

8. GROWTH-INDUCING IMPACTS

8. GROWTH-INDUCING IMPACTS

8.1 INTRODUCTION

This chapter describes the effects of the proposed project, the Monterey Amendment and the Settlement Agreement, on economic and population growth and construction of housing. Some provisions of the Monterey Amendment have the potential to increase the amount of water available to some SWP M&I contractors, which could in turn affect urban growth. These provisions are those that deal with water allocation procedures, transfers and retirements of Table A amounts, and water supply management practices.

8.1.1 CEQA Requirements

To comply with CEQA, an EIR must discuss the ways in which the proposed project could affect economic or population growth in the vicinity of the project and how the characteristics of the project could result in other activities with adverse impacts to the environment [CEQA Guidelines Section 15126.2(d)].

Specifically, CEQA Guidelines Section 15126.2(d) states that an EIR must:

“Discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects, which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects. Also discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.”

Economic growth refers to the extent to which a proposed project could cause increased activity in the local or regional economy. Economic and population growth can be induced in a number of ways, including through the elimination of obstacles to growth, or through the stimulation of economic activity. Elimination of obstacles to growth refers to the extent to which a proposed project removes infrastructure limitations or removes regulatory constraints that could result in growth. For example, an increase in the capacity of utility or road infrastructure that is installed as part of the proposed project could allow either new or additional development in the surrounding areas. Increases in the population may tax existing community service facilities, requiring new facilities, the construction of which could cause potentially significant environmental impacts.

8.1.2 Summary of Growth Analyses in Previous CEQA Documents

The 1995 Program EIR on the Monterey Agreement assessed the potential growth-inducing impact of the Monterey Agreement from a statewide and regional perspective. After execution of the Monterey Amendment, various water agencies prepared program- or project-level CEQA documents on proposed permanent transfers of Table A amounts. Each of those documents presented a local, service area-level analysis of a proposed transfer, reached conclusions

regarding the potential for the transfer to induce growth, and discussed characteristics of the project that facilitated other activities that could significantly affect the surrounding environment. The conclusions from these previous CEQA documents are summarized below.

Monterey Agreement

The Monterey Agreement EIR, issued in November 1995, acknowledged that implementation of the Monterey Agreement would "...result in direct and secondary economic effects in the regions relinquishing and transferring (exporting) water and in those regions acquiring (importing) those entitlements (and ultimate deliveries)".¹ The EIR included estimates of SWP deliveries to M&I and agricultural contractors at full Table A demand, with and without implementation of the Monterey Agreement. It was estimated that, when contractor demands reached full Table A amounts and all of the 130,000 AF of Table A amount identified in the Monterey Agreement had been transferred from agricultural to M&I contractors, deliveries to all M&I contractors combined would increase by a net amount of 8,900 AF relative to the without-project condition, and that the additional water could support an additional population of 39,700.²

Monterey Amendment Table A Transfers

Consistent with the provisions of the Monterey Amendment, which provides for the permanent transfer of 130,000 AF of Table A amounts from agricultural to M&I contractors, KCWA transferred 114,000 AF of its Table A amount to six M&I contractors between 1996 and 2003. Various CEQA documents were prepared addressing the transfers. In some cases, a transfer was addressed in more than one CEQA document. Table 8-1 lists the most pertinent CEQA documents and identifies the purpose of the transfers. Other relevant CEQA documents for each transfer are footnoted in the table. Table 8-1 summarizes the conclusions in the earlier CEQA documents for information purposes only. Although information in these earlier documents may corroborate conclusions of this analysis, this EIR provides an independent review of the transfers and provisions of the Monterey Amendment and the Settlement Agreement.

Some transfers were specifically proposed to serve new developments, while others were to augment existing supply sources and improve reliability for existing users. KCWA member agencies and the purchasing agencies reviewed the potential environmental effects of the proposed water transfers in CEQA documents. Most CEQA documents authored by M&I contractors receiving Table A transfers concluded that the transfers could remove obstacles to growth and that the new water provided by the transfers would eventually support additional population. Therefore, the transfers could be growth-inducing and could result in secondary effects on noise levels, demand for public services and utilities, air quality, wildlife habitat, transportation, and other resources. Those agencies that identified significant and unavoidable secondary impacts adopted a CEQA Statement of Overriding Considerations for the identified adverse environmental impacts. To fulfill its responsibilities as a Responsible Agency, the Department reviewed these CEQA documents, each agency's Notice of Determination and other documents including the Statements of Overriding Considerations. The Department adopted its own Notices of Determination that concurred with the local agency findings.

