

SECTION 5

5.15 CULTURAL RESOURCES

5.15.1 AFFECTED ENVIRONMENT

The following description is based on the results of the archaeological literature and records search, review of available historical records and maps, comparisons with similar environmental localities, and field surveys within the Cadiz Project Area of Potential Effect (APE). The cultural resources research and investigation are documented in Cadiz Groundwater Storage and Dry Year Supply Program, Environmental Planning Technical Report: Cultural Resources, Report No. 1165 Applied Earthworks, Inc. (November 1999). This technical report is available for review by qualified professional archaeologists and historians at Metropolitan, the BLM offices in Riverside and Needles, and the San Bernardino Archeological Information Center (AIC).

Background

Prehistorically, the Cadiz Project region was used by Native Americans, most recently by the Mojave and Chemehuevi cultural groups. Because of the lack of permanent, reliable and potable water sources in the immediate vicinity of the Cadiz Project APE, extensive Native American habitation sites do not occur. However, temporary encampments and prehistoric trails used by small groups traveling west from the Colorado River region on collection forays for biotic, lithic and salt resources are found in the Cadiz Project region. Prehistoric cultural feature types include fire hearths and agave roasting pits, cleared areas in the desert pavement believed to represent “sleeping circles” or activity areas, circular depressions, intaglios (stone figures), rock alignments that may have functioned as hunting blinds or wind breaks, and rock cairns and rock art panels (petroglyphs) that may have functioned as trail markers.

Historical resources found in the Cadiz Project APE during the course of the archaeological survey include a variety of historical site types related to the development and maintenance of the BNSF and the ARZC rail lines. The ARZC formerly was the Arizona & Pacific Railroad and later the Atchison, Topeka & Santa Fe (AT&SF) Railway, Parker Cutoff. The BNSF rail line was once the main route of the AT&SF. Resource types include standing structures, foundations, trash dumps and railroad-related landscape features. Mining activity, beginning during the late 1800s in the region, resulted in the alteration of the landscape and contributed to the historical development of the area. Mining-related features at the town and millsite of Chubbuck (CA-SBR-3283H) are remnants of this activity. After the 1920s, use of the desert region accelerated with the planning of the Colorado River Aqueduct. Surveyors began exploration expeditions in the area in 1923, while mapping of the region continued until the early 1930s when utilities and roads related to the development of the Colorado River Aqueduct were constructed. The Colorado River Aqueduct was constructed between 1932 and 1941, spawning a number of construction-related field camps, utility lines, transportation routes, maintenance and operation facilities, and the aqueduct canal, tunnel, pumping plant and siphon system. Also during the 1940s, General George S. Patton selected parts of the Mojave Desert, including portions of the Cadiz Project APE, for the development of the Desert Training Center (DTC). The establishment of the Iron Mountain Camp, in the south part of the Project area, also occurred during this period.

Results of Field Surveys

The archeological survey in the Cadiz Project APE considered both prehistoric archeological resources, defined as archaeological resources dating to the pre-European contact period; and historical archaeological resources, defined as archaeological resources dating to the post-European contact

period, as well as historical standing structures and/or buildings. The prehistoric archeological resources documented during the field survey included two prehistoric flaked stone tools and flake scatters and two isolated prehistoric flaked stone tools as shown on Table 5.15-1. The historical cultural resources documented during the Cadiz Project survey covered a range of site types including the Colorado River Aqueduct, the Iron Mountain Pumping Plant, the BNSF & ARZC rail lines, historical refuse scatters, an isolated cultural feature (i.e., probable burial), an historic town, historic mines and a temporary historical DTC encampment, as shown on Table 5.15-1.

