Chapter 21
Growth Inducing Impacts

21.1 Introduction

The California Environmental Quality Act (CEQA) Guidelines, in Section 15126.2(d), require an environmental document to:

> *"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..."*

The following brief discussion presents general factors that could result in growth inducing impacts. Also included thereafter is an analysis of the relationship between growth and the increased water supply reliability provided by the Environmental Water Account (EWA). This chapter provides an overall evaluation of the potential for regional growth inducement resulting from implementation of the EWA.

21.2 Growth Inducing Factors

In general, an action would be considered growth inducing if it caused or contributed to economic or population growth. Growth-inducing actions result in more economic or population growth than would have occurred otherwise from other factors. Thus, a growth-inducing action would promote or encourage growth beyond that which could be attributed to other factors known to have a significant relationship to economic or population growth.

Although a project may have growth inducing potential, it may not result in growth. Each municipality or county controls growth at the local level through land use policies in each jurisdiction. Decision-makers alone are able to transform growth-inducing potential or pressure, created by economic or social conditions, into actual growth (CALFED 2000a).

21.3 Current Growth

State and regional service and planning agencies, such as the California Department of Finance, Southern California Association of Governments, Bay Area Association of Governments, Sacramento Area Council of Governments, Council of Fresno County Governments, and the Butte County Association of Governments have prepared extensive studies and reports forecasting California's economy, population, and resources. These studies and reports have been approved and adopted by the respective agencies, in cooperation with local jurisdictions, as the most likely scenarios for growth in this region.

The primary objectives of these demographic projections, and the planning policies on which they are based, are to evaluate the potential social, economic, environmental,

and fiscal impacts that may result from this level of projected growth and to identify mitigation required to reduce or eliminate these impacts (MWD and BLM 2001).

These projections take into account the predicted adverse impacts of growth. In other words, state and regional planning agencies project growth to occur despite possible shortfalls in water supply, heavy traffic, and other factors that are sometimes assumed to be growth limiting. As it relates to this document, growth will occur with or without the EWA or CALFED programs. Table 21-1 indicates the South of Delta counties population forecast for year 2020, in five-year increments, determined by the California Department of Finance.

Table 21-1
South of the Delta Population Forecast

County	*2000*	*2005*	*2010*	*2015*	*2020*
Alameda	1,466,900	1,580,200	1,671,200	1,735,800	1,811,800
Calaveras	41,000	47,800	53,400	57,900	62,200
Contra Costa	963,000	1,021,400	1,071,400	1,108,100	1,152,900
Fresno	816,400	893,300	970,900	1,043,100	1,134,600
Imperial	149,000	182,500	217,500	252,000	294,200
Kern	678,500	771,300	871,600	972,700	1,088,600
Kings	134,500	149,600	165,300	180,800	198,700
Los Angeles	9,716,000	10,169,100	10,605,200	10,983,900	11,584,800
Madera	127,700	152,600	178,900	203,000	229,200
Mariposa	17,300	19,600	21,500	23,000	24,300
Merced	214,400	239,900	266,700	292,400	322,700
Monterey	408,700	450,300	493,100	535,700	590,700
Orange	2,893,100	3,099,700	3,266,700	3,384,300	3,541,700
Riverside	1,577,700	1,864,700	2,159,700	2,459,600	2,817,600
San Benito	54,500	63,600	72,000	79,100	86,800
San Bernardino	1,742,300	1,980,000	2,231,600	2,487,700	2,800,900
San Diego	2,856,300	3,149,900	3,388,400	3,591,300	3,863,500
San Joaquin	573,600	645,600	727,800	803,400	887,600
San Luis Obispo	249,900	287,000	323,100	357,000	390,900
San Mateo	717,900	765,800	794,600	809,100	834,500
Santa Barbara	406,100	434,400	467,700	505,200	552,700
Santa Clara	1,709,500	1,867,400	1,987,800	2,063,000	2,163,000
Santa Cruz	259,300	284,500	311,900	339,900	370,600
Stanislaus	454,600	522,700	587,600	646,800	712,100
Tulare	375,100	422,000	469,800	515,600	570,900
Tuolumne	55,200	62,200	68,200	72,800	77,200
Ventura	765,300	818,600	877,400	934,000	1,007,200