TABLE 8-1

SUMMARY OF PREVIOUS CEQA DOCUMENTS FOR TABLE A TRANSFERS

CEQA Document	Lead Agency	Table A Transfer Amount (AF)	Seller	Buyer	Purpose of Transfer	Identified as Growth-Inducing	Summary of Environmental Effects
Mojave WA Acquisition, Transfer and Use of Berrenda Mesa WD Table A State Water Project Water Entitlement Final EIR, October 29, 1996 SCH #96021040	Mojave WA	25,000	Berrenda Mesa WD (Kern County WA)	Mojave WA	Offset existing overdraft and future water demand within the Mohave River Basin and the remainder of the Agency's service area	No	NA
Transfer of Water Entitlements from Berrenda Mesa WD for Use in the Dougherty Valley Area Final EIR, February 1996 SCH #95033045	Berrenda Mesa WD	7,000 ¹	Berrenda Mesa WD (Kern County WA)	San Ramon Service District	Programmatic transfer of up to 75,000 ac-ft from Berrenda Mesa WD; project-level transfer of 7,000 ac-ft of this amount for use in Dougherty Valley	Yes	Development of Dougherty Valley would result in conversion of open space and agricultural uses to urban uses and extension of urban services and roads.
Transfer of Water Entitlements from Berrenda Mesa WD for Use in the Dougherty Valley Final Supplemental Final EIR, December 17, 1997 SCH#96082036	Alameda County FC&WCD Zone 7	7,000 ¹	Berrenda Mesa WD (Kern County WA)	Alameda County FC&WCD Zone 7	Provide a sustainable, permanent, and reliable water supply for use in Dougherty Valley	Yes	Development of Dougherty Valley would result in conversion of open space and agricultural uses to urban uses and extension of urban services and roads. It would also induce indirect economic growth in the Tri-Valley region.
Palmdale WD 1996 Water Facilities Master Plan Final Master Environmental Impact Report, September 1996 SCH #96031009	Palmdale WD	4,000	Belridge WSD (Kern County WA)	Palmdale WD	Permanent transfer of 4,000 AFY of SWP entitlement and the related capacity from the Belridge WSD for use to reduce reliance on local groundwater resources and to meet projected long-term customer demand	Yes	Less open space and more people, fewer plants and animals and reduced habitats, more structures and roads, less varied landform and natural drainage and more graded and paved land, less water, energy and fossil fuels and other natural resources, more vehicles and the resultant air pollution and potential climatological changes, and other effects on Antelope Valley's natural desert environment.

TABLE 8-1

SUMMARY OF PREVIOUS CEQA DOCUMENTS FOR TABLE A TRANSFERS

CEQA Document	Lead Agency	Table A Transfer Amount (AF)	Seller	Buyer	Purpose of Transfer	Identified as Growth-Inducing	Summary of Environmental Effects
Zone 7 WA Water Supply Planning Program Final Program Environmental Impact Report, July 1999 SCH #98041040	Alameda County FC&WCD Zone 7	10,000	Belridge WSD (Kern County WA)	Alameda County FC&WCD Zone 7	Implement water transfers to meet projected immediate and near-term M& I and agricultural demands in the Alameda County FC&WCD Zone 7 service area	Yes	Growth accommodated by the proposed project could result in potentially significant and unavoidable impacts to traffic and congestion, air pollution, loss of agricultural land and open space, loss of wildlife habitat, visual character, changes in topography, traffic noise, solid waste, exposure to seismic hazards, wastewater discharge, school and park demand, increased flooding potential, urban runoff pollution and increased energy demand.
Zone 7 WA Water Supply Planning Program Final Program Environmental Impact Report, July 1999 SCH #98041040	Alameda County FC&WCD Zone 7	15,000	Lost Hills WD (Kern County WA)	Alameda County FC&WCD Zone 7	Implement water transfers to meet projected immediate and near-term M& I and agricultural demands in the Alameda County FC&WCD Zone 7 service area	Yes	Growth accommodated by the proposed project could result in potentially significant and unavoidable impacts to traffic and congestion, air pollution, loss of agricultural land and open space, loss of wildlife habitat, visual character, changes in topography, traffic noise, solid waste, exposure to seismic hazards, wastewater discharge, school and park demand, increased flooding potential, urban runoff pollution and increased energy demand.
Negative Declaration & Initial Study for the Proposed Acquisition of State Water Project Entitlements, June 2000 SCH # 20000093	Napa County FC&WCD	4,025	Belridge WSD (Kern County WA)	Napa County FC&WCD	Provide for below normal-year reserves and supplemental supply for member cities	No	

