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5.2 LAND USE, PLANNING AND POLICIES

5.2.1 AFFECTED ENVIRONMENT

The Cadiz Project is located in the Cadiz and Fenner valleys, an unincorporated, remote area of San Bernardino County. The County is in the southeastern part of the State of California and borders the States of Arizona and Nevada. The southern and eastern regions of the county contain vast mountain and desert areas. Having a land mass of more than 20,000 square miles, San Bernardino County is the largest county in the contiguous 48 states. Metropolitan is the largest supplier of supplemental water supplies to San Bernardino County.

The Cadiz Valley spans from Historic State Route 66 south to State Route 62. The Cadiz Project wellfield and spreading basins will be located approximately 22 miles east of Amboy, 50 miles southwest of Needles and 45 miles northeast of Twentynine Palms.

Existing Land Use

Existing land uses in the Cadiz Valley consist mostly of desert conservation open space with limited agriculture, salt extraction, other mining, military uses, recreation, and electrical, gas and oil utility corridors. The site is accessible by rail and by a few designated roads. For the majority of the area, traveling off designated roads with any type of motor vehicle is not allowed due to the desert conservation measures applicable to the area. Land ownership is most commonly found in whole Sections (640 acre blocks) of land as shown on Figure 5.2-1.

Cadiz Inc. landholdings cover approximately 27,000 acres located at the northern end of the Cadiz Project area. Of this total, 9,600 acres of land are zoned for agricultural use and 1,600 acres are developed for agriculture.

At the southern end of the Cadiz Project area, Metropolitan's consolidated land ownership comprises the Iron Mountain Pumping Plant site, the land occupied by the Colorado River Aqueduct and an electrical power easement.

Historical users in the region include Mormon settlers, explorers, emigrants bound for more western areas in California and the United States military. Past construction projects include the Atchison, Santa Fe and Topeka Railroad now owned by either the Burlington Northern Santa Fe (BNSF) and Arizona and California Railroad Company (ARZC), and the Colorado River Aqueduct. During World War II, General Patton used the desert for tank maneuvers, testing of new equipment and training of military personnel.

Planned Development

The following paragraphs discuss proposed expansions of existing uses and new uses that may be developed in the area.

Cadiz Inc. Agricultural Operations

The Cadiz Inc. agricultural operations presently comprise approximately 1,600 acres of cultivated agricultural land, as described in Section 5.1. These agricultural operations are a part of Cadiz Inc.

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landholdings adjacent to and overlying part of the Cadiz Project area. The Cadiz Inc agricultural operations are within the 9,600 acres of land designated by the County of San Bernardino as agricultural land use (AG).

In November 1993, the County of San Bernardino certified the FEIR and adopted corresponding land use approvals for this AG designation. Major components of the 1993 FEIR are the evaluation of increased use of groundwater, the potential for land surface subsidence and potential for impacts to water quality. The County of San Bernardino adoption of the FEIR Mitigation Monitoring and Compliance Program has resulted in the implementation of an ongoing groundwater monitoring program. Under the provisions of this program, water use, water quality and the potential for land subsidence are monitored. Annual reports are submitted to the County of San Bernardino.

Rail Cycle

The Rail Cycle Project was a proposed Class III solid waste landfill, and is not a reasonably foreseeable project at this time. In 1996, the voters of San Bernardino County failed to approve a tax proposed by the San Bernardino County Board of Supervisors as a condition of the approval for the Rail Cycle Project. In August 2000 the California Court of Appeal (4th District) ruled the Environmental Impact Report prepared in connection with the Rail Cycle Project was invalid. As a result, Rail Cycle Project environmental and land use approvals were revoked.

Applicable Land Use Plans and Policies

All Cadiz Project capital facilities, except the water conveyance, power distribution and certain monitoring facilities required for the Management Plan, will be located on Cadiz Inc. landholdings or on land owned by Metropolitan. The Cadiz Project water conveyance and power distribution facilities will transect various landholdings, the majority of which are owned by the federal government. The regional agency with jurisdiction over land use in the Cadiz Project area is the County of San Bernardino.

