

APPENDIX E

CALIFORNIA DEPARTMENT OF FISH AND GAME SIGNIFICANT NATURAL AREAS

California Department of Fish and Game
Lands and Natural Areas Program

SIGNIFICANT NATURAL AREAS OF CALIFORNIA
1992 SUMMARY

INTRODUCTION

I. Purpose

This 1992 Summary is the second in a series of periodically updated reports describing many of the most Significant¹ Natural Areas (SNAs) in California. It summarizes information from a computerized inventory of natural areas developed by the California Department of Fish and Game's (CDFG) Lands and Natural Areas Program.

This series of reports has two important goals. First, it is designed to raise awareness among developers, planners, conservationists and others about the presence of SNAs in their local area. Many important natural areas have been lost in the past more through ignorance than by intentional abuse. Such sites can be assured increased protection when concerned individuals become aware of their location and significance. Experience has demonstrated that public agencies and private developers alike will adjust their plans to avoid environmental impacts if they are convinced there is a good reason to do so, if they haven't already invested too much time or money in planning, and if the success of the project does not depend on a precise location. Early notice of potential conflicts can avoid hearings and litigation, potentially saving a developer millions of dollars and years of delay.

The second important goal of this report series is to initiate a dialogue among public and private organizations about the identification and long-term protection of the most important elements of California's natural diversity. Such a dialogue is important because of the rapid rate of change in the California landscape due to man's activities. To stay abreast of these changes, a cooperative effort among all interested individuals and organizations is needed to continually refine and update information about important natural areas.

By presenting an updated summary of SNAs, this report may encourage conservationists to take action in securing or

¹ The use of the word "significant" in this context should not be confused with its meaning as defined in the California Environmental Quality Act (CEQA).

improving long-term protection for SNAs. Such protection is best recognized as a series of layers which are applied over time as appropriate and practical. These layers of protection might be as simple as raising landowner awareness or conducting population surveys for the target species. More complex layers might involve ecological research to determine the management needs of target species or designing an integrated management plan to address all important features of the site. A bibliography lists several references that describe these protection measures in more detail. Readers should be aware, however, that the mere identification of areas listed in this report does not, by itself, change or prevent the change of the use of these areas.

This report is a summary of selected information from the Natural Diversity Data Base which meets the SNA criteria discussed below. It is based only on areas known to date and therefore it does not constitute an exhaustive inventory of all possible SNAs. Newly identified areas may be added to the list in future editions as this information becomes available.

In addition, this report is not intended to provide an inventory of all officially-listed rare, threatened, or endangered species, nor does it intend to list all of the natural areas that CDFG is concerned with. Therefore, because of its focused scope, the information in this report is insufficient for environmental review of development projects. Readers interested in a more complete listing of biologically rare species or natural communities should contact the Natural Diversity Data Base directly.

II. Need For A Comprehensive Inventory of Significant Natural Areas

The Summary of Significant Natural Areas is a response to a need recognized by many people interested in the long-term perpetuation of the state's natural diversity. A brief overview of the development of CDFG's natural areas program will give the reader a better context in which to use this report.

Although California is one of the most biologically diverse regions in North America, much of its natural diversity has been already lost due to human activities. For example, agricultural expansion has eliminated over 90% of the emergent marshland in the Central Valley since 1850. In recent decades the population of the state has been growing rapidly, causing unprecedented losses of natural habitat. Urban expansion between 1979 and 1987 has removed 27% of the few remaining vernal pools in San Diego County (Jones and Stokes 1987).

Many organizations have recognized this loss of diversity and have been actively involved in protecting natural areas for many years. However, they also recognized that no comprehensive

inventory of the State's important biological resources existed to guide natural areas protection efforts. This lack of a statewide inventory and poor communication between organizations had resulted in a rather scattered approach to conservation by the late 1970's. For example, certain high-profile species were receiving inordinate amounts of attention from several public and private groups, while other, more-critically endangered species or habitats were being virtually ignored. In addition, little or no coordination existed between conservation programs. Most programs were individually pursuing their own goals, unaware of duplication of efforts by or potential assistance from other organizations. The result was an inefficient allocation of funding and staffing resources.

In response to this situation, a consortium of sixteen conservation organizations formed in 1978 to propose the development of a statewide natural areas program. By 1979, this proposed program had become administratively established in the California Department of Fish and Game. Two years later it received a firmer, legislative basis by passage of Significant Natural Areas legislation (Assembly Bill 1039).

This legislation requires CDFG to meet five significant goals relating to biological diversity: 1) Develop and maintain a data management system for natural resources; 2) Identify the most significant natural areas of the state; 3) Ensure the recognition of these areas; 4) Seek the long-term protection of these areas; and 5) Provide coordinating services for other public and private conservation organizations interested in protecting natural areas.

To implement this legislation, CDFG has developed two interactive units within the Department's Natural Heritage Division: the Natural Diversity Data Base (NDDB) and the Lands and Natural Areas Program (LNAP). NDDB, essentially a data management system, is now the most comprehensive inventory of California's biological diversity. NDDB continually gathers and updates its information from museum and herbarium collections, biological inventory reports, and fieldnotes of knowledgeable biologists throughout the State. Since NDDB was established, over 20,000 locational records on biologically rare species and natural communities have been computerized.

LNAP is responsible for meeting the remainder of the legislation: identifying and protecting significant natural areas, as well as helping to coordinate protection activities of other conservation organizations.

In 1986, LNAP helped to organize the Interagency Natural Areas Coordinating Committee, currently composed of representatives from 10 major public and private landholding organizations. This committee meets quarterly as a forum for

discussing natural areas issues. In conjunction with this Committee, LNAP has developed strict criteria (summarized below) for Significant Natural Areas. Information from NDDB was subsequently analysed to identify sites meeting these criteria. A computerized SNA Inventory has now been developed and provides detailed information on each SNA. Periodical reports will be issued to make this information more accessible to the general public.

III. Significant Natural Area Criteria

The Significant Natural Areas Inventory currently identifies sites on the basis of biological values only. Sites containing significant geological or cultural resources have not been addressed because no comprehensive, statewide inventory for these resources, equivalent to the NDDB, is currently available.