**TABLE 5.15-1
REPORTED CULTURAL RESOURCES IN THE CADIZ
PROJECT APE AND SIGNIFICANCE EVALUATIONS**

Site Number		Project Alternatives (2)	Site Type (3)	Artifacts Found/ Features	Integrity Impaired?	Significant Resources	Significance Criteria Per 36 CFR 60.4
Trinomial (1)	Temporary						
CA-SBR-9898	Æ-CAD-1	1, 2, 3, 4	PFLS	11 flakes	No	No (4)	N/A
CA-SBR-9849H	Æ-CAD-2H	1, 2, 3, 4	HRS	17 items	Yes	No	N/A
CA-SBR-9850H	Æ-CAD-3H	1, 2, 3, 4	HRS	>300 items	Yes	No (4)	N/A
CA-SBR-9851H	Æ-CAD-4H	1, 2, 3, 4	HRS	>100 items	Yes	No (4)	N/A
CA-SBR-9852	Æ-CAD-5	1, 2, 3, 4	PFLS	20 tools, 40 flakes	Yes	No (5)	N/A
CA-SBR-9853H	Æ-CAD-6H	1, 2, 3, 4	RR	Railroad, 6 trestles, 6 levees, 2 culverts	Yes	Yes	A,C
CA-SBR-9854H	Æ-CAD-7H	3	HRS	>700 beer bottles	No	Yes	A,C,D
CA-SBR-9855H	Æ-CAD-8H	1, 2, 3, 4	ICF	Possible grave site	No	Unknown	Unknown
CA-SBR-9856H	Æ-CAD-11H	1, 2, 3, 4	HRS, THE	>100 items; small corral/enclosure	Yes	No (5)	N/A
CA-SBR-9857H	Æ-CAD-12H	1, 3, 4	HMS	3 prospects, possible ramp	Yes	No	N/A
CA-SBR-9858H	Æ-CAD-13H	1, 3, 4	THE, HRS	>500 items, 17 features	Yes	Yes	A,C,D
CA-SBR-3283H	Chubbuck	1, 3, 4	HMS, RR, HRS, HT	>100,000 items, 37 features	Yes	Yes	A,D
CA-SBR-6693H	AT&SF Railroad	1, 2, 3, 4	RR	Railroad	No	Yes	A,C
--	Iron Mountain Pumping Plant	1, 4	CRA	Structures, Landscape	No	Yes	A,C
--	Æ-CAD-ISO-1	1, 4	PIT	Biface	No	No	N/A
--	Æ-CAD-ISO-2	1, 2, 3, 4	PIT	Uniface	No	No	N/A

Notes:

- (1) Permanent trinomials for the newly identified cultural resources are currently being acquired from the San Bernardino county Archaeological Information Center.
- (2) Alternative 1 (Eastern Alternative); Alternative 2 (Western Alternative); Alternative 3 (Combination Alternative); Alternative 4 (Eastern/Canal Alternative e).
- (3) CRA – Colorado River Aqueduct; HMS – Historical Mining Site; HRS – Historical Reuse Scatter; HT – Historical Town; ICF – Isolated Cultural Feature; PFLS – Prehistoric Flaked Stone Scatter; PIT – Prehistorical Isolated Tool; THE – Temporary Historical Encampment; RR – Railroad.
- (4) Recordation exhausted the data potential of this site.
- (5) Recordation and limited testing with full reporting will exhaust the data potential of this site.

SECTION 5

Significant Cultural Resources within the Cadiz Project APE

In the context of a federally-permitted undertaking, such as the Cadiz Project, the significance of cultural resources must be determined by the federal agency (BLM) official in consultation with the State Historic Preservation Officer (SHPO). Any action, as part of an undertaking, that could affect a significant cultural resource is subject to review and comment under Section 106 of the National Historic Preservation Act (NHPA) of 1966 as amended. Historic properties listed, or eligible for listing, on the National Register of Historic Places (NRHP) must be managed in accordance with the Advisory Council's regulations (36 CFR 800). Cultural resources not determined to be significant usually do not require management consideration unless they possess noncultural qualities covered by NEPA or other laws. Significance is measured against the following NHRP criteria:

The quality of significance in American history, architecture, archeology, engineering and culture is present in districts, sites, buildings, structures and objects that possess integrity of location, design, setting, materials and workmanship, feeling and association; and;

- a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
- b. that are associated with the lives of persons significant in our past; or
- c. that embody the distinctive characteristics of a type, period or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- d. that have yielded, or may be likely to yield, information important in prehistory or history (36 CFR 0.4).

Therefore, cultural resources that retain integrity and meet one or more of these criteria of significance qualify as significant and are eligible for listing on the NHRP; such resources must be managed in compliance with 36 CFR 800 (36 CFR 60.4).