TABLE 8-1

SUMMARY OF PREVIOUS CEQA DOCUMENTS FOR TABLE A TRANSFERS

CEQA Document	Lead Agency	Table A Transfer Amount (AF)	Seller	Buyer	Purpose of Transfer	Identified as Growth-Inducing	Summary of Environmental Effects
Transfer of State Water Project Entitlements to the Solano County WA Final Environmental Impact Report, August 2000 SCH #2000032066	Solano County WA	5,756	Belridge WSD (Kern County WA)	Solano County WA	Improve the Cities of Fairfield and Vacaville's water supply reliability and contribute to providing a supply adequate to meet planned population growth and development objectives specified in their respective General Plans	No (accommodate planned growth)	Approved growth would result in conversion of undeveloped land resulting in the loss of vegetation and wildlife habitat.
Castaic Lake WA Supplemental Water Project Transfer of 41,000 Acre-Feet of State Water Project Table A Amount Final Environmental Impact Report, December 2004 SCH #1998041127	Castaic Lake WA	41,000	Wheeler Ridge-Maricopa WSD (Kern County WA)	Castaic Lake WA	Maintain the water supply needed to meet water demands of existing users and a portion of future water demand from anticipated growth within the Castaic Lake WA service area	Yes	Changes in visual character, increased light and glare, conversion of agricultural land, loss of vegetation and wildlife habitat and special status species, loss or disturbance of cultural resources, exposure to seismic and geologic hazards, loss of topsoil, exposure to hazardous substance releases and wildland fires, conversion to urban uses, increased noise levels, increased demand on public services and utilities, need for new or modified transportation network, and degradation of receiving water quality.

Note:
 1 The 7,000 acre-foot Table A transfer from Berrenda Mesa WD to Alameda County FC&WCD Zone 7 was analyzed in two separate CEQA documents, an EIR by Berrenda Mesa WD and a supplemental EIR by Alameda County FC&WCD Zone 7.

8.2 ANALYSIS OF GROWTH INDUCING IMPACTS

8.2.1 Analytical Methods

Overview

This section describes the methods used to analyze the potential growth-inducing impact of the proposed project. There is no precise way to determine whether an increase in water supply, increase in the population – the excess of births over deaths. In the 1990s, over 80 percent of California's population growth was the result of natural increase. While in the future, immigration will continue to play a significant role in California's population growth, natural increase is expected to remain by far as the strongest driver of growth. The Monterey Amendment and Settlement Agreement would not be expected to have any effect on natural increase or net migration to the State and thus would have no effect on statewide population. However, the shifting of water supplies from one area of the State to another could facilitate construction of new housing in certain areas and a shift in the location of population growth at the local level. The analysis adopted for this EIR evaluates the potential for increases in growth at the local level.

The method of analysis adopted for this EIR was to identify those M&I contractors that could receive additional water as a result of the proposed project, and for those contractors, calculate the amount of additional water that could be made available and then estimate the population that could be supported by that amount of water.

In the analysis, a number of conservative assumptions are made, which result in over-estimating the potential increase in local population growth associated with the proposed project. These assumptions are as follows. First, the analysis only considers those M&I contractors that receive more water as a result of the proposed project. Those M&I contractors that receive less water as a result of the Monterey Amendment are, to the extent water may be a limiting factor to growth in their service areas, assumed to be able to obtain alternative water supplies. Secondly, it was assumed that those M&I contractors that received an increase in average annual deliveries would allocate the new water to urban growth rather than for other purposes. Some of the M&I contractors that receive additional SWP water may instead choose to use some or all of it for purposes other than to supply new residents, such as for groundwater overdraft protection or to improve the reliability of their dry-year supplies for existing water users. Lastly, if M&I contractors in need of water to support urban growth did not receive it as a result of the Monterey Amendment, they might find alternate water sources to do so. In this case, that same growth would have occurred without the proposed project.

The provisions of the Monterey Amendment that could affect deliveries of SWP water to M&I contractors include the Table A transfers and retirements, the water allocation procedures and the water supply management practices. The Table A transfers and retirements and water allocation procedures could have a substantial effect on average annual deliveries, as described in Chapter 6. The water supply management practices could increase effective deliveries to contractors in dry periods but would not have much effect on annual average deliveries.