A site is recognized as a Significant Natural Area if it meets at least one of the following four criteria. The term "element", as used in this report, refers to all species or natural communities (collectively known as "elements" of natural diversity) inventoried by NDDB:

1. Extremely rare type - Locations of extremely rare elements. Elements are considered extremely-rare in California if they are either:
 - a. Known from less than 6 viable sites;
 - b. Represented by less than 1000 individuals; or
 - c. Restricted to less than 2000 acres of habitat.
2. Ensemble type - Locations where 3 or more elements occur together. Elements are inventoried by NDDB if they are either:
 - a. Known from less than 100 viable sites;
 - b. Represented by less than 10,000 individuals; or
 - c. Restricted to less than 50,000 acres of habitat.
3. Best Example type - Locations of the best examples known for natural communities or NDDB-inventoried species. These locations, in general, should be in relatively pristine and undisturbed condition. In some cases, however, no pristine examples may remain for a particular species or community. In such a case, the best remaining examples, despite their disturbed nature, are included.

4. High-diversity type - Centers of high species diversity. A more detailed definition will be provided in the future. No sites of this type are included in the 1992 report.

This report lists SNAs irrespective of their level of protection. It includes well-protected sites as well as poorly protected, highly threatened sites. Sites are not listed in order of protection priority.

The approximate limits of each listed SNA are based on the known distribution of elements on each site. These limits were also modified by a cursory analysis of other important ecological factors such as local topography and the extent of local urbanization or other human disturbance. Detailed site boundaries require on-site evaluation by qualified biologists.

IV. Organization of Report

This report list SNAs alphabetically by county. In each county section, sites are plotted on maps and described by text. The text portion lists sites consecutively by site number, this number also appearing on the county maps. Figure 1 is a key to the entries for each site. Following each county's listing is an Ownership/Quad Index which identifies the owners/managers of the land each site is on as well as the 7.5" USGS quadrangle(s) the site is on.

V. Additional Site Information

The 1992 Summary is a brief summary of information from the computerized Significant Natural Areas Inventory. A more detailed report for each site is available upon request.

VI. Relationship to Other Natural Area Inventories

This report differs from previous natural areas inventories in that it is the first to use a statewide analysis of biologically rare species and natural communities. SNAs often overlap with sites identified in these other inventories and are cross-referenced by the following codes:

- CNACC** - California Natural Areas Coordinating Council
(CNACC) Inventory of Natural Areas
- DPR** - California Department of Parks and Recreation's
Landscape Preservation Study
- NNL** - National Park Service's National Natural Landmarks
Program
- USFWS** - U.S. Fish and Wildlife Service's "California's
Important Fish and Wildlife Habitat: An Inventory"

VIII. Feedback Encouraged

Information regarding natural areas is frequently subject to change. Some sites are irreversibly lost when habitats are modified by land-use changes. New sites are occasionally discovered by fieldwork in new locations. To keep up with these often rapid changes, LNAP needs your assistance in updating the Significant Natural Areas Inventory. Please help us maintain an up-to-date source of information on SNAs by advising LNAP of errors, omissions, and land use changes. Field reports concerning the loss or new discovery of important species, changes in ownership or protective status, and identification of new sites is especially valuable. Please use the comment form at the back of this report.

BIBLIOGRAPHY

- Brenneman, R.L. and S.M. Bates. 1984. Land-saving Action. Island Press. 249 pp.
- Cochrane, Susan A. 1986. Programs for the Preservation of Natural Diversity in California. California Department of Fish and Game, Natural Heritage Program. Administrative Report 84-2.
- Fox, Timothy. 1979. Land Conservation and Preservation Techniques. USDI Heritage Conservation and Recreation Service.
- Hoose, Philip. 1981. Building an Ark: Tools for the Preservation of Natural Diversity Through Land Protection. Island Press. 221 pp.
- Jones and Stokes Associates. 1987. Sliding Toward Extinction: The State of California's Natural Heritage, 1987. Prepared at the Request of the California Senate Committee on Natural Resources and Wildlife. Commissioned by the California Nature Conservancy, San Francisco.
- Stover, Emily. 1975. (editor) Protecting Nature's Estate: Techniques for Saving Land. USDI Heritage Conservation and Recreation Service.

FISH AND GAME CODE

CHAPTER 12. SIGNIFICANT NATURAL AREAS

Section 1930. Declaration of findings.

The Legislature finds and declares that:

- (a) Areas containing diverse ecological and geological characteristics are vital to the continual health and well-being of the State's natural resources and of its citizens.
- (b) Many habitats and ecosystems that constitute the State's natural diversity are in danger of being lost.
- (c) There is insufficient incentive for private landowners to maintain and perpetuate significant local natural areas in their natural state.
- (d) Efforts to preserve natural areas have been fragmented between Federal, State, local, and private sectors.

Section 1931. Further declarations, etc.

The Legislature further finds and declares that it is the policy of the State to encourage the cooperation of Federal, State, local and private sectors, including private organizations and individuals, in efforts to maintain the State's most significant natural areas.

Section 1932. Natural areas program.

There is hereby established the Significant Natural Areas Program which shall be administered by the Department. The Department, in administering this program, shall do all of the following:

- (a) Obtain access to the most recent information with respect to natural resources. In order to accomplish this, the Department shall maintain, expand, and keep current a data management system, designated the California Natural Diversity Data Base, designed to document information on these resources. Such data shall be made available to interested parties on request.
- (b) Ensure cost-sharing by all who use the data management system.
- (c) Ensure recognition of the State's most significant natural areas. The Department shall, after consultation with Federal, State, and local agencies, education institutions, civic and public interest organizations, private organizations, landowners, and other private individuals, identify by means of periodic reports those natural areas deemed to be most significant.
- (d) Seek the maintenance and perpetuation of the State's most significant natural areas for present and future generations in the most feasible manner. The Department shall consider alternative approaches for such maintenance, including alternatives to fee acquisition such as incentives, leasing, and dedication.
- (e) Reduce unnecessary duplication of effort. The Department shall provide coordinating services to Federal, State, local, and private interests wishing to aid in the maintenance and perpetuation of significant natural areas.

Section 1933. Identified area-use.

No authority or responsibility provided for in this chapter shall, of itself, change or prevent the change of the use of any area identified pursuant to the Significant Natural Areas Program.

