4.4 Agricultural Resources

This section evaluates the potential impacts of the Moosa 100K Alternative on agricultural resources. This evaluation includes an assessment of the direct, indirect, short-term, long-term, and cumulative effects of the Moosa 100K Alternative on Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, including potential conflicts with Williamson Act contracts. The evaluation is based on the Community Impact Assessment for the San Vicente Dam Raise Carryover Storage Project (CIC Research, 2007), which is included as Appendix H to this EIR/EIS; a review of land uses in the Moosa 100K study area; and the map of San Diego County Important Farmland 2000 (California Department of Conservation, 2002).

4.4.1 Affected Environment

4.4.1.1 Environmental Setting

The following discussion describes the existing agricultural resources within San Diego County and the Moosa 100K study area.

San Diego County

Environmental setting information on San Diego County’s agricultural industry for the Moosa 100K Alternative is the same as presented for the Proposed Action. Please refer to Section 3.4.1.1 (Agricultural Resources for the Proposed Action) of this EIR/EIS for information on the County’s major crops, production value, estimated economic impact, and state ranking. As shown in Table 3.4-1, nursery and flower crops remain the number one crops with the highest value of $990,900,400, accounting for 64 percent of the total value of agriculture in San Diego County in 2005.

Moosa 100K Study Area

Agriculture is a dominant land use within the Moosa 100K study area. Agricultural uses consist primarily of citrus and avocado groves. There are also structures associated with agricultural production within these areas. Other existing uses in or near the study area include low-density, single-family dwellings on large lots, and a large number of residential and other accessory structures typical of a rural/countryside setting (livestock stalls, barns, and storage/tack houses; see Section 4.9 [Land Use and Planning for the Moosa 100K Alternative] of this EIR/EIS). Higher-density residential uses exist beyond the low-density residential uses to the west, southwest, and northeast of the Moosa 100K Alternative site. Turner Reservoir, Turner Pump Station, and Betsworth Pump Station are also located within the Moosa 100K study area, and the closed Valley Center Landfill is located adjacent to the northeast portion of the existing reservoir site.

Based on the San Diego County Important Farmland Map 2000, the Moosa 100K study area contains land classified as Prime Farmland, Unique Farmland, and Farmland of Statewide and
Local Importance (see Section 3.4.1.1 [Agricultural for the Proposed Action] for a description of farmland categories). Most of the potential inundation area is Unique Farmland or Farmland of Local Importance.

Based on soil types and in consultation with the U.S. Department of Agriculture (USDA) Farmland Conservation Analyst, seven soil types in the Moosa 100K study area represent potential farmland soils. These are discussed in the analysis of Threshold 1.

4.4.1.2 Regulatory Setting

Regulatory information for agricultural resources that would apply to the Moosa 100K Alternative would be the same as the Proposed Action. Please refer to Section 3.4.1.2 (Agricultural for the Proposed Action) of this EIR/EIS for the regulatory setting for the Moosa 100K Alternative, including information on the Farmland Protection Policy Act of 1981, California Farmland Mapping and Monitoring Program, and the California Land Conservation Act of 1965 (the *Williamson Act*).

4.4.2 Project Design Features

There are no General Conditions and Standard Specifications or Project Design Features that specifically address reducing potential impacts on agricultural resources.

4.4.3 Direct and Indirect Effects

4.4.3.1 Thresholds of Significance

The thresholds of significance used to evaluate agricultural resource impacts for the Moosa 100K Alternative would be the same as those used to evaluate impacts for the Proposed Action and the SV 50K/Moosa 50K Alternative. The thresholds are based on applicable criteria in the State CEQA Guidelines (CCR §§15000-15387), Appendix G. A significant agricultural resources impact would occur if the Moosa 100K Alternative would:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use.
2. Conflict with existing zoning for agricultural use, or a *Williamson Act* contract.
3. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.
4.4.3.2 Impact Analysis

Methodology

The methodology used to evaluate potential agricultural resources impacts for the Moosa 100K Alternative would be the same as used for Proposed Action (see Section 3.4.3.2 [Agricultural Resources for the Proposed Action] of this EIR/EIS). The Moosa 100K footprint was overlaid on soil type maps. The significance of the conversion was evaluated based on consultation with NRCS and completion of Form AD-1006 to determine the level of protection that should be given to the farmable land in the Moosa 100K study area.