Deliveries of SWP water to a contractor can include both scheduled Table A water and unscheduled, interruptible Article 21 water. For purposes of the growth analysis in this EIR, contractor deliveries are considered two ways, based on: Table A deliveries alone, and Table A and Article 21 deliveries combined. The reason for this is that an individual contractor's ability to include Article 21 water in its long-range supply plans depends on the specific circumstances

and storage opportunities available to that contractor. Prior to the Monterey Amendment, Article 21(g) stated that the Department would not deliver scheduled “surplus water” if that water would encourage the development of an economy dependent on continued delivery of the water. Under the Monterey Amendment, the scheduled “surplus water” provisions were eliminated, including Article 21(g). The State Water Project Delivery Reliability Report states that for those SWP contractors who are able to store their wet weather supplies, Article 21 supply can be stored to offset other water that would have been withdrawn from storage. But in the absence of storage, Article 21 water is not likely to contribute significantly to local water supply reliability and should not be used to support growth. Ultimately, incorporating supplies received under Article 21 into the assessment of water supply reliability is a local decision based on specific local circumstances, facts, and the level of water supply reliability required.³ For the analysis in this EIR, considering deliveries both with and without Article 21 water provides a range which includes the maximum SWP supply that a contractor might actually be able to put to use.

The effects of the Table A transfers and retirements and the water allocation procedures on average annual deliveries to individual contractors were estimated using the CALSIM II model as described in Chapter 6. The Table A transfers included in the estimates are those shown in Tables 6-3 and 6-4. Table A transfers include all of the transfers called for by the Monterey Amendment that have been completed so far, including the 41,000 acre-foot Castaic Lake WA transfer, for a total Table A transfer of 114,000 AF between 1995 and 2003. It was assumed for the purposes of analysis that the remaining 16,000 AF of Table A transfer called for in the Monterey Amendment would be transferred from KCWA to Coachella Valley WD and Desert WA. This EIR recognizes that the transfers to Castaic, Coachella and Desert are either in litigation or not yet complete. However by including them in the analysis, this EIR considers full implementation of this provision of the Monterey Amendment.

The effect of the proposed project on deliveries to M&I contractors varies from contractor to contractor. The water allocation procedures under the proposed project would result in a decrease in average annual deliveries of Table A water per acre-foot of M&I Table A amount. Therefore, those M&I contractors that were not recipients of Table A transfers would receive a decrease in average annual Table A deliveries; while those M&I contractors that were recipients of Table A transfers would more than offset those decreases and receive a net increase in average annual Table A deliveries. The water allocation procedures under the proposed project would also result in a potential increase in average annual deliveries of Article 21 water per acre-foot of M&I Table A amount. However, as noted above, an individual contractor’s ability to use Article 21 water depends on the specific circumstances and storage opportunities available to that contractor. Further, Article 21 water is made available only periodically and generally for a limited time, and the procedures for allocating Article 21 water only apply on those occasions when the demand for Article 21 water exceeds the availability of that supply. Therefore, an individual contractor’s ability to increase its Article 21 deliveries under the proposed project is dependent on whether it can actually use or store this water during those infrequent times when these allocation rules would apply.

The water supply management practices under the proposed project provide opportunities for all contractors to more efficiently manage those SWP supplies available to them by storing SWP water outside their service areas in groundwater banks or in San Luis Reservoir, and for certain contractors, by borrowing water from Castaic Lake and Lake Perris. They also include the establishment of a turnback pool, which provides financial incentives to contractors with more Table A water than they need in a given year to turn that water back for purchase by other contractors that can use it.

Although use of the water supply management practices could increase the reliability of M&I contractors' water supplies, there would be little effect on average annual deliveries of SWP water for reasons described in Chapter 6. It was assumed that land use planning agencies in the service areas of M&I contractors that received an increase in critical year SWP deliveries but did not receive an increase in their average SWP supplies would be unlikely to approve new development on the basis of increased dry year deliveries alone.

Method for Estimating Population Growth

Those M&I contractors that were recipients of permanent transfers of Table A amounts would receive increased average annual Table A deliveries as a result of the proposed project. To determine the potential for an increase in water supply to support additional population, per capita water consumption factors were used to estimate population growth. As most of the SWP's urban customers are located either in Southern California (South Coast Hydrologic Region) or the San Francisco Bay Area (San Francisco Bay Hydrological Region) and all of the recipients of Table A transfers are located in these two regions, water consumption factors for these regions were used in the calculations. Gallons per capita per day (GPCPD)⁴ information was obtained from *The California Water Plan Update* (Bulletin 160-05). As described in Bulletin 160-05, current levels of water use were prepared and presented from recent actual years, as opposed to including statistical adjustments as was done in previous Bulletin 160 publications. Three years were selected to show the range of actual water supplies and use based on a range of hydrologic conditions:⁵

- 1998, which was a wet water-supply year statewide;
- 2000, an overall average or normal water year; and
- 2001, a below average or dry year for most of the state.