Based on the results of cultural resources studies, significance evaluations for the 14 cultural resources documented in the Project APE were formulated. Of the identified cultural resources, the minimal data potentials of seven sites (Æ-CAD-1, -2H, -3H, -4H, -5, -11H and -12H) were recorded completely during site survey and documentation as shown in Table 5.15-1. Therefore, sites Æ-CAD-1, -2H, -3H, -4H, -5, -11H and -12H are not considered significant cultural resources. Site Æ-CAD-8H is an historical rock feature located in close proximity to the BNSF & ARZC rail lines. A minor project redesign will assure that Æ-CAD-8H remains outside the APE, so no further significance evaluation is required.

The following six historical sites are considered significant resources: Æ-CAD-6H, -7H, -13H, CA-SBR-3283H, CA-SBR-6693H and the Iron Mountain Pumping Plant on the Colorado River Aqueduct.

Site Æ-CAD-6H, the ARZC rail line, is considered eligible for inclusion on the NRHP under criteria A and C. The specific values that make it eligible are the historic significance of the route itself, the physical construction and engineering of the railroad grade, and the resulting cultural landscape and viewshed.

Site Æ-CAD-7H is composed of seven discrete clusters of beverage bottles. The significant values of the site are: (1) its association with World War II training maneuvers; (2) that it is the only recorded site of its type; and (3) that it has yielded or is likely to yield information important in

history. Site Æ-CAD-7H is believed to be related to General Patton's DTC maneuvers and is clearly associated with historic military training activities in the Mojave Desert. As such, the BLM has determined that Site Æ-CAD-7H is eligible under criteria A, C and D; if associated with General Patton himself, it would also be eligible under criterion B.

Site Æ-CAD-13H contains the remains of a 1940s-era historical military encampment west of Cadiz Road. The site extends west outside the Cadiz Project APE. Similar to Site Æ-CAD-7H, Site Æ-CAD-13H is believed to be related to General Patton's DTC maneuvers and is clearly associated with historic military training activities in the Mojave Desert. Therefore, the military encampment component of Æ-CAD-13H is significant: (1) for its contribution to historical themes such as United States preparation for World War II and United States military training (Bischoff 1999; criterion A); (2) as representative of a distinctive site type (criterion C); and (3) for its data potential (criterion D). There is also an earlier component, historical refuse scatters, east of Cadiz Road and on either side of the railroad grade. This component appears to be related to the construction and early use of the railroad. The specific significant values of this component are the route itself and an earthen siding on the western edge of the rail tracks, both of which have been determined eligible by the BLM under criteria A and C, and the associated trash scatters which have been determined eligible as archaeological resources under criterion D.

The BLM has determined that site CA-SBR-3283H, the town mill site and related features in the vicinity of Chubbuck, is eligible for listing on the NRHP under criteria A and D. This site is representative of early 19th Century historical mining activity in the desert and is associated with the ARZC rail lines (Æ-CAD-6H). Significant values of this site include: (1) the arrangement of foundation, structure pads, ruins and building remnants representing the original layout of the town and mill site; (2) the historic landscape including the railroad itself and the siding at the mill ruins; (3) the nearby Desert Butte Mines; (4) the linear features (two narrow-gauge rail spurs and a truck road) connecting the three aspects of the site; (5) representation of a significant and distinguishable entity whose components may lack individual distinction; and (6) the data potential from archaeological deposits.

Site CA-SBR-6693H, the former AT&SF rail line, was determined eligible for the NRHP in 1994. This site is the original grade and route of the main line of the AT&SF, now the BNSF rail line, and is considered eligible for the NRHP under criteria A and C. The specific values that make it eligible are the historic significance of the route itself, the physical construction and engineering of the railroad grade, and the resulting cultural landscape and viewshed.

The BLM has determined that the Iron Mountain Pumping Plant, a Colorado River Aqueduct complex, containing structures and a cultural landscape characteristic of the 1930s, is eligible for listing on the NRHP under criteria A and C. The Iron Mountain Pumping Plant was documented to Historic American Engineering Records standards in 1998 (Gruen 1998).