Bureau of Land Management

The BLM manages approximately 11 million acres of public land in southern California for the purpose of desert and wilderness conservation. In 1976, Congress enacted the Federal Land Policy and Management Act which established the California Desert Conservation Area (CDCA) and which directs the BLM to inventory and to prepare a comprehensive Land Use Management Plan for the CDCA (CDCA Plan). The goal of the CDCA Plan is to provide for multiple uses of the public lands and resources including consumptive uses, preservation, and conservation. The CDCA Plan identifies economic, educational, scientific and recreational uses for this land which enhance, wherever possible, the environmental, cultural and aesthetic values of the desert and its future productivity. The Mojave Desert, including the Cadiz Valley, is in the CDCA Plan area and is subject to management guidelines in that Plan.

California Desert Conservation Area Plan. The CDCA Plan was created in 1980 and has been amended numerous times. However, the goal of the CDCA Plan to provide for desert conservation has remained unchanged. According to the CDCA Plan, BLM-managed lands are divided into four multiple-use classifications. Each classification denotes the allowed uses and the degree of resource conservation to be implemented.

The classes are:

- a) Class C Controlled
- b) Class L Limited
- c) Class M Moderate
- d) Class I Intensive

The Cadiz Project area is predominantly designated as Class M with some areas designated as Class L, as shown in Figure 5.2-2. This classification provides for a wide range of uses such as agriculture, roads, airport landing strips, installation of a variety of new utility facilities, and livestock grazing and support facilities.

Multiple-Use Class L (Limited Use) protects sensitive, natural, scenic, ecological and cultural resource values. Public lands designated as Class L are managed to provide for generally lower-intensity, carefully controlled multiple use of resources, while ensuring that sensitive values are not significantly diminished. Table 5.2-1 summarizes the distances within each land use class traversed by each alternative alignment.

**TABLE 5.2-1
MILES WITHIN
CDCA LAND-USE CLASSES**

Alternative	CDCA Plan Land Use Classes	
	L – limited	M – moderate
Eastern	5	30
Western	17	16
Combined	15	19
Eastern/Canal	5	30

CDCA Plan Elements. The CDCA Plan is divided into 12 Plan Elements which provide specific details of how sensitive cultural and natural resources should be balanced. Of the twelve elements, the Wildlife, Wilderness, Livestock Grazing, Recreation, Motorized Vehicle, Geology Energy Minerals, and Energy Production and Utility Corridors Elements are relevant to the Cadiz Project.

The CDCA Plan includes two maps listing areas of: 1) Planned Management Areas for Fish and Wildlife; and 2) Sensitive, Rare, Threatened and Endangered Fish and Wildlife. The Wildlife Element identifies areas of sensitivity near the Cadiz Project area including the Cadiz Sand Dunes, and the Golden Eagle, Desert Bighorn Sheep and Desert Tortoise habitats. The CDCA Plan Vegetation Element has not recognized an area or region in the Cadiz Project area as an area of concern.

An amendment to the Wildlife Element of the CDCA Plan delineates public land management categories for the threatened desert tortoise. The goal for Category I areas is to maintain stable, viable populations of desert tortoise, and to increase tortoise populations where possible. Category II areas are managed with the goal of maintenance of stable, viable tortoise populations. Category III areas are managed with the goal to limit declines in tortoise populations to the extent possible using mitigation measures. The Cadiz Project is located on Category III lands, while some of its environmental monitoring facilities are located on Category I lands.

In the Cadiz Project vicinity, four areas are designated as wilderness: the Trilobite, Cadiz Dunes, Old Woman Mountains and Sheephole Valley wilderness areas. In the Livestock Grazing Element, the majority of the Cadiz Project site and the surrounding area are listed as suitable for ephemeral grazing with a small part of the area listed as unsuitable for grazing.