FIGURE 1

KEY TO SITE ENTRIES

<p>① ALA-002</p> <p>② Joaquin Miller Park</p> <p>③ Acreage (approx.) = 3219</p>		<p>④ Total # of Elements=3</p> <p>⑤ Extremely Rare Elements=2</p> <p>⑥ Best Example Elements=0</p>																
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 15%;"></th> <th style="width: 45%; text-align: center;"><u>Element Summary</u></th> <th style="width: 20%; text-align: center;"><u>Occurrences</u></th> <th style="width: 20%; text-align: center;"><u>Status: Fed/Cal</u></th> </tr> </thead> <tbody> <tr> <td style="vertical-align: top;">⑦ (BX) ⑨ CALIFORNIA TIGER SALAMANDER ⑩ (<i>Ambystoma californiense</i>)</td> <td style="vertical-align: top;">⑪ (1)</td> <td style="vertical-align: top;">⑫ Cat 2/None</td> </tr> <tr> <td style="vertical-align: top;">⑧ (XR) ALAMEDA MANZANITA (<i>Arctostaphylos pallida</i>)</td> <td style="vertical-align: top;">(4)</td> <td style="vertical-align: top;">Cat 1/SE</td> </tr> <tr> <td style="vertical-align: top;">(XR) PRESIDIO CLARKIA (<i>Clarkia franciscana</i>)</td> <td style="vertical-align: top;">(1)</td> <td style="vertical-align: top;">Cat 1/SE</td> </tr> <tr> <td colspan="3" style="text-align: center;">⑬ (See appendix for sites no longer valid in this county)</td> </tr> </tbody> </table>		<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>	⑦ (BX) ⑨ CALIFORNIA TIGER SALAMANDER ⑩ (<i>Ambystoma californiense</i>)	⑪ (1)	⑫ Cat 2/None	⑧ (XR) ALAMEDA MANZANITA (<i>Arctostaphylos pallida</i>)	(4)	Cat 1/SE	(XR) PRESIDIO CLARKIA (<i>Clarkia franciscana</i>)	(1)	Cat 1/SE	⑬ (See appendix for sites no longer valid in this county)			
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⑬ (See appendix for sites no longer valid in this county)																		

① Site Code-Assigned by LNAP. The code is the unique identifier for the site. The first three letters are an abbreviation of the county name. The three digit number refers to numbered locations on the attached county map(s).

② Site Name-Derived from a notable geographical feature near the site. Each site is given a unique name

③ Acreage-Derived by GIS to approximate the acreage of site.

④ Total # of Elements-Indicates number of different elements on the site. Sites with 3 or more elements present qualify as ensembles.

⑤ Extremely Rare Elements-Number of extremely rare elements on site.

⑥ Best Example Elements-Number of best examples of an element on site.

⑦ (BX)-Identifies element(s) which qualifies the site under the Best Example criteria

⑧ (XR)-Identifies the element(s) which qualifies the site under the Extremely Rare criteria

⑨ Common name of element

⑩ Scientific name of element

⑪ Number of occurrences of that element

⑫ Status-Indicates the officially listed status of each element described under state and federal guidelines