5.15.2 PROJECT EFFECTS THRESHOLDS

The following state and federal criteria for assessing the effects of projects on cultural resources are applied in Section 5.15.4.

CEQA Thresholds of Significance

Pursuant to CEQA and its implementing Guidelines, a project will typically have a significant adverse impact on cultural resources if it results in:

SECTION 5

- A substantial adverse change in the significance of a historical resource as defined in Section 15064.5 of the CEQA Guidelines and/or is eligible for listing on the NRHP.
- A substantial adverse change in the significance of an archeological resource pursuant to Section 15064.5 of the CEQA Guidelines and/or Section 106 of the NHPA.
- Disturbance of any human remains, including those interred outside formal cemeteries.
- Impacts on Native American resources with a potential for affecting sites considered important for their positions in the Native American physical universe or belief system, and/or the possibility of reduced access to traditional areas or sacred sites.

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

Federal Criteria of Effects

Pursuant to Section 106 of the NHPA, the federal agency official, BLM, in consultation with the SHPO, will take into account the effects of the proposed undertaking on historic properties eligible for listing in the NRHP. An adverse effect occurs when an action may alter, directly or indirectly, the characteristics of an historic property that may qualify it for the NRHP, in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling or association (36 CFR 800.5(a)).

Consideration must be given to all qualifying characteristics of an historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative. Adverse effects on historic properties include, but are not limited to:

- (1) Physical destruction of or damage to all or part of the property;
- (2) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's *Standards for the Treatment of Historic Properties* (36 CFR Part 68) and applicable guidelines;
- (3) Removal of the property from its historic location;
- (4) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- (5) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- (6) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- (7) Transfer, lease or sale of the property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance (36 CFR 800.5(a)(2)).

5.15.3 METHODOLOGY

The cultural resources studies undertaken for the Cadiz Project began with an archaeological and historical literature and records search at the San Bernardino AIC at the San Bernardino County Museum in Redlands. The objective of this search was to determine if the Cadiz Project APE had

previously been surveyed for cultural resources and to identify any previously recorded cultural resources within a one-mile radius of the Cadiz Project area.

Following the literature and records search, a Class III intensive cultural resources survey of the Cadiz Project APE was undertaken. This Class III intensive archaeological survey of the Cadiz Project APE was performed by Applied EarthWorks, Inc., (Æ) under BLM permit CA-062-99-009 and in compliance with the stipulations of the California Desert Conservation Area Plan (1980, amended 1989), the NHPA (1966, as amended), NEPA (1969) and CEQA. Archaeologists undertook pedestrian surveys between April 5 and June 11, 1999. The desert conditions afforded good to excellent ground surface visibility. The field work resulted in the identification of 11 archaeological sites and two isolated prehistoric tools; the archaeological site records for two previously recorded historic sites were also reviewed and updated and the Iron Mountain Pumping Plant was examined. These 14 sites are summarized in Table 5.15.1.

The objective of the cultural resources field survey was to identify and document all cultural resources within the Cadiz Project APE, including prehistoric and historical archaeological resources, as well as historical resources such as buildings, structures, objects and linear resources. Additional field studies, including site boundary definition and depth assessment, were undertaken to assist in NRHP eligibility evaluation and impact assessment.

Next, extensive archival research was undertaken to compile a historical context for the Cadiz Project area. The objective of this task was to provide a context in which to evaluate the potential significance of the historical cultural resources documented during the survey.

Finally, 12 Native American tribes/reservations from all areas surrounding the Cadiz Project area were notified of the proposed Cadiz Project as part of the NOI process. No properties of religious or cultural significance to Native Americans were identified.

The cultural resources research and investigation are documented in Cadiz Groundwater Storage and Dry Year Supply Program, Environmental Planning Technical Report: Cultural Resources, Report No. 1165 Applied Earthworks, Inc. (November 1999). This technical report is available for review by qualified professional archaeologists and historians at Metropolitan, the BLM offices in Riverside and Needles, and the San Bernardino AIC.

