

4.7 Cultural Resources

This section evaluates the potential impacts of the Moosa 100K Alternative on cultural resources. This evaluation includes an assessment of the direct, indirect, short-term, long-term, and cumulative effects of the Moosa 100K Alternative on cultural resources, which are defined as historic-period buildings and structures, and prehistoric or historic-period archaeological resources. The evaluation is based on a Supplemental Inventory and National Register Testing Report prepared by ASM Affiliates (ASM, 2007) and the Native American Consultation Report prepared by Tierra Environmental Services (Tierra, 2007). These reports comprise Appendix D to this EIR/EIS. Because Appendix D has confidential site location information, it is bound under separate cover and will not be circulated for general public review. Appendix D is available for review by qualified individuals at the Water Authority's San Diego office located at 4677 Overland Avenue, San Diego, CA 92123.

4.7.1 Affected Environment

4.7.1.1 Environmental Setting

Refer to Appendix D to this EIR/EIS for a detailed discussion of the prehistoric and historic settings within San Diego County, including Early Human Occupation, the Paleoindian Period, Archaic Period, Late Prehistoric Period, and Ethnographic Period.

4.7.1.2 Regulatory Setting

Refer to Section 3.7.1.2 (Cultural Resources for the Proposed Action) of this EIR/EIS for federal, state, and other plans, policies, and regulations relevant to cultural resources issues that apply to the Moosa 100K Alternative, including the National Historic Preservation Act (NHPA), NEPA, and CEQA Guidelines Section 15064.5. The Moosa 100K Alternative is not listed in the ESP Programmatic Agreement (PA). If this alternative is selected, it is anticipated that the Water Authority and Corps would determine whether any provisions of the PA would apply. Because this alternative is not specifically addressed in the existing ESP PA, the following discussion in this section assumes similar provisions as found in the PA would be negotiated between the two Lead Agencies to ensure the protection, avoidance and/or mitigation of affected cultural resources.

4.7.2 Project Design Features

Refer to Section 3.7.2 (Cultural Resources for the Proposed Action) for a list of project design and construction features that also apply to the Moosa 100K Alternative including, but not limited to, similar provisions as specified in the ESP PA and the following:

- Training will be provided to all construction personnel to educate them on cultural resources protection measures.

- Sites that are in proximity to construction limits, but are outside the area of potential adverse effects, will be protected. Fences will be installed at a distance of 20 meters around the site boundaries, and signs will be posted identifying the areas as an “Environmentally Sensitive Area (ESA).” Monitoring will be conducted at these sites to ensure avoidance and protection of the sites.
- Construction monitoring will be performed during initial site grading at sites within the construction limits where there is a potential for unanticipated and unknown buried cultural deposits. These are sites that, based on previous studies conducted by others, were either found to lack significance or where mitigation through data recovery has been accomplished. Monitoring will focus on unanticipated, significant artifacts and intact deposits that may be present. If cultural resources are observed in exposed areas, protocols for unanticipated discoveries will be followed (e.g., protection, identification, and evaluation).

4.7.3 Direct and Indirect Effects

4.7.3.1 Thresholds of Significance

Thresholds used to evaluate potential cultural resources impacts for the Moosa 100K Alternative are the same as those used to evaluate impacts for the Proposed Action. The thresholds are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G. A significant impact on cultural resources (historical and/or archaeological) would occur if the Moosa 100K Alternative would:

1. Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in §15064.5 of the State CEQA Guidelines and §106 of the NHPA.
2. Disturb any human remains, including those interred outside of formal cemeteries.

4.7.3.2 Impact Analysis

Methodology

Background information on cultural resources within the Moosa 100K study area was obtained from a review of previous applicable studies, updated record searches, Native American consultation, and field checks of previously recorded sites. This background information is provided below.

Records and Archival Searches

An updated records search was obtained from the South Coastal Information Center (SCIC) of the California Historical Resources Information System and from the San Diego Museum of Man for known cultural resources within a ¼-mile radius of the Moosa 100K study area.

Information reviewed included SHPO records, base maps, historic maps, and literature for the area on file at the SCIC. All of the archaeological sites recorded within the study area are included in Appendix D, Tables III-1 and III-2, to this EIR/EIS.