Federal

FE - Federally-listed Endangered

FT - Federally-listed Threatened

FPE - Federally-proposed Endangered

FPT - Federally-proposed Threatened

Cat 1 - Category 1 Candidate for listing

Cat 2 (R)- Category 2 Candidate for listing

Cat 3 (A,B,C) - Category 3 Candidate for listing

State

SE - State-listed Endangered

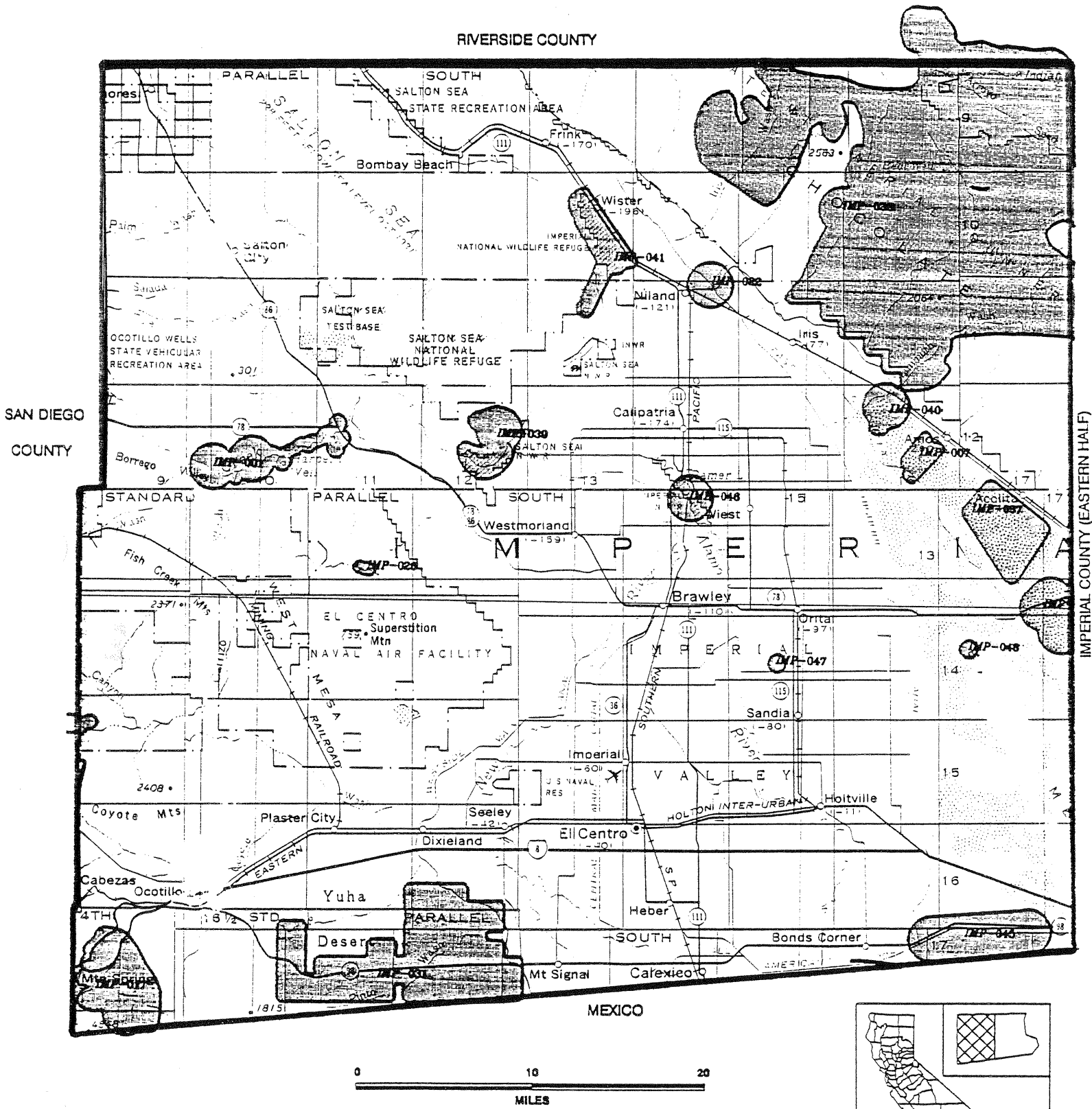
ST - State-listed Threatened

SR - State-listed Rare

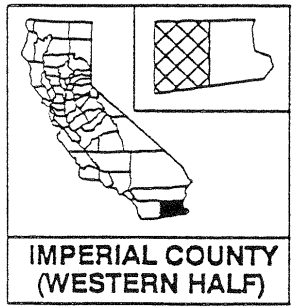
SC - State Candidate for listing

⑬ Appendix-U.S.G.S. Quadrangle and Ownership information listed by site.

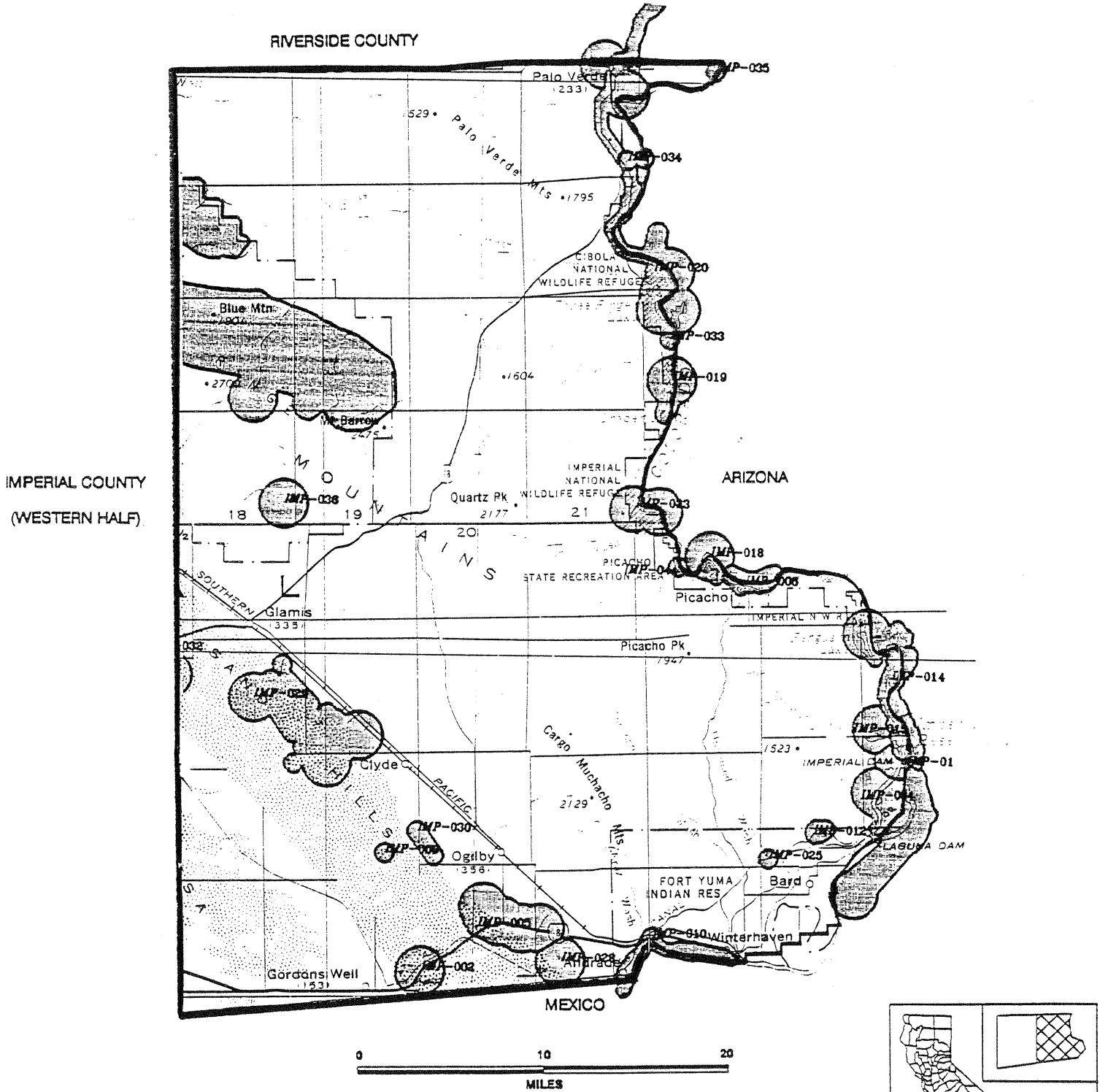
IMPERIAL COUNTY (WESTERN HALF)
CALIFORNIA DEPARTMENT OF FISH AND GAME
LANDS AND NATURAL AREAS PROGRAM
SIGNIFICANT NATURAL AREAS OF CALIFORNIA



Note: This map shows the location of Significant Natural Areas only. It is not intended to map the location of all officially listed Rare, Threatened or Endangered species, nor does it map all of the natural areas that CDFG is concerned with.



IMPERIAL COUNTY (EASTERN HALF)
CALIFORNIA DEPARTMENT OF FISH AND GAME
LANDS AND NATURAL AREAS PROGRAM
SIGNIFICANT NATURAL AREAS OF CALIFORNIA



Note: This map shows the location of Significant Natural Areas only. It is not intended to map the location of all officially listed Rare, Threatened or Endangered species, nor does it map all of the natural areas that CDFG is concerned with.

