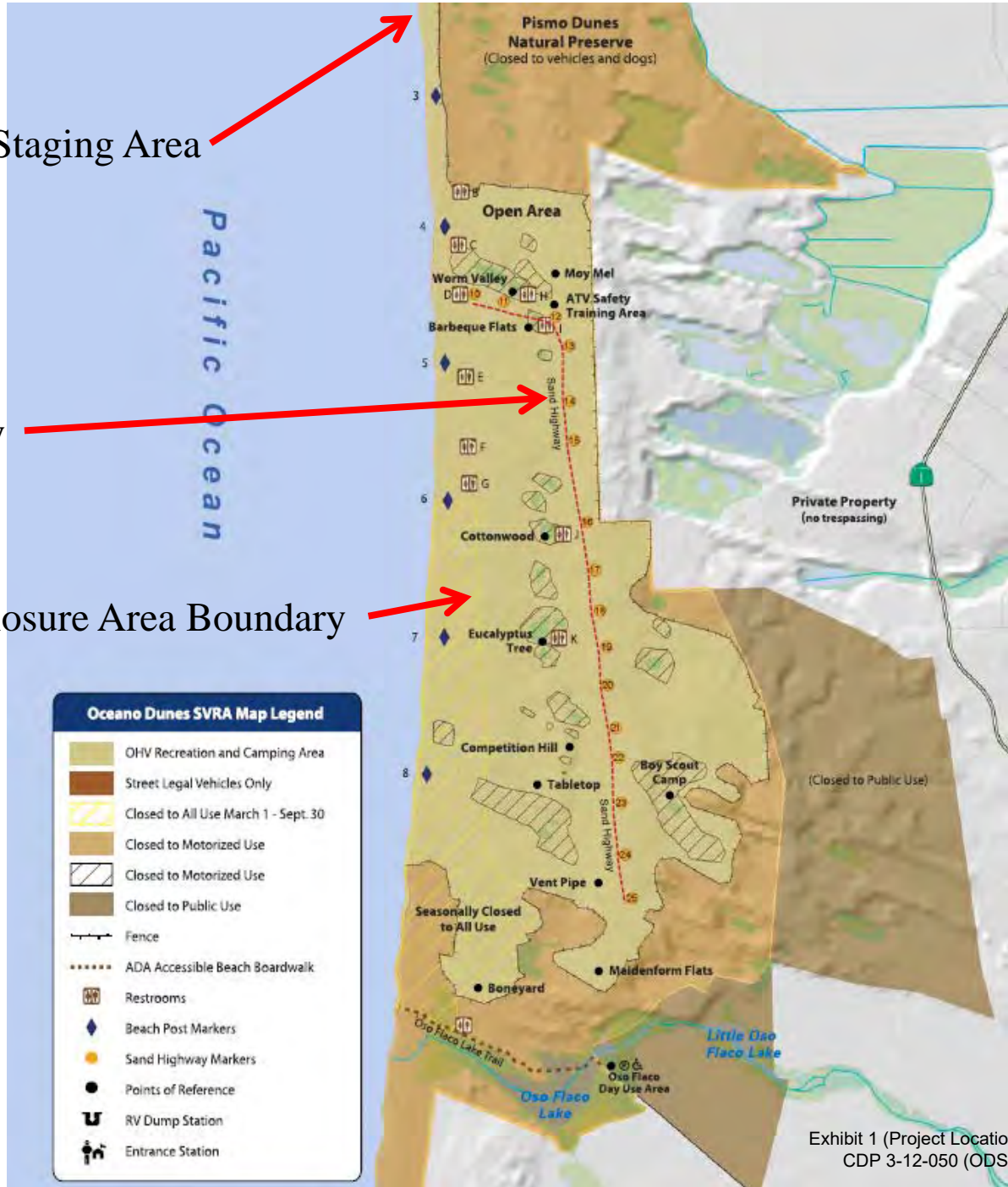


Exhibit 1 (Project Location and Site Photos)  
CDP 3-12-050 (ODSVRA Dust Control)  
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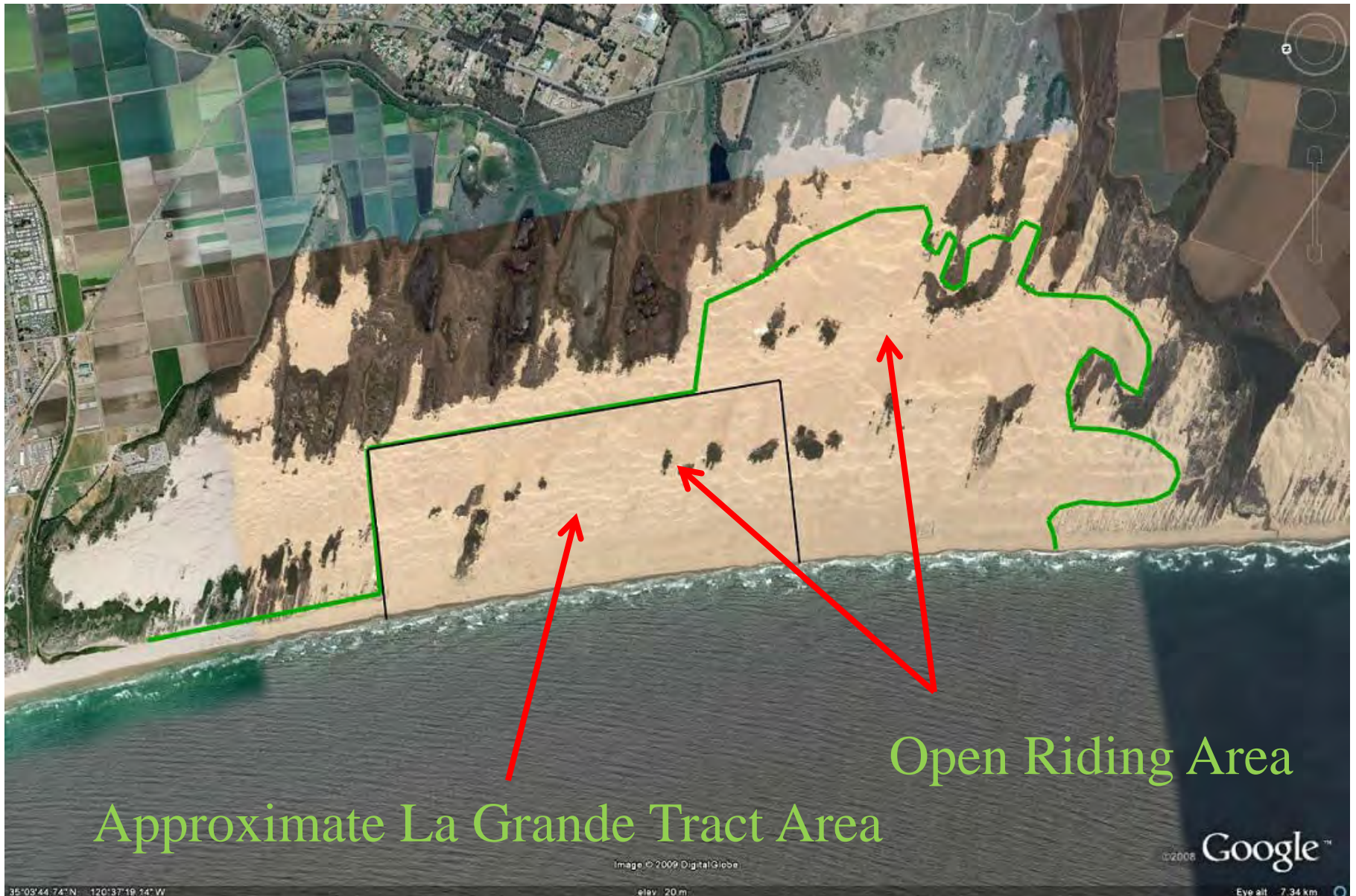



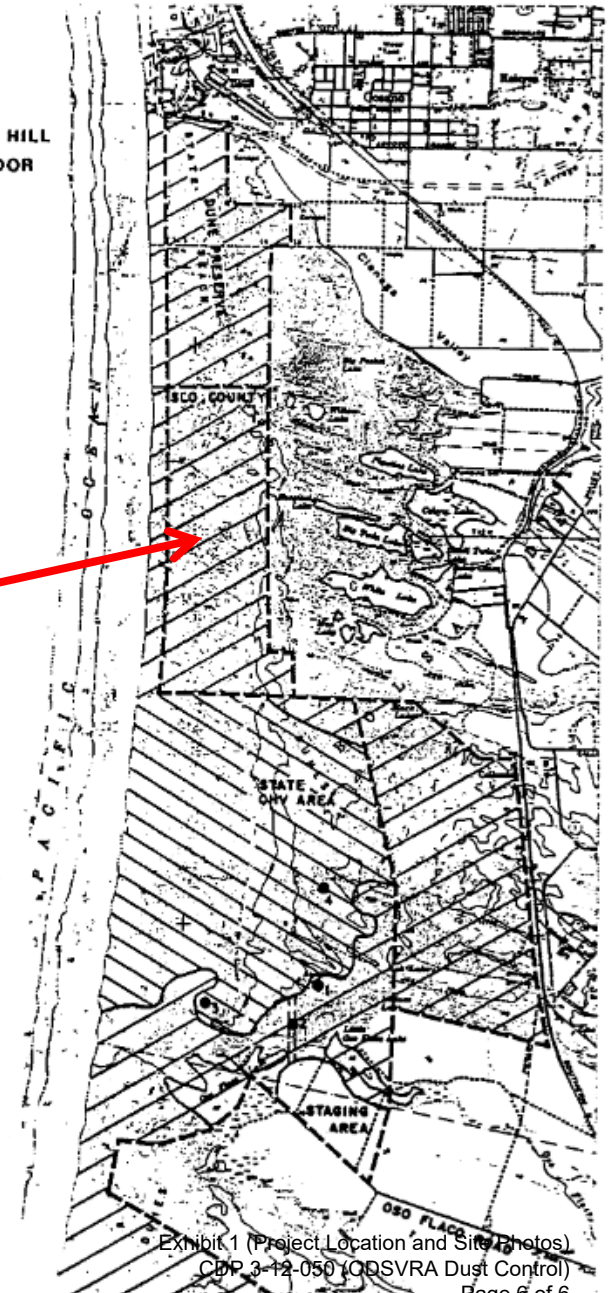


FIGURE 4

OFF-ROAD VEHICLE USE AREAS

LEGEND

-  OHV USE AREA
-  BUFFER AREA
- 1 LITTLE COREOPSIS HILL
- 2 OHV ACCESS CORRIDOR (Schematic)
- 3 MAIDENFORM FLATS
- 4 BOY SCOUT CAMP



South County Area Plan  
Figure 4

La Grande Tract

# Aerial Near Pier Avenue Access and community of Oceano





# Aerial Near Interim Staging Area



Exhibit 2 (ODSVRA Photos)  
CDP 3-12-050 (ODSVRA Dust Control)  
Page 2 of 5

# Aerial of Open Riding Area



Exhibit 2 (ODSVRA Photos)  
CDP 3-12-050 (ODSVRA Dust Control)  
Page 3 of 5

# Aerial of the La Grande Tract

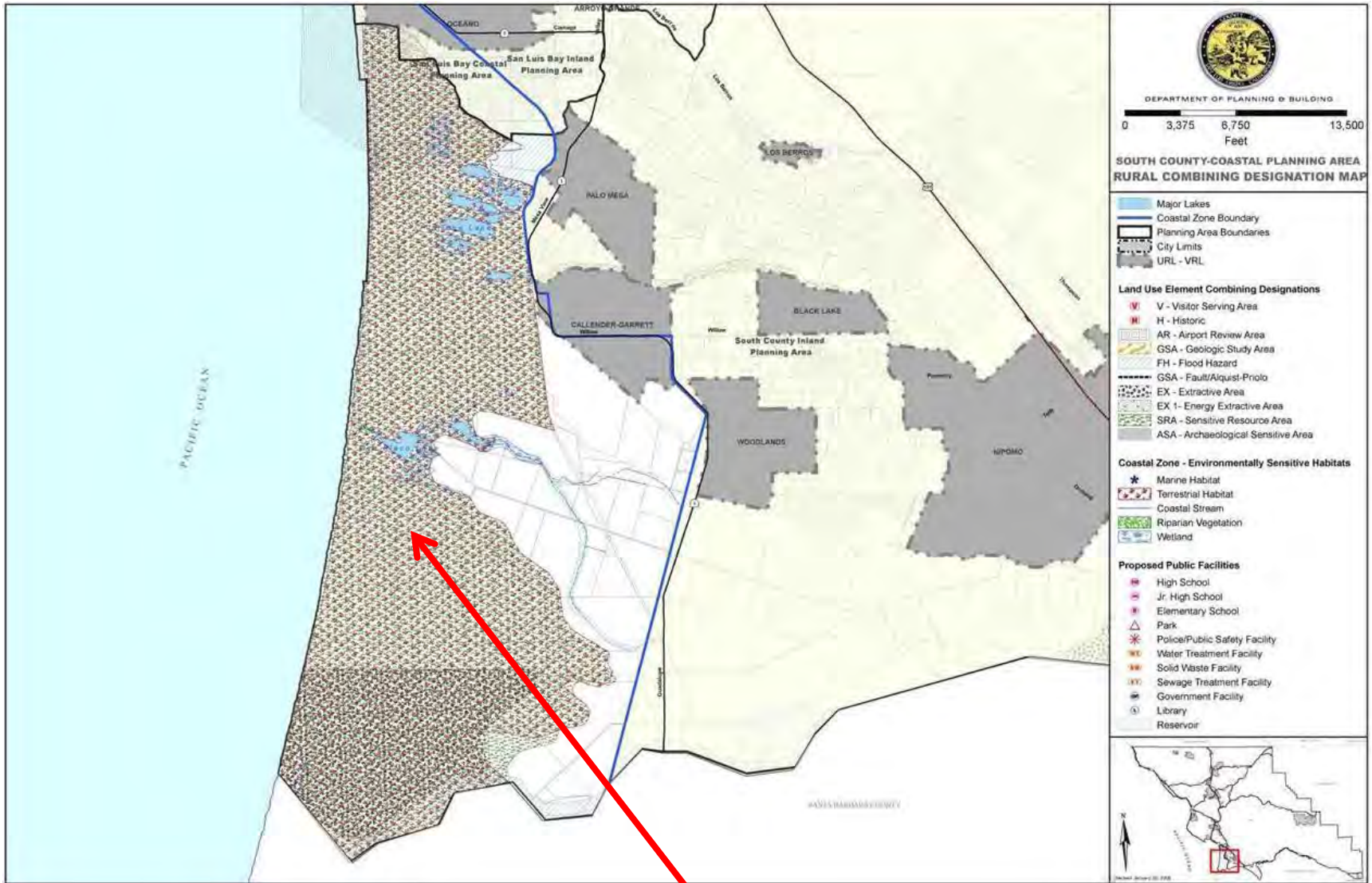




# Oso Flaco Lake Area



# San Luis Obispo County LCP ESHA Map



Sensitive Resource Area (SRA) and Terrestrial Habitat ESHA Designation

Exhibit 3 (San Luis Obispo County LCP ESHA Map)  
 CDP 3-12-050 (ODSVRA Dust Control)  
 Page 1 of 1

## **CDP 4-82-300, approved in 1982**

### **1. Staging Area Location:**

A. An interim OHV staging area shall be operational no later than Labor Day weekend 1982 in a designated area on or adjacent to the beach south of Sand Highway (Exhibit C). This staging area shall remain operational subject to the stated conditions and standards herein until such time as a permanent staging area is constructed.

Upon implementation of the interim staging area, all OHVs, ATCs and other non-street legal vehicles shall be trailored to and from Grande and Pier Avenues. At all times such vehicles when under their own power, shall be prohibited north of the northerly terminus of Sand Highway.

B. A permanent staging area site shall be selected as expeditiously as possible but in no case later than 18 months from the effective date of the County's LUP certification consistent with the following standards. Construction of this permanent staging area shall begin no later than three (3) years from the date of the certification of the County's LUP of its LCP. If construction and operation of a permanent staging area cannot be accomplished within the above time limits, this permit shall be subject to review and modification if necessary or appropriate by the County or the Commission or either in consultation with the other. Prior to construction, the County's LUP and the State Parks General Development Plan shall be amended to include the selected site with all additional standards or conditions for its design and operation. At the present time, there are several known locations which shall be considered and evaluated for staging area use, these locations are: Callendar Road area; the stables/agricultural lands area south of Arroyo Grande Creek; Agricultural lands north of Oso Flaco Creek adjacent to the Union Oil property; on the beach as per the interim staging area described herein (see Exhibit C). Other potential sites may also be evaluated. The site selection process shall include an environmental impacts analysis adequate to enable the selection of the least environmentally damaging location for the use. Accordingly, the on and off-site impacts of each alternative shall be measured against the impacts of the others. In selecting the site and amending the County's LUP and the State Parks General Development Plan to incorporate the selected site, the following standards must be found to have been met: 1) that the site selected is the least environmentally damaging alternative; and 2) that all feasible design and operational related mitigations have been incorporated to minimize adverse environmental impacts. Additional standards for site selection are in their order of importance: locating a site which reduces to the maximum extent feasible OHV related impacts to the residential character of the community of Oceano; locating a site which facilitates the successful separation and regulation of recreational uses within the park itself; locating a site which can be constructed and operational expeditiously.

C. Oso Flaco Lakes Area: An off-highway vehicle staging area shall not be constructed at the Oso Flaco Lake site indicated on Exhibit C. As part of the fencing proposed in this project, the Oso Flaco causeway to the PSVRA shall be permanently closed to vehicular traffic. Pedestrian and equestrian access only shall be allowed over



the causeway or in the vicinity of the Oso Flaco Lakes. The state owned agricultural lands south of Oso Flaco Lakes may be utilized for the development of a campground for passive recreational use of the dune areas within the Park excluded from OHV use. The State Parks and Recreation Department shall amend its General Development Plan accordingly. Uses in this camping area shall be permitted only if consistent with the resource protection policies of the San Luis Obispo County Land Use Plan; 100 foot buffering setbacks from the lakes, creek and wetlands shall be applied at a minimum with greater setbacks required if necessary, only resource dependent uses and passive recreational activities shall be permitted.

2. Control of Access to the Park: Effective immediately upon issuance of this permit and until either a permanent staging area is operational or this permit and the County's LUP is amended to accommodate possible necessary minor adjustments in the operation of these conditions, access and egress to and from the park shall be controlled and monitored in the following manner:
  - A. All vehicular access and egress shall be via Grande Avenue and Pier Avenue, an effective vehicle barriers shall be placed at the southern end of the Oso Flaco causeway to assure that no OHV access over the causeway is permitted.
  - B. Manned vehicle contact stations (kiosks) shall be placed at the Pier and Grande Avenue access points.
  
3. Control of uses within the Park: By the July 4 week-end of 1982 and as soon as possible prior to that date, the Parks and Recreation Department shall institute a Public Information program for vehicular recreational users within the Parks units. At the Grande and Pier Avenue's kiosks, occupants of all vehicles entering the Park will be provided a pass or ticket to the park and the following information:
  - A. The following rules are effective immediately with violators subject to citation and fines:
    - All non-street legal vehicles shall be prohibited from the area north of Sand Highway after dusk each day.
    - Vegetated dune areas, whether they are fenced or unfenced, are strictly off-limits to all vehicles.
    - All areas posted as Private Property or Restricted Use are off-limits to vehicle activity.
    - All vehicle activity is prohibited south of the Oso Flaco Creek (or south of the fence line that is constructed).
  
  - B. Beginning with LABOR DAY WEEKEND 1982 Beach Camping within the Park units shall be restricted to a maximum of 500 units\* with each unit available only through a reservation obtained through the State Parks Reservation System (Ticketron). On that weekend and thereafter, admittance to the Park for the purpose of overnight camping will be denied to individuals without a valid reservation unless vacant unreserved camping spaces are available.

\*One unit equals a campsite for a single camper vehicle.

- C. Beginning LABOR DAY WEEKEND, specific areas of the Park will be designated for specific types of vehicles. The designations will be as follows:
- Area north of Sand Highway to Grande Avenue designated for and restricted to street legal vehicle use.
  - Area south of Sand Highway to the fenced or posted area north of Oso Flaco Creek designated for OHV use.
- D. On or before January 1983, the following will occur: OHV day use will be limited to a specified number of users established in consultation with agreement by the County of San Luis Obispo and the Executive Director of the Coastal Commission and the Department of State Parks. OHV day use fees may be collected.
- E. Protective Fencing of Dunes, archeological resources, and wet environments shall be accomplished in the following manner subject to review and approval by the Executive Director of the Coastal Commission in consultation with the County of San Luis Obispo and the State Department of Fish and Game.
- (a) Fencing proposed and approved herein, plus fencing of the area shown as Area A on Exhibit D plus the perimeter fencing along the Sand Highway and the Eastern Boundary of ODSVRA shall be accomplished by November 30, 1982. All other vegetated areas indicated on Exhibit D shall be fenced by Aug 31, 1983.
- (b) One primary objective of the fencing is to prohibit vehicle access to the dune area south of Oso Flaco Creek. Accordingly, the east/west aligned fence north of Oso Flaco Creek shall continue seaward to the mean low water line so that vehicles do not pass to the south. The continuation of this line to mean low water may require different construction than normal fencing – possibly driven piles.
- (c) Except for the following, fencing alignments shall be placed a minimum of 100 feet from the vegetated areas being fenced:
1. Along Sand Highway where the fence would encroach into the Sand Highway travel corridor.
  2. Along the seaward side of the foredunes paralleling the beach where fencing may be placed in a manner similar to that already existing along the westerly line of the State Dune Preserve.
  3. In other areas where it is demonstrated that a placement closer to vegetation will not diminish the effectiveness of the fence to stabilize the dune, protect the vegetation and provide necessary conditions for dune rehabilitation and restoration. Said demonstration shall be in the form of competent analysis of the dynamics of dune sand transport and natural condition necessary for dune

stabilization. Reduction in the minimum setback under this condition shall be reviewed and approved by the Executive Director of the Coastal Commission.

- (d) If fenced corridors to the Oso Flaco are constructed, they shall only be for use of state parks personnel and for the purpose of emergency, normal patrol duties, management and enforcement. Accordingly, these corridors shall have locked gates as shown on Exhibit D.
- (e) Since a barrier to OHV movement south of Oso Flaco Creek is to be constructed on the north side of the creek, any construction of fencing south of Oso Flaco Creek or lakes shall be only for the purpose of preventing OHV intrusion into the State Park holdings from adjacent private lands. Such fencing shall therefore be perimeter fencing around parcels 8, 7, 3, and 4 and shall require a coastal development permit. Fencing applied for herein south of Oso Flaco which is not perimeter fencing shall not be constructed, or if constructed shall have been to an alignment approved herein by November 30, 1982.

#### 4. Restoration

A dunes restoration program shall be undertaken by the DPR. The program shall be reviewed and approved by the Executive Director of the Coastal Commission. Restoration of vegetated dunes within the fenced-off areas shall be undertaken as expeditiously as funds and technical knowledge allows. Plantings shall begin no later than January 1983 with notification of the County and the Executive Director of the Coastal Commission. The restoration program shall be an ongoing program with the experimental or initial phase completed within three (3) years of the date of certification of the LUP and the full program in effect on that date or before.

#### 5. Protection of Archeological Resources

Archeological resources within the PDVRA shall be protected by fencing. Accordingly, as part of the current fencing project, site No. SLO 199 shall be fenced for protection. Other sites shall be fenced as their locations become known.

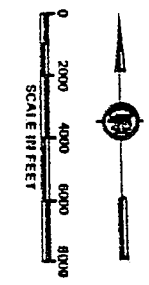
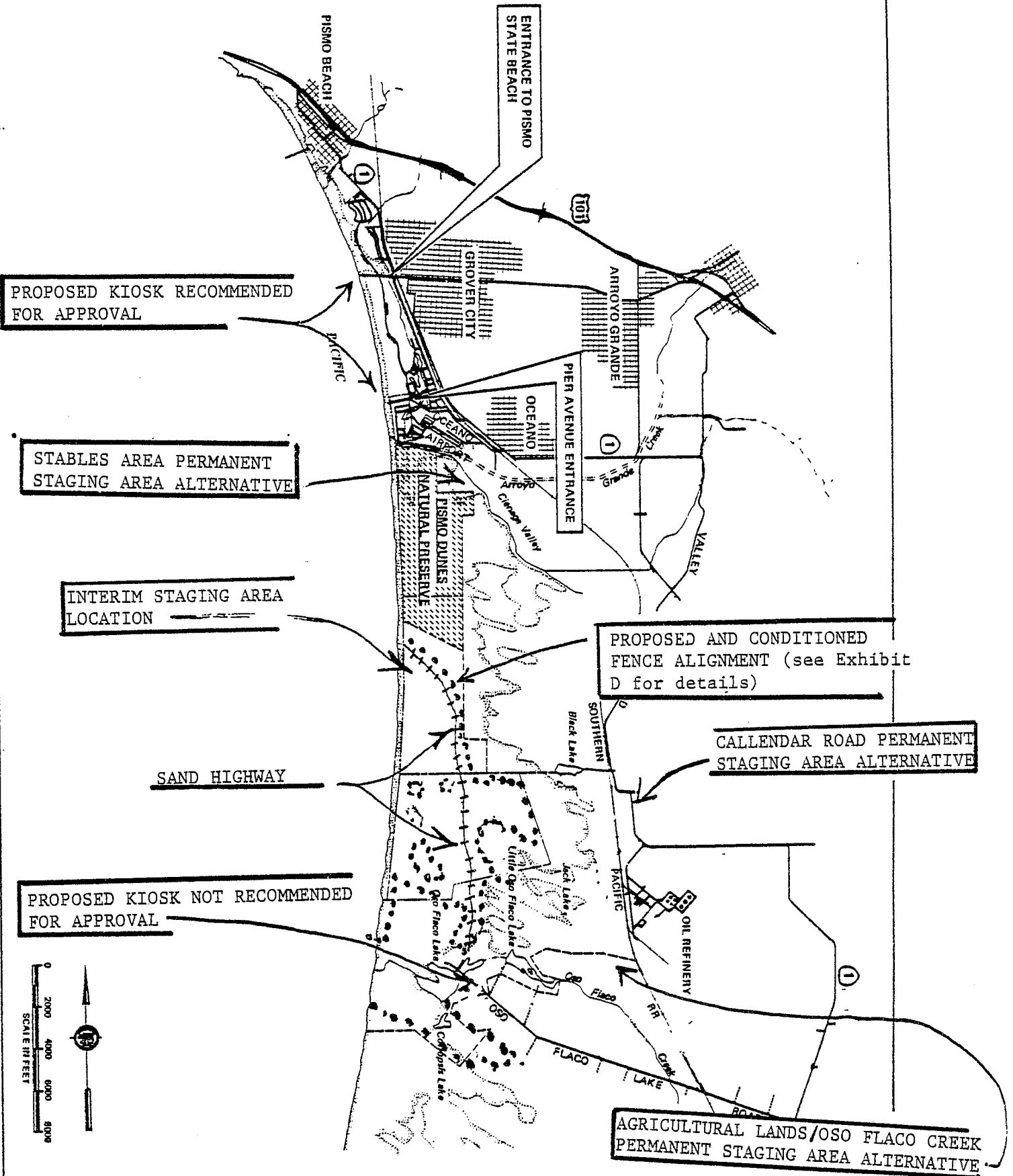
- 6. Six months after the issuance of this permit, and annually thereafter until a permanent staging area is operational, a formal review of the effectiveness of the conditions of the permit shall take place. This review shall be undertaken jointly by designated representatives of the California Coastal Commission, the California Department of Fish and Game, the County of San Luis Obispo, the Community of Oceano, the California Department of Parks and Recreation and user groups.

If after each of the annual reviews, or after the three year review required in condition 1(b) above, it is found that the Off-Highway Vehicle (OHV) use within the Pismo Dunes State Vehicle Recreation Area (PDSVRA) is not occurring in a manner which protects environmentally sensitive habitats and adjacent community values consistent with the requirements of the San Luis Obispo Local Coastal Program Land Use Plan, then OHV



access may be further limited pursuant to the access and habitat protection policies of the County certified Land Use Plan. If the above reviews find that OHV use within the PDSVRA is consistent with the protection of environmentally sensitive habitats and adjacent community values, and/or that additional staff and management revenues become available to the California Department of Parks and Recreation, levels of OHV use of the PDSVRA may be increased to a level not to exceed the enforcement and management capabilities available to the Pismo Beach State Parks Units.

# EXHIBIT C



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## CDP 4-82-300-A, approved in 1982

### 1. Staging Area Location:

A. An interim OHV staging area shall be operational no later than ~~Labor Day weekend~~ September 15th 1982 in a designated area on or adjacent to the beach south of ~~Sand Highway~~ the two mile post (Exhibit C). This staging area shall remain operational subject to the stated conditions and standards herein until such time as a permanent staging area is constructed.

Upon implementation of the interim staging area, all OHVs, ATCs and other non-street legal vehicles shall be trailored to and from Grande and Pier Avenues. At all times such vehicles when under their own power, shall be prohibited north of the northerly terminus of Sand Highway.