Moosa Canyon was previously surveyed for historic and prehistoric cultural resources for the ESP EIR/EIS (Carrico and Cooley, 1995). In addition to the reservoir inundation area, various pipeline routes and other areas for support facilities were previously surveyed. Based on the updated SCIC records search, 36 sites were documented within the Moosa 100K study area ranging from a standing historic structure to prehistoric milling features, habitation sites, temporary camps and lithic artifact scatters. An additional 21 sites were documented within the Moosa pipeline corridor, including rock art, milling, historic, and temporary camp sites.

As part of the fine-screening alternatives analysis described in Section 2.1.7 (Alternatives Analyzed) of this EIR/EIS, 11 sites within the Moosa 100K study area were categorized by ASM as “potentially significant” based on the updated SCIC records search. Of these, three prehistoric sites (identified as “habitation sites”) were ranked by ASM as “high sensitivity” for research potential, uniqueness, and integrity. The assessments of “high sensitivity” were due to religious values (rock art and waterfalls) and potential for inhumations. Therefore, all 11 sites may be eligible for the National Register of Historic Places (NRHP).

Within the Moosa pipeline corridor, six sites were ranked by ASM as “potentially significant,” as part of the fine-screening alternatives analysis described in Section 2.1.7 (Alternatives Analyzed) of this EIR/EIS, and therefore may be eligible for the NRHP. One of these sites at the confluence of Moosa Canyon and the South Fork of Moosa Canyon was investigated by Caltrans as part of the environmental analysis conducted for the construction of Interstate 15 (I-15). It was determined to be of religious significance to the Luiseno Indians. An additional three sites within the Moosa pipeline corridor were identified as less likely to be determined eligible on an individual basis; however, these sites could be eligible as part of a historic district.

Native American Consultation

A portion of the Pala Indian Reservation is located within the Moosa 100K study area; therefore, the potential to affect Tribal lands is considered high. Accordingly, a request was sent to the Native American Heritage Commission (NAHC) for information about any Sacred Lands or known areas of Native American sensitivity within the study area. The NAHC maintains information provided by tribes on sacred areas or areas of cultural sensitivity and significance. The absence of any information in a given area only means that, for whatever reason, Native Americans have not filed information with NAHC; it should not be used as an indication that sensitive sites are not present. No known sacred lands were identified by NAHC for the Moosa 100K study area.

Staff from Tierra formally consulted with Tribal leaders and elders to determine Tribal concerns, to learn of any cultural resources and/or sacred sites that might be present, to arrange any field visits that may be desired, and to record and summarize other Native American concerns. The

Native American Consultation report prepared by Tierra (Appendix D to this EIR/EIS) summarizes the results of these investigations including a list of the Tribes contacted, copies of initial contact letters, and a log of telephone conversations with Tribal representatives. Tierra's effort in the Native American consultation for this alternative required no field investigations; however, four representatives requested that they be kept informed regarding the status of the environmental review process. The Water Authority will implement the recommendations contained in the Native American Consultation Report including continuing consultation, providing an opportunity for Native American monitoring during construction, and notifying the interested tribes of project modifications and discovery of any unanticipated cultural resources. To address these concerns, a mailing list has been developed which will be used to ensure that all reports and project updates are provided to interested Tribal members.

Field Investigations

Field checks were conducted in October 2006 by ASM for seven of the 11 sites in the Moosa 100K study area that appeared to meet the NRHP criteria for eligibility and for which access was granted by property owners. Of the seven sites that were observed, three of these were categorized as destroyed, although buried deposits may be present. Because the destroyed sites may still contain buried deposits, these and the other eight sites are considered potentially eligible for the NRHP (Table 4.7-1).

Table 4.7-1. NRHP Eligibility for Cultural Resources Associated with the Moosa 100K Alternative

Site	Description	Location	Potentially Eligible
H-34	Standing historic structure	Reservoir inundation area	Yes
SDI-11336	Late prehistoric site	Reservoir inundation area	Yes
SDI-13497	Temporary camp	Reservoir inundation area	Yes
SDI-13501	Temporary camp	Reservoir inundation area	Yes
SDI-13502	Habitation site	Reservoir inundation area	Yes
SDI-13517	Habitation site	Reservoir inundation area	Yes
SDI-13855	Temporary camp	Reservoir inundation area	Yes
SDI-13856	Habitation site	Reservoir inundation area	Yes
SDI-7209	Bedrock milling feature, midden with lithic artifacts	Reservoir inundation area	Yes
SDI-7210	Midden with milling features, lithic artifacts, ground stone	Reservoir inundation area	Yes
SDI-7987	Bedrock milling feature, lithic artifacts, midden (tested)	Reservoir inundation area	Yes
SDI-146	No information	Pipeline corridor	No
SDI-788	Rock art	Pipeline corridor	No
SDI-4542	Village site with rock art	Pipeline corridor	No
SDI-5071	Village occupation site	Pipeline corridor	Yes
SDI-5072 ⁽¹⁾	Village occupation site	Pipeline corridor	No
SDI-13641	Rock art	Pipeline corridor	Yes