5.15.4 IMPACTS ON CULTURAL RESOURCES

Of the 14 documented cultural resources within the Cadiz Project APE, seven sites (Æ- CAD-1, -2H, -3H, -4H, -5, -11H and -12H) are no longer considered NRHP-eligible resources and no adverse effects on these resources are anticipated as a result of the construction and operation of the Cadiz Project. Minor project redesign will assure that site Æ-CAD-8H remains outside the APE and will not be affected by the Cadiz Project. Potential Project impacts to the remaining seven NRHP-eligible properties are considered in this Section.

Impacts of Construction

Construction of the Cadiz Project may adversely affect cultural resources by destroying or altering the resources and/or their environments in such a way that their significant qualities are diminished. Cadiz Project-related effects on cultural resources eligible for listing in the NRHP may be direct and/or indirect.

SECTION 5

Direct effects of construction are those that would directly impinge on or destroy cultural resources that are determined to be significant. Primary direct effects of this type include, but are not limited to, clearing and grading for the water conveyance facility trench and spreading basins; construction and use of access roads; disposal of spoils from trenching and grading; and activities in and around laydown and work areas.

Among the potential indirect effects on cultural resources related to construction of the Cadiz Project are erosion caused by regrading slopes and clearing vegetation; earthmoving during revegetation to control erosion; illegal artifact collection by construction personnel; and visual alteration of the settings in which the cultural resources are located.

Impacts of Operation and Maintenance

Post-construction direct effects on cultural resources would occur similar to those experienced during construction but will be less intensive, such as long-term use of service access roads and repair and/or maintenance of the facilities. They should not impact cultural resources that were not affected during the construction of the Cadiz Project.

Indirect effects would adversely affect cultural resources, not as a direct result of the construction, operation or maintenance of the Cadiz Project, but which would probably not occur if the Cadiz Project was not constructed. In the case of the Cadiz Project, indirect effects are most likely to occur as a consequence of increased public activity in the area. Increased public activity will be facilitated by the new access roads for construction and operation of the Cadiz Project. Activities such as artifact collecting and illicit digging could increase as a result of improved access and enhanced visibility of artifacts due to the disturbance of archaeological deposits.

Impacts of the Project Wellfield

One significant site, CA-SBR-6693H was documented in the Project wellfield APE, common to the Eastern, Western Combination and Eastern/Canal alternatives. Site CA-SBR-3283H is an operating railroad. Where required, construction would jack or tunnel under the railroad berm so as not to disrupt rail traffic. Disturbance to the railroad grade is avoided during all construction activities; no Cadiz Project effects to this site are anticipated.

Impacts of the Eastern and Eastern/ Canal Alternatives

Of the 14 documented sites, 10 sites (Æ-CAD-1, -2H, -3H, -4H, 5, -6H, -11H, -12H, -13H and CA-SBR-3283H) are located on the Eastern and Eastern/Canal alternatives. In addition, the existing historic Iron Mountain Pumping Plant is at the southern terminus of the Eastern and Eastern/Canal alternatives and CA-SBR-6693H is in the Project wellfield. Of these documented sites, only Æ-CAD-6H, Æ-CAD-13H, CA-SBR-3283H, CA-SBR-6693H and the Iron Mountain Pumping Plant are eligible for the NRHP. The discussion below addresses the impacts of these two alternatives on these significant sites.

Site Æ -CAD-6H, the ARZC rail line, is located along the Cadiz Project APE for the Eastern, Western Combination and Eastern/Canal Alternatives. Site CA-SBR-6693H, the main line of the BNSF rail line (previously the AT&SF) is located along the Cadiz Project APE in the Project wellfield. Because these two resources are operating railroads, where required, construction would jack or tunnel under the railroad berm so as not to disrupt rail traffic. Disturbance to the railroad grade would be avoided during all construction activities, and the surrounding landscape would be

returned to its original condition; therefore, no effect to these resources would occur.

Site Æ-CAD-13H is located along the alignment common to the Eastern, Combination and Eastern/Canal alternatives. The trash scatter component of this site thought to be associated with construction and early use of the ARZC and AT&SF rail lines would be directly impacted by construction of these alternatives. However, this element of the site was extensively documented during the survey and no longer contributes to the site's NRHP eligibility. The rail line itself and the siding would be avoided during construction as described earlier for Æ-CAD-6H. Because the military component of Æ-CAD-13H would be avoided by these alternatives, no Cadiz Project effects to the significant elements of this cultural resource would occur.