Analysis

Threshold 1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use

The Moosa 100K study area encompasses approximately 1,455 acres, of which a total of 208 acres of farmland soils would be converted from agricultural to non-agricultural use. As shown in Table 3.4-1, this translates to approximately 0.7 percent of the County total of 273,176 acres in agricultural production in 2005, and includes several active farms and nurseries. The converted farmland soils include 131.9 acres of Prime and Unique Farmland soils, and 76.4 acres of Statewide Importance and Local Importance Farmland soils.

The Prime and Unique Farmland soils that would be converted under the Moosa 100K Alternative consist of Greenfield sandy loam (5 to 9 percent slopes), Visalia sandy loam (2-5 percent slopes), and Visalia sandy loam (5 to 9 percent slopes). The potentially converted soils representing Farmland of Statewide Importance and Farmland of Local Importance consist of Greenfield sandy loam (9 to 15 percent slopes), Placentia sandy loam (2 to 9 percent slopes), Placentia sandy loam (thick surface, 2 to 9 percent slopes), and Tujunga sand (0 to 5 percent slopes). Based on the site assessment criteria for the 12 impact categories (see Section 3.4.3.2 [Agricultural Resources for the Proposed Action] of this EIR/EIS), the overall farmland conversion impact rating for the Moosa 100K Alternative would be 192, which is above the significance rating threshold of 160.

The converted farmland acreage would represent a significant percentage of farmable land in the county (2.2 percent). Based on consultation with the National Resource Conservation Service (NRCS) and completion of Form AD-1006 (Farmland Conversion Impact Rating), the farmland within the Moosa 100K study area would be categorized “a high level of consideration for protection.” Therefore, impacts of conversion of agricultural land would be significant.

The Moosa 100K Alternative would convert approximately 208 acres of designated Prime and Unique Farmland and Farmland of Statewide and Local Importance to non-agricultural uses (2.2 percent reduction from County inventory). Therefore, impacts of the Moosa 100K Alternative would be significant (Impact M/AG 1).
Threshold 2: Conflict with existing zoning for agricultural use, or a Williamson Act contract

Zoning Conflicts

Although the Moosa 100K study area is zoned A-70 (Limited Agriculture), under Section 53091(e) of the California Government Code, zoning ordinances do not apply to the location or construction of facilities used for the production, generation, storage, or transmission of water. As such, the County Zoning Code does not apply to the Moosa 100K Alternative because the project purpose is to construct a water storage reservoir and appurtenances. There would be no impact.

The Moosa 100K Alternative would be a water storage facility, which would be exempt from County Zoning. Therefore, there would be no impact related to conflict with agricultural zoning.

Williamson Act Conflicts

According to the California Department of Conservation, the Moosa 100K study area contains two Williamson Act contract parcels that would be partially located within the Moosa 100K Alternative inundation area limits. The two contract parcels total approximately 58 acres. These properties would be affected either fully or partially as a result of the inundation, construction, and/or septic system setback requirements of the Moosa 100K Alternative. Agricultural activities would not be able to continue on these properties. Therefore, impacts of conversion of two Williamson Act contract parcels would be significant.

The Moosa 100K Alternative would affect two Williamson Act contract parcels. Therefore, impacts of the Moosa 100K Alternative would be significant (Impact M/AG 2).

Threshold 3: Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use

Permanent Impacts

Avocado Root-Rot

The Moosa Canyon area supports substantial acreage of avocado groves. Some groves in this area are known to be currently infected with the root-rot fungus. Construction activities from the Moosa 100K Alternative could exacerbate the local spread of avocado root-rot through the handling and transport of excavated soils. The increased spread of root-rot through contaminated soil could result in discontinued production of this agricultural land. Therefore, impacts from construction activities affecting groves would be significant.

The Moosa 100K Alternative could adversely affect adjacent avocado groves due to the potential increase in the spread of root-rot, which could result in decreased or discontinued production of agricultural land. Therefore, impacts of the Moosa 100K Alternative would be significant (Impact M/AG 3).
Temporary Impacts

Additional agricultural land beyond the acreage permanently converted would be temporarily affected during the construction of the Moosa 100K Alternative. However, such lands would be restored to crop-ready conditions as part of the project upon completion of construction, with the exception that trees would not be allowed to be planted along the final pipeline alignment in order to protect the pipeline from damage caused by tree roots. Therefore, impacts from temporary impacts on agricultural land would be less than significant.