The Recreation Element indicates that in the majority of the Cadiz Project area, recreational uses such as hiking, primitive camping, rock climbing, and wind sailing on approved dry lakes are allowed. In addition, one motorized event competitive route corridor transverses the Cadiz Project area. The Motorized Vehicle Access Element specifies that access to the Cadiz Project area is limited to existing routes. Other routes of travel may only be approved on an individual basis by the BLM.

Based on the Geology Energy Minerals Element, there are areas in the Cadiz Project vicinity identified as potentially valuable for uranium and/or thorium extraction. In addition, saleable, leaseable and economic minerals have been identified near the Cadiz Project area in the CDCA Plan. The saleable minerals consist of sand, gravel and pumice. The leaseable minerals consist of sodium and may be found at Bristol, Cadiz and Danby dry lakes. The economic minerals consist of lithium, tungsten, gypsum, strontium and limestone. Refer to Section 5.9 (Energy and Mineral Resources) for additional discussion regarding these resources in the Cadiz Project area.

A goal of the Energy Production and Utility Corridor Element is to provide a network of joint-use planning corridors capable of meeting future utility, communication and energy needs. In the CDCA Plan, there are 16 separate designated planning corridors. One of these corridors traverses a portion of the Cadiz Project area. This corridor is occupied by two-230 kV power lines and telephone pole lines. The All American and Questar pipelines also cross the Cadiz Project area, but not within utility corridors designated in the CDCA Plan.

Areas of Critical Environmental Concern. An important component of the CDCA Plan is the designation of Areas of Critical Environmental Concern (ACEC). These areas are unique or special and have features that set them apart from other areas in the desert. These features could be an unusual diversity of plant or animal life, unique geologic features or rare concentrations of remains of historic or prehistoric use and occupation. These areas are also identified by the BLM as areas that require special management attention.

In the vicinity of the Cadiz Project area there are two ACECs: Patton's Iron Mountain Divisional Camp, which is significant as a historic military camp site, and the Marble Mountain Fossil Bed which is significant for its paleontological values.

Northern and Eastern Colorado Desert Plan. The BLM, together with other federal, state, regional and local agencies and other affected interests, has prepared the Draft Northern and Eastern Colorado Desert Coordinated Management Plan (NECO Plan) and Environmental Impact Statement. The Cadiz Project is wholly located in the NECO planning area. The public comment period for the Draft NECO Plan and EIS has been extended November 1, 2001. When completed, the NECO Plan will amend the CDCA Plan.

County of San Bernardino

Private lands in the region are regulated by the County of San Bernardino and most of the lands in the region are designated as Resource Conservation (RC). A relatively small amount of land (9,600 acres) owned by Cadiz Inc. is designated in the General Plan as agriculture (AG). The County of San Bernardino Development Code Standards (May 21, 1998) and the General Plan (May 1999) were used for the analysis of land use and natural resources management policies within the County's jurisdiction.

Resource Conservation Land Use Designation. This land use designation generally provides for protection of natural and cultural resources through limitations on development. These limitations

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include requiring very large lot sizes with minimal development, resulting in large open spaces. Development allowed under this classification consists of:

- a) Row, field, tree and nursery crop cultivation,
- b) Single dwelling units,
- c) Social care facility with six or fewer clients,
- d) Animal raising and
- e) Accessory uses.

According to the County of San Bernardino General Plan, the primary purpose of the RC designation is to encourage limited rural development that maximizes preservation of open space, watershed and wildlife habitat areas.

Agricultural Land Use Designation. The AG zoning designation allows the same uses as described above for the RC designation, however, with a greater density ratio.

Natural Resources (Water) Management Policies. Most of the developed areas in the County of San Bernardino rely on imported, supplemental water supplies to meet present demand. In recognition of these needs, County of San Bernardino General Plan policies encourages responsible water authorities to actively manage water resources, including:

- “Provide a balanced hydrological system in terms of withdrawal and replenishment of water from groundwater basins.”
- “Continue and expand importation of water to sustain the existing population and projected growth; actively support the completion of the State Water Project, improvements in the Sacramento/ San Joaquin Delta and Colorado River Aqueduct System, and the use of water transfers and water marketing techniques.”
- “Maximize the use of existing water resources through conservation programs and efficient groundwater and surface water management programs.”