CA-SBR-3283H, the town mill site, and related historical features at Chubbuck is located along the conveyance facilities alignment under the Eastern, Combination and Eastern/Canal alternatives. The significant elements of the site would be completely avoided during construction. Working limits would be narrowed to 40 feet and would be confined to the existing road and a 10-foot wide work corridor. Construction activities would be away from all cultural features. The construction corridor would be fenced and an archaeological monitor would be present. Following construction, the road would be returned to its preconstruction condition. As a result, there would be no Cadiz Project effects on significant elements of this cultural resource.

The Eastern and the Eastern/Canal alternatives would entail construction of the Cadiz Pumping Plant at the Iron Mountain Pumping Plant. The Iron Mountain Pumping Plant is a Colorado River Aqueduct complex containing structures and a cultural landscape characteristic of the 1930s. The Cadiz Pumping Plant required to complete the tie-in of the Eastern conveyance facilities to the Colorado River Aqueduct would be constructed in a previously disturbed context, would be erected some distance from extant historic buildings within a utilitarian portion of the complex. The pumping plant has been designed and would be built in a style compatible and sympathetic to the existing architecture of the Iron Mountain Pumping Plant buildings. Therefore, no Cadiz Project effects would occur on the Iron Mountain Pumping Plant complex.

Impacts of the Western Alternative

Seven of the documented sites are located on the Western Alternative: Æ-CAD-1, -2H, -3H, -4H, 5, -6H and -11H. Site CA-SBR-6693H is located within the Project wellfield. Of these, only Æ-CAD-6H and CA-SBR-6693H are eligible for the NRHP. Potential impacts to this site are discussed below. No cultural resources were identified along the three-mile long cross-country corridor for the power distribution facilities to the West Portal associated with the Western and Combination Alternatives.

Site Æ-CAD-6H, the ARZC rail line (Parker Cut-off), is located along the Cadiz Project APE for the Eastern, Western, Combination and Eastern/Canal Alternatives. Site CA-SBR-6693H, the main line of the BNSF (previously AT&SF) rail line is located along the Cadiz Project APE in the Project wellfield. Because this is an operating railroad, where required, construction would jack or tunnel under the railroad berm so as not to disrupt rail traffic. Disturbance to the railroad grade would be avoided during all construction activities and the surrounding landscape would be returned to its original condition. Therefore, no Cadiz Project effects to these resources would occur.

Impacts of the Combination Alternative

There are 11 sites on the Combination Alternative: Æ-CAD-1, -2H, -3H, -4H, 5,

SECTION 5

-6H, -7H, -11H, -12H, -13H and CA-SBR-3283H. Site CA-SBR-6693H is located within the Project wellfield. Of these, only Æ-CAD-6, -7H, -13H, CA-SBR-3283H, and CA-SBR-6693H are eligible for the NRHP. Impacts to these sites are discussed below. No cultural resources were identified along the three-mile long cross-country corridor for the proposed power distribution facility to the West Portal associated with the Western and Combination alternatives.

Site Æ-CAD-6H, the ARZC rail line (Parker Cut-off), is located along the Cadiz Project APE for the Eastern, Western, Combination and Eastern/Canal Alternatives. Site CA-SBR-6693H, the main line of the BNSF rail line, is located along the Cadiz Project APE in the Project wellfield. Because these two resources are operating railroads, where required, construction would jack or tunnel under the railroad berm so as not to disrupt rail traffic. Disturbance to the railroad grade would be avoided during all construction activities and the surrounding landscape would be returned to its original condition. Therefore, no Cadiz Project effects to these resources would occur.

Site Æ-CAD-7H is located along the Combination Alternative water conveyance facility and cannot be completely avoided during Project construction if this alignment is selected.

Site Æ-CAD-13H is located along the water conveyance facility alignment common to the Eastern, Combination and Eastern/Canal alternatives. The trash scatter component of this site, thought to be associated with construction and early use of the ARZC rail line (Parker Cut-off), would be directly impacted by construction of these alternatives. However, this element of the site was extensively documented during the survey and no longer contributes to the site's NRHP eligibility. The rail line itself and the siding will be avoided during construction as described earlier for Æ-CAD-6H. Because the military component of Æ-CAD-13H can be avoided by these alternatives, no Cadiz Project effects to the significant elements of this cultural resource would occur.