Source: California Department of Finance, Interim County Projections, Estimated July 1, 2000 and Projections for 2005, 2010, 2015, and 2020

21.4 The CALFED PEIS/EIR and Water Supply Reliability

The CALFED Bay-Delta Preferred Program Alternative is expected to result in an improvement in water supply reliability and availability for beneficial use in the Upstream from the Delta Region, Delta Region, and Export Service Area, within State Water Project (SWP) and Central Valley Project (CVP) Service Areas. Discussions of

whether additional water supplies and/or improvements in water supply reliability could induce growth often result in differences of opinion; therefore, this topic is considered an area of controversy as used in National Environmental Policy Act (NEPA) and CEQA. Because this issue cannot be predicted with certainty, the programmatic level of analysis in the CALFED PEIS/EIR made the assumption that any increase in water supplies and/or improvements in water supply reliability associated with the CALFED program would stimulate growth, as discussed in Section 5.1 of the CALFED PEIS. This assumption was made to disclose the environmental consequences associated with growth in the event that CALFED program actions ultimately lead to this type of change. Also considered in the formation of this assumption was the knowledge that the CALFED program is a long-term program, expected to continue 30 or more years (CALFED 2000a).

21.5 The EWA and Water Supply Reliability

The EWA's purpose within the CALFED program is to provide protection to the targeted at-risk fish species of the Bay-Delta estuary through environmentally beneficial changes in SWP/CVP operations. The EWA program includes commitments that improve the reliability of the water supply available from the Bay-Delta system (CALFED 2000b). In this way the EWA meets the two-fold purpose of the CALFED program: to "restore ecological health and improve water management for beneficial uses of the Bay-Delta system (from the CALFED program statement of purpose) (CALFED 2000b)."

It has not been determined whether an EWA should be a long-term program within the overall CALFED program. As described in Chapter 1 of this document, the CALFED Record of Decision (CALFFED ROD) identified an EWA during the first 4-years of the CALFED program. According to the EWA Operating Principles Agreement, the five EWA agencies are to review the effectiveness of the EWA after 4 years and decide whether to continue an EWA as implemented, address changes to the program, or seek a more permanent solution to water reliability issues. If the EWA agencies decide that an EWA should continue as described in this EIS/EIR, this document covers and analyzes the environmental effects of the EWA until the end of Stage 1 (until 2007).

The EWA Fixed and Flexible purchase alternatives would both help to ensure short-term increases in the reliability of water supply for all SWP and CVP users to the degree that they provide the Endangered Species Act (ESA) commitments to the SWP and CVP and do not allow jeopardy conditions or uncompensated Delta export pumping reductions to occur. However, the exact contribution of either alternative to water supply reliability is hard to estimate. Absent an EWA program, export reductions at the SWP and CVP pumps could occur when the U.S. Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NOAA Fisheries), and California Department of Fish and Game (CDFG) determined that levels of fish take at the Delta export pumps had reached levels of concern as specified in the Biological Opinions or when the Projects voluntarily reduced pumping to avoid a potential jeopardy determination under the Endangered Species Act (ESA). Without the cooperative

forum provided by an EWA, the Bureau of Reclamation (Reclamation) and California Department of Water Resources (DWR) would resist implementing voluntary uncompensated pumping reductions and disagreements with USFWS, NOAA Fisheries, and CDFG could ultimately result in a solution that imposed a strict, prescriptive interpretation of the ESA. Mandatory reductions would then result in unexpected delivery interruptions to CVP and SWP water supply and reduce total water deliveries to SWP and CVP users. The Fixed or Flexible EWA alternatives would directly or indirectly contribute to water supply reliability through avoidance of the possible mandated pumping reductions or curtailments and their potential impacts to Project water supply. Voluntary pumping reductions under an operable EWA program do not affect water supply because all voluntary pumping reductions are replaced at a later time with an identical amount of EWA assets.