Bulletin 160-05 considered three "future scenarios" for 2030 (the future year established for estimating future water demands and the delivery capabilities of existing and planned facilities). The three scenarios are:⁶

- Current Trends – Recent trends continue for population growth and development patterns, agricultural and industrial production, environmental water dedication, and conservation.
- Less Resource Intensive – Recent trends continue for population growth and development patterns, higher agricultural and industrial production, more environmental water dedication, and higher conservation compared to current trends.
- More Resource Intensive - Higher population growth and development patterns, higher agricultural and industrial production, no additional environmental water dedication, and less conservation compared to current trends.

For each of these scenarios, Bulletin 160-05 included urban water use and population projections for 2030, by hydrologic regions throughout the state. Table 8-2 presents this data for the South Coast and San Francisco Bay Hydrological Regions, and the GPCPD rates calculated from this data. In Table 8-3, the GPCPD rates for each scenario were used to estimate the population that could be supported by the additional average annual SWP deliveries to certain M&I contractors. The future year used in this EIR is 2020, compared to the 2030 future year used by the Department for Bulletin 160-05. Therefore, the population calculations would represent population estimates for 2030. The actual population in 2020 would be expected to be something less.

Year	Hydrologic Unit	Total Urban Water Use (TAF)	Population	GPCPD
1998	San Francisco Bay	991	5,937,000	149
1998	South Coast	3,621	17,555,000	184
2000	San Francisco Bay	1,069	6,106,000	156
2000	South Coast	4,249	18,223,000	208
2001	San Francisco Bay	1,110	6,224,000	159
2001	South Coast	3,990	18,611,000	191
Current Trend				
2030	San Francisco Bay	1,267	7,857,000	144
2030	South Coast	5,122	23,827,000	192
Less Resource Intensive				
2030	San Francisco Bay	1,115	7,857,000	127
2030	South Coast	4,340	23,827,000	163
More Resource Intensive				
2030	San Francisco Bay	1,467	7,857,000	144
2030	South Coast	6,259	23,827,000	188
Source: California Department of Water Resources, California Water Plan Update, Bulletin 160-05.				

8.2.2 Results of the Analysis

Average annual SWP deliveries were estimated for the proposed project and for the projected baseline condition in 2020 (see Tables 6-22 and 6-25 in Chapter 6, Effects of Proposed Project on SWP and SWP Contractor Operations). Based on Table A deliveries only, eight M&I contractors would receive increased average annual deliveries of SWP water under the proposed project in 2020 when compared to the baseline. M&I contractors that would receive increased average annual Table A deliveries include Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Desert WA, Mojave WA, and Palmdale WA. Considering deliveries of Table A and Article 21 water combined would result in seven M&I contractors receiving increased average annual deliveries of SWP water under the proposed project in 2020 when compared to the baseline. M&I contractors that would receive increased average annual deliveries of Table A and Article 21 water combined include Napa County FC&WCD, Solano County WA, Alameda County FC&WCD Zone 7, Castaic Lake WA, Coachella Valley WD, Mojave WA, and Palmdale WA. Increased average annual deliveries to each of these M&I contractors are shown in Table 8-3 together with the estimated population that the additional water could support under each of the future scenarios. As shown in Table 8-3, the total increase in average annual deliveries to the eight M&I contractors of Table A water is 90,900 AF per year, and to the seven M&I contractors of Table A and Article 21 water combined is 91,400 AF per year. This increase in water supply could support a total estimated maximum of new residents in the service areas of the affected water agencies under current trends of 470,241 based on Table A deliveries alone and up to 484,499 based on both Table A and Article 21 deliveries. Under the less resource intensive scenario, the increased water supply could support an estimated maximum of 545,517 new residents based on Table A deliveries and up to 561,684 based on both Table A and Article 21 deliveries. Under the more resource intensive scenario, the increased water supply could support an estimated maximum of 392,808 new residents based on Table A deliveries alone, and up to 405,103 based on both Table A and Article 21 deliveries.