**IMPERIAL COUNTY
(EASTERN HALF)**

CALIFORNIA DEPARTMENT OF FISH AND GAME
LANDS AND NATURAL AREAS PROGRAM

SIGNIFICANT NATURAL AREAS OF CALIFORNIA
1992 ANNUAL SUMMARY

Contact NDDDB at (916) 324-2493 for additional information about other
locations of rare species or natural communities in this county

IMPERIAL COUNTY

IMP-001 Total # of Elements=6
San Sebastian Marsh Extremely Rare Elements=2
Acreage (approx.) = 10400 Best Example Elements=1

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR) (BX) DESERT PUPFISH (<i>Cyprinodon macularius</i>)	(1)	FE/SE
FLAT TAILED HORNED LIZARD (<i>Phrynosoma mcallii</i>)	(2)	Cat 1/None
TRANSMONTANE ALKALI MARSH (<i>Transmontane alkali marsh</i>)	(1)	None/None
(XR) WIGGINS' CHOLLA (<i>Opuntia wigginsii</i>)	(1)	Cat 2/None
PEIRSON'S MILK VETCH (<i>Astragalus magdalenae var peirsonii</i>)	(2)	Cat 2/SE
THURBER'S PILOSTYLES (<i>Pilostyles thurberi</i>)	(1)	Cat 3C/None

IMP-002 Total # of Elements=1
Plank Road Extremely Rare Elements=1
Acreage (approx.) = 3600 Best Example Elements=0

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR) ALGODONES DUNES SUNFLOWER (<i>Helianthus niveus ssp tephrodes</i>)	(1)	Cat 2/SE

IMP-004 Total # of Elements=4
Yuma Test Station Extremely Rare Elements=4
Acreage (approx.) = 15500 Best Example Elements=0

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR) YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(2)	FE/ST
(XR) WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(2)	Cat 3B/SE
(XR) ARIZONA BELLS VIREO (<i>Vireo bellii arizonae</i>)	(1)	Cat 3C/SE
(XR) SONORAN COTTONWOOD WILLOW RIPARIAN FOREST (<i>Sonoran cottonwood willow riparian forest</i>)	(1)	None/None

IMP-005 Total # of Elements=5
Ogilby Dunes Extremely Rare Elements=1
Acreage (approx.) = 8900 Best Example Elements=0

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
FLAT TAILED HORNED LIZARD (<i>Phrynosoma mcallii</i>)	(4)	Cat 1/None

	HARDYS DUNE BEETLE (<i>Anomala hardyorum</i>)	(1)	None/None
	ANDREWS DUNE SCARAB BEETLE (<i>Pseudocotalpa andrewsi</i>)	(1)	Cat 2/None
	GIANT SPANISH-NEEDLE (<i>Palafoxia arida</i> var <i>gigantea</i>)	(1)	Cat 3C/None
(XR)	WIGGIN'S CROTON (<i>Croton wigginsii</i>)	(1)	Cat 3C/SR

IMP-006

Picacho

Acreage (approx.) = 2400

Total # of Elements=9
Extremely Rare Elements=5
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(1)	FE/ST
(XR)	WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(1)	Cat 3B/SE
(XR)	GILA WOODPECKER (<i>Melanerpes uropygialis</i>)	(2)	None/SE
(XR)	BROWN CRESTED FLYCATCHER (<i>Myiarchus tyrannulus</i>)	(1)	None/None
	BLACK-TAILED GNATCATCHER (<i>Polioptila melanura</i>)	(1)	None/None
	CRISSAL THRASHER (<i>Toxostoma dorsale</i>)	(1)	None/None
	YELLOW BREASTED CHAT (<i>Icteria virens</i>)	(1)	None/None
	SUMMER Tanager (<i>Piranga rubra</i>)	(1)	None/None
(XR)	SONORAN COTTONWOOD WILLOW RIPARIAN FOREST (<i>Sonoran cottonwood willow riparian forest</i>)	(1)	None/None

IMP-007

Amos Sand Hills

Acreage (approx.) = 2700

Total # of Elements=4
Extremely Rare Elements=1
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	CALIFORNIA BLACK RAIL (<i>Laterallus jamaicensis coturniculus</i>)	(1)	Cat 1/ST
	CARLSONS DUNE BEETLE (<i>Anomala carlsoni</i>)	(2)	None/None
	HARDYS DUNE BEETLE (<i>Anomala hardyorum</i>)	(2)	None/None
	ANDREWS DUNE SCARAB BEETLE (<i>Pseudocotalpa andrewsi</i>)	(3)	Cat 2/None

IMP-009

Cactus Southwest Dunes

Acreage (approx.) = 500

Total # of Elements=3
Extremely Rare Elements=0
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
	CARLSONS DUNE BEETLE (<i>Anomala carlsoni</i>)	(1)	None/None
	HARDYS DUNE BEETLE (<i>Anomala hardyorum</i>)	(1)	None/None
	ANDREWS DUNE SCARAB BEETLE (<i>Pseudocotalpa andrewsi</i>)	(1)	Cat 2/None

IMP-010 Total # of Elements=3
 Yuma Riverbend Extremely Rare Elements=3
 Acreage (approx.) = 4600 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(1)	FE/ST
(XR)	WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(2)	Cat 3B/SE
(XR)	SONORAN COTTONWOOD WILLOW RIPARIAN FOREST (<i>Sonoran cottonwood willow riparian forest</i>)	(1)	None/None

IMP-012 Total # of Elements=8
 Bard Riverbend Extremely Rare Elements=5
 Acreage (approx.) = 1000 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
	GREAT BLUE HERON (<i>Ardea herodias</i>)	(2)	None/None
(XR)	CALIFORNIA BLACK RAIL (<i>Laterallus jamaicensis coturniculus</i>)	(1)	Cat 1/ST
(XR)	WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(1)	Cat 3B/SE
(XR)	GILA WOODPECKER (<i>Melanerpes uropygialis</i>)	(1)	None/SE
(XR)	BROWN CRESTED FLYCATCHER (<i>Myiarchus tyrannulus</i>)	(1)	None/None
	CRISSAL THRASHER (<i>Toxostoma dorsale</i>)	(1)	None/None
	YELLOW BREASTED CHAT (<i>Icteria virens</i>)	(1)	None/None
(XR)	SONORAN COTTONWOOD WILLOW RIPARIAN FOREST (<i>Sonoran cottonwood willow riparian forest</i>)	(1)	None/None