⁽¹⁾ SDI 5072A/B was previously determined eligible for the NRHP by Caltrans prior to its destruction due to the construction of I-15.
Source: ASM, 2007

These limited field checks were conducted to provide current information about site conditions and to make preliminary determinations regarding possible NRHP eligibility for the sites that were identified in the updated SCIC records search. No testing or site mapping was conducted on any of the sites in the Moosa 100K study area, and therefore, undiscovered cultural resources may exist. Furthermore, preserved portions of sites may be present despite development in the area. Because no testing or site mapping was accomplished, the site conditions and possible NRHP eligibility assessments are regarded as preliminary and would need further verification if the Moosa 100K Alternative were selected.

The field checks for the pipeline portion of the Moosa 100K Alternative included all six of the sites identified as possibly eligible for the NRHP. However, there are still large areas of the pipeline route that have not been surveyed for cultural resources and there may be unrecorded sites in these areas. As indicated in Table 4.7-1, four of the six identified sites were categorized as having been extensively disturbed or developed, and are no longer eligible for the NRHP.

Analysis

Threshold 1: Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in §15064.5 of the State CEQA Guidelines and § 106 of the NHPA

Impacts on cultural resources from the Moosa 100K Alternative would result from direct effects to sites due to inundation or ground disturbance for Moosa dam construction and pipeline construction activities (i.e., clearing, grading and trenching) in the eastern portion of the pipeline route, where it would extend through undisturbed areas along Moosa Creek, or from indirect effects from potential erosion due to wave action during reservoir filling or operations. Placement of the pipeline within Old Castle Road where the ground has already been disturbed would avoid impacts on cultural resources.

Eleven archaeological sites within the Moosa 100K study area were identified as potentially eligible for the NRHP. Of these eleven, based on limited field checks, three sites may no longer be eligible because major portions of these sites have been destroyed by development; therefore, eight potentially eligible NRHP sites may be present within the Moosa 100K study area. Additional previously unrecorded sites within the Moosa 100K study area could be directly affected by inundation or ground disturbance for Moosa dam construction or indirectly affected by erosion from wave action during reservoir filling or operations. Therefore, direct and indirect impacts on known or previously unrecorded NRHP sites within the Moosa 100K footprint would be significant.

Six sites were ranked as potentially eligible for the NRHP along the pipeline route for the Moosa 100K Alternative. Of these six, based on limited field checks, four sites have been destroyed and are no longer eligible; therefore, two potentially eligible NRHP sites are present along the pipeline route. Additional previously unrecorded sites within the Moosa pipeline route could be

directly affected by pipeline construction activities. Therefore, direct impacts on known or previously unrecorded NRHP sites within the Moosa 100K pipeline route would be significant.

Although most of the reservoir area was previously surveyed, additional components within the Moosa 100K footprint, and some areas in the eastern portion of the pipeline route (where it would extend through undisturbed areas along Moosa Creek), were not included in the previous study. These areas would need to be inventoried, should this alternative be pursued. It may be possible to avoid some of the previously recorded or unrecorded sites within the Moosa 100K footprint and the eastern portion of the pipeline route; however, it is assumed for purposes of this analysis that these sites would be directly affected by inundation or ground disturbance for Moosa dam construction and pipeline construction activities in the eastern portion of the pipeline route, or indirectly affected from potential erosion due to wave action during reservoir operations.

Implementation of the project design features listed in Section 4.7.2 above may reduce impacts on some of the 10 potentially eligible NRHP sites referenced above and may possibly reduce impacts on additional cultural resources that may be discovered during future surveys or during monitoring of ground disturbance activities should this alternative be selected. However, given the lack of detail regarding specific impacts on these sites, it is not possible to conclude that impacts would be reduced to a level considered less than significant.