B. A permanent staging area site shall be selected as expeditiously as possible but in no case later than 18 months from the effective date of the County's LUP certification consistent with the following standards. Construction of this permanent staging area shall begin no later than three (3) years from the date of the certification of the County's LUP of its LCP. If construction and operation of a permanent staging area cannot be accomplished within the above time limits, this permit shall be subject to review and modification if necessary or appropriate by the County or the Commission or either in consultation with the other. Prior to construction, the County's LUP and the State Parks General Development Plan shall be amended to include the selected site with all additional standards or conditions for its design and operation. At the present time, there are several known locations which shall be considered and evaluated for staging area use, these locations are: Callendar Road area; the stables/agricultural lands area south of Arroyo Grande Creek; Agricultural lands north of Oso Flaco Creek adjacent to the Union Oil property; on the beach as per the interim staging area described herein (see Exhibit C). Other potential sites may also be evaluated. The site selection process shall include an environmental impacts analysis adequate to enable the selection of the least environmentally damaging location for the use. Accordingly, the on and off-site impacts of each alternative shall be measured against the impacts of the others. In selecting the site and amending the County's LUP and the State Parks General Development Plan to incorporate the selected site, the following standards must be found to have been met: 1) that the site selected is the least environmentally damaging alternative; and 2) that all feasible design and operational related mitigations have been incorporated to minimize adverse environmental impacts. Additional standards for site selection are in their order of importance: locating a site which reduces to the maximum extent feasible OHV related impacts to the residential character of the community of Oceano; locating a site which facilitates the successful separation and regulation of recreational uses within the park itself; locating a site which can be constructed and operational expeditiously.

C. Oso Flaco Lakes Area: An off-highway vehicle staging area shall not be constructed at the Oso Flaco Lake site indicated on Exhibit C. As part of the fencing proposed in this project, the Oso Flaco causeway to the PSVRA shall be permanently

closed to vehicular traffic. Pedestrian and equestrian access only shall be allowed over the causeway or in the vicinity of the Oso Flaco Lakes. The state owned agricultural lands south of Oso Flaco Lakes may be utilized for the development of a campground for passive recreational use of the dune areas within the Park excluded from OHV use. The State Parks and Recreation Department shall amend its General Development Plan accordingly. Uses in this camping area shall be permitted only if consistent with the resource protection policies of the San Luis Obispo County Land Use Plan; 100 foot buffering setbacks from the lakes, creek and wetlands shall be applied at a minimum with greater setbacks required if necessary, only resource dependent uses and passive recreational activities shall be permitted.

2. Control of Access to the Park: Effective immediately upon issuance of this permit and until either a permanent staging area is operational or this permit and the County's LUP is amended to accommodate possible necessary minor adjustments in the operation of these conditions, access and egress to and from the park shall be controlled and monitored in the following manner:
  - A. All vehicular access and egress shall be via Grande Avenue and Pier Avenue, an effective vehicle barriers shall be placed at the southern end of the Oso Flaco causeway to assure that no OHV access over the causeway is permitted.
  - B. Manned vehicle contact stations (kiosks) shall be placed at the Pier and Grande Avenue access points.
  
3. Control of uses within the Park: By the July 4 week-end of 1982 and as soon as possible prior to that date, the Parks and Recreation Department shall institute a Public Information program for vehicular recreational users within the Parks units. At the Grande and Pier Avenue's kiosks, occupants of all vehicles entering the Park will be provided a pass or ticket to the park and the following information:
  - A. The following rules are effective immediately with violators subject to citation and fines:
    - All non-street legal vehicles shall be prohibited from the area north of ~~Sand Highway~~ the two mile post after dusk each day.
    - Vegetated dune areas, whether they are fenced or unfenced, are strictly off-limits to all vehicles.
    - All areas posted as Private Property or Restricted Use are off-limits to vehicle activity.
    - All vehicle activity is prohibited south of the Oso Flaco Creek (or south of the fence line that is constructed).
  
  - B. Beginning with ~~LABOR DAY WEEKEND~~ September 15, 1982 Beach Camping within the Park units shall be restricted to a maximum of 500 units\* with each unit available only through a reservation obtained through the State Parks Reservation System (Ticketron). ~~On that weekend and thereafter~~, admittance to the Park for the purpose of overnight camping will be denied to individuals without a valid reservation unless vacant unreserved camping spaces are available.

\*One unit equals a campsite for a single camper vehicle.

- C. Beginning ~~LABOR DAY WEEKEND~~ September 15, 1982, specific areas of the Park will be designated for specific types of vehicles. The designations will be as follows:
- Area north of ~~Sand Highway~~ the two mile post to Grande Avenue designated for and restricted to street legal vehicle use.
  - Area south of ~~Sand Highway~~ the two mile post to the fenced or posted area north of Oso Flaco Creek designated for OHV use.
- D. On or before January 1983, the following will occur: OHV day use will be limited to a specified number of users established in consultation with agreement by the County of San Luis Obispo and the Executive Director of the Coastal Commission and the Department of State Parks. OHV day use fees may be collected.
- E. Protective Fencing of Dunes, archeological resources, and wet environments shall be accomplished in the following manner subject to review and approval by the Executive Director of the Coastal Commission in consultation with the County of San Luis Obispo and the State Department of Fish and Game.
- (a) Fencing proposed and approved herein, plus fencing of the area shown as Area A on Exhibit D plus the perimeter fencing along the Sand Highway (or along the ridge just eastward of the Sand Highway) and the Eastern Boundary of ODSVRA shall be accomplished by November 30, 1982. All other vegetated areas indicated on Exhibit D shall be fenced by Aug 31, 1983.
- (b) One primary objective of the fencing is to prohibit vehicle access to the dune area south of Oso Flaco Creek. Accordingly, the east/west aligned fence north of Oso Flaco Creek shall continue seaward to the mean low water line so that vehicles do not pass to the south. The continuation of this line to mean low water may require different construction than normal fencing – possibly driven piles.
- (c) Except for the following, fencing alignments shall be placed a minimum of 100 feet from the vegetated areas being fenced:
1. Along Sand Highway where the fence would encroach into the Sand Highway travel corridor.
  2. Along the seaward side of the foredunes paralleling the beach where fencing may be placed in a manner similar to that already existing along the westerly line of the State Dune Preserve except that a minimal number of breaks in the foredune fencing outside of the dune preserve may be allowed of OHV access to the backdune area. The fencing protecting the foredunes need not be a closed perimeter fence completely surrounding the foredune vegetation if it can be demonstrated to the Executive Director that such perimeter fencing is not necessary for effective preservation and stabilization of foredunes.

3. In other areas where it is demonstrated that a placement closer to vegetation will not diminish the effectiveness of the fence to stabilize the dune, protect the vegetation and provide necessary conditions for dune rehabilitation and restoration. Said demonstration shall be in the form of competent analysis of the dynamics of dune sand transport and natural condition necessary for dune stabilization. Reduction in the minimum setback under this condition shall be reviewed and approved by the Executive Director of the Coastal Commission.

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6. Six months after the issuance of this permit, and annually thereafter until a permanent staging area is operational, a formal review of the effectiveness of the conditions of the permit shall take place. This review shall be undertaken jointly by designated representatives of the California Coastal Commission, the California Department of Fish and Game, the County of San Luis Obispo, the Community of Oceano, the California Department of Parks and Recreation and user groups.



If after each of the annual reviews, or after the three year review required in condition 1(b) above, it is found that the Off-Highway Vehicle (OHV) use within the Pismo Dunes State Vehicle Recreation Area (PDSVRA) is not occurring in a manner which protects environmentally sensitive habitats and adjacent community values consistent with the requirements of the San Luis Obispo Local Coastal Program Land Use Plan, then OHV access may be further limited pursuant to the access and habitat protection policies of the County certified Land Use Plan. If the above reviews find that OHV use within the PDSVRA is consistent with the protection of environmentally sensitive habitats and adjacent community values, and/or that additional staff and management revenues become available to the California Department of Parks and Recreation, levels of OHV use of the PDSVRA may be increased to a level not to exceed the enforcement and management capabilities available to the Pismo Beach State Parks Units.



## **CDP 4-82-300-A2, approved in 1983**

### 1. Staging Area Location:

A. An interim OHV staging area shall be operational no later than September 15th 1982 in a designated area on or adjacent to the beach south of the two mile post (Exhibit C). This staging area shall remain operational subject to the stated conditions and standards herein until such time as a permanent staging area is constructed.

Upon implementation of the interim staging area, all OHVs, ATCs and other non-street legal vehicles shall be trailored to and from Grande and Pier Avenues. At all times such vehicles when under their own power, shall be prohibited north of the northerly terminus of Sand Highway.

B. A permanent staging area site shall be selected as expeditiously as possible but in no case later than 18 months from the effective date of the County's LUP certification consistent with the following standards. Construction of this permanent staging area shall begin no later than three (3) years from the date of the certification of the County's LUP of its LCP. If construction and operation of a permanent staging area cannot be accomplished within the above time limits, this permit shall be subject to review and modification if necessary or appropriate by the County or the Commission or either in consultation with the other. Prior to construction, the County's LUP and the State Parks General Development Plan shall be amended to include the selected site with all additional standards or conditions for its design and operation. At the present time, there are several known locations which shall be considered and evaluated for staging area use, these locations are: Callendar Road area; the stables/agricultural lands area south of Arroyo Grande Creek; Agricultural lands north of Oso Flaco Creek adjacent to the Union Oil property; on the beach as per the interim staging area described herein (see Exhibit C). Other potential sites may also be evaluated. The site selection process shall include an environmental impacts analysis adequate to enable the selection of the least environmentally damaging location for the use. Accordingly, the on and off-site impacts of each alternative shall be measured against the impacts of the others. In selecting the site and amending the County's LUP and the State Parks General Development Plan to incorporate the selected site, the following standards must be found to have been met: 1) that the site selected is the least environmentally damaging alternative; and 2) that all feasible design and operational related mitigations have been incorporated to minimize adverse environmental impacts. Additional standards for site selection are in their order of importance: locating a site which reduces to the maximum extent feasible OHV related impacts to the residential character of the community of Oceano; locating a site which facilitates the successful separation and regulation of recreational uses within the park itself; locating a site which can be constructed and operational expeditiously.

C. Oso Flaco Lakes Area: An off-highway vehicle staging area shall not be constructed at the Oso Flaco Lake site indicated on Exhibit C. As part of the fencing proposed in this project, the Oso Flaco causeway to the PSVRA shall be permanently closed to vehicular traffic. Pedestrian and equestrian access only shall be allowed over

the causeway or in the vicinity of the Oso Flaco Lakes. The state owned agricultural lands south of Oso Flaco Lakes may be utilized for the development of a campground for passive recreational use of the dune areas within the Park excluded from OHV use. The State Parks and Recreation Department shall amend its General Development Plan accordingly. Uses in this camping area shall be permitted only if consistent with the resource protection policies of the San Luis Obispo County Land Use Plan; 100 foot buffering setbacks from the lakes, creek and wetlands shall be applied at a minimum with greater setbacks required if necessary, only resource dependent uses and passive recreational activities shall be permitted.

2. Control of Access to the Park: Effective immediately upon issuance of this permit and until either a permanent staging area is operational or this permit and the County's LUP is amended to accommodate possible necessary minor adjustments in the operation of these conditions, access and egress to and from the park shall be controlled and monitored in the following manner:
  - A. All vehicular access and egress shall be via Grande Avenue and Pier Avenue, an effective vehicle barriers shall be placed at the southern end of the Oso Flaco causeway to assure that no OHV access over the causeway is permitted.
  - B. Manned vehicle contact stations (kiosks) shall be placed at the Pier and Grande Avenue access points.
  
3. Control of uses within the Park: By the July 4 week-end of 1982 and as soon as possible prior to that date, the Parks and Recreation Department shall institute a Public Information program for vehicular recreational users within the Parks units. At the Grande and Pier Avenue's kiosks, occupants of all vehicles entering the Park will be provided a pass or ticket to the park and the following information:
  - A. The following rules are effective immediately with violators subject to citation and fines:
    - All non-street legal vehicles shall be prohibited from the area north of the two mile post after dusk each day.
    - Vegetated dune areas, whether they are fenced or unfenced, are strictly off-limits to all vehicles.
    - All areas posted as Private Property or Restricted Use are off-limits to vehicle activity.
    - All vehicle activity is prohibited south of the Oso Flaco Creek (or south of the fence line that is constructed).
  
  - B. Beginning with the 4<sup>th</sup> of July weekend 1983 ~~September 15, 1982~~ Beach Camping within the Park units shall be restricted to a maximum of ~~500~~ 1,000 units\* with each unit available only through a reservation obtained through the State Parks Reservation System (Ticketron). Thereafter, admittance to the Park for the purpose of overnight camping will be denied to individuals without a valid reservation unless vacant unreserved camping spaces are available.



\*One unit equals a campsite for a single camper vehicle.

- C. Beginning September 15, 1982, specific areas of the Park will be designated for specific types of vehicles. The designations will be as follows:
- Area north of the two mile post to Grande Avenue designated for and restricted to street legal vehicle use.
  - Area south of the two mile post to the fenced or posted area north of Oso Flaco Creek designated for OHV use.
- D. On or before January 1983, the following will occur: OHV day use will be limited to a specified number of users established in consultation with agreement by the County of San Luis Obispo and the Executive Director of the Coastal Commission and the Department of State Parks. OHV day use fees may be collected.
- E. Protective Fencing of Dunes, archeological resources, and wet environments shall be accomplished in the following manner subject to review and approval by the Executive Director of the Coastal Commission in consultation with the County of San Luis Obispo and the State Department of Fish and Game.
- (a) Fencing proposed and approved herein, plus fencing of the area shown as Area A on Exhibit D plus the perimeter fencing along the Sand Highway (or along the ridge just eastward of the Sand Highway) and the Eastern Boundary of ODSVRA shall be accomplished by November 30, 1982. All other vegetated areas indicated on Exhibit D shall be fenced by Aug 31, 1983.
- (b) One primary objective of the fencing is to prohibit vehicle access to the dune area south of Oso Flaco Creek. Accordingly, the east/west aligned fence north of Oso Flaco Creek shall continue seaward to the mean low water line so that vehicles do not pass to the south. The continuation of this line to mean low water may require different construction than normal fencing – possibly driven piles.
- (c) Except for the following, fencing alignments shall be placed a minimum of 100 feet from the vegetated areas being fenced:
1. Along Sand Highway where the fence would encroach into the Sand Highway travel corridor.
  2. Along the seaward side of the foredunes paralleling the beach where fencing may be placed in a manner similar to that already existing along the westerly line of the State Dune Preserve except that a minimal number of breaks in the foredune fencing outside of the dune preserve may be allowed of OHV access to the backdune area. The fencing protecting the foredunes need not be a closed perimeter fence completely surrounding the foredune vegetation if it can be demonstrated to the Executive Director that such perimeter fencing is not necessary for effective preservation and stabilization of foredunes.

3. In other areas where it is demonstrated that a placement closer to vegetation will not diminish the effectiveness of the fence to stabilize the dune, protect the vegetation and provide necessary conditions for dune rehabilitation and restoration. Said demonstration shall be in the form of competent analysis of the dynamics of dune sand transport and natural condition necessary for dune stabilization. Reduction in the minimum setback under this condition shall be reviewed and approved by the Executive Director of the Coastal Commission.

(d) If fenced corridors to the Oso Flaco are constructed, they shall only be for use of state parks personnel and for the purpose of emergency, normal patrol duties, management and enforcement. Accordingly, these corridors shall have locked gates as shown on Exhibit D.

(e) Since a barrier to OHV movement south of Oso Flaco Creek is to be constructed on the north side of the creek, any construction of fencing south of Oso Flaco Creek or lakes shall be only for the purpose of preventing OHV intrusion into the State Park holdings from adjacent private lands. Such fencing shall therefore be perimeter fencing around parcels 8, 7, 3, and 4 and shall require a coastal development permit. Fencing applied for herein south of Oso Flaco which is not perimeter fencing shall not be constructed, or if constructed shall have been to an alignment approved herein by November 30, 1982.

#### 4. Restoration

A dunes restoration program shall be undertaken by the DPR. The program shall be reviewed and approved by the Executive Director of the Coastal Commission. Restoration of vegetated dunes within the fenced-off areas shall be undertaken as expeditiously as funds and technical knowledge allows. Plantings shall begin no later than January 1983 with notification of the County and the Executive Director of the Coastal Commission. The restoration program shall be an ongoing program with the experimental or initial phase completed within three (3) years of the date of certification of the LUP and the full program in effect on that date or before.

#### 5. Protection of Archeological Resources

Archeological resources within the PDVRA shall be protected by fencing. Accordingly, as part of the current fencing project, site No. SLO 199 shall be fenced for protection. Other sites shall be fenced as their locations become known.

6. Six months after the issuance of this permit, and annually thereafter (or as needed) until a permanent staging area is operational, a formal review of the effectiveness of the conditions of the permit shall take place. This review shall be undertaken jointly by designated representatives of the California Coastal Commission, the California Department of Fish and Game, the County of San Luis Obispo, the Community of Oceano, the California Department of Parks and Recreation and user groups.

~~If after each of the annual reviews, or after the three-year review required in condition 1(b) above, it is found that the Off Highway Vehicle (OHV) use within the Pismo Dunes State Vehicle Recreation Area (PDSVRA) is not occurring in a manner which protects environmentally sensitive habitats and adjacent community values consistent with the requirements of the San Luis Obispo Local Coastal Program Land Use Plan, then OHV access may be further limited pursuant to the access and habitat protection policies of the County certified Land Use Plan. If the above reviews find that OHV use within the PDSVRA is consistent with the protection of environmentally sensitive habitats and adjacent community values, and/or that additional staff and management revenues become available to the California Department of Parks and Recreation, levels of OHV use of the PDSVRA may be increased to a level not to exceed the enforcement and management capabilities available to the Pismo Beach State Parks Units.~~

If, after an annual (or any other) review it is found that the ORV use within the SVRA is not occurring in a manner that protects environmentally sensitive habitats and community values consistent with the conditions of this permit and the County's Local Coastal Plan, then OHV access and the number of camp units allowed may be further limited by the Executive Director with concurrence by resolution of the Board of Supervisors of San Luis Obispo County. If the above reviews find that OHV use in the SVRA is consistent with the protection of environmentally sensitive habitats and community values, and/or that additional staff and management revenues become available to the DPR, levels of OHV access and the allowable number of camp units may be increased not to exceed the enforcement and management capabilities of the DPR by determination of the Executive Director with concurrence by resolution of the Board of Supervisors of San Luis Obispo County.

## **CDP 4-82-300-A3, approved in 1984**

### 1. Staging Area Location:

A. An interim OHV staging area shall be operational no later than September 15th 1982 in a designated area on or adjacent to the beach south of the two mile post (Exhibit C). This staging area shall remain operational subject to the stated conditions and standards herein until such time as a permanent staging area is constructed.

Upon implementation of the interim staging area, all OHVs, ATCs and other non-street legal vehicles shall be trailored to and from Grande and Pier Avenues. At all times such vehicles when under their own power, shall be prohibited north of the northerly terminus of Sand Highway.

B. A permanent staging area site shall be selected as expeditiously as possible but in no case later than 18 months from the effective date of the County's LUP certification consistent with the following standards. Construction of this permanent staging area shall begin no later than three (3) years from the date of the certification of the County's LUP of its LCP. If construction and operation of a permanent staging area cannot be accomplished within the above time limits, this permit shall be subject to review and modification if necessary or appropriate by the County or the Commission or either in consultation with the other. Prior to construction, the County's LUP and the State Parks General Development Plan shall be amended to include the selected site with all additional standards or conditions for its design and operation. At the present time, there are several known locations which shall be considered and evaluated for staging area use, these locations are: Callendar Road area; the stables/agricultural lands area south of Arroyo Grande Creek; Agricultural lands north of Oso Flaco Creek adjacent to the Union Oil property; on the beach as per the interim staging area described herein (see Exhibit C). Other potential sites may also be evaluated. The site selection process shall include an environmental impacts analysis adequate to enable the selection of the least environmentally damaging location for the use. Accordingly, the on and off-site impacts of each alternative shall be measured against the impacts of the others. In selecting the site and amending the County's LUP and the State Parks General Development Plan to incorporate the selected site, the following standards must be found to have been met: 1) that the site selected is the least environmentally damaging alternative; and 2) that all feasible design and operational related mitigations have been incorporated to minimize adverse environmental impacts. Additional standards for site selection are in their order of importance: locating a site which reduces to the maximum extent feasible OHV related impacts to the residential character of the community of Oceano; locating a site which facilitates the successful separation and regulation of recreational uses within the park itself; locating a site which can be constructed and operational expeditiously.

C. Oso Flaco Lakes Area: An off-highway vehicle staging area shall not be constructed at the Oso Flaco Lake site indicated on Exhibit C. As part of the fencing proposed in this project, the Oso Flaco causeway to the PSVRA shall be permanently closed to vehicular traffic. Pedestrian and equestrian access only shall be allowed over



the causeway or in the vicinity of the Oso Flaco Lakes. The state owned agricultural lands south of Oso Flaco Lakes may be utilized for the development of a campground for passive recreational use of the dune areas within the Park excluded from OHV use. The State Parks and Recreation Department shall amend its General Development Plan accordingly. Uses in this camping area shall be permitted only if consistent with the resource protection policies of the San Luis Obispo County Land Use Plan; 100 foot buffering setbacks from the lakes, creek and wetlands shall be applied at a minimum with greater setbacks required if necessary, only resource dependent uses and passive recreational activities shall be permitted.

2. Control of Access to the Park: Effective immediately upon issuance of this permit and until either a permanent staging area is operational or this permit and the County's LUP is amended to accommodate possible necessary minor adjustments in the operation of these conditions, access and egress to and from the park shall be controlled and monitored in the following manner:
  - A. All vehicular access and egress shall be via Grande Avenue and Pier Avenue, an effective vehicle barriers shall be placed at the southern end of the Oso Flaco causeway to assure that no OHV access over the causeway is permitted.
  - B. Manned vehicle contact stations (kiosks) shall be placed at the Pier and Grande Avenue access points.
  
3. Control of uses within the Park: By the July 4 week-end of 1982 and as soon as possible prior to that date, the Parks and Recreation Department shall institute a Public Information program for vehicular recreational users within the Parks units. At the Grande and Pier Avenue's kiosks, occupants of all vehicles entering the Park will be provided a pass or ticket to the park and the following information:
  - A. The following rules are effective immediately with violators subject to citation and fines:
    - All non-street legal vehicles shall be prohibited from the area north of the two mile post after dusk each day.
    - Vegetated dune areas, whether they are fenced or unfenced, are strictly off-limits to all vehicles.
    - All areas posted as Private Property or Restricted Use are off-limits to vehicle activity.
    - All vehicle activity is prohibited south of the Oso Flaco Creek (or south of the fence line that is constructed).
  
  - B. Beginning with the 4<sup>th</sup> of July weekend 1983 Beach Camping within the Park units shall be restricted to a maximum of 1,000 units\* with each unit available only through a reservation obtained through the State Parks Reservation System (Ticketron). Thereafter, admittance to the Park for the purpose of overnight camping will be denied to individuals without a valid reservation unless vacant unreserved camping spaces are available.

\*One unit equals a campsite for a single camper vehicle.

- C. Beginning September 15, 1982, specific areas of the Park will be designated for specific types of vehicles. The designations will be as follows:
- Area north of the two mile post to Grande Avenue designated for and restricted to street legal vehicle use.
  - Area south of the two mile post to the fenced or posted area north of Oso Flaco Creek designated for OHV use.
- D. On or before January 1983, the following will occur: OHV day use will be limited to a specified number of users established in consultation with agreement by the County of San Luis Obispo and the Executive Director of the Coastal Commission and the Department of State Parks. OHV day use fees may be collected.
- E. Protective Fencing of Dunes, archeological resources, and wet environments shall be accomplished in the following manner subject to review and approval by the Executive Director of the Coastal Commission in consultation with the County of San Luis Obispo and the State Department of Fish and Game.
- (a) Fencing proposed and approved herein, plus fencing of the area shown as ~~Area A~~ on Exhibit ~~A-2 D~~ plus the perimeter fencing along the Sand Highway (or along the ridge just eastward of the Sand Highway) and the Eastern Boundary of ODSVRA shall be accomplished by November 30, 1982. All other vegetated areas indicated on Exhibit ~~A-2 D~~ shall be fenced by Aug 31, 1983.
- (b) One primary objective of the fencing is to prohibit vehicle access to the dune area south of Oso Flaco Creek. Accordingly, the east/west aligned fence north of Oso Flaco Creek shall continue seaward to the mean low water line so that vehicles do not pass to the south. The continuation of this line to mean low water may require different construction than normal fencing – possibly driven piles.
- (c) Except for the following, fencing alignments shall be placed a minimum of 100 feet from the vegetated areas being fenced:
1. Along Sand Highway where the fence would encroach into the Sand Highway travel corridor.
  2. Along the seaward side of the foredunes paralleling the beach where fencing may be placed in a manner similar to that already existing along the westerly line of the State Dune Preserve except that a minimal number of breaks in the foredune fencing outside of the dune preserve may be allowed of OHV access to the backdune area. The fencing protecting the foredunes need not be a closed perimeter fence completely surrounding the foredune vegetation if it can be demonstrated to the Executive Director that such perimeter fencing is not necessary for effective preservation and stabilization of foredunes.

3. In other areas where it is demonstrated that a placement closer to vegetation will not diminish the effectiveness of the fence to stabilize the dune, protect the vegetation and provide necessary conditions for dune rehabilitation and restoration. Said demonstration shall be in the form of competent analysis of the dynamics of dune sand transport and natural condition necessary for dune stabilization. Reduction in the minimum setback under this condition shall be reviewed and approved by the Executive Director of the Coastal Commission.

(d) If fenced corridors to the Oso Flaco are constructed, they shall only be for use of state parks personnel and for the purpose of emergency, normal patrol duties, management and enforcement. Accordingly, these corridors shall have locked gates ~~as shown on Exhibit D~~.

(e) Since a barrier to OHV movement south of Oso Flaco Creek is to be constructed on the north side of the creek, any construction of fencing south of Oso Flaco Creek or lakes shall be only for the purpose of preventing OHV intrusion into the State Park holdings from adjacent private lands. Such fencing shall therefore be perimeter fencing around parcels 8, 7, 3, and 4 and shall require a coastal development permit. Fencing applied for herein south of Oso Flaco which is not perimeter fencing shall not be constructed, or if constructed shall have been to an alignment approved herein by November 30, 1982.

#### 4. Restoration

A dunes restoration program shall be undertaken by the DPR. The program shall be reviewed and approved by the Executive Director of the Coastal Commission. Restoration of vegetated dunes within the fenced-off areas shall be undertaken as expeditiously as funds and technical knowledge allows. Plantings shall begin no later than January 1983 with notification of the County and the Executive Director of the Coastal Commission. The restoration program shall be an ongoing program with the experimental or initial phase completed within three (3) years of the date of certification of the LUP and the full program in effect on that date or before.

#### 5. Protection of Archeological Resources

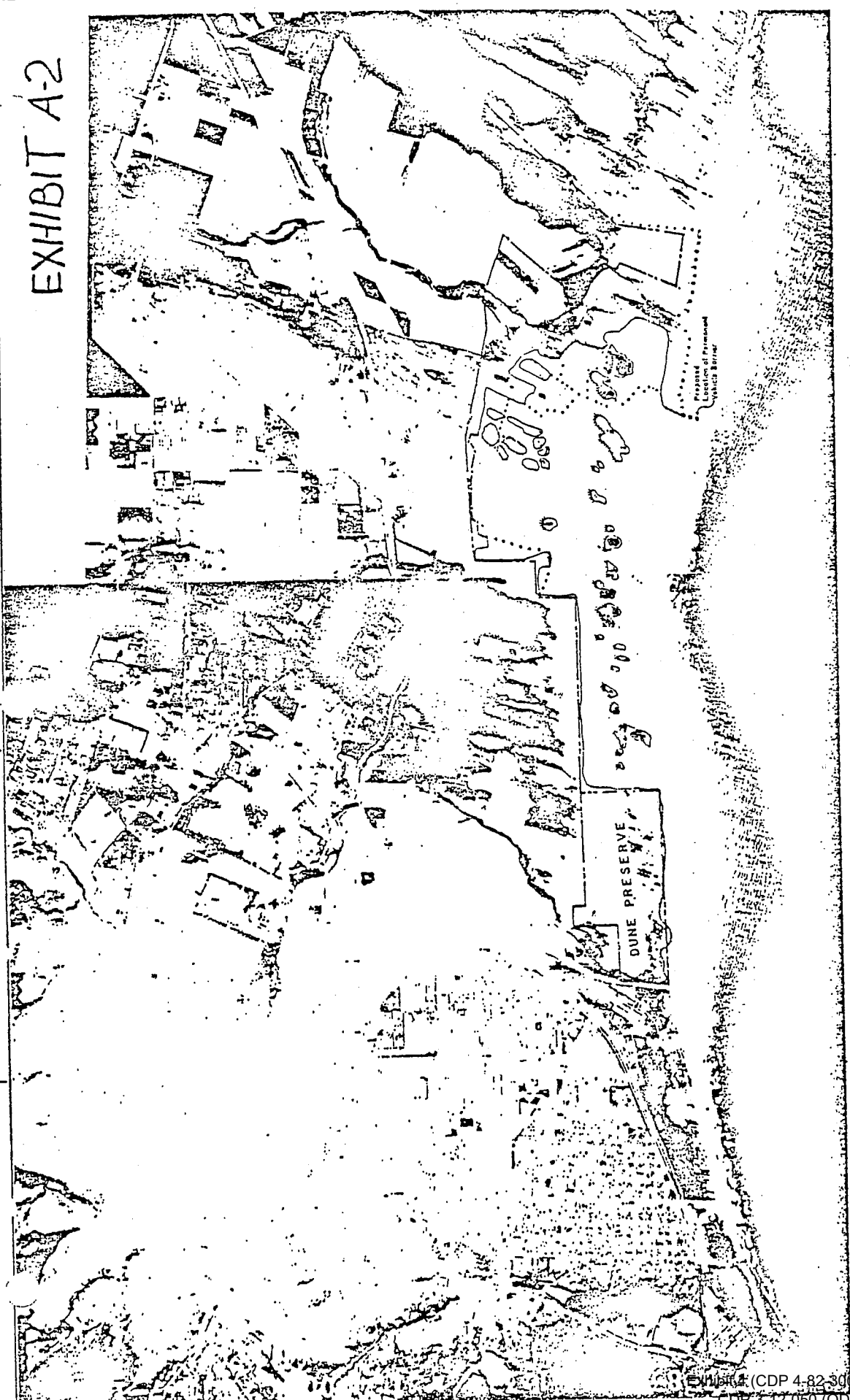
Archeological resources within the PDVRA shall be protected by fencing. Accordingly, as part of the current fencing project, site No. SLO 199 shall be fenced for protection. Other sites shall be fenced as their locations become known.