IMP-013 Total # of Elements=1
 Imperial Dam Site Extremely Rare Elements=1
 Acreage (approx.) = 1600 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	RAZORBACK SUCKER (<i>Xyrauchen texanus</i>)	(1)	FPE/SE

IMP-014 Total # of Elements=7
 Ferguson Lake Extremely Rare Elements=5
 Acreage (approx.) = 10500 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	CALIFORNIA BLACK RAIL (<i>Laterallus jamaicensis coturniculus</i>)	(1)	Cat 1/ST
(XR)	WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(1)	Cat 3B/SE
(XR)	GILA WOODPECKER (<i>Melanerpes uropygialis</i>)	(1)	None/SE
(XR)	BROWN CRESTED FLYCATCHER (<i>Myiarchus tyrannulus</i>)	(1)	None/None
	CRISSAL THRASHER (<i>Toxostoma dorsale</i>)	(1)	None/None
	YELLOW BREASTED CHAT (<i>Icteria virens</i>)	(1)	None/None

(XR) SONORAN COTTONWOOD WILLOW RIPARIAN FOREST (2) None/None
 (Sonoran cottonwood willow riparian forest)

IMP-015 Total # of Elements=1
 Mouth of Senator Wash Extremely Rare Elements=1
 Acreage (approx.) = 2500 Best Example Elements=0

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR) RAZORBACK SUCKER (<i>Xyrauchen texanus</i>)	(1)	FPE/SE

IMP-017 Total # of Elements=5
 In-ko-pah Gorge/Pinto Drainage Extremely Rare Elements=2
 Acreage (approx.) = 13900 Best Example Elements=0

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR) PENINSULAR BIGHORN SHEEP (<i>Ovis canadensis cremnobates</i>)	(1)	Cat 2/ST
(XR) SENSITIVE INFORMATION-Special Animal	(3)	Cat 2/ST
DESERT FAN PALM OASIS WOODLAND (<i>Desert fan palm oasis woodland</i>)	(2)	None/None
ELEPHANT TREE (<i>Bursera microphylla</i>)	(1)	None/None
MOUNTAIN SPRINGS BUSH LUPINE (<i>Lupinus excubitus var medius</i>)	(1)	Cat 2/None

IMP-018 Total # of Elements=3
 Taylor and Adobe Lakes Extremely Rare Elements=2
 Acreage (approx.) = 3500 Best Example Elements=0

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR) WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(1)	Cat 3B/SE
YELLOW BREASTED CHAT (<i>Icteria virens</i>)	(1)	None/None
(XR) SONORAN COTTONWOOD WILLOW RIPARIAN FOREST (Sonoran cottonwood willow riparian forest)	(1)	None/None

IMP-019 Total # of Elements=2
 Draper Extremely Rare Elements=2
 Acreage (approx.) = 4100 Best Example Elements=0

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR) YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(1)	FE/ST
(XR) WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(1)	Cat 3B/SE

IMP-020 Total # of Elements=8
 Cibola Extremely Rare Elements=6
 Acreage (approx.) = 12000 Best Example Elements=0

<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR) YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(3)	FE/ST
(XR) WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(2)	Cat 3B/SE
(XR) ELF OWL (<i>Micrathene whitneyi</i>)	(1)	None/SE

(XR)	GILA WOODPECKER (<i>Melanerpes uropygialis</i>)	(1)	None/SE
(XR)	BROWN CRESTED FLYCATCHER (<i>Myiarchus tyrannulus</i>)	(1)	None/None
	CRISSAL THRASHER (<i>Toxostoma dorsale</i>)	(2)	None/None
	YELLOW BREASTED CHAT (<i>Icteria virens</i>)	(1)	None/None
(XR)	RAZORBACK SUCKER (<i>Xyrauchen texanus</i>)	(1)	FPE/SE

IMP-022

Camp Dunlop

Acreage (approx.) = 3400

Total # of Elements=1
Extremely Rare Elements=1
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	RAZORBACK SUCKER (<i>Xyrauchen texanus</i>)	(1)	FPE/SE

IMP-023

Mouth of Julian Wash

Acreage (approx.) = 5200

Total # of Elements=2
Extremely Rare Elements=1
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(1)	FE/ST
	YELLOW BREASTED CHAT (<i>Icteria virens</i>)	(2)	None/None

IMP-025

Ross Corner

Acreage (approx.) = 500

Total # of Elements=1
Extremely Rare Elements=1
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	GILA WOODPECKER (<i>Melanerpes uropygialis</i>)	(1)	None/SE

IMP-026

Superstition Hills

Acreage (approx.) = 500

Total # of Elements=1
Extremely Rare Elements=0
Best Example Elements=1

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(BX)	THURBER'S PILOSTYLES (<i>Pilostyles thurberi</i>)	(1)	Cat 3C/None

IMP-028

Southern Edge Pilot Knob Mesa

Acreage (approx.) = 3300

Total # of Elements=1
Extremely Rare Elements=1
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	WIGGIN'S CROTON (<i>Croton wigginsii</i>)	(1)	Cat 3C/SR

IMP-029

Central Imperial Sand Dunes
Acreage (approx.) = 17500

Total # of Elements=6
Extremely Rare Elements=2
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
	CARLSONS DUNE BEETLE (<i>Anomala carlsoni</i>)	(4)	None/None
	HARDYS DUNE BEETLE (<i>Anomala hardyorum</i>)	(4)	None/None
	ANDREWS DUNE SCARAB BEETLE (<i>Pseudocotalpa andrewsi</i>)	(16)	Cat 2/None
(XR)	ALGODONES DUNES SUNFLOWER (<i>Helianthus niveus ssp tephrodes</i>)	(2)	Cat 2/SE
	GIANT SPANISH-NEEDLE (<i>Palafoxia arida var gigantea</i>)	(1)	Cat 3C/None
(XR)	WIGGIN'S CROTON (<i>Croton wigginsii</i>)	(1)	Cat 3C/SR