The Moosa 100K Alternative could cause a substantial adverse change in the significance of an historical or archaeological resource as defined in CEQA Guidelines Section 15064.5 (Impact M/CR 1). Implementation of the project design features listed in Section 4.7.2 above could avoid impacts on some of these cultural resources; however, given the lack of detail regarding specific impacts on these sites, it would not be possible to avoid inundation of unidentified sites. Therefore, impacts of the Moosa 100K Alternative would be significant.

Threshold 2: Disturb any human remains, including those interred outside of formal cemeteries

There is a possibility that human remains could be encountered with the Moosa 100K Alternative, either during NRHP evaluations or during construction activities. During the NRHP evaluations mentioned in Threshold 1 above, if human remains are discovered at any of the potentially eligible sites, project redesign and avoidance would be necessary. However, redesign and avoidance measures may not be feasible; for example, if human remains are discovered within the dam foundation area, it may not be possible to relocate the dam footprint to avoid the impact. In such situations, state law allows the removal of human remains under certain circumstances (PRC 5097.98, recently amended to require additional consultation in the event of multiple burials), and there would be an unavoidable impact on human remains at the testing stage. In addition, state regulations address appropriate procedures for handling unexpected discoveries of human remains that could occur during ground disturbance for Moosa dam and pipeline construction. These conditions would be incorporated into the final construction plans and specifications. Therefore, under a “worst-case” assumption that human remains could be

unavoidably affected during future NRHP evaluations or during construction activities, even with implementation of project design and avoidance measures, and state regulations that address unexpected discoveries during construction, potential impacts on human remains from the Moosa 100K Alternative would be significant.

The Moosa 100K Alternative could disturb human remains, including those interred outside of formal cemeteries, either during future NRHP evaluations or during construction activities (Impact M/CR 2). Even with implementation of project design features listed in Section 4.7.2 above and state regulations that address unexpected discoveries during construction, it may not be feasible to completely avoid impacts on human remains. Therefore, impacts of the Moosa 100K Alternative would be significant.

4.7.3.3 Mitigation Measures

To mitigate potential impacts on potentially eligible NRHP sites within the Moosa 100K footprint (*Impact M/CR 1*), the Water Authority will implement the following mitigation measure:

M/CR 1-1 If the Moosa 100K Alternative is selected, additional comprehensive cultural resources surveys will be conducted by a qualified archaeologist within the entire Moosa 100K footprint (including the inundation area, dam construction zone, marina, and outlying components [e.g., pump stations, water storage tanks, new and relocated access roads/water lines/utility lines, quarry areas/borrow sites]), and within the eastern portion of the pipeline route where it would extend through undisturbed areas along Moosa Creek. Based on the survey results, testing and evaluation of NRHP eligibility will be conducted. The evaluation generally consists of test excavations to determine whether the sites contain the integrity, quantity, and diversity of cultural materials to contribute information about important research topics. If the sites are found to meet the criteria for NRHP eligibility, a data recovery program will be conducted. The data recovery program will be directed toward collecting an adequate amount of information from the sites to mitigate their destruction.

As evaluated in Section 4.7.3.2 (Threshold 2) above, human remains could be unavoidably affected during future NRHP evaluations or during construction activities (*Impact M/CR 2*), even with implementation of project design features listed in Section 4.7.2 above and state regulations that address unexpected discoveries during construction. There may be no feasible measures to mitigate this impact. Therefore, under this “worst-case” assumption, there is a potential for the removal of human remains associated with the Moosa 100K Alternative which would be a significant and unmitigable impact.

4.7.3.4 Residual Impacts after Mitigation

The potential (“worst-case”) unavoidable impacts on human remains due to the Moosa 100K Alternative would be significant and unmitigable because any human remains discovered during future NRHP evaluations or during construction activities (*Impact M/CR 2*) would need to be removed, in accordance with state laws, if redesign or avoidance measures are infeasible. A Statement of Overriding Considerations would be necessary for approval of the Moosa 100K Alternative.

4.7.4 Cumulative Effects

4.7.4.1 Other CIP Projects

The PEIR for the Regional Water Facilities Master Plan concluded that the significant direct and cumulative impacts on cultural resources associated with the CIP projects, such as Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline, when combined with other reasonably foreseeable future projects, could be reduced to below a level of significance or avoided by implementing program-level mitigation measures identified in the PEIR along with mitigation measures outlined during subsequent environmental analysis of these projects. This conclusion is incorporated into the cumulative analyses in Section 4.7.4.2 below.