5.2.2 CEQA THRESHOLDS OF SIGNIFICANCE

For purposes of CEQA, impacts of the Cadiz Project related to land use are considered significant if they result in:

- Physical division of an established community;
- Conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the project (including, but not limited to General Plan, Specific Plan or Zoning Ordinance) adopted for the purpose of avoiding or mitigating an environmental effect;
- Conflict with any of the 12 CDCA Plan Elements or the goals of the Areas of Critical Environmental Concern (ACEC) program; or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

For a further discussion of CEQA thresholds of significance, see Section 5.20.

5.2.3 METHODOLOGY

Each aspect of the Cadiz Project was evaluated on a detailed level. Because the Cadiz Project covers numerous miles of open terrain, the project requires an evaluation by means of smaller scale subsections. Also, along the length of the Cadiz Project, the zoning, land use designations and environmental concerns change. Each of these concerns requires analysis on a smaller scale.

The methodology used to identify the Cadiz Project land use impacts was a comparison of known environmental concerns and land use designations depicted on existing mapping. Maps of the Cadiz Project were compared with map overlays provided by the BLM and the County. Existing mapping for environmental issues was available through maps of the 12 CDCA Plan Elements. Mapping for the land use designations was also provided by the BLM through their Multiple-Use Classification Map and in the County of San Bernardino General Plan. Not all environmental concerns have been mapped. Within the areas administered by BLM, there are still vast areas where unmapped buried artifacts and minerals may occur.

Analysis of this mapping and related information show that all the Cadiz Project alignments avoid all the sensitive areas in the CDCA Plan and the Plan Elements.

5.2.4 IMPACTS

Eastern Alternative

Construction Impacts

Existing Land Uses. Construction of the project wellfield for the Eastern Alternative would result in minor disturbance to the existing Cadiz Inc. agricultural operations as described earlier in Section 5.1.4. This impact would be limited to small areas and would be fully integrated with existing agricultural uses resulting in no significant adverse impact. The remainder of the project wellfield, its associated electrical substations, the project spreading basins and the northernmost end of the water conveyance facility and power transmission line would be constructed on vacant land that is a part of Cadiz Inc. landholdings. Consequently, no existing uses would be adversely affected on the remainder of the Cadiz Inc. holdings.

The pipelines connecting the extraction wells would cross the BNSF and ARZC rail lines at several locations. These crossings would be coordinated with the BNSF and ARZC. Pipe would be jacked or tunneled under the rail lines and no interruptions of service would be anticipated.

Other project facilities for the Eastern Alternative, including most of the remainder of the water conveyance and power distribution facilities, would be constructed on undeveloped land, including federal lands administered by the BLM, state owned lands and privately owned lands. No existing land uses would be affected by construction on these lands. The water conveyance and power distribution facilities would, however, cross the ARZC rail line, the All American Pipeline and the Questar Pipeline. These crossings would be coordinated with the railroad and pipeline operators. Pipe would be jacked or tunneled under the rail line. Proper separation distance from the natural gas and crude oil pipelines would be maintained.

At some locations along the northern part of the alignment, the major transmission pipeline and electric transmission line are in close proximity to the Cadiz Dunes and Old Woman Mountains wilderness areas. However, no direct construction impacts to these resources would occur. Possible

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indirect construction effects are discussed later in Sections 5.11 (Noise) and 5.17 (Wilderness/Recreation).

The southernmost end of the water conveyance and power distribution facilities, the power substation and the pump station would be constructed on land owned by Metropolitan at the Iron Mountain Pumping Plant. Therefore, there would be no adverse impact on existing land uses for these facilities.

Plans and Policies. This section evaluates the impacts of the Eastern Alternative on existing BLM and County of San Bernardino plans and policies. Impacts on growth management plans and policies are addressed in Sections 5.3 (Socioeconomics) and 6.0 (Growth Inducement).