6. Six months after the issuance of this permit, and annually thereafter (or as needed) until a permanent staging area is operational, a formal review of the effectiveness of the conditions of the permit shall take place. This review shall be undertaken jointly by designated representatives of the California Coastal Commission, the California Department of Fish and Game, the County of San Luis Obispo, the Community of Oceano, the California Department of Parks and Recreation and user groups.

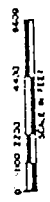
If, after an annual (or any other) review it is found that the ORV use within the SVRA is not occurring in a manner that protects environmentally sensitive habitats and community values consistent with the conditions of this permit and the County's Local Coastal Plan, then OHV access and the number of camp units allowed may be further limited by the Executive Director with concurrence by resolution of the Board of Supervisors of San Luis Obispo County. If the above reviews find that OHV use in the SVRA is consistent with the protection of environmentally sensitive habitats and community values, and/or that additional staff and management revenues become available to the DPR, levels of OHV access and the allowable number of camp units may be increased not to exceed the enforcement and management capabilities of the DPR by determination of the Executive Director with concurrence by resolution of the Board of Supervisors of San Luis Obispo County.



# EXHIBIT A-2



- LEGEND**
- SVH A BOUNDARY LINE
  - - - EXISTING FENCE TO REMAIN IN PLACE
  - ~ ~ ~ TRAIL OPENINGS TO BE FENCED OFF
  - NEW FENCE TO BE INSTALLED
  - ..... EXISTING FENCE TO BE REMOVED
  - ..... REVEGETATION AREA



## **CDP 4-82-300-A4, approved in 1991**

### 1. Staging Area Location:

A. An interim OHV staging area shall be operational no later than September 15th 1982 in a designated area on or adjacent to the beach south of the two mile post (Exhibit C). This staging area shall remain operational subject to the stated conditions and standards herein until such time as a permanent staging area is constructed.

Upon implementation of the interim staging area, all OHVs, ATCs and other non-street legal vehicles shall be trailored to and from Grande and Pier Avenues. At all times such vehicles when under their own power, shall be prohibited north of the northerly terminus of Sand Highway.

B. A permanent staging area site shall be selected as expeditiously as possible but in no case later than 18 months from the effective date of the County's LUP certification consistent with the following standards. Construction of this permanent staging area shall begin no later than three (3) years from the date of the certification of the County's LUP of its LCP. If construction and operation of a permanent staging area cannot be accomplished within the above time limits, this permit shall be subject to review and modification if necessary or appropriate by the County or the Commission or either in consultation with the other. Prior to construction, the County's LUP and the State Parks General Development Plan shall be amended to include the selected site with all additional standards or conditions for its design and operation. At the present time, there are several known locations which shall be considered and evaluated for staging area use, these locations are: Callendar Road area; the stables/agricultural lands area south of Arroyo Grande Creek; Agricultural lands north of Oso Flaco Creek adjacent to the Union Oil property; on the beach as per the interim staging area described herein (see Exhibit C). Other potential sites may also be evaluated. The site selection process shall include an environmental impacts analysis adequate to enable the selection of the least environmentally damaging location for the use. Accordingly, the on and off-site impacts of each alternative shall be measured against the impacts of the others. In selecting the site and amending the County's LUP and the State Parks General Development Plan to incorporate the selected site, the following standards must be found to have been met: 1) that the site selected is the least environmentally damaging alternative; and 2) that all feasible design and operational related mitigations have been incorporated to minimize adverse environmental impacts. Additional standards for site selection are in their order of importance: locating a site which reduces to the maximum extent feasible OHV related impacts to the residential character of the community of Oceano; locating a site which facilitates the successful separation and regulation of recreational uses within the park itself; locating a site which can be constructed and operational expeditiously.

C. Oso Flaco Lakes Area: An off-highway vehicle staging area shall not be constructed at the Oso Flaco Lake site indicated on Exhibit C. As part of the fencing proposed in this project, the Oso Flaco causeway to the PSVRA shall be permanently closed to vehicular traffic. Pedestrian and equestrian access only shall be allowed over

the causeway or in the vicinity of the Oso Flaco Lakes effective no later than March 1, 1992.

By acceptance of this permit the applicant agrees to not close equestrian access at Oso Flaco Lake until March 1, 1992 or sooner if an alternative equestrian access solution is identified. The intent of this condition is to allow additional time for all parties involved in the attempt to locate alternative access routes to the beach to identify a site which would be suitable and acceptable to the Commission. The Commission will review and make a decision on the appropriateness of that site at a subsequent date. If an alternative equestrian access route is identified prior to March 1, 1992, the applicant will submit the proposed route to the Commission for its review and approval at a subsequent date. In the event an alternative equestrian access route is not identified, equestrian access through Oso Flaco Lake Natural Area can be closed on March 1, 1992.

The state owned agricultural lands south of Oso Flaco Lakes may be utilized for the development of a campground for passive recreational use of the dune areas within the Park excluded from OHV use. The State Parks and Recreation Department shall amend its General Development Plan accordingly. Uses in this camping area shall be permitted only if consistent with the resource protection policies of the San Luis Obispo County Land Use Plan; 100 foot buffering setbacks from the lakes, creek and wetlands shall be applied at a minimum with greater setbacks required if necessary, only resource dependent uses and passive recreational activities shall be permitted.

2. Control of Access to the Park: Effective immediately upon issuance of this permit and until either a permanent staging area is operational or this permit and the County's LUP is amended to accommodate possible necessary minor adjustments in the operation of these conditions, access and egress to and from the park shall be controlled and monitored in the following manner:
  - A. All vehicular access and egress shall be via Grande Avenue and Pier Avenue, an effective vehicle barriers shall be placed at the southern end of the Oso Flaco causeway to assure that no OHV access over the causeway is permitted.
  - B. Manned vehicle contact stations (kiosks) shall be placed at the Pier and Grande Avenue access points.
  - C. Equestrian Gate: The applicant within sixty (60) days of approval (by November 10, 1991) shall reconstruct a portion of the existing fence along the southern Pismo Dunes State Vehicle Recreation Area (SVRA) boundary to allow equestrians and pedestrians to pass along the beach, while preventing passage by off-highway vehicles.
  
3. Control of uses within the Park: By the July 4 week-end of 1982 and as soon as possible prior to that date, the Parks and Recreation Department shall institute a Public Information program for vehicular recreational users within the Parks units. At the Grande and Pier Avenue's kiosks, occupants of all vehicles entering the Park will be provided a pass or ticket to the park and the following information:

- A. The following rules are effective immediately with violators subject to citation and fines:
- All non-street legal vehicles shall be prohibited from the area north of the two mile post after dusk each day.
  - Vegetated dune areas, whether they are fenced or unfenced, are strictly off-limits to all vehicles.
  - All areas posted as Private Property or Restricted Use are off-limits to vehicle activity.
  - All vehicle activity is prohibited south of the Oso Flaco Creek (or south of the fence line that is constructed).

- B. Beginning with the 4<sup>th</sup> of July weekend 1983 Beach Camping within the Park units shall be restricted to a maximum of 1,000 units\* with each unit available only through a reservation obtained through the State Parks Reservation System (Ticketron). Thereafter, admittance to the Park for the purpose of overnight camping will be denied to individuals without a valid reservation unless vacant unreserved camping spaces are available.

\*One unit equals a campsite for a single camper vehicle.

- C. Beginning September 15, 1982, specific areas of the Park will be designated for specific types of vehicles. The designations will be as follows:

- Area north of the two mile post to Grande Avenue designated for and restricted to street legal vehicle use.
- Area south of the two mile post to the fenced or posted area north of Oso Flaco Creek designated for OHV use.

- D. On or before January 1983, the following will occur: OHV day use will be limited to a specified number of users established in consultation with agreement by the County of San Luis Obispo and the Executive Director of the Coastal Commission and the Department of State Parks. OHV day use fees may be collected.

- E. Protective Fencing of Dunes, archeological resources, and wet environments shall be accomplished in the following manner subject to review and approval by the Executive Director of the Coastal Commission in consultation with the County of San Luis Obispo and the State Department of Fish and Game.

(a) Fencing proposed and approved herein, plus fencing of the area shown on Exhibit A-2 plus the perimeter fencing along the Sand Highway (or along the ridge just eastward of the Sand Highway) and the Eastern Boundary of ODSVRA shall be accomplished by November 30, 1982. All other vegetated areas indicated on Exhibit A-2 shall be fenced by Aug 31, 1983.

(b) One primary objective of the fencing is to prohibit vehicle access to the dune area south of Oso Flaco Creek. Accordingly, the east/west aligned fence north of Oso Flaco Creek shall continue seaward to the mean low water line so that vehicles do

not pass to the south. The continuation of this line to mean low water may require different construction than normal fencing – possibly driven piles.

- (c) Except for the following, fencing alignments shall be placed a minimum of 100 feet from the vegetated areas being fenced:
1. Along Sand Highway where the fence would encroach into the Sand Highway travel corridor.
  2. Along the seaward side of the foredunes paralleling the beach where fencing may be placed in a manner similar to that already existing along the westerly line of the State Dune Preserve except that a minimal number of breaks in the foredune fencing outside of the dune preserve may be allowed of OHV access to the backdune area. The fencing protecting the foredunes need not be a closed perimeter fence completely surrounding the foredune vegetation if it can be demonstrated to the Executive Director that such perimeter fencing is not necessary for effective preservation and stabilization of foredunes.
  3. In other areas where it is demonstrated that a placement closer to vegetation will not diminish the effectiveness of the fence to stabilize the dune, protect the vegetation and provide necessary conditions for dune rehabilitation and restoration. Said demonstration shall be in the form of competent analysis of the dynamics of dune sand transport and natural condition necessary for dune stabilization. Reduction in the minimum setback under this condition shall be reviewed and approved by the Executive Director of the Coastal Commission.
- (d) If fenced corridors to the Oso Flaco are constructed, they shall only be for use of state parks personnel and for the purpose of emergency, normal patrol duties, management and enforcement. Accordingly, these corridors shall have locked gates.
- (e) Since a barrier to OHV movement south of Oso Flaco Creek is to be constructed on the north side of the creek, any construction of fencing south of Oso Flaco Creek or lakes shall be only for the purpose of preventing OHV intrusion into the State Park holdings from adjacent private lands. Such fencing shall therefore be perimeter fencing around parcels 8, 7, 3, and 4 and shall require a coastal development permit. Fencing applied for herein south of Oso Flaco which is not perimeter fencing shall not be constructed, or if constructed shall have been to an alignment approved herein by November 30, 1982.

#### 4. Restoration

A dunes restoration program shall be undertaken by the DPR. The program shall be reviewed and approved by the Executive Director of the Coastal Commission. Restoration of vegetated dunes within the fenced-off areas shall be undertaken as expeditiously as funds and technical knowledge allows. Plantings shall begin no later



than January 1983 with notification of the County and the Executive Director of the Coastal Commission. The restoration program shall be an ongoing program with the experimental or initial phase completed within three (3) years of the date of certification of the LUP and the full program in effect on that date or before.

5. Protection of Archeological Resources

Archeological resources within the PDVRA shall be protected by fencing. Accordingly, as part of the current fencing project, site No. SLO 199 shall be fenced for protection. Other sites shall be fenced as their locations become known.

6. Six months after the issuance of this permit, and annually thereafter (or as needed) until a permanent staging area is operational, a formal review of the effectiveness of the conditions of the permit shall take place. This review shall be undertaken jointly by designated representatives of the California Coastal Commission, the California Department of Fish and Game, the County of San Luis Obispo, the Community of Oceano, the California Department of Parks and Recreation and user groups.

If, after an annual (or any other) review it is found that the ORV use within the SVRA is not occurring in a manner that protects environmentally sensitive habitats and community values consistent with the conditions of this permit and the County's Local Coastal Plan, then OHV access and the number of camp units allowed may be further limited by the Executive Director with concurrence by resolution of the Board of Supervisors of San Luis Obispo County. If the above reviews find that OHV use in the SVRA is consistent with the protection of environmentally sensitive habitats and community values, and/or that additional staff and management revenues become available to the DPR, levels of OHV access and the allowable number of camp units may be increased not to exceed the enforcement and management capabilities of the DPR by determination of the Executive Director with concurrence by resolution of the Board of Supervisors of San Luis Obispo County.

## **CDP 4-82-300-A5, approved in 2001**

### 1. Staging Area Location:

A. An interim OHV staging area shall be operational no later than September 15th 1982 in a designated area on or adjacent to the beach south of the two mile post (Exhibit C). This staging area shall remain operational subject to the stated conditions and standards herein until such time as a permanent staging area is constructed.

Upon implementation of the interim staging area, all OHVs, ATCs and other non-street legal vehicles shall be trailored to and from Grande and Pier Avenues. At all times such vehicles when under their own power, shall be prohibited north of the northerly terminus of Sand Highway.

B. A permanent staging area site shall be selected as expeditiously as possible but in no case later than 18 months from the effective date of the County's LUP certification consistent with the following standards. Construction of this permanent staging area shall begin no later than three (3) years from the date of the certification of the County's LUP of its LCP. If construction and operation of a permanent staging area cannot be accomplished within the above time limits, this permit shall be subject to review and modification if necessary or appropriate by the County or the Commission or either in consultation with the other. Prior to construction, the County's LUP and the State Parks General Development Plan shall be amended to include the selected site with all additional standards or conditions for its design and operation. At the present time, there are several known locations which shall be considered and evaluated for staging area use, these locations are: Callendar Road area; the stables/agricultural lands area south of Arroyo Grande Creek; Agricultural lands north of Oso Flaco Creek adjacent to the Union Oil property; on the beach as per the interim staging area described herein (see Exhibit C). Other potential sites may also be evaluated. The site selection process shall include an environmental impacts analysis adequate to enable the selection of the least environmentally damaging location for the use. Accordingly, the on and off-site impacts of each alternative shall be measured against the impacts of the others. In selecting the site and amending the County's LUP and the State Parks General Development Plan to incorporate the selected site, the following standards must be found to have been met: 1) that the site selected is the least environmentally damaging alternative; and 2) that all feasible design and operational related mitigations have been incorporated to minimize adverse environmental impacts. Additional standards for site selection are in their order of importance: locating a site which reduces to the maximum extent feasible OHV related impacts to the residential character of the community of Oceano; locating a site which facilitates the successful separation and regulation of recreational uses within the park itself; locating a site which can be constructed and operational expeditiously.

C. Oso Flaco Lakes Area: An off-highway vehicle staging area shall not be constructed at the Oso Flaco Lake site indicated on Exhibit C. As part of the fencing proposed in this project, the Oso Flaco causeway to the PSVRA shall be permanently closed to vehicular traffic. Pedestrian and equestrian access only shall be allowed over

the causeway or in the vicinity of the Oso Flaco Lakes effective no later than March 1, 1992.

By acceptance of this permit the applicant agrees to not close equestrian access at Oso Flaco Lake until March 1, 1992 or sooner if an alternative equestrian access solution is identified. The intent of this condition is to allow additional time for all parties involved in the attempt to locate alternative access routes to the beach to identify a site which would be suitable and acceptable to the Commission. The Commission will review and make a decision on the appropriateness of that site at a subsequent date. If an alternative equestrian access route is identified prior to March 1, 1992, the applicant will submit the proposed route to the Commission for its review and approval at a subsequent date. In the event an alternative equestrian access route is not identified, equestrian access through Oso Flaco Lake Natural Area can be closed on March 1, 1992.

The state owned agricultural lands south of Oso Flaco Lakes may be utilized for the development of a campground for passive recreational use of the dune areas within the Park excluded from OHV use. The State Parks and Recreation Department shall amend its General Development Plan accordingly. Uses in this camping area shall be permitted only if consistent with the resource protection policies of the San Luis Obispo County Land Use Plan; 100 foot buffering setbacks from the lakes, creek and wetlands shall be applied at a minimum with greater setbacks required if necessary, only resource dependent uses and passive recreational activities shall be permitted.

2. Control of Access to the Park: Effective immediately upon issuance of this permit and until either a permanent staging area is operational or this permit and the County's LUP is amended to accommodate possible necessary minor adjustments in the operation of these conditions, access and egress to and from the park shall be controlled and monitored in the following manner:
  - A. All vehicular access and egress shall be via Grande Avenue and Pier Avenue, an effective vehicle barriers shall be placed at the southern end of the Oso Flaco causeway to assure that no OHV access over the causeway is permitted.
  - B. Manned vehicle contact stations (kiosks) shall be placed at the Pier and Grande Avenue access points.
  - C. Equestrian Gate: The applicant within sixty (60) days of approval (by November 10, 1991) shall reconstruct a portion of the existing fence along the southern Pismo Dunes State Vehicle Recreation Area (SVRA) boundary to allow equestrians and pedestrians to pass along the beach, while preventing passage by off-highway vehicles.
  
3. Control of uses within the Park: By the July 4 week-end of 1982 and as soon as possible prior to that date, the Parks and Recreation Department shall institute a Public Information program for vehicular recreational users within the Parks units. At the Grande and Pier Avenue's kiosks, occupants of all vehicles entering the Park will be provided a pass or ticket to the park and the following information:

- A. The following rules are effective immediately with violators subject to citation and fines:
- All non-street legal vehicles shall be prohibited from the area north of the two mile post after dusk each day.
  - Vegetated dune areas, whether they are fenced or unfenced, are strictly off-limits to all vehicles.
  - All areas posted as Private Property or Restricted Use are off-limits to vehicle activity.
  - All vehicle activity is prohibited south of the Oso Flaco Creek (or south of the fence line that is constructed).

~~B. Beginning with the 4<sup>th</sup> of July weekend 1983 Beach Camping within the Park units shall be restricted to a maximum of 1,000 units\* with each unit available only through a reservation obtained through the State Parks Reservation System (Ticketron). Thereafter, admittance to the Park for the purpose of overnight camping will be denied to individuals without a valid reservation unless vacant unreserved camping spaces are available.~~

~~\*One unit equals a campsite for a single camper vehicle.~~

- C. Beginning September 15, 1982, specific areas of the Park will be designated for specific types of vehicles. The designations will be as follows:
- Area north of the two mile post to Grande Avenue designated for and restricted to street legal vehicle use.
  - Area south of the two mile post to the fenced or posted area north of Oso Flaco Creek designated for OHV use.
- ~~D. On or before January 1983, the following will occur: OHV day use will be limited to a specified number of users established in consultation with agreement by the County of San Luis Obispo and the Executive Director of the Coastal Commission and the Department of State Parks. OHV day use fees may be collected.~~
- E. Protective Fencing of Dunes, archeological resources, and wet environments shall be accomplished in the following manner subject to review and approval by the Executive Director of the Coastal Commission in consultation with the County of San Luis Obispo and the State Department of Fish and Game.
- (a) Fencing proposed and approved herein, plus fencing of the area shown on Exhibit A-2 plus the perimeter fencing along the Sand Highway (or along the ridge just eastward of the Sand Highway) and the Eastern Boundary of ODSVRA shall be accomplished by November 30, 1982. All other vegetated areas indicated on Exhibit A-2 shall be fenced by Aug 31, 1983.
- (b) One primary objective of the fencing is to prohibit vehicle access to the dune area south of Oso Flaco Creek. Accordingly, the east/west aligned fence north of Oso Flaco Creek shall continue seaward to the mean low water line so that vehicles do

not pass to the south. The continuation of this line to mean low water may require different construction than normal fencing – possibly driven piles.

- (c) Except for the following, fencing alignments shall be placed a minimum of 100 feet from the vegetated areas being fenced:
1. Along Sand Highway where the fence would encroach into the Sand Highway travel corridor.
  2. Along the seaward side of the foredunes paralleling the beach where fencing may be placed in a manner similar to that already existing along the westerly line of the State Dune Preserve except that a minimal number of breaks in the foredune fencing outside of the dune preserve may be allowed of OHV access to the backdune area. The fencing protecting the foredunes need not be a closed perimeter fence completely surrounding the foredune vegetation if it can be demonstrated to the Executive Director that such perimeter fencing is not necessary for effective preservation and stabilization of foredunes.
  3. In other areas where it is demonstrated that a placement closer to vegetation will not diminish the effectiveness of the fence to stabilize the dune, protect the vegetation and provide necessary conditions for dune rehabilitation and restoration. Said demonstration shall be in the form of competent analysis of the dynamics of dune sand transport and natural condition necessary for dune stabilization. Reduction in the minimum setback under this condition shall be reviewed and approved by the Executive Director of the Coastal Commission.
- (d) If fenced corridors to the Oso Flaco are constructed, they shall only be for use of state parks personnel and for the purpose of emergency, normal patrol duties, management and enforcement. Accordingly, these corridors shall have locked gates.
- (e) Since a barrier to OHV movement south of Oso Flaco Creek is to be constructed on the north side of the creek, any construction of fencing south of Oso Flaco Creek or lakes shall be only for the purpose of preventing OHV intrusion into the State Park holdings from adjacent private lands. Such fencing shall therefore be perimeter fencing around parcels 8, 7, 3, and 4 and shall require a coastal development permit. Fencing applied for herein south of Oso Flaco which is not perimeter fencing shall not be constructed, or if constructed shall have been to an alignment approved herein by November 30, 1982.

#### 4. Restoration

A dunes restoration program shall be undertaken by the DPR. The program shall be reviewed and approved by the Executive Director of the Coastal Commission. Restoration of vegetated dunes within the fenced-off areas shall be undertaken as expeditiously as funds and technical knowledge allows. Plantings shall begin no later



than January 1983 with notification of the County and the Executive Director of the Coastal Commission. The restoration program shall be an ongoing program with the experimental or initial phase completed within three (3) years of the date of certification of the LUP and the full program in effect on that date or before.

5. Protection of Archeological Resources

Archeological resources within the PDVRA shall be protected by fencing. Accordingly, as part of the current fencing project, site No. SLO 199 shall be fenced for protection. Other sites shall be fenced as their locations become known.

6. ~~Six months after the issuance of this permit, and annually thereafter (or as needed) until a permanent staging area is operational, a formal review of the effectiveness of the conditions of the permit shall take place. This review shall be undertaken jointly by designated representatives of the California Coastal Commission, the California Department of Fish and Game, the County of San Luis Obispo, the Community of Oceano, the California Department of Parks and Recreation and user groups.~~

~~If, after an annual (or any other) review it is found that the ORV use within the SVRA is not occurring in a manner that protects environmentally sensitive habitats and community values consistent with the conditions of this permit and the County's Local Coastal Plan, then OHV access and the number of camp units allowed may be further limited by the Executive Director with concurrence by resolution of the Board of Supervisors of San Luis Obispo County. If the above reviews find that OHV use in the SVRA is consistent with the protection of environmentally sensitive habitats and community values, and/or that additional staff and management revenues become available to the DPR, levels of OHV access and the allowable number of camp units may be increased not to exceed the enforcement and management capabilities of the DPR by determination of the Executive Director with concurrence by resolution of the Board of Supervisors of San Luis Obispo County.~~

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, the amendment will remain in effect for another year. 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 Ocean 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<sup>1</sup>. 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

<sup>1</sup> These exceedance periods are no longer allowed under terms of settlement agreement entered into by Parks.

- 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.
- 5. Annual Report. 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 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 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.

## **CDP 4-82-300 Conditions (through 4-82-300-A5)**

### **1. Staging Area Location:**

A. An interim OHV staging area shall be operational no later than September 15th 1982 in a designated area on or adjacent to the beach south of the two mile post (Exhibit C). This staging area shall remain operational subject to the stated conditions and standards herein until such time as a permanent staging area is constructed.

Upon implementation of the interim staging area, all OHVs, ATCs and other non-street legal vehicles shall be trailored to and from Grande and Pier Avenues. At all times such vehicles when under their own power, shall be prohibited north of the northerly terminus of Sand Highway.

B. A permanent staging area site shall be selected as expeditiously as possible but in no case later than 18 months from the effective date of the County's LUP certification consistent with the following standards. Construction of this permanent staging area shall begin no later than three (3) years from the date of the certification of the County's LUP of its LCP. If construction and operation of a permanent staging area cannot be accomplished within the above time limits, this permit shall be subject to review and modification if necessary or appropriate by the County or the Commission or either in consultation with the other. Prior to construction, the County's LUP and the State Parks General Development Plan shall be amended to include the selected site with all additional standards or conditions for its design and operation. At the present time, there are several known locations which shall be considered and evaluated for staging area use, these locations are: Callendar Road area; the stables/agricultural lands area south of Arroyo Grande Creek; Agricultural lands north of Oso Flaco Creek adjacent to the Union Oil property; on the beach as per the interim staging area described herein (see Exhibit C). Other potential sites may also be evaluated. The site selection process shall include an environmental impacts analysis adequate to enable the selection of the least environmentally damaging location for the use. Accordingly, the on and off-site impacts of each alternative shall be measured against the impacts of the others. In selecting the site and amending the County's LUP and the State Parks General Development Plan to incorporate the selected site, the following standards must be found to have been met: 1) that the site selected is the least environmentally damaging alternative; and 2) that all feasible design and operational related mitigations have been incorporated to minimize adverse environmental impacts. Additional standards for site selection are in their order of importance: locating a site which reduces to the maximum extent feasible OHV related impacts to the residential character of the community of Oceano; locating a site which facilitates the successful separation and regulation of recreational uses within the park itself; locating a site which can be constructed and operational expeditiously.

C. Oso Flaco Lakes Area: An off-highway vehicle staging area shall not be constructed at the Oso Flaco Lake site indicated on Exhibit C. As part of the fencing proposed in this project, the Oso Flaco causeway to the PSVRA shall be permanently closed to vehicular traffic. Pedestrian and equestrian access only shall be allowed over

the causeway or in the vicinity of the Oso Flaco Lakes effective no later than March 1, 1992.

By acceptance of this permit the applicant agrees to not close equestrian access at Oso Flaco Lake until March 1, 1992 or sooner if an alternative equestrian access solution is identified. The intent of this condition is to allow additional time for all parties involved in the attempt to locate alternative access routes to the beach to identify a site which would be suitable and acceptable to the Commission. The Commission will review and make a decision on the appropriateness of that site at a subsequent date. If an alternative equestrian access route is identified prior to March 1, 1992, the applicant will submit the proposed route to the Commission for its review and approval at a subsequent date. In the event an alternative equestrian access route is not identified, equestrian access through Oso Flaco Lake Natural Area can be closed on March 1, 1992.

The state owned agricultural lands south of Oso Flaco Lakes may be utilized for the development of a campground for passive recreational use of the dune areas within the Park excluded from OHV use. The State Parks and Recreation Department shall amend its General Development Plan accordingly. Uses in this camping area shall be permitted only if consistent with the resource protection policies of the San Luis Obispo County Land Use Plan; 100 foot buffering setbacks from the lakes, creek and wetlands shall be applied at a minimum with greater setbacks required if necessary, only resource dependent uses and passive recreational activities shall be permitted.

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  - B. Manned vehicle contact stations (kiosks) shall be placed at the Pier and Grande Avenue access points.
  - C. Equestrian Gate: The applicant within sixty (60) days of approval (by November 10, 1991) shall reconstruct a portion of the existing fence along the southern Pismo Dunes State Vehicle Recreation Area (SVRA) boundary to allow equestrians and pedestrians to pass along the beach, while preventing passage by off-highway vehicles.
  
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- (b) One primary objective of the fencing is to prohibit vehicle access to the dune area south of Oso Flaco Creek. Accordingly, the east/west aligned fence north of Oso Flaco Creek shall continue seaward to the mean low water line so that vehicles do not pass to the south. The continuation of this line to mean low water may require different construction than normal fencing – possibly driven piles.
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(d) If fenced corridors to the Oso Flaco are constructed, they shall only be for use of state parks personnel and for the purpose of emergency, normal patrol duties, management and enforcement. Accordingly, these corridors shall have locked gates.