TABLE 8-3

POTENTIAL POPULATION INCREASE DUE TO ESTIMATED AVERAGE ANNUAL DELIVERIES IN 2020

	Additional Deliveries (AFY) ¹			Potential Additional Population ²					
	Table A Deliveries	Article 21 Deliveries	Total	Based on Table A Deliveries			Based on Table A and Article 21 Deliveries		
				Current Trends	Less Resource Intensive	More Resource Intensive	Current Trends	Less Resource Intensive	More Resource Intensive
SWP M&I contractors									
Napa County FC&WCD	2,400	800	3,200	14,879	16,871	12,830	19,839	22,494	17,106
Solano County WA	3,200	800	4,000	19,839	22,494	17,106	24,798	28,118	21,383
Alameda County FC&WCD, Zone 7	25,100	700	25,800	155,610	176,440	134,179	159,950	181,360	137,921
Castaic Lake WA	31,700	800	32,500	147,396	173,619	120,425	151,115	178,001	123,464
Coachella Valley WD	6,700	700	7,400	31,153	36,696	25,453	34,408	40,529	28,112
Desert WA	1,500	-3,300	-1,800	6,975	8,215	5,698	0 ³	0 ³	0 ³
Mojave WA	17,800	0	17,800	82,765	97,490	67,620	82,765	97,490	67,620
Palmdale WD	2,500	0	2,500	11,624	13,692	9,497	11,624	13,692	9,497
Total	90,900	500	91,400	470,241	545,517	392,808	484,499	561,684	405,103

Notes:

1. Average annual increases in deliveries to M&I contractors resulting from the proposed project, as compared to the baseline scenario, from Tables 6-22 and 6-25.
2. Based on 2030 GPCPD rates for the South Coast and the San Francisco Bay Hydrologic Regions, per the California Water Plan Update, Bulletin 160-05.
3. Assumed no population growth associated with negative total additional deliveries.

Therefore, under any and all of the future scenarios, implementation of the proposed project could support population growth in some areas. As mentioned above, the GPCPD are based on 2030; therefore, it is reasonable to assume that the actual population growth in 2020 for these areas would be less. The effects of this increase in population are discussed below.

Elimination of Obstacles to Growth

Increased average annual deliveries of SWP water to affected service areas could result in the construction of additional local infrastructure to deliver the water supplies. This could remove an obstacle to growth.

Economic Effects

At the local level, the increased population that could result from increased average annual deliveries of SWP water could stimulate increased economic activity as a result of an increased demand for goods and services necessary to support the population growth. The need for additional goods and services would induce increased employment. An increase in future employees would require the development of physical space. It is the characteristics of this physical space and its specific location that would determine the type and magnitude of associated environmental impacts of this economic activity.

Environmental Impacts

Because there could be an increase in population in some areas, currently undeveloped land could be converted to urban uses or current urbanization could be intensified, which could have secondary (or indirect) environmental effects such as impacts on special-status species and their habitat, changes in storm water quality and quantity due to increased impervious surface cover, reduction in air quality, increased traffic and noise levels, reduction in public service and utility levels of service, etc. Some of the EIRs prepared by recipients of Table A transfers identified similar secondary impacts in their service areas (see Table 8-1).

The specific environmental effects associated with increased population are too speculative to predict or evaluate since the exact location and manner of potential future development within the eight M&I contractors' services areas cannot be determined. However, this Program EIR provides an independent but generalized analysis of secondary impacts based on the known environmental effects of urban development in California. This analysis is presented below. The project-specific environmental impacts of implementing the proposed project are evaluated in Chapter 7 of this EIR.

The conversion of land to urban uses could result in a variety of different environmental impacts. Land that would be converted to urban uses along transportation routes and on the fringes of existing urban and suburban areas is typically undeveloped or used for agriculture. Conversion to urban uses of agricultural lands removes this land permanently from being available for agricultural production. In addition, conversion of agricultural or undeveloped lands eliminates most of the wildlife habitat value of these lands. Landform and drainage patterns could be altered, with natural drainage channels largely replaced by engineered storm water systems. Impermeable roofs, parking lots, and roadways could replace permeable surfaces with a consequent increase in storm water runoff and a decrease in groundwater recharge. Various substances associated with homes, yards, and vehicle use (paints, pesticides, plasticizers, oil and grease, brake dust, pet wastes, etc) could be deposited on urban surfaces and conveyed to natural waterways. The introduction of people and vehicles into previously unpopulated or

lightly populated areas could increase traffic, noise levels, air pollutant emissions, the generation of sanitary wastewater and solid waste, and the demand for local services.