BLM CDCA Plan. The Eastern Alternative does not intrude into any Wilderness Areas. It has specifically been configured to avoid them. The Alternative traverses 5 miles of Class L (limited use) land and 30 miles of Class M (moderate use) land. Although parts of the Cadiz Project area are considered suitable for ephemeral grazing in the Plan's Livestock Grazing Element, none of the areas that would be traversed by the project facilities are currently used for grazing. Relative to the Recreation Element of the CDCA Plan, the area that would be traversed by the Cadiz Project facilities is seldom used for recreation, due to its open, extremely arid character and distance from population centers. Part of the Cadiz Project area is traversed by a motorcycle race corridor. This race has not been run for many years and there are no current applications to run it in the future. Recreational uses, including motorized vehicle use, are addressed later in Section 5.17 (Wilderness/Recreation).

The Motorized Vehicle Access Element limits motorized access to the area to existing dirt and paved roads. The Eastern Alternative would add new dirt roads in the form of project maintenance roads to the area. BLM will limit access to these roads to Metropolitan's vehicles only and to prohibit their use by others. This issue is also addressed in Section 5.8 (Biological Resources). The Eastern Alternative would also temporarily delay traffic on Cadiz-Rice Road, since a flagman would be necessary to convey traffic in one direction at a time at Chubbuck. This would slightly, but not significantly, impede access to the area. Parts of the area are sources for various minerals as addressed in the Geology Energy Minerals Element of the CDCA Plan. Potential impacts to these resources are addressed in Section 5.9 (Energy and Mineral Resources).

The Utility Corridor Element of the CDCA Plan indicates that pipelines of greater than 12-inch diameter are to be built within a designated planning corridor. However, because the only Cadiz Project alternative alignment largely within a designated corridor was found to be unacceptable (see Section 3), the proposed Cadiz Project would need to be processed through an amendment to the CDCA Plan for an exception to the utility corridor requirement.

This proposed amendment of the CDCA Plan is a planning action by the BLM and involves a decision by the BLM separate from the decision required for the proposed issuance of right-of-way easements. This designation is part of the Cadiz Project and is being considered by the BLM in conjunction with the proposed grant of temporary and permanent rights-of-way easements. Although there are two existing underground pipelines in the area (El Paso Natural Gas Pipeline and Questar Pipeline), they are not designated corridors in the Energy Production and Utility Corridor Element in the CDCA Plan. The Eastern Alternative would also cross designated Utility Corridor E defined in the CDCA Plan. This corridor provides access for two 230-kV power lines and telephone pole lines. The latter is not considered to be a significant impact, since the Eastern Alternative is comprised of an underground pipeline at this location and the project's surface power transmission line can be

configured to be compatible with the Corridor E facilities. With approval of the proposed amendment to the CDCA Plan for an exception to the Utility Corridor requirement, the Eastern Alternative would not result in any significant adverse impacts on the CDCA Plan.

Desert Plan Amendment Process

The BLM District Manager, Desert District may initiate an amendment to the CDCA Plan at any time. Individuals and public or private organizations may also submit written requests for CDCA Plan amendments to the District Manager for consideration. In the case of the Cadiz Project, the proposed change is an amendment to the established Planning Corridor designations and contingent corridors identified in the CDCA Plan. The amendment would grant an exception for the alignment utilized for the water conveyance and power distribution facilities.

For the Cadiz Project, notice of the proposed consideration of the CDCA Plan amendment and a request for comments was published in the Federal Register and a newspaper of general circulation in the affected area in March, May and November 1999. Notices were also sent to those on the CDCA Plan mailing list. This was done in conjunction with noticing for the Cadiz Project EIS.

Northern and Eastern Colorado (NECO) Desert Plan. The Draft NECO Plan was circulated for public review on February 26, 2001. The public comment period will end on November 1, 2001. The Draft NECO Plan identifies proposed Desert Wildlife Management Areas (DWMA's) and Wildlife Habitat Management Areas (WHMA's). Some of the monitoring features identified in the Groundwater Monitoring and Management Plan may be located within these areas. At the time of publication of this document, the NECO Plan has not been approved. The Cadiz Project is not inconsistent with the CDCA Plan amendments as proposed in the Draft NECO Plan. Therefore, no significant adverse impacts to the NECO Plan are anticipated as a result of the Eastern Alternative.