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      - ii. Develop recommendations to the Superintendent of the ODSVRA regarding additional monitoring studies, adjustments to day and overnight use limits, and management strategies.
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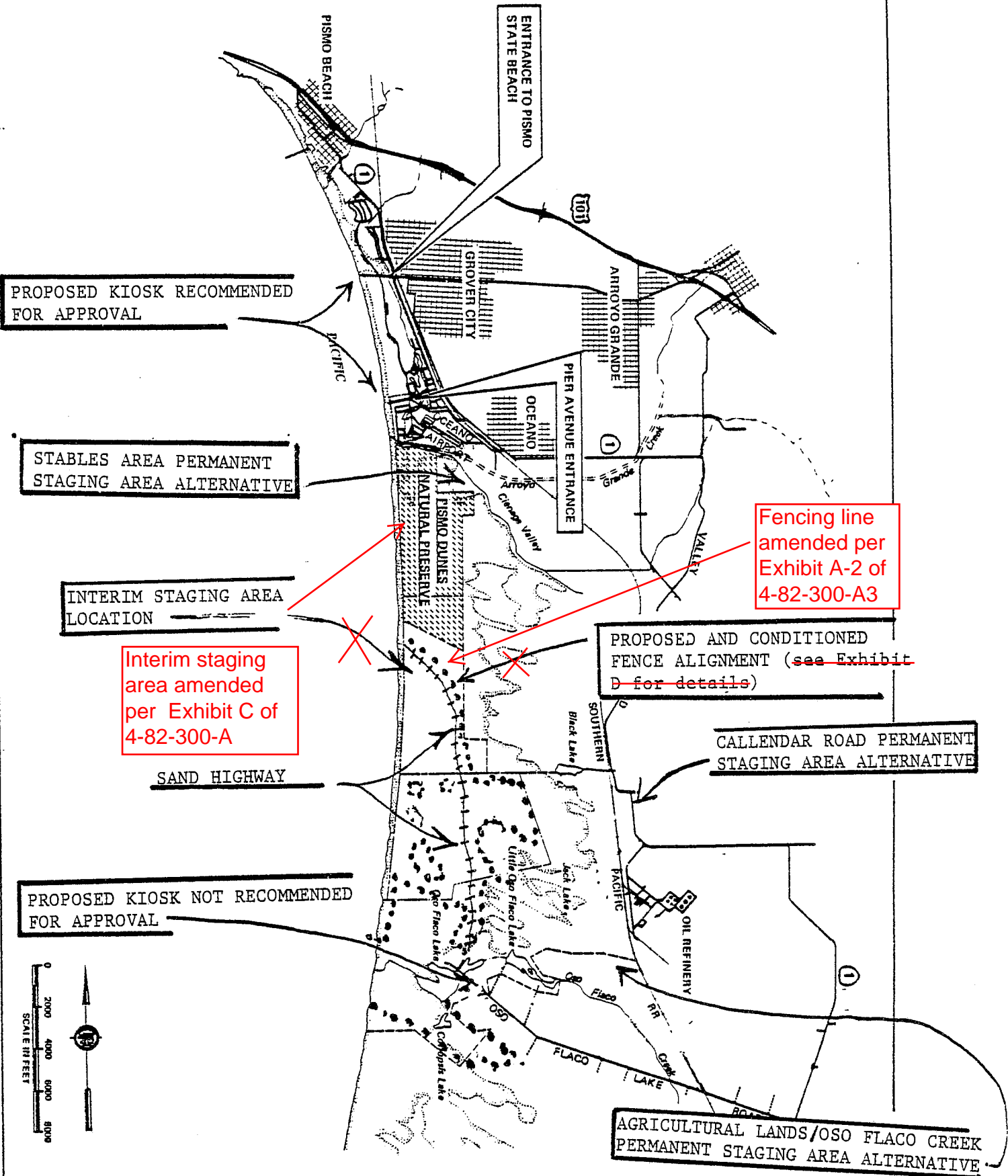
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  - i. How the geographic location of nests, proximity of nests to foraging areas, and nest closure techniques affect the hatching and fledgling success of the species,
  - ii. What studies may be necessary to determine appropriate management techniques, 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 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.

# EXHIBIT C



PROPOSED KIOSK RECOMMENDED FOR APPROVAL

STABLES AREA PERMANENT STAGING AREA ALTERNATIVE

INTERIM STAGING AREA LOCATION

Interim staging area amended per Exhibit C of 4-82-300-A

SAND HIGHWAY

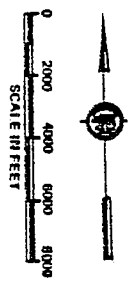
PROPOSED KIOSK NOT RECOMMENDED FOR APPROVAL

Fencing line amended per Exhibit A-2 of 4-82-300-A3

PROPOSED AND CONDITIONED FENCE ALIGNMENT (see Exhibit B for details)

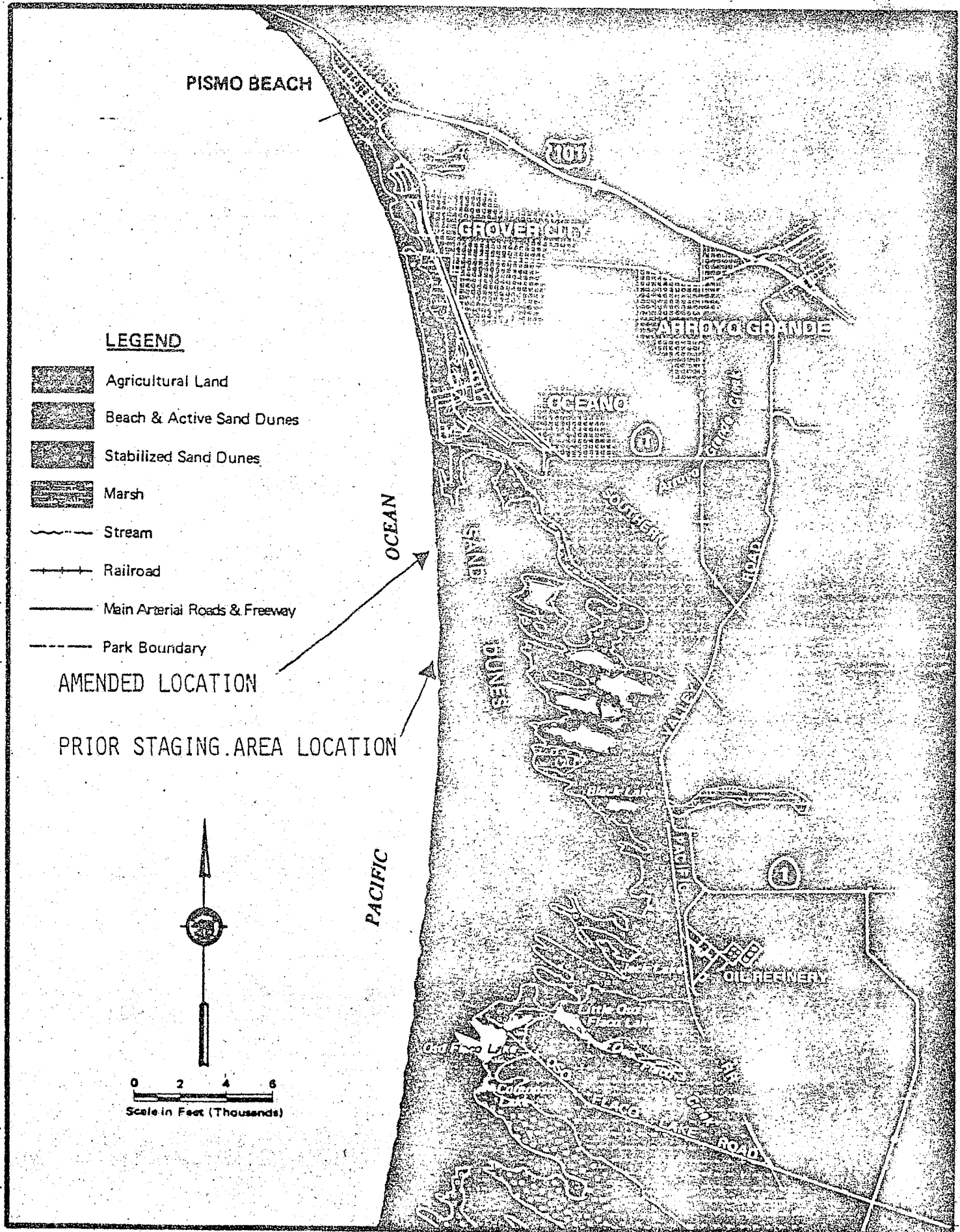
CALLENDAR ROAD PERMANENT STAGING AREA ALTERNATIVE

AGRICULTURAL LANDS/OSO FLACO CREEK PERMANENT STAGING AREA ALTERNATIVE




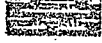
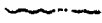


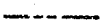


69





**LEGEND**

-  Agricultural Land
-  Beach & Active Sand Dunes
-  Stabilized Sand Dunes
-  Marsh
-  Stream
-  Railroad
-  Main Arterial Roads & Freeway
-  Park Boundary

AMENDED LOCATION

PRIOR STAGING AREA LOCATION

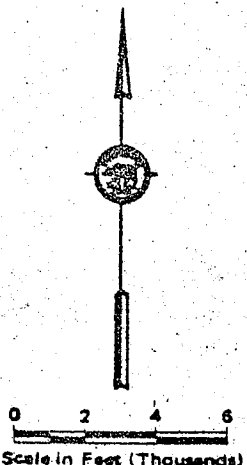
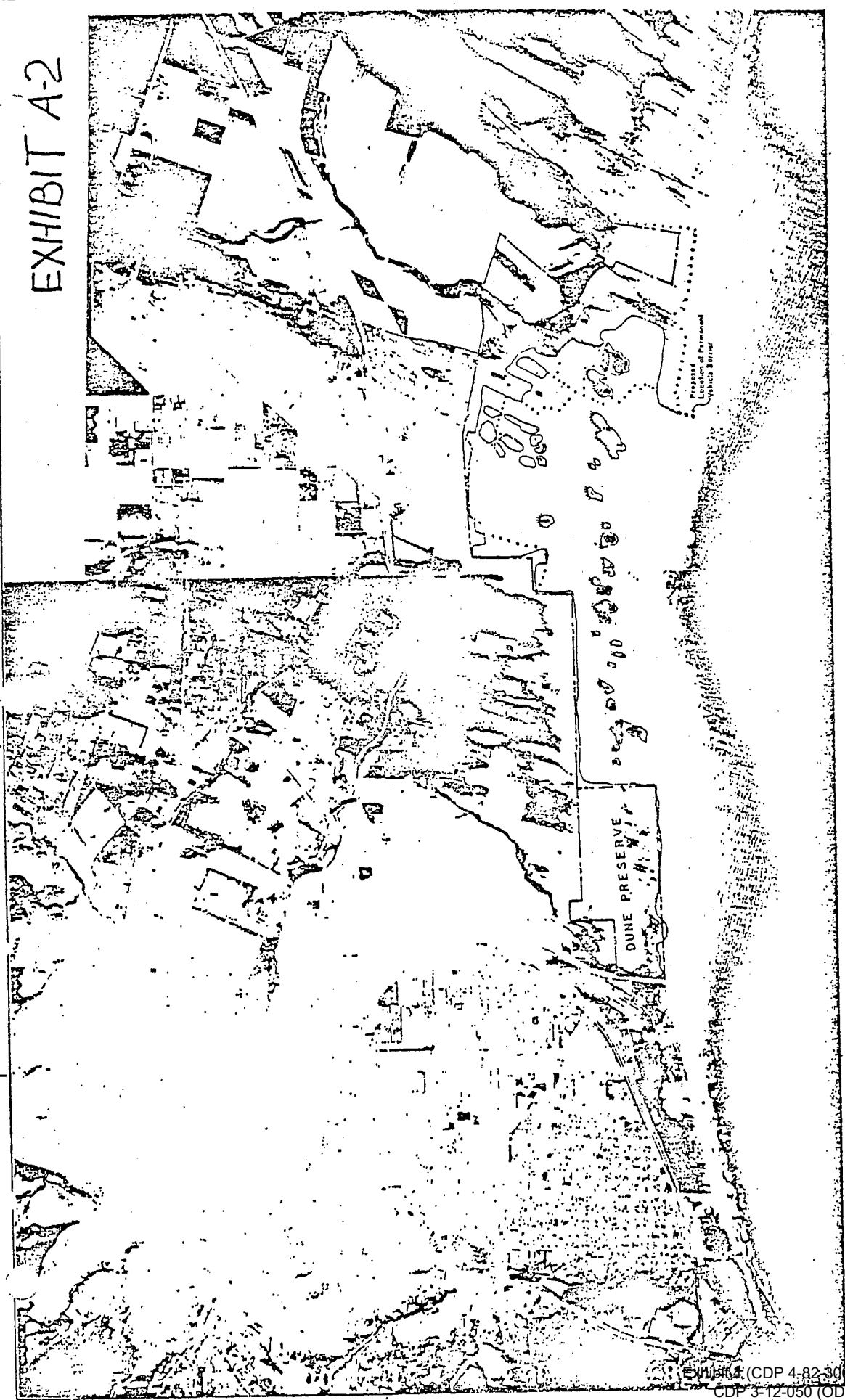
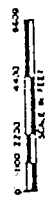


FIGURE 3  
 PHYSICAL CHARACTERISTICS  
 EXHIBIT C

# EXHIBIT A-2



- LEGEND**
- SV H A BOUNDARY LINE
  - - - EXISTING FENCE TO REMAIN IN PLACE
  - ~ ~ ~ TRAIL OPENINGS TO BE FENCED OFF
  - NEW FENCE TO BE INSTALLED
  - ..... EXISTING FENCE TO BE REMOVED
  - ..... VEGETATION AREA



**BOARD OF DIRECTORS**  
**AIR POLLUTION CONTROL DISTRICT**  
**COUNTY OF SAN LUIS OBISPO, STATE OF CALIFORNIA**

Wednesday, November 16, 2011

**RESOLUTION NO. 2011-12**

**RESOLUTION OF THE AIR POLLUTION CONTROL BOARD  
AMENDING THE RULES AND REGULATIONS OF THE  
SAN LUIS OBISPO COUNTY AIR POLLUTION CONTROL DISTRICT  
TO ADOPT RULE 1001, COASTAL DUNES DUST CONTROL REQUIREMENTS**

The following resolution is hereby offered and read:

WHEREAS, adoption of the Air Pollution Control District's Rule 1001, which establishes requirements for coastal dunes vehicle activity areas, is necessary to achieve the State PM10 air quality standard; and

WHEREAS, a public workshop has been noticed, conducted, and comments incorporated, as appropriate; and

WHEREAS, this Board finds that the Rule has been composed to the extent reasonably practicable and written in plain English wherever feasible in order to assure the Rule can be easily understood by the persons directly affected by said Rule; and

WHEREAS, Section 40001 of the California Health and Safety Code establishes authority for the District to adopt the Rule; and

WHEREAS, the Rule, as written, is consistent with existing statutes, court decisions, and State and Federal Regulations; and

WHEREAS, the Rule, as written and amended, is not a "project" under the California Environmental Quality Act (CEQA). The proposed rule simply requires a CDVAA operator to develop and implement a Temporary Baseline Monitoring Program and Particulate Matter Reduction Plan (PMRP), subject to review and approval by the APCD and further subject to all required land-use and other environmental approvals

for the proposed PMRP, including review as required under CEQA and NEPA, to provide for particulate matter control measures to reduce PM emissions to comply with the rule; and

WHEREAS, after significant staff analysis, there is no substantial evidence that implementation of the proposed rule will itself have a significant adverse effect on the environment, including indirect effects on the environment. Any potential environmental effects, whether direct or indirect, will depend entirely on the air monitoring locations and particular control measures the CDVAA operator chooses to propose as part of the PMRP; and

WHEREAS, the Rule, as written and amended, even assuming it were somehow a "project" under CEQA, is categorically exempt under Public Resource Code sections 21083 and 21084, and CEQA Guidelines Sections 15307 and 15308 (California Code of Regulations, Title 14, Division 6, Chapter 3), as actions by regulatory agencies for the protection of natural resources and the Environment; and

WHEREAS, the requirements of Public Resource Code Section 21159 have been analyzed and addressed; and

WHEREAS, the requirements of Health and Safety Code sections 40703 and 40922 regarding cost effectiveness of control measures have been analyzed and addressed; and

WHEREAS, the Rule, as written, does not result in duplication of existing State or Federal statutes or regulations in that the Rule does not impose the same requirements as an existing State or Federal Regulation, except to the extent the Rule is necessary or proper to execute the powers and duties granted to and imposed upon the District; and

WHEREAS, the Board has on this date held and conducted a duly noticed Public Hearing on said amendments to the Rules and Regulations of the San Luis Obispo County Air Pollution Control District and has determined the necessity for said amendments; and

WHEREAS, the District has complied with H&SC Sections 40725 through 40728 in adopting these regulatory changes.

NOW, THEREFORE, BE IT RESOLVED AND ORDERED by the Air Pollution Control Board of the San Luis Obispo County Air Pollution Control District that amendments to the District Rules and Regulations, specifically Rule 1001 attached hereto, and incorporated by reference herein as Exhibit A, are hereby adopted.

On motion of Director Marx, seconded by Director Hill, and passed and adopted on the following roll call vote:

Ayes: Directors Marx, Hill, Guthrie, Patterson, Smukler, Teixeira, Chairperson Gibson

Noes: Directors Fonzi, Hamon, Mecham, Waage

Absent: None

Abstaining: Director Bright

Bruce Gibson

Chair, Air Pollution Control District Board  
San Luis Obispo County

Attest:

JULIE L. RODEWALD

Clerk, Air Pollution Control District Board

By: Christensen  
Deputy Clerk

Approved as to Form and Legal Effect:

By: /s/ Ray Biering  
District Counsel

Date: 11/9/11

I, Julie L. Rodewald, County Clerk and ex-officio Clerk of the Board of the Air Pollution Control District, in and for the County of San Luis Obispo, State of California, do hereby certify the foregoing to be a full, true and correct copy of an order made by the Board of the Air Pollution Control District, as the same appears spread upon their minute book:

WITNESS my hand and seal of said Board, affixed this 30th day of December, 2011.

JULIE RODEWALD  
County Clerk and Ex-Officio Clerk of the Board of the  
Air Pollution Control District.

By: Christensen  
Deputy Clerk



## Exhibit A

### **RULE 1001 Coastal Dunes Dust Control Requirements (adopted (date of Adoption))**

- A. **APPLICABILITY.** The provisions of this Rule shall apply to any operator of a coastal dune vehicle activity area, as defined by this Regulation, which is greater than 100 acres in size.
- B. **DEFINITIONS.** For the purpose of this Rule, the following definitions shall apply:
1. "APCD": The San Luis Obispo County Air Pollution Control District.
  2. "APCO": The San Luis Obispo County Air Pollution Control Officer.
  3. "Coastal Dune": means sand and/or gravel deposits within a marine beach system, including, but not limited to, beach berms, fore dunes, dune ridges, back dunes and other sand and/or gravel areas deposited by wave or wind action. Coastal sand dune systems may extend into coastal wetlands.
  4. "Coastal Dune Vehicle Activity Area (CDVAA)": Any area within 1.5 miles of the mean high tide line where public access to coastal dunes is allowed for vehicle activity.
  5. "CDVAA Monitor": An APCO-approved monitoring site or sites designed to measure the maximum 24-hour average PM<sub>10</sub> concentrations directly downwind from the vehicle riding areas at the CDVAA. At a minimum, the monitoring site shall be equipped with an APCO-approved Federal Equivalent Method (FEM) PM<sub>10</sub> monitor capable of measuring hourly PM<sub>10</sub> concentrations continuously on a daily basis, and an APCO-approved wind speed and wind direction monitoring system.
  6. "CDVAA Operator": Any individual, public or private corporation, partnership, association, firm, trust, estate, municipality, or any other legal entity whatsoever which is recognized by law as the subject of rights and duties, who is responsible for the daily management of a CDVAA.
  7. "Control Site Monitor": An APCO-approved monitoring site or sites designed to measure the maximum 24-hour average PM<sub>10</sub> concentrations directly downwind from a coastal dune area comparable to the CDVAA but where vehicle activity has been prohibited. At a minimum, the monitoring site shall be equipped with an APCO-approved Federal Equivalent Method (FEM) PM<sub>10</sub> monitor capable of measuring hourly PM<sub>10</sub> concentrations continuously on a daily basis, and an APCO-approved wind speed and wind direction monitoring system.
  8. "Designated Representative": The agent for a person, corporation or agency. The designated representative shall be responsible for and have the full authority to implement control measures on behalf of the person, corporation or agency.



9. "Monitoring Site Selection Plan": A document providing a detailed description of the scientific approach, technical methods, criteria and timeline proposed to identify, evaluate and select appropriate locations for siting the temporary and long-term CDVAA and control site monitors.
10. "Paved Roads": An improved street, highway, alley or public way that is covered by concrete, asphaltic concrete, or asphalt.
11. "PM<sub>10</sub>": Particulate matter with an aerodynamic diameter smaller than or equal to a nominal 10 microns as measured by the applicable State and Federal reference test methods.
12. "PMRP": Particulate Matter Reduction Plan.
13. "PMRP Monitoring Program": The APCO approved monitoring program contained in the PMRP that includes a detailed description of the monitoring locations; sampling methods and equipment; operational and maintenance policies and procedures; data handling, storage and retrieval methods; quality control and quality assurance procedures; and related information needed to define how the CDVAA and Control Site Monitors will be sited, operated and maintained to determine compliance with section C.3.
14. "Temporary Baseline Monitoring Program": A temporary monitoring program designed to determine baseline PM10 concentrations at the APCO-approved CDVAA and Control Site Monitor locations prior to implementation of the PMRP emission reduction strategies and monitoring program. The program shall include a detailed description of the monitoring locations; sampling methods and equipment; operational and maintenance policies and procedures; data handling, storage and retrieval methods; quality control and quality assurance procedures; and related information needed to define how the temporary monitors will be sited, operated and maintained to provide the required baseline data. The temporary monitors shall meet the specifications of the CDVAA and Control Site Monitors unless otherwise specified by the APCO.
15. "Track-Out": Sand or soil that adhere to and/or agglomerate on the exterior surfaces of motor vehicles and/or equipment (including tires) that may then fall onto any highway or street as described in California Vehicle Code Section 23113 and California Water Code 13304.
16. "Track-Out Prevention Device": A gravel pad, grizzly, rumble strip, wheel wash system, or a paved area, located at the point of intersection of an unpaved area and a paved road that is designed to prevent or control track-out.
17. "Vehicle": Any self-propelled conveyance, including, but not limited to, off-road or all-terrain equipment, trucks, cars, motorcycles, motorbikes, or motor buggies.
18. "24-Hour Average PM<sub>10</sub> Concentration": The value obtained by adding the hourly PM<sub>10</sub> concentrations measured during a calendar 24-hour period from midnight to midnight, and dividing by 24.

C. GENERAL REQUIREMENTS

1. The CDVAA operator shall develop and implement an APCO-approved Temporary Baseline Monitoring Program to determine existing PM<sub>10</sub> concentrations at the APCO-approved CDVAA and Control Site Monitor locations prior to implementation of the PMRP emission reduction strategies and monitoring program.
2. The operator of a CDVAA shall prepare and implement an APCO-approved Particulate Matter Reduction Plan (PMRP) to minimize PM<sub>10</sub> emissions for the area under the control of a CDVAA operator. The PMRP shall contain measures that meet the performance requirements in C.3 and include:
  - a. An APCO-approved PM<sub>10</sub> monitoring network containing at least one CDVAA Monitor and at least one Control Site Monitor.
  - b. A description of all PM<sub>10</sub> control measures that will be implemented to reduce PM<sub>10</sub> emissions to comply with this rule, including the expected emission reduction effectiveness and implementation timeline for each measure.
  - c. A Track-Out Prevention Program that does not allow track-out of sand to extend 25 feet or more in length onto paved public roads and that requires track-out to be removed from pavement according to an APCO-approved method and schedule.
3. The CDVAA operator shall ensure that if the 24-hr average PM<sub>10</sub> concentration at the CDVAA Monitor is more than 20% above the 24-hr average PM<sub>10</sub> concentration at the Control Site Monitor, the 24-hr average PM<sub>10</sub> concentration at the CDVAA Monitor shall not exceed 55 ug/m<sup>3</sup>.
4. The CDVAA operator shall ensure they obtain all required permits from the appropriate land-use agencies and other affected governmental agencies, and that the requirements of the California Environmental Quality Act (CEQA) and the National Environmental Quality Act (NEPA) are satisfied to the extent any proposed measures identified in the PMRP or Temporary Baseline Monitoring Program require environmental review.
5. All facilities subject to this rule shall obtain a Permit to Operate from the Air Pollution Control District by the time specified in the Compliance Schedule.

D. Exemptions

1. Section C.3 shall not apply during days that have been declared an exceptional event by the APCO and where the United States Environmental Protection Agency has not denied the exceptional event.

E. RECORDKEEPING REQUIREMENTS: The CDVAA operator subject to the requirements of this Rule shall compile and retain records as required in the APCO

approved PMRP. Records shall be maintained and be readily accessible for two years after the date of each entry and shall be provided to the APCD upon request.

F. COMPLIANCE SCHEDULE:

1. The CDVAA operator shall comply with the following compliance schedule:
  - a. By February 28, 2012, submit a draft Monitoring Site Selection Plan for APCO approval.
  - b. By May 31, 2012, submit a draft PMRP for APCO review.
  - c. By November 30, 2012, submit complete applications to the appropriate agencies for all PMRP projects that require regulatory approval.
  - d. By February 28, 2013, obtain APCO approval for a Temporary CDVAA and Control Site Baseline Monitoring Program and begin baseline monitoring.
  - e. By May 31, 2013, complete all environmental review requirements and obtain land use agency approval of all proposed PMRP projects.
  - f. By July 31, 2013, obtain APCO approval of the PMRP, begin implementation of the PMRP Monitoring Program, and apply for a Permit to Operate.
  - g. By May 31, 2015, the requirements of Section C.3 shall apply.
2. With the exception of section F.1.g, the CDVAA operator will not be subject to civil penalties for failure to meet any timeframe set forth in section F.1 caused solely by delays from regulatory or other oversight agencies required to consider and approve the operator's PMRP or any part thereof.

# **OCEANO DUNES STATE VEHICULAR RECREATION AREA** **UPDATED DUST CONTROL PROGRAM DESCRIPTION** **(Coastal Development Permit (CDP) #03-12-50)**

The California Department of Parks and Recreation (CDPR), Off-Highway Motor Vehicle Recreation (OHMVR) Division proposes to implement a five-year program (Program) to control and minimize emissions of dust and particulate matter (PM) that are generated at Oceano Dunes SVRA during periods of strong, persistent winds and subsequently blown downwind of the SVRA and onto the Nipomo Mesa.

Oceano Dunes SVRA is located in southwestern San Luis Obispo (SLO) County, approximately twelve miles south of the City of SLO, within the Coastal Zone established by the California Coastal Act. The SVRA borders and is contiguous with parts of Pismo State Beach. The two parks provide public access to beaches and public, coastal recreation opportunities, including off-highway motor vehicle (OHV) recreation in certain designated areas. In November 2012, the OHMVR Division submitted a Coastal Development Permit (CDP) application to the California Coastal Commission (CCC), Central Coast District Office, describing the proposed Dust Control Program in detail. Since 2012, the OHMVR Division has modified its proposed Dust Control Program. The currently proposed Program was described in the OHMVR Division's Dust Control Program Environmental Impact Report (EIR) (State Clearinghouse #2012121008), and this updated project description is based on the proposed Program as described in the OHMVR Division's EIR. This updated project description describes the activities the OHMVR Division is including in CDP application #03-12-050, and fully replaces the description of activities the OHMVR Division provided to the CCC in November 2012.

## **1 DUST CONTROL PROGRAM BACKGROUND**

The OHMVR Division directs the CCC to Draft Program EIR Chapter S.0 (Executive Summary), Chapter 1 (Introduction), and Chapter 2 (Project Description), Sections 2.1 (Dust Control Program Objectives) and 2.2 (Oceano Dunes SVRA Overview) for an overview and brief summary of pertinent background information regarding the proposed Dust Control Program. The OHMVR Division also directs the CCC to Final Program EIR Chapter 2 (Additional Information), Chapter 3 (Errata and Revisions), and Chapter 4 (Responses to Draft EIR Comments), Section 4.3 (Response to Comments from the California Coastal Commission), for additional contextual and background information on the proposed Program.

## **2 DUST CONTROL PROGRAM ACTIVITIES INCLUDED IN CDP APPLICATION #03-12-050**

The activities included in the OHMVR Division's CDP application include new dust control and monitoring activities, the continuation of certain existing dust control and monitoring activities, and the implementation of the Dust Control Program EIR's requirements and mitigation measures. These activities are described below.

### **2.1 New Dust Control and Monitoring Activities**

The Dust Control Program CDP application includes the following "new" activities the OHMVR Division is proposing to undertake to control and monitor dust and PM in accordance with

current obligations, including compliance with SLO County Air Pollution Control District (SLOAPCD) Rule 1001:

- **Planting approximately 20 acres of native vegetation per year at Oceano Dunes SVRA.** The OHMVR Division would plant this vegetation during the fall, when rains support the establishment of native dune vegetation. In total, the OHMVR Division could plant approximately 100 acres of native vegetation over the five-year period evaluated in the Dust Control Program EIR.
- **Deploying approximately 40 acres of seasonal dust control measures from approximately March to September at Oceano Dunes SVRA.** The OHMVR Division would deploy dust control measures such as wind fencing, straw bales, porous roughness elements (PREs), and, potentially, non-toxic, environmentally friendly soil stabilizer to control and minimize dust on a seasonal basis. These seasonal measures could be installed as early as March 1 and removed as late as September 30. Seasonal dust control measures could also include pilot and/or demonstration projects as new control measures are identified by the OHMVR Division for implementation at Oceano Dunes SVRA.
- **Potentially planting trees downwind of Oceano Dunes SVRA.** The OHMVR Division may plant native, fast growing trees on private lands located downwind of the SVRA. Tree plantings would be unlikely to control or minimize dust emissions during the five-year period covered by the Dust Control Program EIR, but could provide for the long term control of dust emissions.
- **Dust and meteorological monitoring at Oceano Dunes SVRA.** The OHMVR Division would install, maintain, and operate scientific monitoring equipment to investigate and evaluate dust levels and control measure effectiveness.
- **Preventing track-out of sand onto Grand Avenue in the City of Grover Beach and Pier Avenue in Oceano.** The OHMVR Division would install, operate, and maintain grooved concrete at Pismo State Beach exits on Grand Avenue in the City of Grover Beach and Pier Avenue in the community of Oceano.

The above activities, including a list of native plants that could be used in vegetation projects, are described in more detail in Draft Program EIR Section 2.3.2.