IMP-030

Pilot Knob Mesa West
Acreage (approx.) = 1600

Total # of Elements=3
Extremely Rare Elements=0
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
	CARLSONS DUNE BEETLE (<i>Anomala carlsoni</i>)	(2)	None/None
	HARDYS DUNE BEETLE (<i>Anomala hardyorum</i>)	(2)	None/None
	ANDREWS DUNE SCARAB BEETLE (<i>Pseudocotalpa andrewsi</i>)	(2)	Cat 2/None

IMP-031

Crucifixion Thorn Site
Acreage (approx.) = 39800

Total # of Elements=4
Extremely Rare Elements=1
Best Example Elements=1

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
	FLAT TAILED HORNED LIZARD (<i>Phrynosoma mcallii</i>)	(1)	Cat 1/None
(XR)	BAJA CALIFORNIA IPOMOPSIS (<i>Ipomopsis effusa</i>)	(1)	None/None
	THURBER'S PILOSTYLES (<i>Pilostyles thurberi</i>)	(1)	Cat 3C/None
(BX)	CRUCIFIXION THORN (<i>Castela emoryi</i>)	(1)	None/None
	CRUCIFIXION THORN (<i>Castela emoryi</i>)	(1)	None/None

IMP-032

East of Gecko Road
Acreage (approx.) = 7000

Total # of Elements=3
Extremely Rare Elements=2
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	ALGODONES DUNES SUNFLOWER (<i>Helianthus niveus ssp tephrodes</i>)	(1)	Cat 2/SE
(XR)	WIGGIN'S CROTON (<i>Croton wigginsii</i>)	(1)	Cat 3C/SR
	PEIRSON'S MILK VETCH (<i>Astragalus magdalenae var peirsonii</i>)	(1)	Cat 2/SE

IMP-033		Total # of Elements=1	
Gilmores Landing Campground Site		Extremely Rare Elements=1	
Acreage (approx.) = 500		Best Example Elements=0	
	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(1)	Cat 3B/SE
IMP-034		Total # of Elements=4	
Southern Tip Palo Verde Valley		Extremely Rare Elements=3	
Acreage (approx.) = 1000		Best Example Elements=0	
	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(1)	Cat 3B/SE
(XR)	GILA WOODPECKER (<i>Melanerpes uropygialis</i>)	(2)	None/SE
(XR)	BROWN CRESTED FLYCATCHER (<i>Myiarchus tyrannulus</i>)	(1)	None/None
	YELLOW BREASTED CHAT (<i>Icteria virens</i>)	(1)	None/None
IMP-035		Total # of Elements=1	
38th Street Park		Extremely Rare Elements=1	
Acreage (approx.) = 500		Best Example Elements=0	
	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	WESTERN YELLOW BILLED CUCKOO (<i>Coccyzus americanus occidentalis</i>)	(1)	Cat 3B/SE
IMP-036		Total # of Elements=1	
Glamis Buttes		Extremely Rare Elements=1	
Acreage (approx.) = 3400		Best Example Elements=0	
	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	MUNZ'S CACTUS (<i>Opuntia munzii</i>)	(1)	Cat 2/None
IMP-037		Total # of Elements=3	
Acolita Sand Hills		Extremely Rare Elements=0	
Acreage (approx.) = 10600		Best Example Elements=0	
	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
	CARLSONS DUNE BEETLE (<i>Anomala carlsoni</i>)	(4)	None/None
	HARDYS DUNE BEETLE (<i>Anomala hardyorum</i>)	(2)	None/None
	ANDREWS DUNE SCARAB BEETLE (<i>Pseudocotalpa andrewsi</i>)	(2)	Cat 2/None
IMP-038		Total # of Elements=4	
Chocolate Mountains		Extremely Rare Elements=1	
Acreage (approx.) = 220800		Best Example Elements=0	
	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
	BLACK-TAILED GNATCATCHER (<i>Poliioptila melanura</i>)	(1)	None/None

	LE CONTES THRASHER (<i>Toxostoma lecontei</i>)	(1)	None/None
(XR)	MUNZ'S CACTUS (<i>Opuntia munzii</i>)	(1)	Cat 2/None
	CROWN-OF-THORNS (<i>Koeberlinia spinosa</i>)	(6)	None/None

IMP-039

Mouth of New River

Acreage (approx.) = 6700

Total # of Elements=2
Extremely Rare Elements=2
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(1)	FE/ST
(XR)	BLACK SKIMMER (<i>Rynchops niger</i>)	(1)	None/None

IMP-040

Tortuga Sand Hills

Acreage (approx.) = 3700

Total # of Elements=2
Extremely Rare Elements=1
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	WIGGIN'S CROTON (<i>Croton wigginsii</i>)	(1)	Cat 3C/SR
	PEIRSON'S MILK VETCH (<i>Astragalus magdalenae var peirsonii</i>)	(1)	Cat 2/SE

IMP-041

Mullet Island/East Shore

Acreage (approx.) = 7900

Total # of Elements=2
Extremely Rare Elements=2
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(2)	FE/ST
(XR)	BLACK SKIMMER (<i>Rynchops niger</i>)	(1)	None/None

IMP-043

Palo Verde

Acreage (approx.) = 2200

Total # of Elements=2
Extremely Rare Elements=2
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(1)	FE/ST
(XR)	WIGGINS' CHOLLA (<i>Opuntia wigginsii</i>)	(1)	Cat 2/None

IMP-044

Carrizo Wash

Acreage (approx.) = 500

Total # of Elements=1
Extremely Rare Elements=1
Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	SONORAN COTTONWOOD WILLOW RIPARIAN FOREST (<i>Sonoran cottonwood willow riparian forest</i>)	(1)	None/None

IMP-045
 All American Canal
 Acreage (approx.) = 12700

Total # of Elements=1
 Extremely Rare Elements=1
 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(2)	FE/ST

IMP-046
 Ramer & Finney Lakes
 Acreage (approx.) = 3400

Total # of Elements=1
 Extremely Rare Elements=1
 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(1)	FE/ST

IMP-047
 Holtville Drain
 Acreage (approx.) = 500

Total # of Elements=1
 Extremely Rare Elements=1
 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	YUMA CLAPPER RAIL (<i>Rallus longirostris yumanensis</i>)	(1)	FE/ST

IMP-048
 East Mesa Imperial Sand Dunes
 Acreage (approx.) = 500

Total # of Elements=1
 Extremely Rare Elements=1
 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	SAND FOOD (<i>Pholisma sonorae</i>)	(1)	Cat 2/None