County of San Bernardino Plans and Policies. The Eastern Alternative would be a component of the regional infrastructure for water supply as well as a facility that can be deemed essential or desirable to the public convenience or welfare. It is therefore determined to be consistent with the additional uses allowed by the County of San Bernardino within the RC and AG land use designations. The Cadiz Project would be consistent with the primary purpose of the RC designation, since it will not encourage development in the area and has been designed to be consistent with the goals of preserving open space, watershed and wildlife habitat areas. The water conveyance facilities would be underground and the ground surface re-contoured to preserve existing drainage patterns. Therefore, no significant adverse impact on land use or land use designations would occur under the Eastern Alternative.

The Eastern Alternative would be consistent with the County of San Bernardino General Plan Natural Resources Management Policies. The Groundwater Monitoring and Management Plan included as part of the Cadiz Project would address the long term, balanced management of the groundwater resource. The Cadiz Project would assist Metropolitan in meeting dry-year water supply needs and therefore meet the County's goals of:

- "Continue and expand importation of water to sustain the existing population and projected growth; actively support the completion of the State Water Project, improvements in the Sacramento/San Joaquin Delta and Colorado River Aqueduct System, and the use of water transfers and water marketing techniques."

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- “Maximize the use of existing water resources through conservation programs and efficient groundwater and surface water management programs.”

No significant adverse impacts to the General Plan policies would occur under the Eastern Alternative.

Operations Impacts

The operations impact of the Eastern Alternative on land use would be negligible. Cadiz Inc. would accommodate the project wellfield and the project spreading basin operations within its existing landholdings, and would coordinate its water use within the Groundwater Monitoring and Management Plan. Cadiz Inc. would be able to expand its agricultural operations in coordination with, and within the limitations of, the Groundwater Monitoring and Management Plan on its existing undeveloped, agriculturally zoned landholdings.

Periodically, maintenance vehicles would visually survey the permanent easement for the water conveyance and power distribution facilities. With the designation of the easement as a utility corridor, utility maintenance activities would be allowed. Therefore, this activity would not result in a significant adverse impact relative to the CDCA Plan and its policies.

Western Alternative

The land use impacts of the Western Alternative are the same as for the Eastern Alternative with the following exceptions:

- 1) The Western Alternative would not result in delays to traffic on Cadiz-Rice Road;
- 2) In addition to running parallel, but not directly adjacent, to the northeast boundary of the Cadiz Dunes Wilderness Area along Cadiz-Rice Road, the Western Alternative would run parallel but not adjacent to the southeast boundary of the Cadiz Dunes Wilderness Area; and
- 3) The conveyance pipeline and power distribution facilities would traverse 17 miles through Class L lands and 16 miles through Class M lands.

Combination Alternative

The land use impacts of the Combination Alternative are the same as for the Eastern Alternative except that the conveyance pipeline and power distribution facilities would traverse 15 miles through Class L lands and 19 miles through Class M land.

Eastern/Canal Alternative

The land use impacts of the Eastern/Canal Alternative are the same as for the Eastern Alternative.

No Project Alternative

The No Project Alternative would have no direct land use impacts. It would also not conflict with the CDCA Plan or the County of San Bernardino General Plan.

5.2.5 MITIGATION MEASURES

Because amendment of the Energy Production and Utility Corridor Element of the CDCA Plan (for an exception to the Utility Corridor requirement) to denote the location of the project water conveyance and power distribution facilities is proposed as part of the Cadiz Project, no additional mitigation is necessary.

5.2.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

There will be no remaining adverse impacts if the Energy Production and Utility Corridor Element of the CDCA Plan is amended to include the Cadiz Project water conveyance and power distribution facilities.