## 2.2 Continuation of Existing Dust Control and Monitoring Activities

The OHMVR Division's Dust Control Program CDP application also includes the continuation of certain existing activities related to dust control and monitoring obligations:

- **Deploying seasonal sand fencing upwind of Grand Avenue, Pier Avenue, and Strand Way.** From approximately March to July of each year, the OHMVR Division installs approximately 1,700 linear of sand fencing to control natural sand drift from the beach onto Grand Avenue and Pier Avenue, as well as parking areas and other structures such as residences on Strand Way that front the southern portion of Pismo Beach. The installation of seasonal wind fencing upwind of Grand Avenue is exempt from CDP requirements and the fencing upwind of Pier Avenue and Strand Way is performed in a manner consistent with an existing CDP Waiver (3-08-041W). The continuing installation of this fencing is an activity included in the OHMVR Division's Dust Control Program CDP application.

- Continuing Operation of the “S1” and “Oso Flaco” Meteorological and Air Quality Monitoring Stations.** Since June 2010, the OHMVR Division has operated and maintained a meteorological tower near the center of Oceano Dunes SVRA, referred to as the “S1” meteorological tower. The S1 tower is installed with concurrence from the SLO County Planning Division (DRC 2010-0003) and was included in a permit application to the CCC for five total wind towers in and near Oceano Dunes SVRA. The permit application is currently under appeal to the CCC (A3-SLO-11-021), and there is no timeline for a public hearing. Nonetheless, the continuing operation and maintenance of the S1 meteorological tower is an activity included in the OHMVR Division’s Dust Control Program CDP application.

In addition, in May 2015, the OHMVR Division installed an air quality monitoring station, referred to as the “Oso Flaco” monitoring station, in the southeast corner of Oceano Dunes SVRA. The Oso Flaco monitoring station was installed in accordance with emergency permit G-3-15-00014. The continuing operation and maintenance of the Oso Flaco monitoring station is also an activity included in the OHMVR Division’s Dust Control Program CDP application.

- Full revegetation of 30 acres of a former straw bale dust control project.** In March 2014, the OHMVR Division installed approximately 5,000 straw bales on a 30-acre area along the eastern boundary of Oceano Dunes SVRA, outside of the SVRA’s open riding and camping area. These straw bales were installed in accordance with emergency permit G-3-14-00007. The straw bales were left in place and, overtime, became partially buried and/or used as ground coverage to support vegetation plantings. All vegetation was installed during fall planting periods in 2014, 2015, and 2016. No additional planting is proposed and all straw bales that the OHMVR Division could access have been broken up and incorporated into vegetation restoration projects.

The above existing activities are described in more detail in Draft Program EIR Section 2.2.7.

### **2.3 Implementation of EIR Requirements and Mitigation Measures**

The OHMVR Division’s Dust Control Program EIR identifies approximately 35 requirements and/or mitigation measures incorporated into the proposed Program to reduce and/or avoid the program’s potential adverse environmental impacts. Most of the EIR’s requirements involve planning or design considerations that do not constitute development under the Coastal Act; however, certain requirements could result in ancillary development and/or affect how the OHMVR Division can implement dust control measures. For example, nesting bird protection requirements could result in the installation of temporary protective fencing and Mitigation Measure REC-1 could result in the installation of education kiosks near dust control measures. In addition, Mitigation Measure REC-1 requires the OHMVR Division to identify areas for additional camping or OHV recreation opportunities and to diligently pursue opening such areas as a means to mitigate the loss of OHV recreation lands identified in the EIR.

The EIR’s requirements and mitigation measures are compiled in the Mitigation Monitoring and Reporting Plan (MMRP) the OHMVR Division adopted for the proposed Dust Control Program (see Exhibit B).

### **3 DUST CONTROL PROGRAM AREA**

As described in Draft Program EIR Section 2.3.1, the proposed Dust Control Program area primarily consists of approximately 690-acres of state-owned and state-operated lands at Oceano Dunes SVRA (see Exhibit A, Figures, for Draft Program EIR Figure 2-5)<sup>1</sup>. An additional, approximately 295-acre area of privately-owned lands located immediately downwind and adjacent to Oceano Dunes SVRA is the area in which all potential tree plantings would occur. Track-out prevention devices and the continued operation and maintenance of existing dust control and monitoring activities would also occur in small isolated areas at and near Oceano Dunes SVRA, but outside of the primary 690-acre Program area.

The proposed Program area includes the portion of Oceano Dunes SVRA located between approximately 280 degrees to 315 degrees upwind of the SLOAPCD's CDF ambient air quality monitoring station. The Program area includes most of the open sand areas in the central to northern portion of the Oceano Dunes SVRA open riding and camping area, commonly referred to as the "La Grande Tract." SLOAPCD and OHMVR Division studies have identified this area as the area most likely influencing air quality measurements at the CDF station and air quality conditions on the Nipomo Mesa (see Draft Program EIR Section 1.1.2). The proposed Program area also includes the areas where seasonal wind fencing and straw bale arrays were implemented in 2014, 2015, and 2016 by the OHMVR Division and SLOACPD, in consultation with CARB (see Draft Program EIR Section 2.2.7.4). Finally, the proposed Program area is situated in the middle of the SLOAPCD's CDF air quality forecast zone, which is the zone that experiences the worst air quality conditions during high wind and dust events.

The proposed Program area avoids USFWS-designated critical habitat for the western snowy plover, which borders the Program area to the west.

### **4 DUST CONTROL PROJECT SITING FACTORS AND ADAPTIVE MANAGEMENT APPROACH**

The OHMVR Division has identified conceptually preferred and alternate scenarios for possible Program implementation (see Exhibit A, Figures, for Draft Program EIR Figures 2-8 and 2-9). Importantly, although conceptual scenarios were included in the EIR for impact evaluation purposes, final locations for dust control projects have not been identified or evaluated for consistency with the Program EIR's objectives, impacts, etc. Thus, actual planting areas and seasonal dust control measure locations are subject to change.

The OHMVR Division directs the CCC to Draft Program EIR Section 2.3.3, which describes the environmental, technical, and logistical factor that would generally guide where the OHMVR Division would ultimately plant vegetation and deploy seasonal dust control measures. These factors, include but are not limited to, Rule 1001 compliance, resource and recreation management considerations, and material availability and cost factors. In addition, the OHMVR Division would incorporate the latest results from any dispersion modeling exercises completed by the OHMVR Division, SLOAPCD, and the California Air Resources Board, as such dispersion modeling is intended to assist with the selection of potential dust control project locations (see Final Program EIR Section 2.2).

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<sup>1</sup> The exact acreage of this primary Dust Control Program area is 688 acres.



Although initial dispersion model results are now available, the OHMVR Division notes there is uncertainty surrounding the magnitude of dust control measures needed to comply with the Rule 1001 performance standard. This uncertainty is a major reason why the OHMVR Division established clear, yet flexible objectives for its proposed Program. This uncertainty is also a major reason why the OHMVR Division prepared a Program EIR that evaluates different types of dust control measures located throughout more than one square mile of land at and near Oceano Dunes SVRA.

The proposed Program would involve an iterative series of dust control activities that would be evaluated and revised as necessary to meet goals set by the OHMVR Division, SLOAPCD, and CARB (see Draft Program EIR page 2-1). The OHMVR Division would evaluate the relative success of the proposed Dust Control Program over time and, if necessary, revise and improve dust control activities. Initially, the OHMVR Division anticipates such revisions would consist of changing the location of seasonal dust control measures or vegetation plantings and identifying the most effective patterns for seasonal dust control arrays (e.g., increase density of fencing, combined porous roughness elements and fencing arrays, etc.). Thus, the proposed Program implements controls, measures success, and adapts methods based on measured results, which is a standard adaptive management approach.

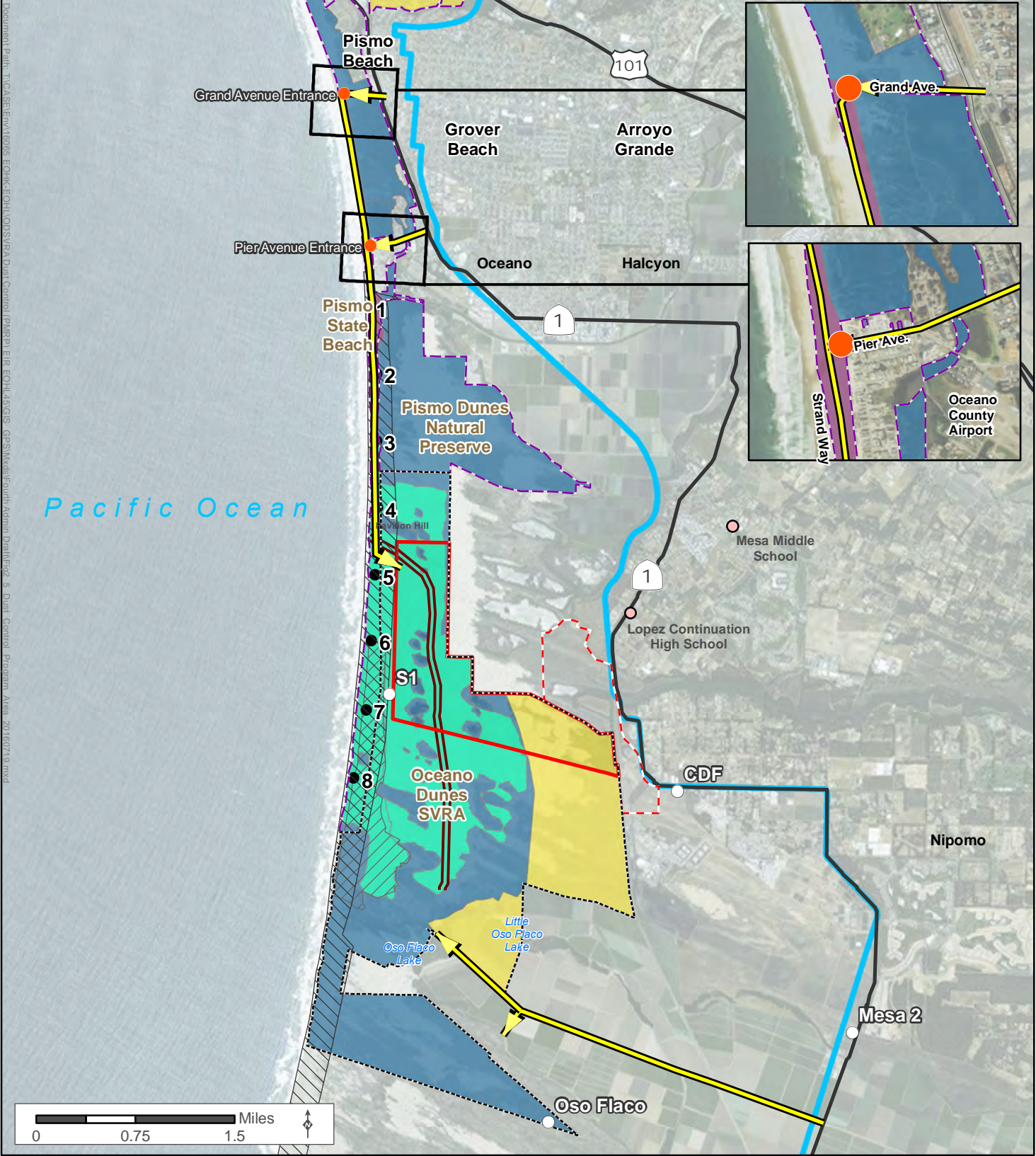
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## **EXHIBIT A: FIGURES**

- Draft Program EIR Figure 2-5
- Draft Program EIR Figure 2-8
- Draft Program EIR Figure 2-9

July 21, 2017

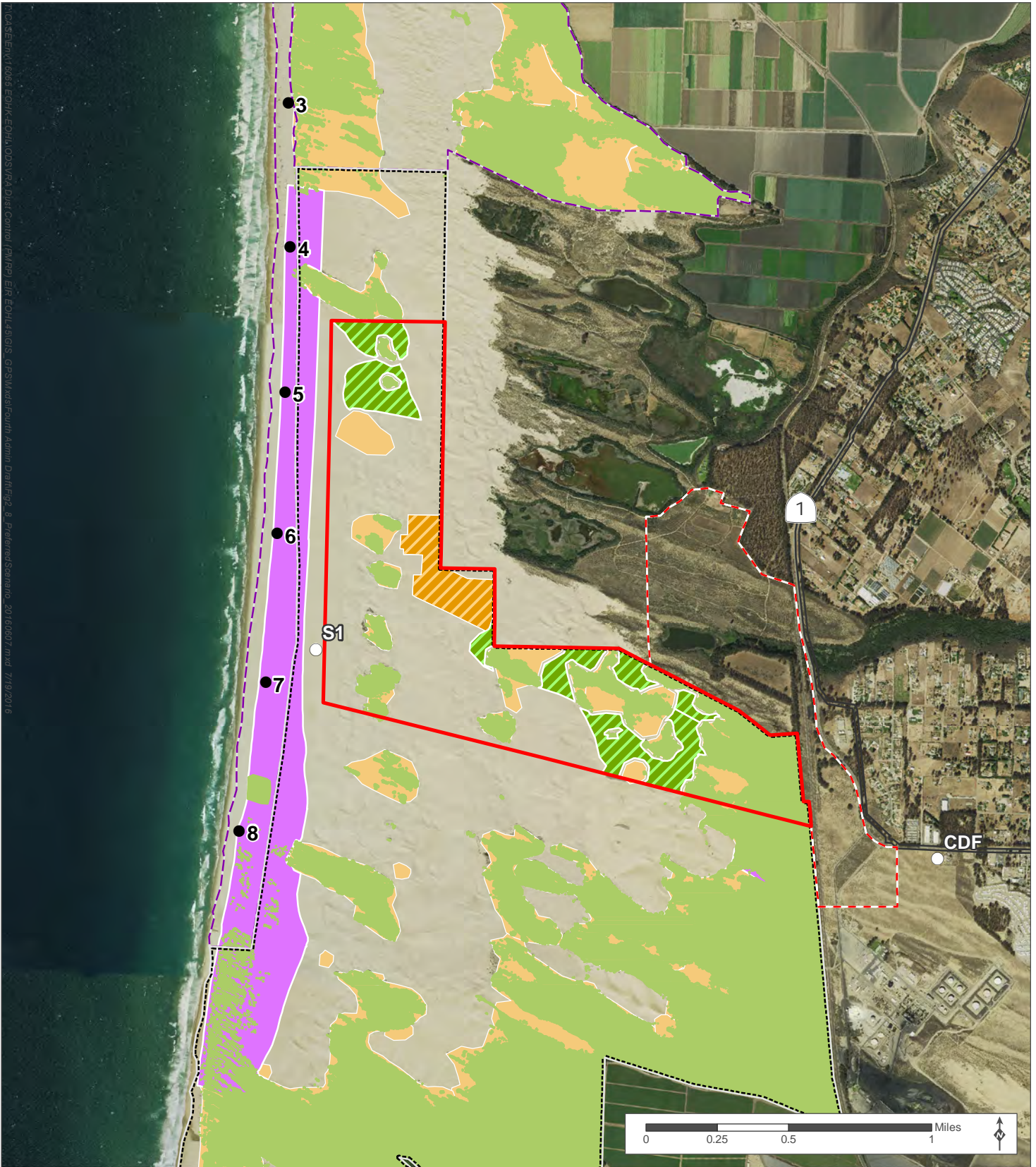
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- |  |                                       |  |                              |  |                              |
|--|---------------------------------------|--|------------------------------|--|------------------------------|
|  | Proposed Dust Control Program area    |  | Coastal Zone boundary        |  | Closed to all public use     |
|  | Potential tree planting area          |  | Sand Highway, approximately  |  | Closed to motorized vehicles |
|  | Proposed trackout prevention site     |  | Existing access route        |  | Open riding and camping      |
|  | Oceano Dunes SVRA                     |  | Marker post                  |  | Street legal vehicles only   |
|  | Pismo State Beach                     |  | Existing schools             |  |                              |
|  | Seasonal plover enclosure             |  | Existing air quality monitor |  |                              |
|  | Western snowy plover critical habitat |  |                              |  |                              |

**Figure 2-5 Dust Control Program Area**



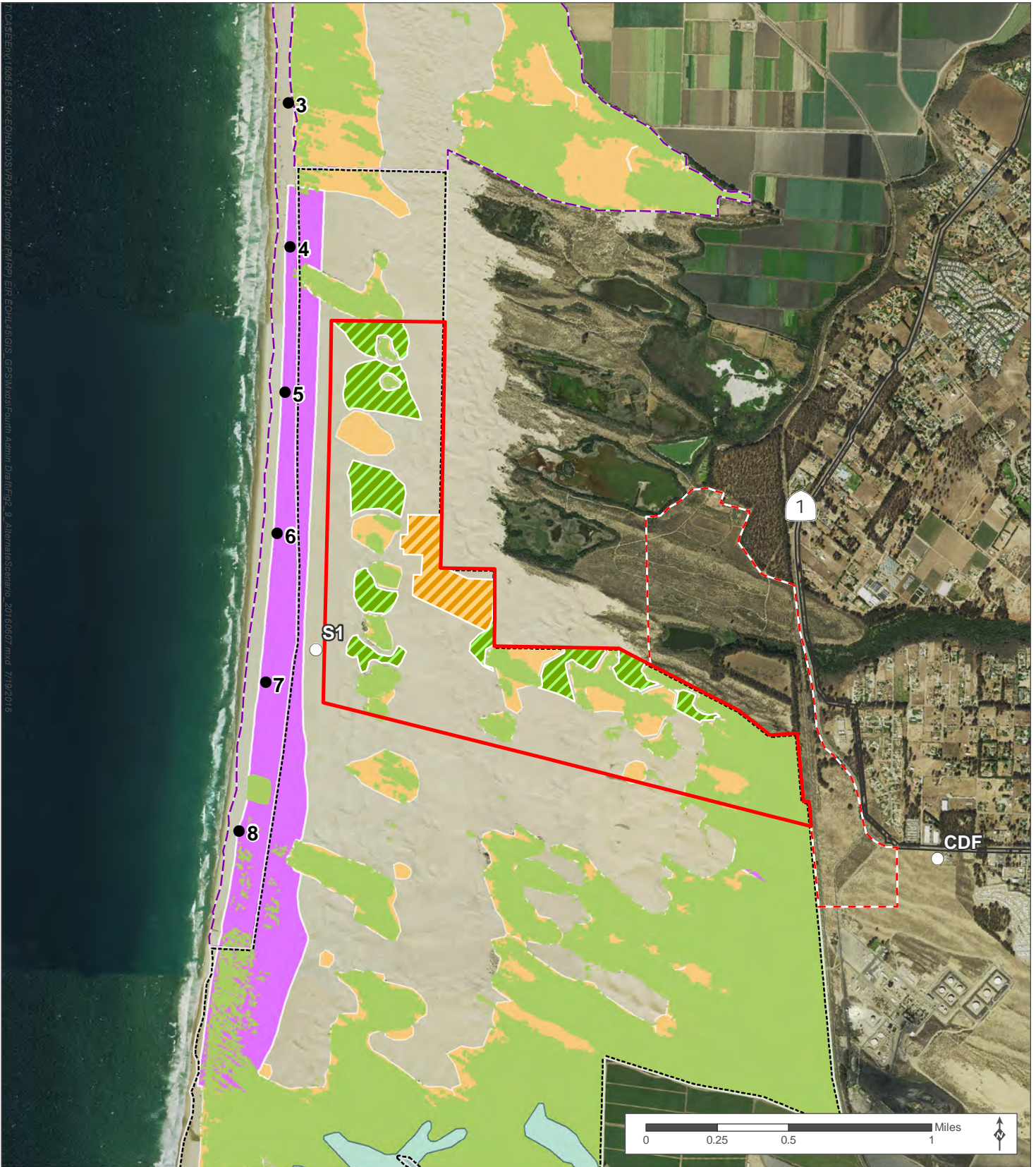


Source: California State Parks; MIG/TRA

- Proposed Dust Control Program area (688 acres)
- Potential tree planting area (295 acres)
- Oceano Dunes SVRA
- Pismo State Beach
- Marker post
- Existing air quality monitor
- Existing vegetation
- Medium and high cultural sensitivity area
- High biological sensitivity area
- Proposed Dust Control Measures - Conceptual Locations (Preferred)**
- Conceptual vegetation plantings (approx. 100 acres)
- Conceptual seasonal dust control measure (approx. 40 acres)

**Figure 2-8 Dust Control Program - Preferred Scenario**





Source: California Geologic Survey, 2010; California State Parks; MIGITRA

- Proposed Dust Control Program area (688 acres)
- Potential tree planting area (295 acres)
- Oceano Dunes SVRA
- Pismo State Beach
- Marker post
- Existing air quality monitor
- Existing vegetation
- Medium and High Cultural Resource Sensitivity Area
- High Biological Resource Sensitivity Area
- Proposed Dust Control Measures - Conceptual Locations (Alternate)**
- Conceptual vegetation plantings (approx. 100 acres)
- Conceptual seasonal dust control measure (approx. 40 acres)

**Figure 2-9 Dust Control Program - Alternate Scenario**



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**EXHIBIT B: ADOPTED MITIGATION MONITORING AND  
REPORTING PLAN FOR THE OCEANO DUNES SVRA DUST  
CONTROL PROGRAM**

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*Oceano Dunes SVRA Dust Control Program UPDATED PROJECT DESCRIPTION (CDP #03-12-050)  
California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division*

July 21, 2017

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# OCEANO DUNES STATE VEHICULAR RECREATION AREA DUST CONTROL PROGRAM

## MITIGATION, MONITORING, AND REPORTING PLAN

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This Mitigation, Monitoring, and Reporting Plan (MMRP) has been prepared for the Oceano Dunes State Vehicular Recreation Area (SVRA) Dust Control Program pursuant to California Environmental Quality Act (CEQA) Guidelines (California Code of Regulations, Title 14), which state the following:

In order to ensure that the mitigation measures and project revisions identified in the EIR or negative declaration are implemented, the public agency, [here, the Off-Highway Motor Vehicle Recreation (OHMVR) Division] shall adopt a program for monitoring or reporting on the revisions which it has required in the project and the measures it has imposed to mitigate or avoid significant environmental effects.” (CEQA Guidelines §15097(a))

The public agency may choose whether its program will monitor mitigation, report on mitigation, or both. ‘Reporting’ generally consists of a written compliance review that is presented to the decision making body or authorized staff person. A report may be required at various stages during project implementation or upon completion of the mitigation measure. ‘Monitoring’ is generally an ongoing or periodic process of project oversight. There is often no clear distinction between monitoring and reporting and the program best suited to ensuring compliance in any given instance will usually involve elements of both.” (CEQA Guidelines §15097 (c))

The mitigation measures were identified in a Draft Program EIR prepared for the Oceano Dunes SVRA Dust Control Program in August 2016 and reflect modifications resulting from finalizing the EIR in March 2017. Furthermore, since the OHMVR Division is a state agency subject to compliance with public resources codes for protection of sensitive resources, several standard and project-specific requirements were incorporated in the Program to protect resources. The application of these requirements is assumed and, therefore, they are not considered mitigation measures but rather resource protection measures that are part of the Program.

### **Standard and Specific Requirements Included in the Dust Control Program**

Table 1 lists the standard and specific requirements incorporated into the Oceano Dunes SVRA Dust Control Program.

**Table 1. Standard and Specific Requirements Included in the Dust Control Program****Standard Requirements That Would Reduce Effects in Multiple Resource Areas**

- **Minimize Ground Disturbance and Land Occupancy.** The OHMVR Division shall:
  - Design and implement the Dust Control Program to disturb and occupy as little land as possible
  - Prior to the start of Dust Control Program-related work activities (e.g., installation of dust control measures, monitoring equipment maintenance), the OHMVR Division shall determine the minimum area required to complete the work and define the boundaries of the work area on project drawings and with flagging or fencing on the ground, as appropriate
  - Use existing paths of travel to access project-related work areas
  - Restore all disturbed areas to the maximum extent feasible

**Hazards and Hazardous Materials**

- **Designate Vehicle and Equipment Storage, Staging, and Clean-up Locations.** The OHMVR Division shall store, stage, and clean-up all vehicles and equipment used for Dust Control project-related work activities at its maintenance yard on SR 1 in Oceano when not in use.
- **Designate Vehicle and Equipment Fueling Locations.** The OHMVR Division shall also store and conduct all re-fueling activities at its maintenance yard on SR 1 in Oceano.
- **Inspect for Equipment Leaks.** The OHMVR Division shall inspect all off-road and other construction equipment for leaks prior to and at the conclusion of any installation, operation, or maintenance activity. If leaks are observed, the leaking equipment shall be removed from the project site and repaired. All contaminated water, sludge, spill residue, or other hazardous compounds discovered during inspections shall be contained and disposed of, as necessary, at lawfully permitted or authorized disposal sites.
- **Prepare and Implement Spill Prevention and Response Plan.** The OHMVR Division shall prepare a Spill Prevention and Response Plan (SPRP) to provide protection to on-site workers, the public, and the environment from accidental leaks or spills of vehicle fluids or other potential contaminants. At a minimum, this plan will include (but not be limited to):
  - A map that delineates equipment staging, refueling, and maintenance areas and the BMPs that would be implemented to prevent spills or leaks from leaving these areas
  - A list of project materials which, if released, could pose a hazard to the public or the environment
  - Procedures for the proper storage, use, and disposal of any solvents or other chemicals used in project activities;
  - Procedures for the immediate containment and clean-up of any spills or leaks of hazardous materials, including a list of items to be maintained in an on-site spill response kit at all times
  - Identification of lawfully permitted or authorized disposal destinations outside of the project site

**Table 1. Standard and Specific Requirements Included in the Dust Control Program****Aesthetics**

- **Vegetation Design Considerations.** The OHMVR Division shall:
  - Use local, native vegetation that matches the existing plant community composition of the planting area.
  - Plant vegetation in patterns and shapes that reflect the natural plant colonization and dune-building processes of the dunes (e.g., planting along the prevailing wind direction, avoid planting in regular shapes like squares or rectangles).
- **Seasonal Dust Control Measure Design Considerations.** The OHMVR Division shall, to the maximum extent feasible and supported by scientific data:
  - Deploy seasonal dust control measures in locations that minimize conflict with scenic views of the ocean from sensitive park visitor viewpoints, including camping areas, hiking trails, established paths of travel, and other areas of high visitation.
  - Deploy muted green- or neutral-colored (e.g., sand-colored or brown) wind fencing when existing orange-colored fencing supplies deteriorate or run out.