IMP-049
 Painted Gorge
 Acreage Unknown

Total # of Elements=1
 Extremely Rare Elements=1
 Best Example Elements=0

	<u>Element Summary</u>	<u>Occurrences</u>	<u>Status: Fed/Cal</u>
(XR)	SENSITIVE INFORMATION-Special Animal	(1)	Cat 2/ST

CALIFORNIA DEPARTMENT OF FISH AND GAME
 LANDS AND NATURAL AREAS PROGRAM

 SIGNIFICANT NATURAL AREAS OF CALIFORNIA
 1992 ANNUAL SUMMARY

OWNERSHIP/LOCATIONAL INFORMATION FOR IMPERIAL COUNTY

<u>Site Number:</u>	<u>Quads:</u>	<u>Owner/Manager:</u>
IMP-001	HARPERS WELL KANE SPRING KANE SPRING NE	PRIVATE BLM-EL CENTRO RA-SAN SEBASTIAN MARSH ACEC/SAN -SEBASTIAN ONA BLM-EL CENTRO RA-SAN SEBASTIAN MARSH ACEC/RNA -ADMIN BY BUREC BLM-EL CENTRO-RA-SAN SEBASTIAN MARSH ACEC
IMP-002	GRAYS WELL	BLM-EL CENTRO RA-PLANK ROAD ACEC
IMP-004	BARD IMPERIAL RESERVOIR LAGUNA DAM	BLM-EL CENTRO RA BIA-FORT YUMA RESERVATION SPEC-IMPERIAL IRRIGATION DIST. BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-005	GRAYS WELL NE OGILBY	BLM-EL CENTRO RA-ADMIN BY BUREC PRIVATE
IMP-006	PICACHO PICACHO SW	DPR-PICACHO SRA USFWS-IMPERIAL NWR
IMP-007	AMOS	BLM-EL CENTRO RA-ADMIN BY BUREC PRIVATE
IMP-009	CACTUS	BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-010	YUMA EAST YUMA WEST	PRIVATE BLM-EL CENTRO RA-ADMIN BY BUREC BIA-FORT YUMA RESERVATION
IMP-012	BARD	PRIVATE BIA-FORT YUMA RESERVATION BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-013	IMPERIAL RESERVOIR	BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-014	IMPERIAL RESERVOIR LITTLE PICACHO PEAK	USFWS-IMPERIAL NWR BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-015	IMPERIAL RESERVOIR LITTLE PICACHO PEAK	BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-017	IN-KO-PAH GORGE	BLM-EL CENTRO RA PRIVATE
IMP-018	PICACHO SW	DPR-PICACHO SRA USFWS-IMPERIAL NWR
IMP-019	PICACHO NW	USFWS-IMPERIAL NWR BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-020	CIBOLA PICACHO NW	BLM-EL CENTRO RA-ADMIN BY BUREC USFWS-CIBOLA NWR PRIVATE PRIVATE-ADMIN BY BUREC BLM-EL CENTRO RA
IMP-022	IRIS IRIS WASH NILAND WISTER	PRIVATE
IMP-023	PICACHO SW	DFG-COLORADO RIVER FISHING ACCESS BLM-EL CENTRO RA-ADMIN BY BUREC USFWS-IMPERIAL NWR BLM-EL CENTRO RA
IMP-025	BARD	BIA-FORT YUMA RESERVATION BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-026	KANE SPRING	DOD-NAVY-AERIAL GUNNERY RANGE
IMP-028	GRAYS WELL NE	BLM-EL CENTRO RA-ADMIN BY BUREC

<u>Site Number:</u>	<u>Quads:</u>	<u>Owner/Manager:</u>
IMP-029	CACTUS CLYDE GLAMIS GLAMIS SE	BLM-EL CENTRO RA BLM-EL CENTRO RA-ADMIN BY BUREC PRIVATE STATE LANDS COMMISSION
IMP-030	CACTUS	BLM-EL CENTRO RA
IMP-031	COYOTE WELLS	BLM-EL CENTRO RA BLM-EL CENTRO RA-PROT. WITHDRAWAL
IMP-032	GLAMIS NW	BLM-EL CENTRO RA BLM-EL CENTRO RA-ADMIN BY BUREC STATE LANDS COMMISSION PRIVATE
IMP-033	PICACHO NW	PRIVATE
IMP-034	CIBOLA	BLM-EL CENTRO RA-ADMIN BY BUREC PRIVATE USFWS-CIBOLA NWR
IMP-035	PALO VERDE	BLM-EL CENTRO RA-ADMIN BY BUREC
IMP-036	EAST OF ACOLITA	DOD-NAVY-CHOCOLATE MTNS. GUNNERY RANGE PRIVATE
IMP-037	ACOLITA	BLM-EL CENTRO RA-ALGODONES DUNES ONA BLM-EL CENTRO RA-ADMIN BY BUREC PRIVATE
IMP-038	AUGUSTINE PASS BLUE MOUNTAIN CHUCKWALLA SPRING IRIS IRIS PASS IRIS WASH LION HEAD MTN. LITTLE MULE MTS. MAMMOTH WASH MT. BARROW PEGLEG WELL TORTUGA	DOD-NAVY-CHOCOLATE MTNS. GUNNERY RANGE STATE LANDS COMMISSION PRIVATE BLM-EL CENTRO RA
IMP-039	CALIPATRIA SW OBSIDIAN BUTTE	BLM-EL CENTRO RA-WATER RESERVE USFWS-SALTON SEA NWR
IMP-040	TORTUGA	BLM-EL CENTRO RA-ADMIN BY BUREC PRIVATE
IMP-041	NILAND	PRIVATE
IMP-043	IMPERIAL RESERVOIR LITTLE PICACHO PEAK PALO VERDE THUMB PEAK	PRIVATE
IMP-044	PICACHO SW	DPR-PICACHO SRA
IMP-045	MIDWAY WELL NW BONDS CORNER	BLM-EL CENTRO RA
IMP-046	WESTMORLAND WIEST	PRIVATE DFG USFWS-IMPERIAL WATERFOWL MA
IMP-047	ALAMORIO	PRIVATE
IMP-048	GLAMIS NW	BLM-EL CENTRO RA
IMP-049	N/A	N/A