8.3 DISCUSSION AND CONCLUSIONS

The analysis described above provides a conservative, over-estimate of both the potential increase in population at the local level and of the resulting range of potential growth impacts that could result from the proposed project. This is because of the following assumptions:

- For those M&I contractors that receive more water as a result of the proposed project, all this additional water is assumed to be used to support growth in those contractors' service areas rather than be used for other purposes.
- For those M&I contractors that receive more water as a result of the proposed project, it is assumed that in the absence of the proposed project they would not have been able to find alternative water supplies to support this same growth.
- Those M&I contractors that receive less water as a result of the proposed project are, to the extent water may be a limiting factor to growth in their service areas, assumed to be able to obtain alternative water supplies.

If any of these assumptions were untrue then potential growth impacts would be less than the estimates presented above. The veracity of these assumptions and their effects on the estimated growth impacts are examined below.

8.3.1 Use of Additional SWP Water by M&I Contractors

The EIRs prepared on the transfers of Table A amount from KCWA to the M&I contractors provide an indication of the M&I contractors' intentions. Five of the EIRs indicate that the M&I contractors intend to use the additional SWP water to support growth but several note that some of the water would be used for a different purpose. Different purposes include the use of the additional water to recharge over-drafted groundwater basins, to replace more expensive water supplies and to improve system reliability by storing the extra SWP water for use in years when water availability from the SWP or other water sources is limited.

Groundwater basins are in an over-drafted condition in the service areas of two of the municipal water agencies that would receive additional SWP water (Mojave WA and Palmdale WD). The EIR prepared on the transfer of Table A amount from a KCWA member agency, Berrenda Mesa WD, to Mojave WA indicates that Mojave WA intends to use some of its additional SWP supply for groundwater replenishment. The EIR prepared on the transfer of Table A amount from a KCWA member agency, Belridge WSD, to Palmdale WD indicates that Palmdale WD intends to use some of its additional SWP supply to reduce reliance on groundwater. Thus, only a portion of the additional SWP water received by Mojave WA and Palmdale WD would be used to support growth.

It is unlikely that any of the eight M&I contractors receiving increased SWP deliveries would use the additional SWP supply to replace more expensive water from another source. For these eight M&I contractors, SWP water is probably their most expensive current major source of water. None of the EIRs on the Table A transfers indicate that M&I contractors intend to use their additional SWP water for this purpose.

Any of the eight M&I contractors could allocate some or all of the additional SWP water supply to improving reliability rather than supporting additional growth. One way of improving reliability is to store SWP water within or outside a contractor's service area for later use in dry years. As noted above, Mojave WA and Palmdale WD intend to use some of their additional SWP supply to replenish groundwater basins, which would have the effect of increasing the reliability of their water supply systems. Two other M&I contractors, Castaic Lake WA and Alameda County FC&WCD Zone 7, stored SWP water outside their service areas between 1994 and 2003. This suggests that they are using part of the additional SWP water to improve the reliability of their water systems.

Another way to improve reliability is to increase system reliability by increasing use of SWP water when it is available and using other sources when SWP water is in short supply. The EIR on the Table A transfer from the Belridge WD to Solano County WA indicates that Solano County WA intends to use a portion of its additional SWP water to improve its system reliability in this way. The Negative Declaration on the Table A transfer from the Belridge WD to Napa County FC&WCD indicates that Napa County FC&WCD would use all of its additional SWP supply to improve system reliability.

Some of the eight M&I contractors receiving additional SWP water intend to use part of it to support growth and the rest for another purpose, primarily improving system reliability. It is not clear how much of the additional SWP water would be used to support growth and how much would be used for other purposes.

8.3.2 Alternative Water Supplies to Support Growth

Some or all of the estimated population growth could probably occur with or without the Monterey Amendment. If the eight (or seven based on combined Table A and Article 21 deliveries) M&I contractors receiving an increase in average annual deliveries as a result of the Monterey Amendment did not receive the increase they would have sought alternative sources of water. It is likely that some of the eight M&I contractors would be able to find some alternative water supplies to support growth in their service areas. Alternative water supplies could include transfers from SWP agricultural contractors (unrelated to the Monterey Amendment) or other agricultural agencies, seawater or brackish water desalination, and wastewater reclamation.

Assuming that transfers from agricultural agencies could be made that would provide reliable water and not cause unacceptable local impacts, such transfers are the most likely source of an alternative water supply for municipal water agencies because the water so obtained would likely be less expensive than water obtained by desalination or wastewater reclamation. Water costs are only a small part of a typical urban household budget but they often represent a considerable proportion of farmers' total cost of production and so a small increase in water cost can have a large effect on farm profitability. Desalination, water reclamation and waste water treatment, though costly, are being developed and used by municipal water agencies, especially in southern California.