**Biological Resources**

- **Minimize Ground Disturbance and Land Occupancy.** The OHMVR Division shall:
  - Design and implement the Dust Control Program to disturb and occupy as little land as possible
  - Prior to the start of Dust Control Program-related work activities (e.g., installation of dust control measures, monitoring equipment maintenance), the OHMVR Division shall determine the minimum area required to complete the work and define the boundaries of the work area on project drawings and with flagging or fencing on the ground, as appropriate
  - Use existing paths of travel to access project-related work areas
  - Restore all disturbed areas to the maximum extent feasible
- **Minimize and/or Avoid Impacts to Special-Status Plants.** The OHMVR Division would implement the following measures to minimize and/or avoid impacts to special-status plants:
  - Prior to starting all work under the Dust Control Program, a qualified biologist shall survey for the presence of special-status plants in and within 100 feet of work areas (including new access routes). These surveys should be conducted prior to the commencement of Program activities, during the appropriate blooming period for species that are known to or have the potential to occur in work areas, and shall follow protocols established by the USFWS (USFWS 1996), CDFW (CDFG 2009), and CNPS (CNPS 2001), including the use of reference sites to confirm appropriate survey timing, if necessary.
  - A qualified biologist shall map, flag, and protect special-status plants identified during surveys.
    - The qualified biologist shall establish clear avoidance areas around California and federal endangered or threatened plant locations. This avoidance area shall provide a minimum 25-foot buffer from all work activities (the biologist may establish a larger buffer if appropriate). Sturdy, visible fencing or other protective features shall be installed around all avoidance areas. Fencing shall be securely staked and installed in a manner that would be reasonably expected to





**Table 1. Standard and Specific Requirements Included in the Dust Control Program**

- If a project is proposed near an area that could potentially support California red-legged frog, a biological monitor shall remain onsite to monitor for the presence of California red-legged frog throughout the installation of all dust control measures. The on-site biological monitor shall have the authority to halt any action that might result in impacts that exceed the levels anticipated by the USFWS during review of the proposed action. If work is stopped, the USFWS shall be notified immediately by the biological monitor.
- **Minimize and/or Avoid Impacts to Nesting and Special-Status Birds.** The OHMVR Division would implement the following measures to minimize and/or avoid impacts to special-status birds:
  - Program implementation will avoid the avian breeding season (generally February 1 through September 15) to the extent feasible. If work occurs during the avian breeding season, a qualified biologist shall survey for nesting birds within the work area, along the access path to the work area, and in a sufficient area around the work area to identify nests that could be impacted by activities. These surveys shall be performed no more than seven (7) days prior to the start of work.
    - Identified active nests (i.e., a nest with eggs or chicks) shall be regularly surveyed by a qualified biologist for the first 24 hours prior to any Program-related activities to establish a behavioral baseline. Once work commences, all nests shall be regularly monitored to detect any behavioral changes as a result of the activities. If behavioral changes are observed, the work causing that change shall cease and USFWS and/or CDFW shall be consulted for additional avoidance and minimization measures. If regular monitoring of active nests by a qualified biologist is not feasible, the following measure shall be implemented.
    - If active nests are found during surveys, the OHMVR Division shall establish a buffer zone around the nest until the breeding season has ended, or until a qualified biologist has determined that young have fledged and are no longer reliant upon the nest or parental care for survival. The size of the buffer shall be determined by the qualified biologist, and shall depend on the species and topography, but would generally be 250 feet around active non-listed small bird species nests and 500 feet around active non-listed raptor nests. For the purposes of this measure only, non-listed shall refer to those species not listed under the federal or state Endangered Species Act and/or as state fully-protected species.
  - Prior to starting all work under the Dust Control Program in suitable burrowing owl habitat areas in the backdunes from September 1<sup>st</sup> through February 28<sup>th</sup>, a qualified biologist shall survey for potential burrows in the vicinity of the work area.
    - If small mammal burrows are detected, the biologist shall scan the area for burrowing owls and will search for signs of burrowing owls including feathers, whitewash, or pellets.
    - If any occupied burrows are detected, the OHMVR Division shall establish a minimum 100-foot buffer zone around the occupied burrow. A qualified biologist may increase the buffer area if it is determined that a larger buffer is necessary to reduce disturbance.
    - If no burrowing owls or signs of burrowing owls are detected, no further action is required.
  - The OHMVR Division has designed the project to avoid western snowy plover and

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**Table 1. Standard and Specific Requirements Included in the Dust Control Program**

California least tern habitat (generally flat, unvegetated, or sparsely vegetated sand near the shoreline); however, some activities may occur in the vicinity of these species. To the extent feasible, the OHMVR Division shall perform Dust Control Program work activities in the vicinity of western snowy plover and California least tern habitat from October 1 through February 28, which is outside of the nesting season for these species. If work activities must be conducted March 1 through September 30, the OHMVR Division would implement the following measures:

- No more than three days prior to starting work in the vicinity of western snowy plover and California least tern habitat from March 1 to September 30, a qualified biologist shall survey for western snowy plover and California least tern nests. If nests are found during this survey, the OHMVR Division shall establish a minimum 300-foot buffer zone around the nest.
- If nesting activity is initiated within 300 feet of in-progress or installed project activities, the OHMVR Division shall stop all active work and install additional fencing on the existing enclosure (i.e., fence bump-out) if the nest is near an existing enclosure or install a circular single nest enclosure (200-foot diameter for snowy plovers and 330-foot diameter for least terns) if the nest is not near any existing enclosure. The enclosure fence shall consist of 2-inch by 4-inch mesh wire fencing with a height of 5 feet (8 inches buried) to protect the nest from people and predators. No additional dust control activities shall be performed within 300 feet of such enclosure until after the nest fate is determined.
- A biological monitor shall be available to monitor for the presence of nesting activity throughout the installation of all dust control measures. The on-site biological monitor shall have the authority to halt any action that might result in impacts to individual birds or nests. If work is stopped, the USFWS shall be notified immediately by the on-site biological monitor.
- The OHMVR Division shall plan and design Dust Control Program activities to avoid changing breeding habitat in the vicinity of known or potential snowy plover and least tern nesting areas. Program activities that could facilitate predator movement into known or potential nesting areas for plover and tern shall be minimized. If avoidance is not feasible, additional predator control resources (e.g., enhanced monitoring and/or trapping) shall be secured to reduce predator presence and impacts to plover and tern adults, juveniles, chicks, and nests. In addition, if particular structures associated with the Program are confirmed to be used by avian predators for perching and contributing to western snowy plover or least tern predation, they will be removed and relocated immediately.
- The OHMVR Division shall maintain 15 mile per hour vehicle speeds during all travel to and from dust control projects.
- **Minimize and/or Avoid Impacts to American Badger and Badger Dens.** No more than seven days prior to installation of project features, a qualified biologist shall perform a pre-construction survey for badger dens in the vicinity of work areas. If any dens are found, the OHMVR Division shall establish a minimum 100-foot buffer zone around the den.
- **Minimize and/or Avoid Impacts to Wetland Habitats.** The OHMVR Division shall implement the following measures to minimize and/or avoid impacts wetland habitats:

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**Table 1. Standard and Specific Requirements Included in the Dust Control Program**

- The OHMVR Division will avoid or minimize impacts to federally protected wetlands to the maximum extent feasible by conducting work in upland areas.
- If necessary, the OHMVR Division shall verify the Pacific Ocean's high tide line in the vicinity of Pier Avenue and Grand Avenue and ensure the installation and placement of all piles, beams, or other track-out prevention structures occur above the high tide line.
- The OHMVR Division shall not install any project features within wetlands or other jurisdictional waters, and shall setback all project features a minimum of 150 feet from all such areas.
- The OHMVR Division shall not perform any equipment maintenance within 150 feet of any wetland or jurisdictional water where equipment fuel, oil, etc. could enter the such areas.
- The OHMVR Division shall not allow water containing mud, silt, or other pollutants to be placed in locations that may be subjected to high storm flows.
- Raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances that could be hazardous to vegetation or wildlife resources, resulting from project-related activities, shall be prevented from contaminating the soil.
- When operations are completed, any excess materials or debris shall be removed from the work area.
- To minimize disturbance to the work area, the OHMVR Division shall limit crew size, number of vehicles and equipment, and access points.
- **Employee Education.** If, in the opinion of the project biologist, a work area is in or near an area that is known or has the potential to support listed species, all construction personnel shall receive training on listed species and their habitats by a USFWS-approved biologist. The importance of these species and their habitat as well as the minimization and avoidance measures that are to be implemented as part of the project will be described to all employees.
- **Avoid Open Trenches.** If track-out prevention installation results in open trenches, the OHMVR Division shall cover such trenches at the close of each working day with plywood or similar materials, or shall include escape ramps constructed of earth fill or wooden planks so that animals may exit the trench. A staff biologist, or other staff trained by a staff biologist will inspect trenches and pipes for wildlife at the beginning of each workday. If a trapped animal is discovered, it will be released in suitable habitat at least 300 feet from the work area.
- **Notification to the California Natural Diversity Database (CNDDDB).** If any listed, rare, or special-status species are detected during surveys or program activities, OHMVR Division shall submit notification to the CNDDDB within 14 working days of the sightings.

**Table 1. Standard and Specific Requirements Included in the Dust Control Program****Cultural Resources**

- **Inventory Cultural Resources.** Conduct a records search and field survey for historical and archaeological resources prior to the start of specific work activities; map and record all resources.
- **Monitor Cultural Resources.** Evaluate whether the project will adversely change the significance of a historical resource; first consult with and involve a Native American representative; have a qualified monitor present during all installation activities within the vicinity of the resource.
- **Avoid Cultural Resources.** Avoid substantial adverse changes to cultural resources; review ground disturbing activities, flag or fence buffers around all cultural resources in the vicinity of work activities, train construction personnel on cultural resources identification and avoidance.
- **Avoid Impacts from Accidental Discoveries.** In the event cultural resources are accidentally discovered during work activities, stop all work and immediately have the resource evaluated by a qualified state archaeologist. If human remains are accidentally discovered, stop all work and contact the county coroner.
- **Native American Consultation and Monitoring.** Consult with and involve Native American representatives during near and long-term project implementation.
- **Preserve Cultural Resources in Place.** The OHMVR Division shall, to the maximum extent feasible and supported by Dust Control Program data, preserve cultural resources in place and avoid substantial adverse changes to historical and archaeological resources. The OHMVR Division shall ensure adequate paths of travel are maintained around or between dust control measures and historical or archaeological resource and existing protections are sufficient to maintain resource protection.

**Hydrology and Water Quality**

- **Minimize Ground Disturbance and Land Occupancy.** The OHMVR Division shall:
  - Design and implement the Dust Control Program to disturb and occupy as little land as possible
  - Prior to the start of Dust Control Program-related work activities (e.g., installation of dust control measures, monitoring equipment maintenance), the OHMVR Division shall determine the minimum area required to complete the work and define the boundaries of the work area on project drawings and with flagging or fencing on the ground, as appropriate
  - Use existing paths of travel to access project-related work areas
  - Restore all disturbed areas to the maximum extent feasible
- **Manage Seasonal Dust Control Measure Stockpiles.** The OHMVR Division shall locate stockpiles of seasonal dust control measures such as straw bales at least 50 feet away from concentrated storm water flows.
- **Designate Vehicle and Equipment Storage, Staging, and Clean-up Locations.** The OHMVR Division shall store, stage, and clean-up all vehicles and equipment used for Dust Control Program-related work activities at its maintenance yard on SR 1 in Oceano when not in use.
- **Designate Vehicle and Equipment Fueling Locations.** The OHMVR Division shall store all fuel and conduct all re-fueling activities at its maintenance yard on SR 1 in

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**Table 1. Standard and Specific Requirements Included in the Dust Control Program**

Oceano.

- **Inspect for Equipment Leaks.** The OHMVR Division shall inspect all off-road and other construction equipment for leaks prior to and at the conclusion of any installation, operation, or maintenance activity. If leaks are observed, the leaking equipment shall be removed from the field and repaired immediately. All contaminated water, sludge, spill residue, or other hazardous compounds discovered during inspections shall be contained and disposed of, as necessary, at lawfully permitted or authorized disposal sites.
- **Soil Stabilizer Selection:** If soil stabilizers are used, the OHMVR Division shall, in consultation with CCC staff, select a non-toxic, environmentally friendly soil stabilizer to control sand transport. The selection should take into consideration a variety of factors including but not limited to: surface runoff carrying suppressants and/or breakdown of products, uptake of dust suppressants by plants, ingestion of dust suppressant constituents by animals, volatilization, transport of suppressant particulates by wind erosion to unintended areas, consumption of contaminated groundwater, downwind drift of spray off-site during application, and ingestion of dust suppressant constituents by humans.
- **Track-Out Device Installation:** The OHMVR Division shall, to the maximum extent feasible, minimize disturbance to or disruption of any existing storm water flows, drainage facilities, and systems on Grand Avenue in Grover Beach and Pier Avenue in Oceano. This may be accomplished by, but not limited to, installing track-out prevention devices that have the potential to interfere with or disrupt storm water facilities during the dry season (April 15 to October 15) or provide temporary storm water drainage facilities during track-out installation. If necessary, the OHMVR Division shall prepare a Storm Water Pollution Prevention Plan for track-out prevention device installation and obtain all necessary permits for installation, operation, and maintenance of the track-out prevention devices.
- **Regularly Remove, Test, and Dispose of Sediment from Track-out Prevention Devices.** The OHMVR Division shall:
  - Regularly remove the sediment that accumulates in any sediment trapping devices, oil/water separators, or other track-out prevention devices to ensure storm water flows do no back-up or spill out into local storm water collection systems or the beach.
  - Inspect and, if necessary, test the sediment collected by track-out prevention devices for the presence of pollutants such as fuel, oils, or other waste and appropriately disposed of in accordance with solid and/or hazardous waste regulations.

### Noise

- **Reduce Equipment Noise.** To reduce equipment-related noise, the OHMVR Division shall:
  - Store and/or stage all construction equipment away from sensitive receptor locations as possible
  - Maintain all construction equipment in good working order
  - Ensure construction vehicles, equipment, and machines incorporate design features in good operating order that meet current industry standards for noise muffling and reduction, e.g., internal combustion engines shall be equipped with a muffler,

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**Table 1. Standard and Specific Requirements Included in the Dust Control Program**

engines should be enclosed or shielded, etc.

- Shield stationary equipment such as compressors, generators, and welder machines or locate/operate this equipment as far away from sensitive receptors as possible. If stationary noise sources must be located near sensitive noise receptors (within 100 feet), stationary noise sources shall be muffled, shielded, or enclosed within a temporary shed
- **Limit Construction Hours.** The OHMVR Division shall limit construction equipment use to daylight hours, Monday – Friday, to the maximum extent feasible. If work during weekends or holidays is required, the OHMVR Division shall limit construction activities to the hours of 8 AM to 5 PM.

**Impacts, Mitigation Measures, and Timing of and Responsibility for Implementing the Mitigation Measures**

Table 2 lists the potentially significant impacts and proposed mitigation measure identified in the EIR. Table 2 also describes the timing of implementation of the mitigation measure (i.e., when the measure will be implemented) and the parties responsible for ensuring implementation of the measures and for monitoring the mitigation measures.

According to CEQA Guidelines Section 15126.4 (a) (2), “Mitigation measures must be fully enforceable through permit conditions, agreements, or other legally-binding instruments.” Therefore, the OHMVR Division will consider whether to adopt the mitigation measures when it considers whether to approve the project.

<b>Table 2. Impacts, Mitigation Measures, and Timing of and Responsibility for Implementing the Mitigation Measures</b>				
<b>Impact</b>	<b>Mitigation Measure</b>	<b>Implementation Responsibility &amp; Timing</b>	<b>Monitoring Responsibility</b>	<b>Verified Implementation</b>
<b>NOISE</b>				
<p><b>Impact NOI-2:</b> The Dust Control Program would generate track-out prevention-related noise on Grand Avenue and Pier Avenue.</p> <p><b>Significance of Impact Before Mitigation:</b> Potentially Significant</p> <p><b>Significance of Impact After Mitigation:</b> Less than Significant</p>	<p><b>Mitigation Measure NOI-2: Reduce Track-out Prevention Noise</b></p> <p>The OHMVR Division shall, given the specific engineering and vehicle conditions present at the Pismo State Beach Pier Avenue exit, reduce noise from track-out prevention devices by:</p> <ul style="list-style-type: none"> <li>• Minimizing the width between concrete grooves as much as possible (while still ensuring sufficient spacing to provide effective track-out control)</li> <li>• Considering installing sinusoidal shaped concrete grooves if research indicates such devices are cost effective and would produce lower vehicle noise levels than rectangular or cylindrical shaped.</li> </ul>	<p><b>Implementation Responsibility:</b> OHMVR Division, Oceano Dunes District</p> <p><b>Timing:</b> Concrete groove-width and -shape restrictions shall be included in track-out prevention projects prior to finalizing project plans and requesting appropriation of project funds.</p>	<p><b>Monitoring Responsibility:</b> OHMVR Division Senior Environmental Scientist or other appropriate staff (e.g., professional registered engineer) shall review final track-out prevention project plans for noise-attenuating design features.</p>	<p>Initials _____</p> <p>Date _____</p>
<b>RECREATION</b>				
<p><b>Impact REC-1:</b> The Dust Control Program would limit and interfere with coastal vehicular recreation opportunities at Oceano Dunes SVRA</p> <p><b>Significance of Impact Before Mitigation:</b> Significant</p> <p><b>Significance of Impact After Mitigation:</b> Significant</p>	<p><b>Mitigation Measure REC-1: Minimize Loss of Coastal Vehicular Recreation Opportunities</b></p> <p>The OHMVR Division shall minimize the loss of coastal vehicular recreational opportunities at Oceano Dunes SVRA by:</p> <ul style="list-style-type: none"> <li>• Planting vegetation outside the Oceano Dunes SVRA open riding and camping area</li> <li>• Planting vegetation and deploying seasonal dust control measures in a manner that does not interfere with the Oceano Dunes SVRA</li> </ul>	<p><b>Implementation Responsibility:</b> OHMVR Division, Oceano Dunes District</p> <p><b>Timing:</b> By August 1 of each year of the Dust Control Program (beginning in 2017), the OHMVR Division shall identify planned planting activities (i.e., location,</p>	<p><b>Monitoring Responsibility:</b> OHMVR Division Senior Environmental Scientist or other appropriate staff (e.g., staff working under supervision of a Senior</p>	<p>Initials _____</p> <p>Date _____</p>



<b>Table 2. Impacts, Mitigation Measures, and Timing of and Responsibility for Implementing the Mitigation Measures</b>				
<b>Impact</b>	<b>Mitigation Measure</b>	<b>Implementation Responsibility &amp; Timing</b>	<b>Monitoring Responsibility</b>	<b>Verified Implementation</b>
<p><b>After Mitigation:</b> Potentially Significant and Unavoidable</p>	<p>“Sand Highway” and other established paths of travel in the SVRA</p> <ul style="list-style-type: none"> <li>• Deploying seasonal dust control measures from March 1 through September 30 only</li> <li>• Considering potential hazards to public recreation from the seasonal deployment of dust control measures (e.g., ensuring that areas are safe for resumption of OHV recreation following removal of the project)</li> <li>• Integrating recreation opportunities, including OHV recreation opportunities, into dust control measures. This could be achieved by:               <ul style="list-style-type: none"> <li>○ Educational kiosks that highlight the progression of dune vegetation / ecosystems</li> <li>○ Establishing and maintaining motorized and non-motorized trails through large, continuous blocks of planted vegetation</li> <li>○ Embedding OHV training or vendor areas in dust control measures large enough to support such areas</li> </ul> </li> <li>• Identifying areas to provide additional camping or OHV recreation opportunity and diligently pursue opening those areas to OHV recreation with existing staff levels and funding considerations. Any such expansion shall occur in a manner that is</li> </ul>	<p>planned planting methods, and potential site-specific resources present), complete any necessary resource evaluations (e.g., biological surveys, cultural surveys, agency and/or other consultations), and document the planned planting activity’s consistency with this measure. By November 15 of each year, the OHMVR Division shall finalize this documentation (related to planned planting activities). For potential Spring 2017 seasonal dust control measures, the OHMVR Division shall identify planned seasonal dust control measures (i.e., location, planned planting methods, and potential site-specific resources present), complete any necessary resource evaluations (e.g., biological surveys, cultural surveys, agency and/or other consultations), and document</p>	<p>Environmental Scientist) shall prepare documentation by the dates listed.</p>	

**Table 2. Impacts, Mitigation Measures, and Timing of and Responsibility for Implementing the Mitigation Measures**

Impact	Mitigation Measure	Implementation Responsibility & Timing	Monitoring Responsibility	Verified Implementation
	<p>consistent with the Public Resources Code and other applicable laws and regulations and shall not impede achievement of the performance standard set by Rule 1001.</p> <ul style="list-style-type: none"> <li>○ The additional camping and/or OHV recreation opportunities to be pursued as part of this measure shall be, to the maximum extent feasible, similar to the type and amount of land affected as a result of the proposed Dust Control Program. Specifically, the OHMVR Division shall, if feasible, provide a 1:1 replacement of coastal vehicular recreation lands within the same regional geographic location as Oceano Dunes SVRA. For the purposes of this measure, inland OHV recreation opportunities are not considered similar to the opportunities provided by Oceano Dunes SVRA.</li> <li>○ The OHMVR Division shall actively research and identify opportunities to provide additional camping and/or OHV recreation opportunities until three years after the completion of the propose Dust Control Program, or 2025, whichever is later. If additional opportunities are not identified by this time, they shall be considered to not be available to the OHMVR Division.</li> </ul>	<p>the planned seasonal dust control activity’s consistency with this measure.</p> <p>For seasonal dust control measures in 2018 and beyond, the OHMVR Division shall by December 1 of each year of the Dust Control Program (beginning in 2017), identify planned seasonal dust control measures (i.e., location, planned planting methods, and potential site-specific resources present), complete any necessary resource evaluations (e.g., biological surveys, cultural surveys, agency and/or other consultations), and document the planned seasonal dust control activity’s consistency with this measure. By March 1 of each year (beginning in 2018), the OHMVR Division shall finalize this documentation (related to seasonal dust control measures).</p>		

**Table 2. Impacts, Mitigation Measures, and Timing of and Responsibility for Implementing the Mitigation Measures**

Impact	Mitigation Measure	Implementation Responsibility & Timing	Monitoring Responsibility	Verified Implementation
		The OHMVR Division shall include a summary / update of its active search to identify and pursue opening areas to OHV recreation in each final document related to planned planting activities (which are due by November 15 of each year, beginning in 2017).		
<b>LAND USE AND PLANNING</b>				
<p><b>Impact LUP-1:</b> The Dust Control Program would conflict with the Pismo Dunes SVRA (now Oceano Dunes SVRA) General Development Plan and Resources Management Plan.</p> <p><b>Significance of Impact Before Mitigation:</b> Significant</p> <p><b>Significance of Impact After Mitigation:</b> Potentially Significant and Unavoidable</p>	See Mitigation Measure REC-1 above.	<p><b>Implementation Responsibility:</b> OHMVR Division, Oceano Dunes District</p> <p><b>Timing:</b> See Mitigation Measure REC-1 above.</p>	<p><b>Monitoring Responsibility:</b> See Mitigation Measure REC-1 above.</p>	<p>Initials _____</p> <p>Date _____</p>

<b>Table 2. Impacts, Mitigation Measures, and Timing of and Responsibility for Implementing the Mitigation Measures</b>				
<b>Impact</b>	<b>Mitigation Measure</b>	<b>Implementation Responsibility &amp; Timing</b>	<b>Monitoring Responsibility</b>	<b>Verified Implementation</b>
<p><b>Impact LUP-2:</b> The Dust Control Program could conflict with the California Coastal Act.</p> <p><b>Significance of Impact Before Mitigation:</b> Significant</p> <p><b>Significance of Impact After Mitigation:</b> Potentially Significant and Unavoidable</p>	<p><b>See Mitigation Measure REC-1 above.</b></p>	<p><b>Implementation Responsibility:</b> OHMVR Division, Oceano Dunes District</p> <p><b>Timing:</b> See Mitigation Measure REC-1 above.</p>	<p><b>Monitoring Responsibility:</b> See Mitigation Measure REC-1 above.</p>	<p>Initials _____</p> <p>Date _____</p>
<b>CUMULATIVE</b>				
<p><b>Impact CML-1:</b> The Dust Control Program would contribute to cumulative, seasonal and permanent reductions in coastal vehicular recreational opportunities at Oceano Dunes SVRA.</p>	<p><b>See Mitigation Measure REC-1 above.</b></p>	<p><b>Implementation Responsibility:</b> OHMVR Division, Oceano Dunes District</p> <p><b>Timing:</b> See Mitigation Measure REC-1 above.</p>	<p><b>Monitoring Responsibility:</b> See Mitigation Measure REC-1 above.</p>	<p>Initials _____</p> <p>Date _____</p>

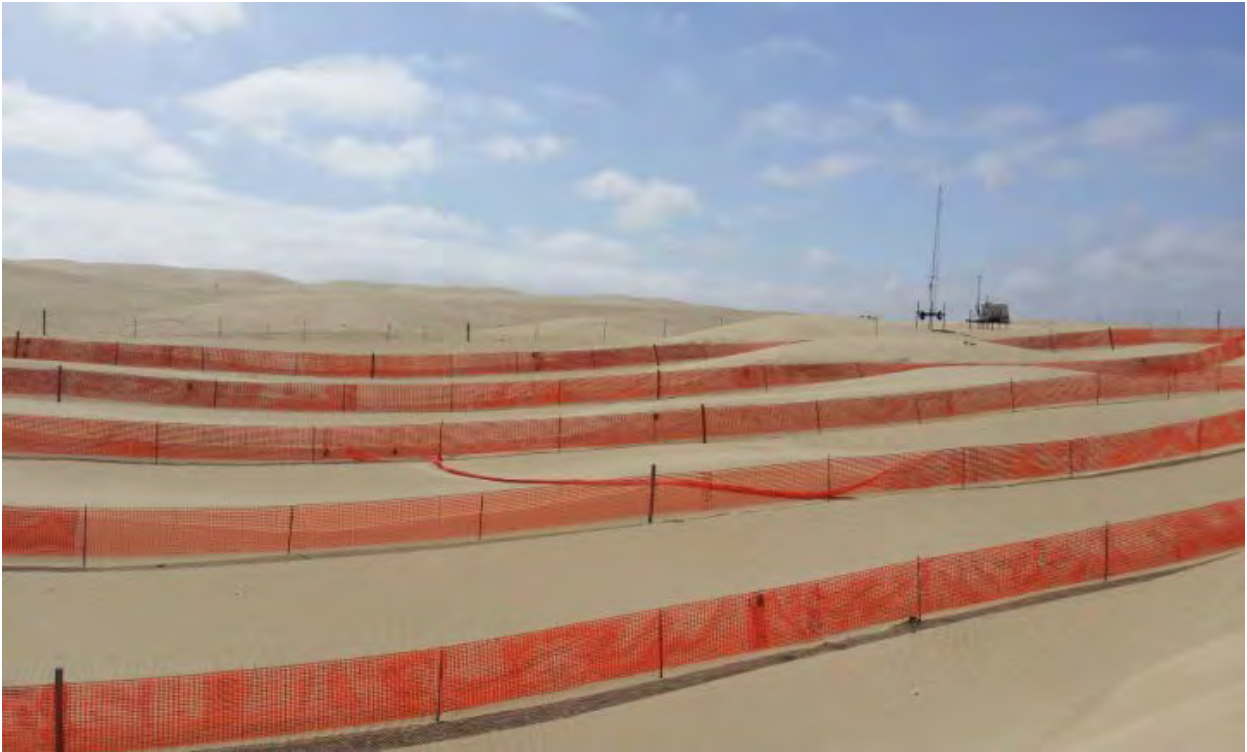
<b>Table 2. Impacts, Mitigation Measures, and Timing of and Responsibility for Implementing the Mitigation Measures</b>				
<b>Impact</b>	<b>Mitigation Measure</b>	<b>Implementation Responsibility &amp; Timing</b>	<b>Monitoring Responsibility</b>	<b>Verified Implementation</b>
<b>Impact CML-2:</b> The Dust Control Program would contribute to a cumulative loss in OHV recreation lands that conflicts with the Pismo Dunes SVRA (now Oceano Dunes SVRA) General Development Plan and Resource Management Plan and the California Coastal Act.	<b>See Mitigation Measure REC-1 above.</b>	<b>Implementation Responsibility:</b> OHMVR Division, Oceano Dunes District <b>Timing:</b> See Mitigation Measure REC-1 above.	<b>Monitoring Responsibility:</b> See Mitigation Measure REC-1 above.	Initials _____ Date _____

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Example Porous Roughness Elements (PREs)



Example Wind Fencing





Example Straw Bale Array



Example Dune Vegetation







# Air Resources Board



**Matthew Rodriguez**  
Secretary for  
Environmental Protection

**Mary D. Nichols, Chair**  
1001 I Street • P.O. Box 2815  
Sacramento, California 95812 • [www.arb.ca.gov](http://www.arb.ca.gov)

**Edmund G. Brown Jr.**  
Governor

August 4, 2017

Mr. Kevin Kahn  
District Supervisor  
Central Coast District Office  
California Coastal Commission  
725 Front Street, Suite 300  
Santa Cruz, California 95060

Dear Mr. Kahn:

Thank you for the opportunity to comment on the Coastal Development Permit application submitted by the California Department of Parks and Recreation (State Parks) outlining the five-year plan for dust mitigation activities at the Oceano Dunes State Vehicular Recreation Area (Oceano Dunes SVRA). The California Air Resources Board (CARB) has been working closely with State Parks and the San Luis Obispo Air Pollution Control District (District) on this critical effort to protect public health. In our role as the State's lead air quality agency, CARB has been facilitating discussions between State Parks and the District, as well as providing technical expertise and support.

As part of that effort, CARB has developed an air quality modeling system that provides a robust scientific foundation for informing needed mitigation efforts. The air quality model simulates emissions and wind conditions in the Oceano Dunes SVRA to estimate air quality impacts within the surrounding communities. CARB staff completed the development of this model earlier this year and presented initial results to the District's Governing Board in June.

Action by California Coastal Commission on the five-year plan submitted by State Parks is an important step in ensuring significant mitigation action can take place next spring to protect downwind residents from dust coming from the dunes. We are now working with State Parks and the District to do a science-based evaluation of the locations and extent of mitigation that will be necessary to fully address air quality impacts downwind of the Oceano Dunes SVRA. This is part of the effort to design next spring's mitigation focusing on those areas that the air quality modeling indicates are important locations

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

Mr. Kevin Kahn  
August 4, 2017  
Page 2

for mitigation and meeting the requirements of the District's Rule 1001. Therefore, Coastal Commission action on the permit application will allow State Parks to implement dust mitigation next spring that is designed to be consistent with what will be necessary to ensure healthful air downwind.

Still, the five-year plan was developed without the benefit of the further scientific insights provided by the air quality model. Therefore, in addition to using the model to design next year's mitigation, CARB will work with State Parks and the District to apply the model to develop a comprehensive plan for meeting District Rule 1001 and the multiple recreational uses and environmental objectives of the Oceano Dunes SVRA. Because of the profound health impacts of dust pollution, CARB believes a broader plan must be developed in parallel with next year's mitigation under the five-year plan and be completed well within the timeframe of the five-year plan. CARB is committed to working with State Parks and the District to make this happen.

We look forward to continuing to work with the Coastal Commission on effective solutions and ensuring mitigation is put in place as quickly as possible. If you have any questions or would like additional information, please contact me at (916) 445-5610 or via email at [kurt.karperos@arb.ca.gov](mailto:kurt.karperos@arb.ca.gov).

Sincerely,



Kurt Karperos  
Deputy Executive Officer

cc: Larry Allen  
Air Pollution Control Officer  
San Luis Obispo County Air Pollution Control District  
3433 Roberto Court  
San Luis Obispo, California 93401

Mat Fuzie  
Deputy Director  
OMHVR Division  
Department of Parks and Recreation  
1725 23<sup>rd</sup> Street, Suite 200  
Sacramento, California 95816



Air Pollution Control District  
San Luis Obispo County

August 7, 2017

Kevin Kahn  
District Supervisor  
Central Coast District Office  
California Coastal Commission  
725 Front Street, Suite 300  
Santa Cruz, California 95060

SUBJECT: APCD Comments on the OHMVR Coastal Development Permit Application and Proposed 5-Year Plan for Dust Mitigation

Dear Mr. Kahn:

Thank you for the opportunity to comment on the Coastal Development Permit (CDP) application submitted by the Off-Highway Motor Vehicle Recreation Division (OHMVR) of the California Department of Parks and Recreation. The application describes their proposed five-year plan for controlling airborne particulate matter emissions generated by off-road vehicle activity at the Oceano Dunes State Vehicular Recreation Area (ODSVRA). These emissions represent a significant and ongoing public health threat to downwind residents and have been the focus of considerable study and public concern for the past several years. APCD Rule 1001, adopted in November 2011, requires the development and implementation of an APCD approved Particulate Matter Reduction Plan (PMRP) to reduce dust emissions from the facility to within 20% of natural background levels.