Because of the dynamic nature of fish populations and biology, the annual variation in California's hydrology, and the short time frame analyzed by this document (through 2007), it is impossible to predict the timing and magnitude (in lost water deliveries) of any uncompensated pumping reductions that might occur under baseline conditions or future No Project conditions. There is no model that can predict when pumping reductions would be required to prevent jeopardy to at-risk fish species in the Delta. Such a model would have to identify the timing, magnitude, and duration of these pumping reductions to identify the amount of water foregone by the Projects. The model would also have to simulate the allocation processes employed by both the CVP and SWP to determine the loss in deliveries in the affected year. Additionally, the model would have to predict and simulate how the Projects would employ other operational tools and flexibility to partially compensate for the lost pumping opportunities. Because no model exists or can realistically be developed, quantifying the actual amount of increased water supply and reliability under the Fixed or Flexible Purchase Alternatives is not possible at the present time.

Assuming mandatory pumping reductions occurred under the baseline condition, the Flexible Purchase Alternative would provide more protection and water supply reliability to the SWP and CVP than the Fixed Purchase Alternative if the larger quantity of EWA assets it entails were required to maintain ESA commitments and avoid uncompensated pumping reductions. If the Fixed purchase alternative allows the EWA Management Agencies sufficient EWA assets to provide the Projects with ESA commitments, then both the Fixed and Flexible purchase alternatives would result in the same net increase in water supply reliability through avoidance of uncompensated pumping reductions. The increase in amount of SWP and CVP water supply reliability would be measured by the amount of water saved and the frequency of such savings through avoidance of uncompensated pumping reductions mandated through regulatory or other means without the ESA commitments that an operable EWA provides to the Projects. The No Project alternative would not increase water supply reliability of the SWP and CVP. The No Project alternative could actually result in decreased water supply reliability if conditions occur that increase the conflicting pressures between CVP and SWP water deliveries and protection of targeted at-risk fish populations in the Delta through Project pumping reductions.

An EWA's potential to provide an additional amount of water to the SWP and CVP above the baseline amount, because ESA commitments provide that no uncompensated pumping reductions will occur, could indirectly relate to growth. Water supply could potentially remove an obstacle to growth, accommodate growth, or induce growth depending on site-specific factors individual to every local government jurisdiction and proposed development throughout the State. One factor of importance to consider is that EWA-related water supply reliability, in the face of mandated cuts, would benefit both urban and agricultural water contractors of the CVP and SWP. Therefore, not all of an EWA-related increase in water supply reliability would potentially accommodate, induce, or remove an obstacle to growth, but only that portion that provides reliability to urban service areas. Another major factor is that almost all local urban water agencies in the State rely on more than one source of water to provide a dependable supply to customers.

Water supply reliability alone is not the determinative factor causing, inducing, or accommodating growth in any region of California. Water supply reliability for urban population growth and development is taken into account to varying degrees by local planning agencies in General Plans and Water Supply Master Plans. The sophistication and complexity of this process has increased in the past decade as better predictive models and data have surfaced. Public attention has also focused on the recognition that water supply is one of the key factors to consider when planning new developments. Community planners, developers, industries, and others seeking to implement or realize urban growth in California are required to demonstrate a reliable water supply. Two bills enacted in 2001 by the California Legislature, SB 221 (Kuehl) and SB 610 (Costa), require cities and counties to look very closely at long-term water supply reliability when approving land development projects consisting of more than 500 housing units. SB 221 defines "sufficient water supply" as the "total water supplies available during normal, single-dry, and multiple-dry years within a 20-year projection that will meet the projected demand." These recent laws reinforce and strengthen the need for proper water supply planning at local government levels. They also emphasize the need for accurate and careful information regarding reliable water supplies.