Urban water use is not as sensitive to cost as agricultural use. The alternative water would probably be more expensive than SWP water but the water agencies would be able to pass the increased cost on to urban water users. Municipal water agencies pass on increased water costs to their customers through connection charges and monthly water bills. Connection charges are one-time charges for connection of new buildings to a municipal water system and are typically added to the cost of new homes. Connection charges are typically set based on

the construction cost of the extra pipes, pumps, and tanks needed to serve water to a new neighborhood and are not related to the unit cost of water. Because connection charges generally do not depend on the unit cost of water, they would typically not be affected by a change in water source. Thus, the cost of new homes would likely be unaffected by a change in water source. However, new homeowners could experience higher monthly charges than they would have if their water purveyor had received additional SWP water.

8.3.3 Local Decision Making on Land Use Planning

It is unclear whether in certain areas increased average annual SWP deliveries eliminate an obstacle to growth. The proposed project would not improve infrastructure capacity or remove a regulatory constraint that had previously limited growth in the municipal contractor's service areas. It is possible that uncertainty in water supplies could, in and of itself, be considered an obstacle to growth because planners might have limited growth (urbanization) based on water supply availability. For instance, the 2004 EIR on the Table A transfer to Castaic Lake WA states that the transfer would eliminate an obstacle to growth.

Although a project may have growth-inducing potential, it may not result in growth. Neither the Department nor the water agencies to which it delivers water make decisions with regard to where and how growth should occur. General decisions regarding growth are made through the general planning process at regional and local levels. However, growth is ultimately controlled by decisions made with respect to individual development proposals at the local level by cities and counties. Availability of water is only one of many factors that land use planning agencies consider when making decisions about growth.

The cities and counties are responsible for considering the environmental effects of their decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. The impacts of growth would be analyzed in detail either in general plan EIRs or in project-level CEQA documents. Mitigation of identified impacts would be the responsibility of the local jurisdictions in which the growth would occur. Mitigation measures could include locating the growth in areas where sensitive resources are absent, minimizing the loss of resources, or replacing any loss. If identified impacts could not be mitigated to a level below the established thresholds, then the local jurisdiction would need to adopt overriding considerations.

8.3.4 Conclusions

The additional water supply that would be made available by the Monterey Amendment through average annual Table A deliveries to eight M&I contractors could support a maximum increase in population of approximately 392,808 to 561,684 (depending on the future scenario) in their service areas. Average annual Table A and Article 21 deliveries to seven M&I contractors could support a maximum increase in population of approximately 405,104 to 561,685. This analysis concludes that some of this water could support additional growth. This conclusion is similar to that found in environmental documents prepared by the sellers and buyers of Table A water. It is unlikely that all of such population growth would occur because some of the water would be used for other purposes such as improving the reliability of water supplies, or that any growth that did occur could be attributed to the Monterey Amendment because it is likely that in some cases alternative sources would have been used to support this growth in the absence of SWP supplies.

Increases in population can result in new development that causes adverse impacts to the environment. This study concludes that some of the impacts are potentially significant and cannot be avoided. This conclusion is similar to conclusions found in some of the environmental documents prepared by sellers and buyers of Table A water. The types of impacts and potential mitigation measures are discussed in Section 8.2 and are common to urban development projects.

Neither the Department nor local water supply agencies make local decisions regarding growth and where it will occur. Cities and counties in the contractor service areas affected by the increased population are responsible for considering the environmental effects of their growth and land use planning decisions. When new developments are proposed, the cities and counties prepare environmental documents pursuant to CEQA. Where appropriate, they must consider mitigation measures, alternatives and overriding considerations.

ENDNOTES

1. Central Coast Water Authority, *Draft Environmental Impact Report, Implementation of the Monterey Agreement*, May 1995, page 3-21.
2. Central Coast Water Authority, *Draft Environmental Impact Report, Implementation of the Monterey Agreement*, May 1995, Table 3.8-2, page 3-25.
3. California Department of Water Resources, *2005 State Water Project Reliability Report*, June 2006, page 15.
4. GPCPD: total urban water use in TAF*325853.319*1000/(population)*365.
5. California Department of Water Resources, *California Water Plan Update 2005*, December 2005, Volume 3, page 1.5.
6. California Department of Water Resources, *California Water Plan Update 2005*, December 2005, Volume 1, pages 4.11 and 4.12.