The California Air Resources Board (CARB) has worked with APCD and OHMVR over the past few years to provide technical expertise and guidance in helping to resolve this difficult issue. As part of that process, CARB has developed an emissions and atmospheric dispersion model for the OSDVRA intended to help define the type, scope, and location of dust control measures needed to comply with Rule 1001. The modeling effort continues to evolve as new data becomes available and is currently being used in designing the dust control measures for the Spring 2018 windy season; we expect to present those results to the APCD Board at our September 27, 2017 meeting.

Unfortunately, the 5-Year plan submitted by OHMVR in their CDP application was prepared prior to completion of the model and has not been approved by the APCD. Our staff submitted

substantive comments on the proposed plan during the CEQA process and has informed OHMVR that a more comprehensive plan based on the CARB modeling must be prepared that demonstrates the ability to meet the requirements of Rule 1001 before APCD can approve it. We hope the new plan will be completed before the end of the year.

Nonetheless, we believe the type and general locations of dust control measures described by OHMVR in their CDP application and analyzed through the EIR is broad enough and provides sufficient flexibility to allow the Coastal Commission to grant the permit with the following important caveats:

1. The boundary of the proposed dust mitigation project area (Figures 2.8 and 2.9 in OHMVR's CDP application) contains a substantial setback from shore and excludes some northern riding areas. Such boundary limits preclude some of the most emissive areas in the ODSVRA from consideration for dust controls, as shown in OHMVR's own emissivity studies and on the CARB emissions modeling map (Attachment 1). Such exclusions are inappropriate without scientific evidence or modeling that demonstrates controls in these areas are not needed to protect public health. Thus, the proposed project area should not exclude any highly emissive areas from consideration as possible locations for dust control.
2. The amount of mitigation proposed to be installed in a given year (40 acres of wind fencing and 20 acres of vegetation) is a self-imposed constraint by OHMVR that may not allow them to meet compliance with the emission reduction requirements of Rule 1001. Thus, the Commission approval process should consider the ability to install, in any given year, any amount of dust mitigation shown to be necessary by the CARB modeling and the APCD-approved PMRP, provided it complies with Coastal Commission requirements.
3. Studies conducted by the Desert Research Institute (DRI), under contract to OHMVR, have shown that vegetation is the most effective method of dust control; it is 90% - 99% effective at reducing sand flux, and is also the least costly control method over time, providing permanent rather than seasonal emission reductions. OHMVR's proposal to plant most of the new vegetation outside the riding areas is contrary to the data from the comprehensive scientific field studies performed by DRI at the ODSVRA, which clearly show the riding areas to be far more emissive than the nonriding areas (Attachment 2). Planting vegetation outside the riding areas would be substantially less effective in reducing dust emissions than planting within the riding areas, especially in the most emissive riding area zones. To protect public health in the most timely and cost-effective manner, all vegetation planting for dust control should occur within the most emissive riding areas shown in Attachments 2 and 3.
4. In addition to the wind fencing arrays proposed in the CDP application, the list of appropriate dust control measures in the permit should also include the ability to simply install perimeter fencing around certain highly emissive "hot spots". As shown in Attachment 3, the temporary perimeter fencing installed around the Snowy Plover

Enclosure to prohibit riding in that area during the nesting season appears to be highly effective at reducing sand transport while it's in place. Such fencing could be installed quickly and cheaply in specific high emission zones and begin providing dust relief while more comprehensive control measures were under development.

Timely consideration and approval of a comprehensive CDP that addresses the four issues identified above is essential to allow the dust mitigation process and critical protection of public health to move forward under the joint efforts of OHMVR, CARB, and the APCD. We are confident such approval will facilitate a robust adaptive management process where specific annual mitigation efforts deemed consistent with an APCD-approved Particulate Matter Reduction Plan are presented to Commission staff before implementation to ensure consistency with the CDP.

We appreciate the opportunity to provide input on this important decision-making process and look forward to working with you and your staff to ensure the implementation of effective solutions to protect public health and the environment while enabling continued public access to the many recreational opportunities provided by the ODSVRA. If you have any concerns or questions regarding these comments, please do not hesitate to contact me.

Sincerely,



LARRY R. ALLEN

Air Pollution Control Officer

LRA/lmg

cc: Mat Fuzie, OHMVR  
Kurt Karperos, CARB

Attachments

H:\MAJOR PROJECTS\South County PM\Rule 1001 Implementation\Correspondence & Official Docs\APCD Ltr To CCC on OHMVR 5Yr Plan-8-4-17.docx



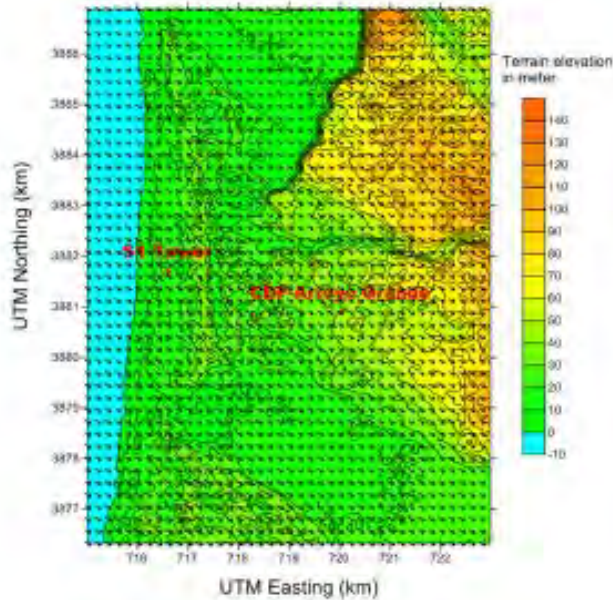
# Attachment 1

## CARB Emissions Modeling Map for ODSVRA

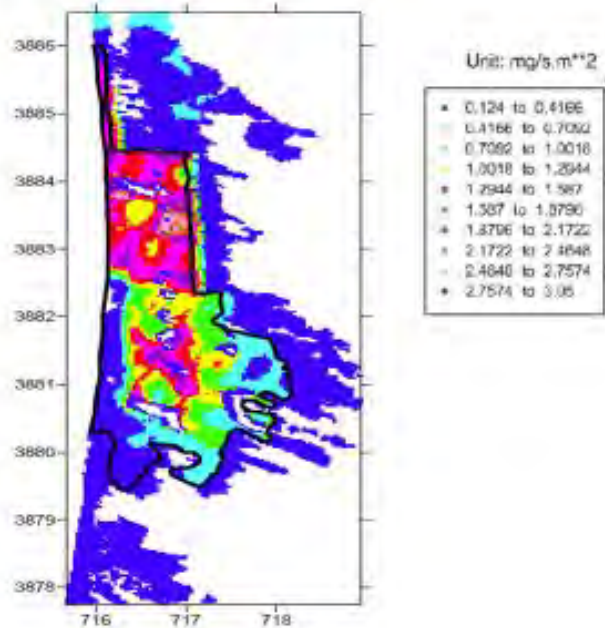
# Modeling Inputs

4

### Gridded Wind Field



### Gridded Emissions Field



Slide 4 of CARB Presentation to APCD Board on June 28, 2017

[http://slocounty.granicus.com/MetaViewer.php?meta\\_id=340679](http://slocounty.granicus.com/MetaViewer.php?meta_id=340679)

## Attachment 2

### 2013 Intensive Wind Erodibility Measurements at and Near the Oceano Dunes State Vehicular Recreation Area: Report of Findings

Vicken Etyemezian, John Gillies, Dongzi Zhu, Ashok Pokharel, and George Nikolich  
Division of Atmospheric Sciences, Desert Research Institute

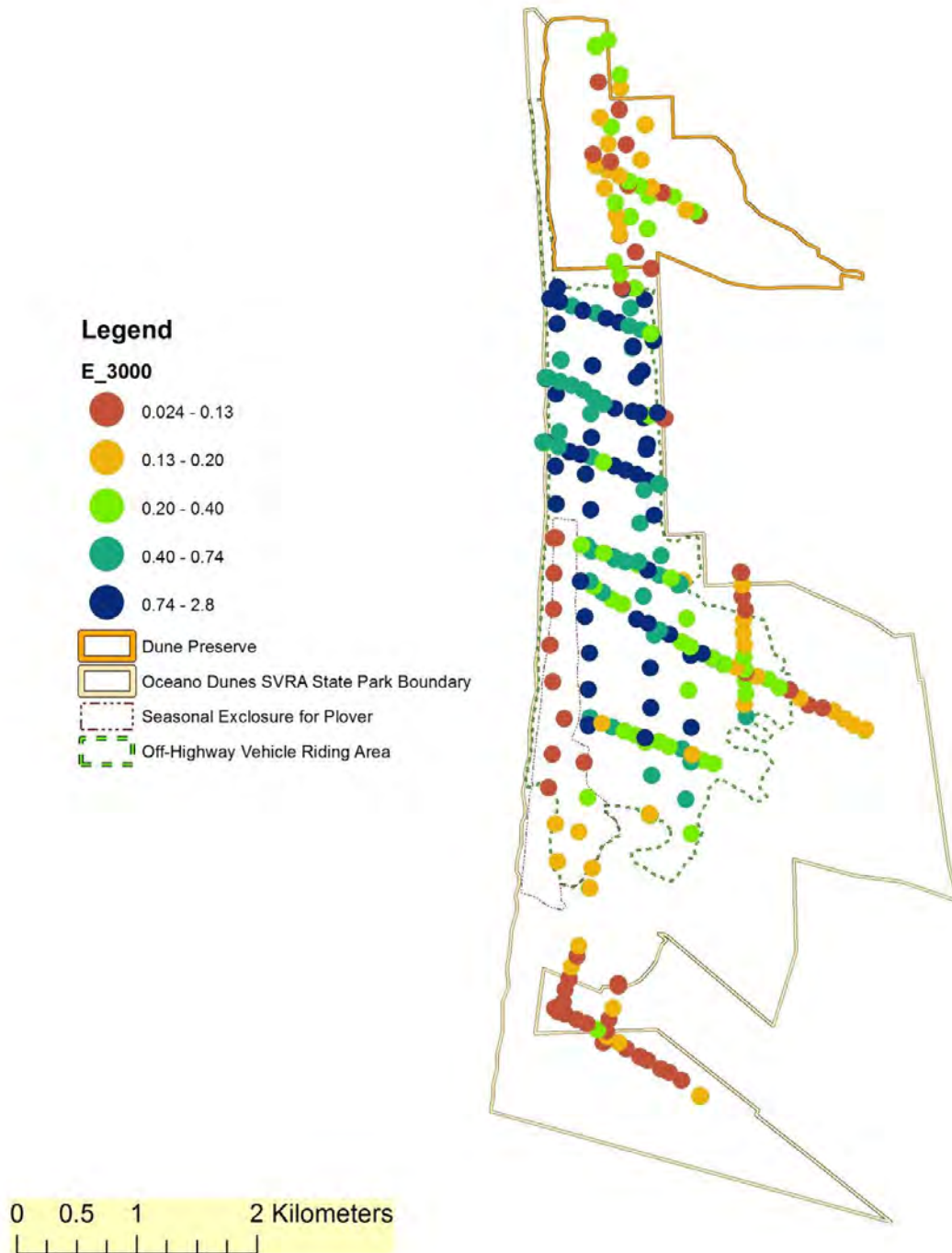


Figure 6. PI-SWERL-measured emissions at 3000 RPM (32 mph) in units of mg of PM<sub>10</sub>/m<sup>2</sup> sec. Categories are chosen so that each category contains 20% of all data.

Table 2. Summary of threshold RPM and PM<sub>10</sub> emissions by location grouping (number of independent tests in each group shown in parentheses).

	Threshold wind speed (mph)	PM <sub>10</sub> Emissions at 2000 RPM (23 mph) (mg/m <sup>2</sup> sec)	PM <sub>10</sub> Emissions at 3000 RPM (32 mph) (mg/m <sup>2</sup> sec)	PM <sub>10</sub> Emissions at 3500 RPM (36 mph) (mg/m <sup>2</sup> sec)
Oso Flaco (41)	23	0.0044	0.11	0.29
Plover Exclosure (25)	21	0.0080	0.11	0.38
Dune Preserve (66)	19	0.028	0.19	0.61
All Non-ride (132)	21	0.017	0.15	0.47
Riding Area – La Grande (122)	19	0.14	0.80	1.38
Riding Area South West (44)	22	0.046	0.67	1.27
Riding Area East (62)	21	0.026	0.29	0.60
All Ride (228)	20	0.088	0.64	1.15
Ratio: All Ride/All Non-ride		5.2	4.3	2.4
Ratio: La Grande/All Non-ride		8.1	5.4	2.9

**Full report available at:**

[http://www.slocleanair.org/images/cms/upload/files/2013\\_PI-SWERL\\_Report%20of%20Findings\\_07\\_2015\\_Final.pdf](http://www.slocleanair.org/images/cms/upload/files/2013_PI-SWERL_Report%20of%20Findings_07_2015_Final.pdf)



**CALIFORNIA COASTAL COMMISSION**

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**M E M O R A N D U M**

**FROM:** Laurie Koteen, Ph.D.  
Coastal Commission Staff Ecologist

**TO:** Kevin Kahn, Central Coast District Supervisor

**SUBJECT:** Oceano Dunes State Vehicular Recreation Area Air Quality Issues

**DATE:** September 1, 2017

---

**Documents reviewed:**

Allen, L. R. (San Luis Obispo Air Pollution Control Officer). 2017. APCD Comments on the OHMVR Coastal Development Permit Application and Proposed 5-Year Plan for Dust Mitigation. A letter to the Central Coast Coastal Commission Staff dated August 7, 2017.

Bedrossian, T. L. and J. P. Schlosser, California Geological Survey, 2007. Review of Vegetation Islands, Oceano Dunes SVRA.

California Department of Parks and Recreation, Off-Highway Motor Vehicle Recreation Division. Oceano Dunes SVRA Dust Control Program: updated project description (CDP #03-12-050).

Craig, J., T. Cahill, and D. Ono. (San Luis Obispo Air Pollution Control Board, The Delta Group and The Great Basin Unified Air Pollution Control District). 2010. South County Phase 2 Particulate Study. Oceano State Vehicular Recreation Area: San Luis Obispo Air Pollution Control Board.

Etyemezian, V., J. Gillies, D. Zhu, A. Pokharel, and G. Nikolich (Desert Research Institute). 2014. 2013 Intensive Wind Erodibility Measurements at and Near the Oceano Dunes State Vehicular Recreation Area: Preliminary Report of Findings. A report dated July 9, 2014 to the Department of Parks and Recreation.

Gillies, J.A., and V. Etyemezian. (Desert Research Institute ). 2014. Wind and PM10 Characteristics at the ODSVRA from the 2013 Assessment Monitoring Network. A report dated January 14, 2014 to the Department of Parks and Recreation.

Gillies, J.A., V. Etyemezian, and C. Dugan. (Desert Research Institute and TRA Environmental Services, Inc.). 2014. Sand transport and dust reduction measures within and near the ODSVRA to reduce 24-hour average PM10 concentrations at the CDF ambient air quality monitoring station in San Luis Obispo County, CA. A report dated January 13, 2014 to the Department of Parks and Recreation.

Kaperos, K., (Deputy Executive Officer, California Air Resources Board), A letter to California Coastal Commission Central Coast Staff on Oceano Dunes EIR, dated July 31, 2017.

Lancaster, N., J. Gillies, V. Etyemezian, and G. Nikolich (Desert Research Institute). 2011. Oceano Dunes Pilot Projects. A report dated September 15, 2011 to the Department of Parks and Recreation.

Magliano, K., (Division Chief, Air Quality Planning and Science Division, California Air Resources Board), Status Report on Oceano Dunes PM10 Modeling [PowerPoint slides], presented at the San Luis Obispo Air Pollution Board Meeting, June 21, 2017. Retrieved from: [http://slocounty.granicus.com/MetaViewer.php?meta\\_id=340679](http://slocounty.granicus.com/MetaViewer.php?meta_id=340679).

MIG | TRA Environmental Sciences, Inc. March 2017. Oceano Dunes SVRA Dust Control Program FINAL Program Environmental Impact Report. Prepared for: State of California, Department of Parks and Recreation Off-Highway Motor Vehicle Recreation (OHMVR) Division.

San Luis Obispo County Air Pollution Control District. 2011. Fugitive Dust Emissions Standards, Limitation and Prohibitions: Coastal Dunes Dust Control Requirements, Rule 1001. Available from: <http://www.arb.ca.gov/DRDB/SLO/CURHTML/r1001.pdf>

San Luis Obispo County Air Pollution Control District. 2014. APCD Comments on January 14, 2014 DRI Report: "Wind and PM10 Characteristics at the ODSVRA from the 2013 Assessment Monitoring Network."

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### **History of the Oceano Dunes State Vehicular Recreation Area Dust Control Project**

Historical monitoring of air quality in the area of the Nipomo Mesa has revealed repeated episodes where State and Federal air quality standards for PM10 and PM2.5<sup>1</sup> have been exceeded, see **Tables 1, 2 & 3**. As a result, several research efforts were initiated with the goals of 1. identifying the source of excess particulate matter in local air masses; 2. understanding the physical processes that control and exacerbate particulate emissions; and 3. implementing mitigation measures to reduce particulate emissions. Phase 1 and 2 studies were completed in 2004 and 2010 respectively by the San Luis Obispo County Air Pollution Control District (the APCD), associated State agencies and the University of California, Davis. Their research directly attributed the excess particulate emissions to the open sand sheets of the Oceano Dunes State Vehicular Recreation Area (ODSVRA), which are located upwind of monitoring stations within the Nipomo Mesa. Several additional studies were subsequently commissioned by the California Department of Parks and Recreation (CDPR) and these studies largely confirm the APCD findings. These latter studies were completed predominantly by the Desert Research Institute (DRI), an applied research organization specializing in measuring and managing environmental change.<sup>2</sup> In response to these research findings, CDPR has implemented several measures with the intent of reducing exposure to high particulate matter concentrations; however, to date, these measures have been unsuccessful, and episodes of poor air quality still impact the areas that lie downwind of the ODSVRA, as measured and recorded at stations downwind of the park, **Figure 1**. More recently, over the past few years, the California Air Resources Board (CARB) has developed a three dimensional air quality model that simulates local wind patterns and particulate matter generation within a modeling environment that mimics the topographic and meteorological conditions of the Oceano Dunes. The goals of the model are two-fold; first to identify the areas within Oceano Dunes that contribute the most to the particulate emissions in areas downwind of Oceano Dunes, and second, to test the effects of different mitigation options within the model, by observing the reduction in particulate matter

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<sup>1</sup> PM10 are particulate emissions with an aerodynamic diameter of 10 µm or less. PM2.5 are particulate emissions with an aerodynamic diameter of 2.5 µm or less. Aerodynamic diameter is the diameter of an idealized particle that has the same aerodynamic properties as a given particle, but which is spherical in shape. 1 µm = 10<sup>-6</sup> m.

<sup>2</sup> The Desert Research Institute, <https://www.dri.edu/>

that is achieved through different mitigation scenarios. Although the model is still under development, some results are currently available and more are expected in the near future. Although no model can perfectly simulate the complex array of physical processes that control dust emissions in a topographically diverse and dynamic landscape, these model outputs should allow CDPR to focus dust abatement efforts to much greater effect.

**Table 1: State and National Ambient Air Quality Standards for Particulate Matter**

	California Ambient Air Quality Standards for PM <sup>3</sup>		National Ambient Air Quality Standards for PM <sup>4</sup>	
Averaging Time	PM10	PM2.5	PM10	PM2.5
Annual	20 µg.m <sup>-3</sup>	12 µg.m <sup>-3</sup>	*	12 µg.m <sup>-3</sup>
24 Hours	50 µg.m <sup>-3</sup>	35 µg.m <sup>-3</sup>	150 µg.m <sup>-3</sup>	*

\* Standards not set for these emission categories

**Table 2: Number of State and Federal Exceedances of Particulate Air Standards at the CDF Station on the Nipomo Mesa<sup>5</sup>.**

Year	PM10			PM2.5	
	Federal 24-hr Exceedances	State 24-hr Exceedances	Annual Average*	Federal 24-hr Exceedances	Annual Average
2017**	0	49	26.7	0	10.1
2016	0	75	27.1	0	8.4
2015	1	67	27.7	1	11.2
2014	1	42	28.6	2	12.8
2013	0	49	30.5	3	12.6

\*\* Partial year, data through 8.27.17.

<sup>3</sup> <http://www.arb.ca.gov/research/aaqs/caaqs/pm/pm.htm>.

<sup>4</sup> The actual standards are actually require slightly more computation. The PM2.5 annual standard is more precisely, 35 µg.m<sup>-3</sup> averaged over three years. The daily standard for PM2.5 sets the threshold at the 98<sup>th</sup> percentile averaged over three years. The daily PM10 standard states that concentrations should not exceed 150 µg.m<sup>-3</sup> more than once on average over three years. <https://www.epa.gov/criteria-air-pollutants/naaqs-table>.

<sup>5</sup> All data for Tables 2 and 3 was downloaded from the California Air Resources Board web site, <https://www.arb.ca.gov/aqmis2/aqdselect.php>

**Table 3: Number of State and Federal Exceedances of Particulate Air Standards at the Mesa 2 Station on the Nipomo Mesa**

Year	PM10			PM2.5	
	Federal 24-hr Exceedances	State 24-hr Exceedances	Annual Average*	Federal 24-hr Exceedances	Annual Average*
2017**	0	59	34.2	0	9.1
2016	0	47	35.4	0	6.0
2015	0	33	36.1	0	8.8
2014	1	42	28.6	1	10.2
2013	0	59	30.5	0	9.7

\*\* Partial year, data through 8.27.2017.

### Particulate Matter and Human Health

Several decades of research have now documented strong correlations between particulate emissions (PM10 and PM2.5) and a wide range of adverse health outcomes. These include increased rates of pulmonary and cardiovascular morbidity and mortality, adverse reproductive outcomes, and possible neurological effects.<sup>6</sup> Adverse health outcomes have been found for short-term acute exposures to high particulate concentrations. Long-term health impacts can also result from sustained exposure to elevated particulate levels<sup>7</sup> and result in premature death rates in locations where they occur. Particularly vulnerable populations include children, those with chronic ailments, such as asthma or cardiovascular disease, and the elderly.<sup>8</sup>

With the larger health impacts in mind, it's important to point out that a simple accounting of the frequency of threshold exceedances, as presented in Tables 2 and 3 for the CDF and Mesa 2 stations respectively, presents an incomplete picture of the extent and severity of actual PM10 conditions. In **Figure 2a**, it is evident that although federal PM10 thresholds are rarely exceeded, several episodes occurred in the 2015 – 2017 period in which PM10 concentrations approached the Federal threshold of  $150 \mu\text{g}\cdot\text{m}^{-3}$ , and that PM10 concentrations near the state threshold of  $50 \mu\text{g}\cdot\text{m}^{-3}$  were commonplace. Moreover, daily averages obscure the fact that particulate matter concentrations can actually be much higher on an hourly basis, especially in coastal regions where nightly off-shore breezes can rapidly reverse high daytime concentrations, muting daily averages. What's more is that people do not breathe the calculated daily average air, they breathe whatever air is present at the time. Although length of exposure to adverse

<sup>6</sup> Dockery, D.W. 2009. Health effects of particulate air pollution. *Annals of Epidemiology*. 19:257–263.

Rueckerl, R., A. Schneider, S. Breitner, J. Cyrus, and A. Peters. 2011. Health effects of particulate air pollution: A review of epidemiological evidence. *Inhalation Toxicology*. 23:555–592.

<sup>7</sup> Puett, R.C., J. Schwartz, J.E. Hart, J.D. Yanosky, F.E. Speizer, H. Suh, C.J. Paciorek, L.M. Neas, and F. Laden. 2008. Chronic particulate exposure, mortality, and coronary heart disease in the nurses' health study. *American Journal of Epidemiology*. 168:1161–1168.

Strak, M., N.A.H. Janssen, K.J. Godri, I. Gosens, I.S. Mudway, F.R. Cassee, E. Lebret, F.J. Kelly, R.M. Harrison, B. Brunekreef, et al. 2012. Respiratory health effects of airborne particulate matter: The role of particle size, composition, and oxidative potential-The RAPTES Project. *Environmental Health Perspectives*. 120:1183–1189.

<sup>8</sup> Rueckerl, R., A. Schneider, S. Breitner, J. Cyrus, and A. Peters. 2011. Health effects of particulate air pollution: A review of epidemiological evidence. *Inhalation Toxicology* 23:555–592.

conditions is important in determining health outcomes, breathing in air with very high concentrations of particulate matter for shorter periods, on the order of hours, is also associated with sometimes grave health consequences<sup>9</sup>. **Figure 2b** reveals that hourly peak PM concentrations can far exceed average daily concentrations. For example on March 9<sup>th</sup> of this year, a day when the maximum concentration equaled 892  $\mu\text{g}\cdot\text{m}^{-3}$ , the highest value recorded in this time series, the daily average concentration was only 27.2  $\mu\text{g}\cdot\text{m}^{-3}$ .

### **The Source Region for Particulate Exceedances on the Nipomo Mesa is the ODSVRA**

The South County Phase 2 Particulate Study completed in 2010 documented the particulate emission concentrations on locations along the Nipomo Mesa, and determined that these conditions regularly exceed State and Federal particulate standards. Moreover, based on a multi-pronged analysis, the Phase 2 study definitively established the source areas of excess particulate emissions to be the riding areas of the ODSVRA. To arrive at this conclusion, the study authors investigated the meteorological conditions that are present during episodes of high particulate emissions. Air quality exceedances were found to occur during periods of high northwest (290 – 310°) winds. The research team also performed chemical and particle-size analyses of the particulates captured during high emission episodes, and at nine candidate source locations within the riding and non-riding areas of the ODSVRA, and at areas north and south of the ODSVRA<sup>10</sup>, **Figure 1**. They found that the materials collected during high emission episodes were composed primarily of crustal materials similar in size and elemental composition to the samples collected in ODSVRA riding areas, and dissimilar to soil samples collected outside the riding areas<sup>11</sup>.

### **Direct and Indirect Factors Affecting High Particulate Emissions on the Nipomo Mesa**

The goal of the third prong of the South County Phase 2 Particulate Study was to determine which mechanisms best explain differences in emissions between riding and non-riding areas and to confirm that sand flux measurements recorded within the ODSVRA corresponded to the high PM10 emission episodes documented at the CDF and Mesa 2 monitoring stations. This was accomplished through measurements performed by “sand catchers” and Sensits<sup>12</sup> located in different areas, in an effort to gauge their relative emissivity, (e.g. the riding areas on the ocean side of the foredunes (Beach Dunes), the foredune interior (Interior Dunes), non-riding areas, and in the Oso Flaco region (Natural Area – Oso) in sandy regions and vegetated areas. The threshold wind speeds from this investigation appear in **Table 4**, where the threshold wind speed represents the lowest wind speed required to cause entrainment of and particles in an air mass as it travels across the soil surface. The investigation clearly indicates that much lower wind speeds are

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<sup>9</sup> Peters, A., Dockery, D. W., Muller, J. E., & Mittleman, M. A. (2001). Increased Particulate Air Pollution and the Triggering of Myocardial Infarction. *Circulation*, 103(23), 2810.

Shah, A. S. V., Lee, K. K., McAllister, D. A., Hunter, A., Nair, H., Whiteley, W., . . . Mills, N. L. (2015). Short term exposure to air pollution and stroke: systematic review and meta-analysis. *The BMJ*, 350, h1295. doi: 10.1136/bmj.h1295

Yamazaki, S., Nitta, H., Ono, M., Green, J., & Fukuhara, S. (2007). Intracerebral haemorrhage associated with hourly concentration of ambient particulate matter: case-crossover analysis. *Occupational and Environmental Medicine*, 64(1), 17-24. doi: 10.1136/oem.2005.021097

<sup>10</sup> The APCD study used TEOM, e-BAM and FRM PM10 monitors to assess particulate concentrations, standard micrometeorological sensors to measure wind speed, wind direction, relative humidity and air temperature, and DRUM aerosol samplers to measure particle size and elemental composition.

<sup>11</sup> Craig, J., T. Cahill, and D. Ono. (San Luis Obispo Air Pollution Control Board, The Delta Group and The Great Basin Unified Air Pollution Control District). 2010. South County Phase 2 Particulate Study. Oceano State Vehicle Recreation Area: San Luis Obispo Air Pollution Control Board.

<sup>12</sup> Sensits record the count and kinetic energy of sand particles that hit the sensing element. Sand catchers trap sand particles as they travel above the soil surface. These devices require daily collection of captured particles.

required to produce similar emissions in the areas where riding is concentrated, *i.e.*, the Beach Dunes area. In areas where riding is less frequent, such as the Interior Dunes, or absent, *i.e.*, Oso Flaco, much higher wind speeds are required to generate the same emissions. Thus, the more riding that occurs in an area, the higher its emissivity.

**Table 4: Comparison of Threshold Wind Speed for Different Areas Tested (from Table 4.3 in Craig et al. 2010)**

Location	Threshold Wind Speed (at 10 meters above the ground surface for mobilization of particulates)
SVRA - Beach Dunes	7.7 mph ( 3.4 m.s <sup>-1</sup> )
SVRA - Interior Dunes	10.6 mph ( 4.7 m.s <sup>-1</sup> )
Natural Areas - Oso	13.3 mph ( 6.0 m.s <sup>-1</sup> )
Vegetated Natural Areas	No particulates captured at wind speeds that occurred over the measurement period

Given the evidence that the riding areas of the ODSVRA are the source of the particulate emissions recorded at the Nipomo Mesa stations, both direct and indirect mechanisms present themselves. Observational evidence indicates that OHVs directly inject fine particulates into the air via movement of tires over sand, and anecdotal evidence suggests that the higher number of OHVs driving on the northern regions of the ODSVRA explains the higher particulate emissions from this area relative to other riding areas<sup>13</sup>. Although data are lacking for ridership per area of the ODSVRA, most or all of the camping occurs in the northern La Grande Tract region, and higher vehicle use is associated with the camp sites.