In May 2003 DWR published the first in a biannual series of State Water Project Reliability Reports to provide information on the "ability of the SWP to deliver water under existing and future development." The analysis and report assumed operation of an EWA similar to that in the CALFED ROD even though the EWA is currently short-term. This inclusion was only to simulate potential SWP and EWA operations and coordination and did not materially affect the final SWP water supply reliability analysis contained in the report because only voluntary pumping reductions were simulated, each of which was compensated using simulated EWA assets. The mandated pumping reductions that could occur absent an EWA, which would materially alter SWP reliability, were not included in the CALSIM II modeling conducted for the Reliability Report due to the aforementioned difficulty of generating and simulating them with a current model. Because of its inclusion in the Reliability Report, however, an EWA may be considered a long-term program by

some local planning agencies and they may rely on the Reliability Report without considering the potential impacts of uncompensated pumping reductions if an operable long-term EWA is not approved by all EWA agencies and ESA commitments are not granted to the CVP and SWP. Assuming that uncompensated pumping reductions would occur in some years under baseline conditions, there could be less water delivered by the SWP than now stated in the Reliability Report, but that amount is unknown. The Reliability Report cautions that not all model assumptions about the future operation of the SWP are accurate including those involving future hydrology, regulatory constraints, biology, and demographic patterns. Despite these cautions, some local agencies might rely on the inclusion of an operable EWA in the Reliability Report. Because the report contains no analysis concerning the quantity or frequency of uncompensated pumping reductions that could occur if ESA commitments were not provided through an operable EWA, an EWA program could be considered to affect local planning agency decisions on growth.

Many urban water agencies rely on water from multiple sources including groundwater, local storage projects, imported surface water, water from long-term or temporary transfers, reclamation programs, and conservation programs. These multiple sources create a "portfolio" of water management options and strategies. Taking their specific water sources into account, each local water purveyor individually analyzes and releases information on its own water supply reliability for use by local planning agencies. Because local agencies may incorporate the SWP Reliability Report in assessing the availability of water supplies for growth, the Reliability Report may be used by those agencies as one factor in assessing the reliability of water supplies when approving developments and growth. In this sense, the concept of an EWA and its benefits to reliability may be one of the pieces of information that a local planning agency or developer takes into account when considering a project and may remove an obstacle to growth. The Reliability Report, however, is not the only information, nor is it the final determination of water supply reliability for any area because the local water "portfolio" must be examined along with the local water supplier's own reliability data, which usually include more than strict annual reliance on SWP allocations.

It is unknown whether any growth would be denied by local agencies in the absence of the EWA, and it is too speculative to attempt such a determination in this document. There are no known current development projects awaiting EWA approval for final authorization at the local level. All decisions on development and growth are ultimately made at the responsible local agency level using a long-term planning horizon.

Growth and development are not inherently deleterious. Growth can be beneficial, benign, or cause adverse environmental impacts. There is no way to predict the size and location of any growth that might occur due to potential increased supply reliability of the SWP and CVP because of a short-term EWA. Each local government must evaluate each development plan within its purview, assess its environmental impacts, and ultimately approve or disapprove any growth. At this level of local specificity, environmental impacts would be identified to the public. It is the

responsibility of local agencies to choose whether to mitigate for any negative impacts of growth they have approved within their jurisdiction. There is no way that the EWA agencies can estimate the magnitude of growth, its location, or the level of significance of any direct, indirect, or cumulative impacts that may be caused by any growth based on the limited role that a short-term (through 2007) Fixed or Flexible EWA alternative may or may not play in local water supply assessments and local-decision making processes.

21.6 References

CALFED Bay-Delta Program. 2000a. *Final Programmatic Environmental Impact Statement/Environmental Impact Report*. Pp. 3-3, 4-7, 5.1-65, CR-69, and CR-70.

CALFED Bay-Delta Program. 2000b. *Programmatic Record of Decision*. Pp. 9, 57-58.

Department of Water Resources (DWR). 2000. *The State Water Project Reliability Report*. Accessed: 25 June 2003. Available from: http://swpdelivery.water.ca.gov.

Metropolitan Water District of Southern California (MWD) and U.S. Department of the Interior Bureau of Land Management (BLM). 2001. *Cadiz Groundwater Storage and Dry Year Supply Program Final Environmental Impact Report/ Environmental Impact Statement.* Accessed: 17 September 2002. Available from: http://www.mwd.dst.ca.us/mwdh2o/pages/news/cadiznet/index.htm.