4.7.4.2 Other Planned Projects with CIP Projects

This section evaluates the cumulative cultural resources impacts of the Moosa 100K Alternative when considered in conjunction with the other planned projects listed in Table 4.2-1 (Section 4.2 [Cumulative Projects] of this EIR/EIS), and incorporates the cumulative impacts associated with the Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline CIP projects described in Section 4.7.4.1 above. The following cumulative analysis addresses the two significance thresholds listed in Section 4.7.3 above.

Cumulative Threshold 1: Cause a substantial adverse change in the significance of a historical or archaeological resource as defined in §15064.5 of the State CEQA Guidelines and §106 of the NHPA

The Moosa 100K Alternative could cause a substantial adverse change in the significance of an historical or archaeological resource as defined in CEQA Guidelines Section 15064.5. These impacts would be mitigated. Under the “worst-case” assumption that all of the cumulative projects in the vicinity of the Moosa 100K Alternative (refer to Table 4.2-1, Section 4.2 [Cumulative Projects] of this EIR/EIS) would be constructed within the same timeframe as the Moosa 100K Alternative, some of these projects could contribute to cumulative impacts on cultural resources. However, these projects would be required to comply with mitigation measures or regulations intended to avoid or mitigate significant impacts on cultural resources.

Impacts would not be cumulatively considerable. Therefore, potential cumulative impacts on potentially eligible NRHP sites due to the Moosa 100K Alternative, when combined with the cumulative impacts from the Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline CIP projects and other planned cumulative projects listed in Table 4.2-1 (Section 4.2 [Cumulative Projects] of this EIR/EIS), would be less than significant after mitigation.

Cumulative Threshold 2: Disturb any human remains, including those interred outside of formal cemeteries

The Moosa 100K Alternative could disturb human remains, including those interred outside of formal cemeteries, even with implementation of project design and avoidance measures, and state regulations that address unexpected discoveries during construction. Under the “worst-case” assumption that all of the cumulative projects in the vicinity of the Moosa 100K Alternative (refer to Table 4.2-1, Section 4.2 [Cumulative Projects] of this EIR/EIS) would be constructed within the same timeframe as the Moosa 100K Alternative, some of these projects could contribute to cumulative impacts on human remains. Along with the potential (“worst-case”) unavoidable impacts on human remains due to the Moosa 100K Alternative, and the removal of human remains that may occur from other cumulative projects in the vicinity, these potential cumulative impacts on human remains would be significant and unmitigable. There may be no feasible measures to mitigate this impact. Therefore, potential cumulative impacts on human remains due to the Moosa 100K Alternative, when combined with the cumulative impacts from the Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline CIP projects and other planned cumulative projects listed in Table 4.2-1 (Section 4.2 [Cumulative Projects] of this EIR/EIS), would be cumulatively considerable, and the cumulative impact would be significant (***Impact M/CR 2C***).

Implementation of mitigation measure M/CR 1-1, along with project design features listed in Section 4.7.2 above, would mitigate or avoid cumulative impacts on potentially eligible NRHP sites from the Moosa 100K Alternative. The Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline CIP projects, and other planned cumulative projects listed in Table 4.2-1 (Section 4.2 [Cumulative Projects] of this EIR/EIS), would be required to comply with mitigation measures or regulations intended to avoid or mitigate significant impacts on cultural resources. Therefore, cumulative impacts on potentially eligible NRHP sites from the Moosa 100K Alternative, when combined with the potential cumulative impacts associated with the Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline CIP projects and other planned cumulative projects listed in Table 4.2-1 (Section 4.2 [Cumulative Projects] of this EIR/EIS), would be less than significant after mitigation.

*The potential (“worst-case”) unavoidable cumulative impacts on human remains (***Impact M/CR 2C***) from the Moosa 100K Alternative, when combined with the potential cumulative impacts associated with the Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline CIP projects*

and other planned cumulative projects listed in Table 4.2-1 (Section 4.2 [Cumulative Projects] of this EIR/EIS), would remain significant and unmitigable, even with implementation of project design features listed in Section 4.7.2 above and state laws that address unexpected discoveries during construction (because it may not be feasible to completely avoid impacts on human remains). A Statement of Overriding Considerations would be necessary for approval of the Moosa 100K Alternative.