*The Moosa 100K Alternative would return agricultural land temporarily affected to crop-ready conditions after construction is complete. Therefore, impacts of the Moosa 100K Alternative would be less than significant.*

4.4.3.3 Mitigation Measures

To reduce significant impacts on agricultural resources from the Moosa 100K Alternative, the Water Authority will implement the following mitigation measures.

Conversion of Farmland and Williamson Act Parcels

Mitigation for the conversion of 208 acres of land to non-agricultural uses from the Moosa 100K Alternative (*Impact M/AG 1*), including two *Williamson Act* contract parcels (*Impact M/AG 2*), would require replacement of this land with equivalent, contiguous agricultural land outside the Moosa 100K study area (off site). This could occur through either preservation of equivalent land currently under the ownership/control of the Water Authority, or via securing and assembling equivalent off-site land. This measure would not be feasible because no land has been reserved for this purpose, and the purchase of the quantity of land necessary would be speculative, due to economic and policy reasons, including: (a) the lack of available contiguous parcels of high-quality agricultural land in the project region, (b) rising land costs; and (c) the competition for use of land for commercial and residential uses. Therefore, impacts on farmland and *Williamson Act* contract parcels would remain significant and unmitigable.

Avocado Root-Rot

To mitigate for the potential spread of avocado root-rot from project construction/excavation activities in the Moosa Canyon area (*Impact M/AG 3*), the following mitigation measures will be implemented:

- **M/AG 3-1** Prior to construction, the Water Authority will coordinate with grove owners and managers to identify grove areas known to be contaminated by root-rot.

- **M/AG 3-2** To reduce the risk of spreading root-rot, standard work procedures will be established to decontaminate tools, equipment, and materials used during construction. These procedures will be according to existing Water Authority
specifications. Any modifications to procedures will be developed by Water Authority staff and consultants. No construction activity will take place in or adjacent to avocado groves prior to approval of the work procedures. Standard work procedures will be established, and could include but not be limited to the following:

a. All groves will be tested for root-rot prior to construction.

b. Tools and equipment will be thoroughly cleaned and allowed to dry completely prior to using in or adjacent to avocado groves.

c. Cleaning will use methods that prevent contamination (e.g., spraying/dipping with at least 70 percent isopropyl alcohol).

d. Disposal of water used for cleaning tools and equipment will occur in the contaminated area of the right-of-way and the contractor will ensure water drainage does not extend beyond the contaminated area.

e. The Water Authority will identify appropriate measures for decontamination of vehicles used in association with the construction of the project within or adjacent to avocado groves.

f. Following completion of construction, all groves will be retested.

M/AG 3-3 Spoil material removed from nongrove areas during construction will not be mixed with soil to be returned to trenches or surface grade within or adjacent to groves. Soil removed during construction within or adjacent to avocado groves will be stockpiled separately and returned to the same grove as closely as possible to its original location.

4.4.3.4 Residual Impacts after Mitigation

Impacts on Prime and Unique Farmland, Farmland of Statewide and Local Importance (Impact M/AG 1), and the impact related to Williamson Act contract parcels (Impact M/AG 2) would remain significant and unmitigable. A Statement of Overriding Considerations would be required for project impacts on agricultural resources from the Moosa 100K Alternative.

There would be no residual impacts from the Moosa 100K Alternative on adjacent avocado groves from the spread of root-rot (Impact M/AG 3). Therefore, after implementation of the recommended mitigation measures, the impacts from the Moosa 100K Alternative would be less than significant.
4.4.4 Cumulative Effects

4.4.4.1 Other CIP Projects

As described in Section 4.2 (Cumulative Projects for the Moosa 100K Alternatives) of this EIR/EIS, it was determined that Hubbard Hill Flow Regulatory Structure, North County Distribution Pipeline Flow Regulatory Structure, and Second Crossover Pipeline are the only CIP projects with the potential for cumulative impacts when combined with the Moosa 100K Alternative. The PEIR for the Regional Water Facilities Master Plan concluded that the proposed CIP projects could result in the conversion of potential agricultural soils, including Williamson Act contract land. Cumulative agricultural impacts would be expected to be long-term in nature and consist of the permanent conversion of potential agricultural soils, including Williamson Act contract land, to non-farmland. However, the CIP projects in the vicinity of the Moosa 100K Alternative identified above are not expected to contribute substantially to the cumulative conversion of potential agricultural soils, including Williamson Act contract land. With the implementation of mitigation measures identified in the PEIR, impacts on agricultural resources due to these projects are expected to be minimal. However, cumulative agricultural resources impacts due to the Moosa 100K Alternative, when combined with the short-term (construction related) and long-term (operational) agricultural resources impacts associated with the CIP projects listed above, would be significant and unmitigable as the Moosa 100K Alternative would represent 2.2 percent of farmable land in the County. The above conclusions are incorporated into the cumulative analyses in Section 4.4.4.2 below.