CA-SBR-3283H, the town, mill site and related historical features at Chubbuck, is located along the water conveyance facility alignment under the Eastern, Combination and Eastern/Canal alternatives. The significant elements of the site would be completely avoided during construction. Working limits would be narrowed to 40 feet and would be confined to the existing road and a 10 foot wide work corridor. Construction activities would be away from all cultural features. The construction corridor would be fenced and an archaeological monitor would be present. Following construction, the road would be returned to its preconstruction conditions. As a result, there would be no Cadiz Project effect on significant elements of this cultural resource.

Impacts of the No Project Alternative

The No Project Alternative would not result in the construction, operation or maintenance of any Project components in the Project area. Therefore, the No Project Alternative would not result in adverse impacts to cultural resources. No mitigation is required.

5.15.5 MITIGATION MEASURES

Of the 14 cultural resources documented in the APE, six historical sites have been determined eligible for the NRHP by the BLM. They are Æ-CAD-6H, -7H, -13H, CA-SBR-3283H, CA-SBR-6693H and the Iron Mountain Pumping Plant. Only one of these resources cannot be completely avoided, Æ-CAD-7H, the possible Patton-era bottle dump. Site Æ-CAD-7H would be affected by the water conveyance facility construction for the Combination Alternative. Because the Cadiz Project would have an adverse effect on historic properties if the Combination Alternative is selected, these recommended mitigation treatments must be reviewed by the SHPO. The BLM

would consult with the SHPO regarding site treatment if site AE-CAD-7H will be affected. If the SHPO does not concur with these recommendations, in accordance with 36 CFR 800, acceptable treatments would be negotiated and implemented. Additional conditions have been set for construction monitoring to ensure treatment of any undiscovered buried archaeological sites.

CR-1 The following actions shall be implemented to minimize adverse impacts on cultural resource site AE-CAD-7H, if the Combination Alternative is selected for implementation:

- The boundary of this site shall be identified on all Cadiz Project specifications and maps as an Environmentally Restricted Area (ERA), in consultation with the Project archeologist. The ERA shall be flagged prior to any construction activity within 1,000 feet of this site. No construction activity will be allowed within this ERA.
- Prior to any work, site preparation or construction, permanent photographic control points will be placed within the cultural resource site boundaries, in consultation with the Project archeologist.
- Prior to any work site preparation or construction, the cultural resource site data potential will be recovered through detailed recording by the Project archeologist.
- The cultural resource site will be extensively photo documented by the Project archeologist prior to and during construction.
- After construction is complete, public access to this area will be prohibited. Gates, fencing and/or other barriers, as appropriate, will be provided by Metropolitan on the Metropolitan access roads in this area to restrict access to non-authorized persons.

CR-2 During final design, a Buried Site Testing (BST) Plan will be prepared for the selected alternative. This plan will be developed in consultation with SHPO. This plan will address areas along the alignment with high potential for containing buried archeological deposits and appropriate treatments, such as pre-construction testing along the alignment, controlled recovery, monitoring during construction and other measures as appropriate. The recommendations of the BST Plan will be implemented prior to and during construction, as appropriate.

CR-3 Full-time monitoring will be conducted by the Project archeologist during all site preparation, grading and construction in the vicinity of Chubbuck (CA-SBR-3283H) and the Patton Camp (AE-CAD-13H). In the event significant archeological resources are encountered, the Project archeologist will immediately divert construction and the BLM will initiate consultation with the SHPO to implement an acceptable treatment plan.

CR-4 At the completion of construction of the selected Cadiz Project alternative, the Project archeologist will prepare a written report describing the cultural resources documentation, data recovery and protection activities that occurred throughout the construction period. This report will be provided to SHPO, the San Bernardino AIC and other parties as appropriate.

5.15.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

The potentially significant adverse impacts of the Combination Alternative on cultural resources will be mitigated to below a level of significance based on implementation of measures CR-1 to CR-4. The Eastern, Eastern/Canal and Western alternatives will not result in significant adverse impacts on cultural resources with implementation of measures CR-2 to CR-4.