The most likely indirect method involves the destruction of vegetation and surface soil structure by OHVs. As is evident in **Table 4**, the presence of vegetation provides by far the most stability to sand dunes and the least amount of particulate generation. Unvegetated areas that are not subject to OHV use require higher wind speeds to mobilize particulates than do riding areas. The difference appears to be a result of OHVs disrupting the fine structure of the sand surface. Although still not fully understood, several processes serve to increase the stability of beach and dune surfaces when they are left undisturbed. These processes involve some combination of salt inputs, decaying plant or algal matter colonized by bacteria, salts bound to the surface of sand particles, stabilization by plant roots or fungal hyphae, and microbial enzymes or waste products. The nature and degree of these processes vary from beach/dune to beach/ dune depending on several factors, including the mineral content and size of beach sand, colonization by dune plants, the configuration of individual dunes relative to wind direction, season, the wind environment and the frequency and scale of disturbance ( e.g. human-caused, climatic, tidally-influenced, etc.). Beginning shortly after disturbance ends, a series of stabilization processes are set in motion, with some occurring concurrently, and others progressively. A few of these processes are described here: microbes colonize tidally or wind-deposited organic debris, secrete sticky polysaccharides that bind sand particles together yielding heavier sand aggregates that are less subject to entrainment by wind. Over time, these aggregates can grow in size, and increase in moisture and nutrient content, girding them further against wind erosion

<sup>13</sup> Etyemezian, V., J. Gillies, D. Zhu, A. Pokharel, and G. Nikolich (Desert Research Institute). 2014. 2013 Intensive Wind Erodibility Measurements at and Near the Oceano Dunes State Vehicular Recreation Area: Preliminary Report of Findings. A report dated July 9, 2014 to the Department of Parks and Recreation.

and leading to plant colonization of the beach or dune<sup>14</sup>. Plant roots and fungal hyphae additionally bind the sand both physically and via chemical secretions, and the plant canopy intercepts blowing sand and causes it to drop out of the air column. Another process, known as microbially-induced carbonate precipitation (MICP) occurs when microbial urea catalyzed by water causes calcium carbonate to form, that binds sand particles together and imparts stability and stiffness to sand<sup>15</sup>. The source of the calcium is either the composition of the sand particles themselves, salt spray or occasional tidal inputs. So effective is this latter cementation process, that researchers are now investigating how they may be exploited to benefit industrial applications or promote soil stability<sup>16</sup>. Some combination of these processes are no doubt active on the Oceano Dunes open beaches and dunes, and explain why the sand surface becomes less emissive when undisturbed by OHV riding and other forms of disturbance.

While it has been suggested that differences in emissions are the result of differences in substrate composition, this is refuted by the analysis of soil samples conducted by DRI. In this study, soil samples collected from many different regions within the ODSVRA were found to have soils with very similar particle size distributions<sup>17</sup>.

### **Desert Research Institute wind generating study confirms earlier results**

The findings from the Phase 2 and earlier studies were substantiated by additional research commissioned by CDPR, and conducted by DRI within the ODSVRA. In this research, a series of transects were established within riding and non-riding areas in the sandy regions of the ODSVRA<sup>18</sup>. Transects were located approximately parallel to the prevailing wind direction extending from the shoreline. Each transect location was subject to simulated winds by a portable wind-generating device called the PI-SWERL, (Portable in-situ wind erosion lab)<sup>19</sup>, which allows the user to generate a chosen wind speed and measure the particulate emissions that are then produced by the device. Subsequently, the size and number of particles entrained, or captured, by the air mass were assessed. An example of the results of this analysis for wind speeds of 32 mph, (14.3 m/s) are shown in **Figure 3**.

Of particular interest are the results that were generated in the snowy plover exclosure area, also evident in **Figure 3**. Every year, a roughly 300 acre area is cordoned off during the snowy plover breeding

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<sup>14</sup> Forster, S. M. (1979). Microbial aggregation of sand in an embryo dune system. *Soil Biology & Biochemistry*, 11(5), 537-543.

Forster, S. M., & Nicolson, T. H. (1981). Microbial aggregation of sand in a maritime dune succession. *Soil Biology & Biochemistry*, 13(3), 205-208.

<sup>15</sup> Harkes, M. P., van Paassen, L. A., Booster, J. L., Whiffin, V. S., & van Loosdrecht, M. C. M. (2010). Fixation and distribution of bacterial activity in sand to induce carbonate precipitation for ground reinforcement. *Ecological Engineering*, 36(2), 112-117.

McCutcheon, J., Nothdurft, L. D., Webb, G. E., Paterson, D., & Southam, G. (2016). Beachrock formation via microbial dissolution and re-precipitation of carbonate minerals. *Marine Geology*, 382, 122-135.

<sup>16</sup> Chu, J., Stabnikov, V., & Ivanov, V. (2012). Microbially Induced Calcium Carbonate Precipitation on Surface or in the Bulk of Soil. *Geomicrobiology Journal*, 29(6), 544-549.

Whiffin, V. S., van Paassen, L. A., & Harkes, M. P. (2007). Microbial carbonate precipitation as a soil improvement technique. *Geomicrobiology Journal*, 24(5), 417-423.

<sup>17</sup> Lancaster, N., J. Gillies, V. Etyemezian, and G. Nikolich (Desert Research Institute). 2011. Oceano Dunes Pilot Projects. A report dated September 15, 2011 to the Department of Parks and Recreation.

<sup>18</sup> Etyemezian, V., J. Gillies, D. Zhu, A. Pokharel, and G. Nikolich (Desert Research Institute). 2014. 2013 Intensive Wind Erodibility Measurements at and Near the Oceano Dunes State Vehicular Recreation Area: Preliminary Report of Findings. A report dated July 9, 2014 to the Department of Parks and Recreation.

<sup>19</sup> <http://www.dri.edu/pi-swerl>



season, and riding is excluded from the plover enclosure area over that time period. The emissions generated from PI-SWERL measurements taken during the enclosure period are markedly lower than emissions generated from areas where riding is continuous ( $0.024 - 0.13 \text{ mg.m}^{-2}.\text{s}^{-1}$  in the plover enclosure zone vs. dust fluxes more commonly equaling  $0.4 - 2.8 \text{ mg.m}^{-2}.\text{s}^{-1}$ ). These results imply that the emissivity of areas where riding is excluded reduces fairly rapidly once riding ceases, and suggests that simply excluding riding from highly emissive areas by cordoning areas off with perimeter fencing, as has been suggested by the APCD, can be an effective strategy towards reducing particulate emissions.

### **Mitigation Measures to Reduce Particulate Emissions**

The Department of Parks and Recreation commissioned a mitigation plan to reduce particulate emissions in the ODSVRA<sup>20</sup>, through an emergency CDP, (ECDP) and this plan was implemented in the Spring of 2014. ECDPs were subsequently issued in 2015 and 2016, and mitigation measures were again implemented in the Spring of 2017. The essentials of these plans included some mix of wind fencing, installation of straw bales or porous roughness elements, (PREs), with mitigation measures implemented both inside and outside the riding areas directly upwind of the CDF station. These ECDPs were issued with the understanding that a full EIR for dust abatement measures was forthcoming and out of a concern for public health, given the high PM10 and PM2.5 concentrations. Coastal Commission staff also hoped to attain data and management insights from the PM10 and meteorological monitoring that accompanied these measures.

As described earlier, these measures did not sufficiently achieve the desired particulate reductions in the adjacent affected Nipomo Mesa community for a variety of reasons. For example, the mitigation measures were implemented in a relatively small area upwind of the CDF monitoring station and primarily outside of riding areas prior to 2017. Whereas concentrating dust abatement directly upwind of the CDF may help reduce emissions in the vicinity of that monitoring station, and provide a test of the mitigation measures, other areas in the ODSVRA also contribute to the high emission conditions that exist throughout the Nipomo Mesa, and dust generated from these areas was left unabated in earlier iterations of the abatement strategy. The current strategy, as presented in the programmatic EIR, and updated in CDPR's project description, describe a suite of potential options that if implemented in accordance with APCD and CARB guidance, and in accordance with the CARB modeling results can achieve effective dust abatement in compliance with Rule 1001. However, I echo the recommended changes raised in the letter submitted by APCD on August 7<sup>th</sup> of this year, namely, that mitigation measures not be restricted to the area outlined in DPR's proposed mitigation area as outlined in Figure 2.8 of the CDP application, (copied here as **Figure 4**). In **Figure 4**, we observe that the areas closest to the shoreline have been designated as a "high biological sensitivity area". Yet, OHV use is allowed in these areas. In our view, greater protection for biological resources would be afforded if dust abatement measures were implemented in these locations, similar to the protections provided by the seasonal snowy plover enclosure. The SLO APCD letter goes on to suggest, and we concur that, 1. mitigation measures should occur primarily, if not exclusively within the riding areas, 2. annual mitigation not be restricted to amounts proposed in DPR's CDP application, 3. simple perimeter fencing be included among the mitigation options, and 4. the particulate matter reduction plan (PMRP) that

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<sup>20</sup> Gillies, J.A., and V. Etyemezian. (Desert Research Institute ). 2014. Wind and PM10 Characteristics at the ODSVRA from the 2013 Assessment Monitoring Network. A report dated January 14, 2014 to the Department of Parks and Recreation.

is developed be highly responsive to the results of the CARB Oceano Dunes model. If carefully implemented, these changes should result in a successful program to protect public health.

That being said, there are some important caveats that need to be discussed. Considering suggested mitigation options more generally, we see the use of straw bales as a means of reducing particulate emissions to be of limited effectiveness. Whereas some reductions in sand fluxes were recorded during the 2011 pilot project at experimental straw bale locations, the effectiveness declined after the first few days, and monitoring was of short duration<sup>21</sup>. Introducing straw bales to the landscape can also have additional unintended effects in dune ESHA. As with any landscape feature, straw bales are acted upon by their environment, and are affected by wind, water, sand, sea spray, animals and humans, **Figure 5a**. They are relatively quickly buried and over time will decompose, reducing their surface roughness properties. In addition, if straw bales are used, it may be impossible to know if they include invasive seeds from invasive weeds which can escape and establish in the park, and they visually mar the landscape, **Figure 5b**. Soil binders are also not a preferred method for sand stabilization because they introduce exotic chemicals into the landscape with unknown impacts to the park's terrestrial and aquatic wildlife, which includes several threatened and endangered species.

An option we do support is revegetating locations within the riding areas along areas where substantial foredunes were once found. Historically, large swaths of the foredunes were vegetated. Over the last several decades large scale losses have occurred on the youngest, most westerly dunes due to a number of land use changes, including OHV use<sup>22</sup>. Vegetation in these areas would also serve as a barrier to dust, as much of the dust is mobilized, and incorporated into the air column from areas near the shoreline, **Figure 6**. In other areas, large-scale vegetation planting may be less ecologically appropriate. This is because large areas of the Oceano Dunes historically existed as open sand sheets due to the dynamic nature of coastal dune systems, and of this landscape in particular.

### **Preliminary Results of Recent Air Quality Modeling by the California Air Resources Board**

The California Air Resources Board has adapted an atmospheric dispersion model, CALPUFF, to the terrain and meteorological conditions of the ODSVRA. In the model, the landscape is divided into a grid, with each grid cell representing a ¼ acre parcel. The goals of model development here are twofold: 1. to determine the locations in the park that contribute most to the particulate matter emissions generated therein and transported to residential areas; and 2. to test different mitigation options in the modeling domain that can be implemented on the ground in the ODSVRA, and bring the park into compliance with State and Federal air quality standards, and Rule 1001<sup>23</sup>. As a first step, CARB modelers simulated the terrain and meteorological conditions of the Oceano Dunes in the year 2013 for purposes of model validation and testing. In their presentation before the APCD board on June 21st of this year, the modeling team indicated the model had successfully reproduced the air quality conditions across the landscape as they occurred, with reasonable fidelity, and therefore the model could be used to satisfy the established goals with subsequent model development. At the meeting, CARB staff presented figures indicating the relative contribution of source areas within the ODSVRA on a high PM10 emission day, May 22, 2013. A copy of the graph CARB presented is reproduced here, **Figure 6**. It must be

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<sup>21</sup> Lancaster, N., J. Gillies, V. Etyemezian, and G. Nikolich (Desert Research Institute). 2011. Oceano Dunes Pilot Projects. A report dated September 15, 2011 to the Department of Parks and Recreation.

<sup>22</sup> Bedrossian, T. L. and J. P. Schlosser, California Geological Survey, 2007. Review of Vegetation Islands, Oceano Dunes SVRA.

<sup>23</sup> The CARB study uses the modeling platforms the U.S. EPA approved CalPuff and CalMet to simulate meteorological and particulate matter emissions in their model of the ODSVRA. <https://www.epa.gov/scram/air-quality-dispersion-modeling-preferred-and-recommended-models#calpuff>

noted that the source contributions represented in the figure are to a single point in space, the CDF station. CARB is also modeling the source contributions of particulate matter concentrations both north and south of the CDF station in order to propose mitigation for the areas affected by PM10 emissions as a whole. Although the source emissions in these locations have not yet been broken down to the finer grid scale, a good indication of the source areas for these regions has been modeled at a coarser scale **Figure 7**.

An interpretation of **Figures 6 & 7** leads to the conclusion that the most emissive areas of the ODSVRA are the riding areas, confirming the findings from the earlier studies and biophysical reasoning. In developing mitigation measures, it should be noted that in addition to the riding areas, the areas most proximate to the CDF station are also found by the model to contribute a relatively large share to the emissions profile readings there. However, these areas can be expected to have a lower impact on the air quality of the larger Nipomo Mesa. As mentioned above, the CDF station is a single point in space, and the goal of the dust abatement program is to address the air quality issue on the larger Nipomo Mesa area. The location of mitigation options will need to be developed with this point in mind.

At the upcoming September meeting before the APCD Board, the CARB modeling team hopes to present a scenario of mitigation options that reduces particulate matter emissions below State and Federal air quality thresholds, and which will bring the ODSVRA into compliance with Rule 1001.<sup>24</sup> A few points with respect to the CARB model should be noted: 1. This model is in a mode of active development. After multiple years spent assembling and parameterizing the model, results are now actively coming on line, and many additional results are expected over the next few months. To that point, wind direction shifts, and therefore the areas of the park that contribute most to emissions when the wind is predominantly from 285°, will differ when the wind is predominantly from 310°, for example. By the same token, the area that receives the greatest impact from dust emissions also shifts. The model, we believe, will have the flexibility to provide mitigation options for the suite of meteorological conditions and active sand sheets that occur within the ODSVRA. 2. Given that results are unfolding in the now, with emissivity profiles and mitigation scenarios to be available before the next windy season, it's our understanding that CARB and APCD anticipate that CDPR actions will be highly responsive to modeled mitigation options. 3. We also note that no model is a perfect representation of the real world, and mitigation measures will not perform identically to how they perform in the model. However, the model enables an iterative process, with information flowing in both directions. That is to say that in addition to conditions in the model informing mitigation measures on the ground, experience from the implementation of mitigation measures on the ground will lead to further model refinement. However, one of the great utilities of having the model, is that it allows for much quicker turn around in updating mitigations measures on the ground. Hopefully, this will be an important tool in alleviating the air quality conditions in the larger region.

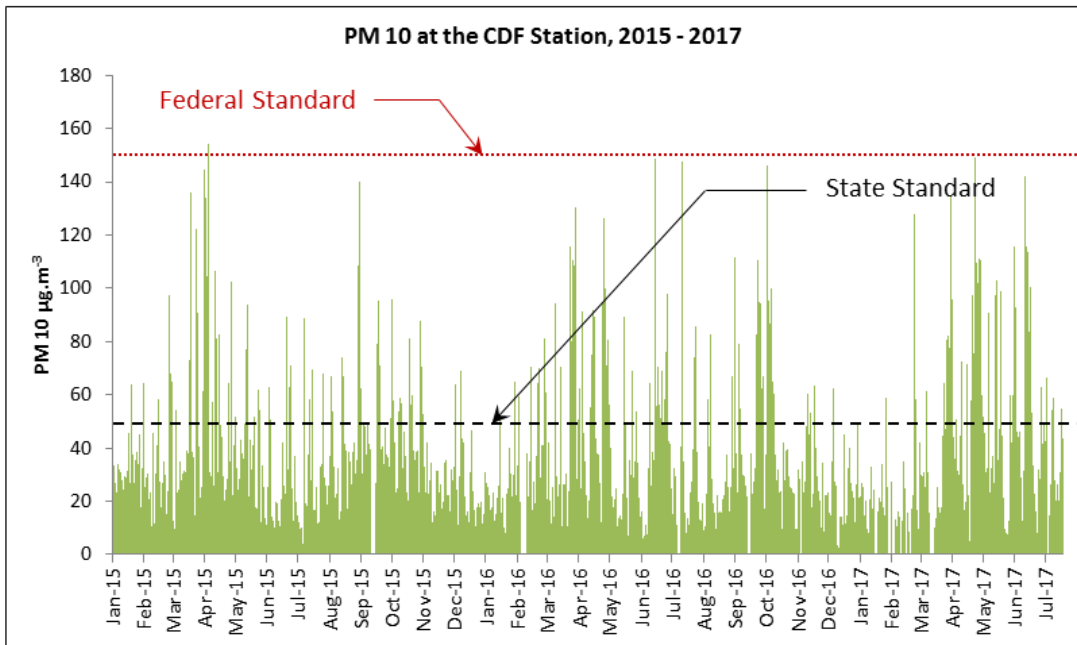
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<sup>24</sup> Personal communication, Karen Magliano, Division Chief, Air Quality Planning and Science Division, CARB, August, 2017.

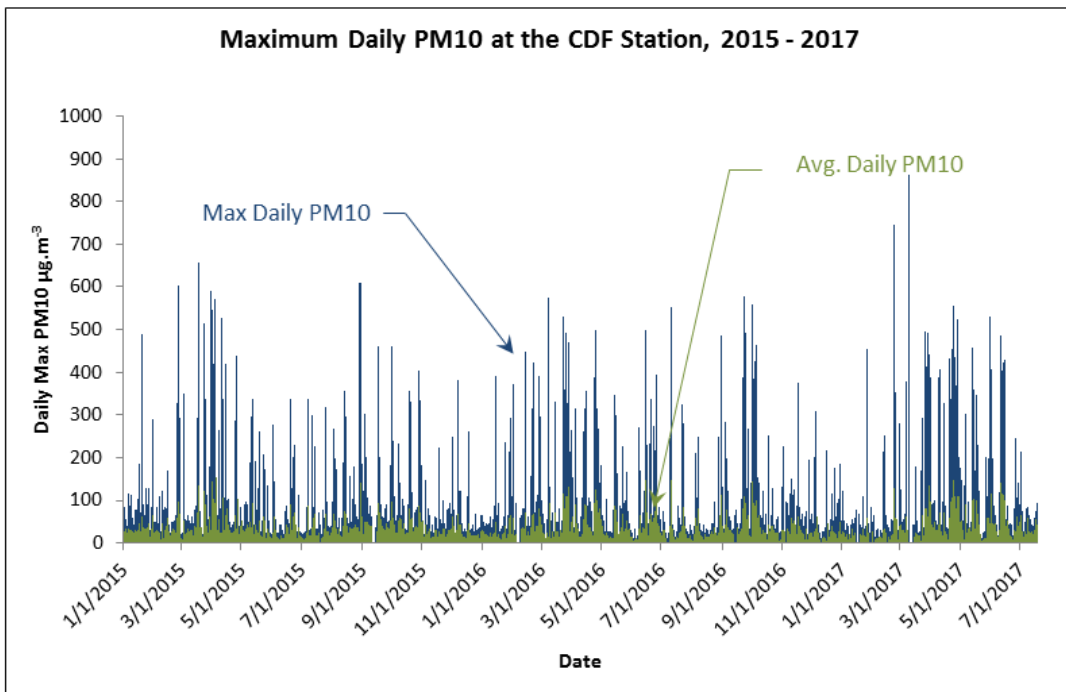
Figure 1: Locations of sampling sites used in the South County Phase 2 Particulate Study. Sampling locations designated by yellow circles. The CDF and Mesa 2 stations were studied further, due to their proximity to the Nipomo Mesa.



Figure 2: Average daily PM10 at the CDF station (a) and average daily PM10 and maximum daily PM10 (the highest average hourly PM10) on the same graph for comparison (b). Data downloaded from the California Air Resources Board Air Quality and Meteorological Information System



a.



b.

Figure 3: PI-SWERL measured emissions at 3000 RPM or 32 mph at a height of 10 meters above the surface in units of  $\text{mg}\cdot\text{m}^{-2}\cdot\text{s}^{-1}$  (from Figure 6 in Etyemezian et al. 2014).

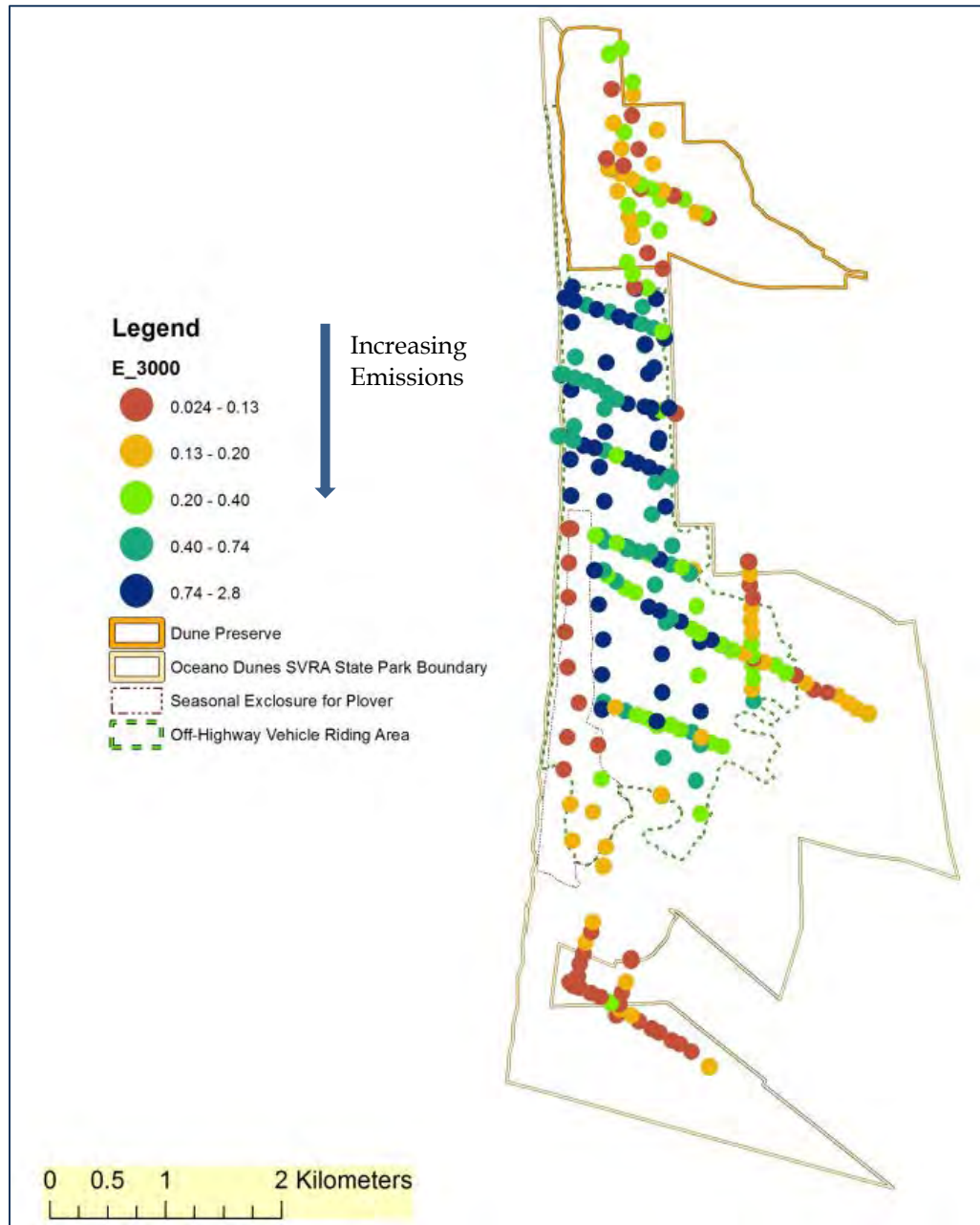




Figure 4: Dust Control Program Area Proposed in Oceano Dunes CDP Application #03-12-050.



Source: California State Parks; MIGITRA

- Proposed Dust Control Program area (688 acres)
  - Potential tree planting area (295 acres)
  - Oceano Dunes SVRA
  - Pismo State Beach
  - Marker post
  - Existing air quality monitor
  - Existing vegetation
  - Medium and high cultural sensitivity area
  - High biological sensitivity area
- Proposed Dust Control Measures - Conceptual Locations (Preferred)**
- Conceptual vegetation plantings (approx. 100 acres)
  - Conceptual seasonal dust control measure (approx. 40 acres)

Figure 2-8 Dust Control Program - Preferred Scenario

Oceano Dunes SVRA Dust Control Program – Draft Program EIR



**Figure 5: Straw bales buried by sand in the ODSVRA (a) and straw bales prior to burial installed in areas near the ODSVRA in 2014 for dust mitigation (b).**

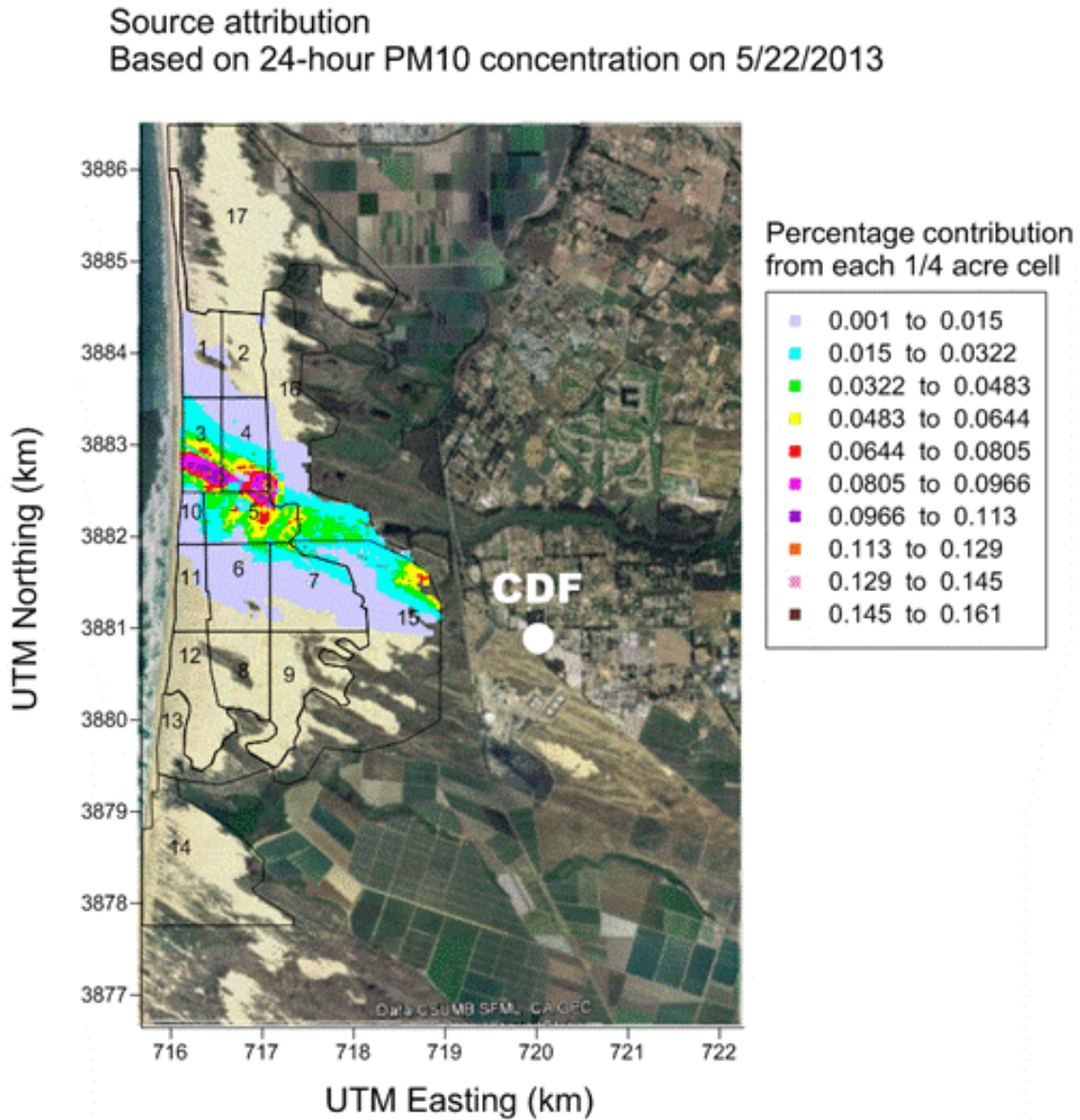


a.



b.

**Figure 6: Modeling Results indicating the relative contribution of source areas to PM10 concentrations at the CDF Station from the Oceano Dunes PM10 Model, as presented to the Board of the San Luis Obispo Air Pollution Control District on June 21, 2017**



**Figure 7: Modeling Results for areas north (a) and south (b) of the CDF Station from the Oceano Dunes PM10 Model as presented to the Board of the San Luis Obispo Air Pollution Control District on June 21, 2017**