4.4.4.2 Other Planned Projects with CIP Projects

This section evaluates the cumulative agricultural resources impacts of the Moosa 100K Alternative when considered in conjunction with the other planned projects listed in Table 4.2-1, and incorporates the cumulative agricultural resources impacts associated with the CIP projects described in the above section. The following cumulative agricultural resources analysis addresses each of the three significance thresholds listed in Section 4.4.3 above.

Cumulative Threshold 1: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use

As discussed in Section 4.4.3.2 above, implementation of the Moosa 100K Alternative would convert approximately 208 acres of designated Prime and Unique Farmland and Farmland of Statewide and Local Importance to non-agricultural uses (2.2 percent reduction from County inventory), including two Williamson Act contract parcels. The Water Authority has determined that replacing the converted agricultural lands would be infeasible, and thus would result in a significant and unmitigable impact. The cumulative projects in the vicinity of the Moosa 100K Alternative primarily include several small and large subdivisions, along with a few small commercial, institutional and industrial developments (refer to Table 4.2-1). These projects would contribute to agricultural resources impacts through the conversion of existing agricultural
land to non-agricultural (primarily residential) uses. Therefore, cumulative agricultural impacts due to the Moosa 100K Alternative, when combined with the farmland conversion due to the cumulative projects, would be significant and unmitigable (Impact M/AG 1C).

**Cumulative Threshold 2: Conflict with existing zoning for agricultural use, or a Williamson Act contract**

Implementation of the Moosa 100K Alternative would convert two Williamson Act contract parcels to non-farmland, resulting in a significant and unmitigable impact on agricultural resources. Since several cumulative projects in the vicinity of the Moosa 100K Alternative would also convert agricultural land to residential land uses, it is possible that these projects could also affect Williamson Act contract parcels. Therefore, cumulative impacts on Williamson Act contract parcels due to the Moosa 100K Alternative, when combined with farmland conversion due to the cumulative projects, would be significant and unmitigable (Impact M/AG 2C).

**Cumulative Threshold 3: Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use**

The Moosa 100K Alternative could permanently affect adjacent avocado groves due to the potential increase in the spread of root-rot in avocado trees through the temporary disturbance of soil contaminated with the root-rot fungus as a result of construction activities. This would be a significant but mitigable impact. Cumulative projects in the vicinity of the Moosa 100K Alternative may also have the potential to spread root-rot if the disturbance of soil or grading is planned to occur. It is expected that the cumulative projects would also mitigate for this potential impact. Therefore, cumulative agricultural impacts due to the Moosa 100K Alternative, when combined with the spread of root-rot due to the cumulative projects, would be significant but mitigable (Impact M/AG 3C).

The Moosa 100K Alternative would convert approximately 208 acres of designated Prime and Unique Farmland and Farmland of Statewide and Local Importance (Impact M/AG 1), including two Williamson Act parcels (Impact M/AG 2). These impacts are determined to be unmitigable. Therefore, cumulative impacts due to the Moosa 100K Alternative for these activities, when combined with the agricultural impacts associated with the CIP projects listed above and planned cumulative projects listed in Table 4.2-1, would be significant (Impacts M/AG 1C and M/AG 2C). No feasible measures are available to mitigate the cumulative agricultural impacts of the Moosa 100K Alternative. A Statement of Overriding Considerations would be necessary for project approval.

The Moosa 100K Alternative and the proposed cumulative projects could adversely affect avocado groves through the spread of root-rot. However, with implementation of Mitigation Measures M/AG 3-1, M/AG 3-2, and M/AG 3-3, this impact could be mitigated through the proper handling of contaminated soil. Therefore, cumulative impacts due to the Moosa 100K Alternative on avocado trees, when combined with the agricultural impacts associated with the CIP projects listed above and planned cumulative projects listed in Table 4.2-1, would be less than significant (Impact M/AG 3C).