

# CHAPTER 6

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## Growth-Inducing Impacts

### 6.1 Introduction

#### 6.1.1 CEQA Definition of Growth-Inducement

The CEQA Guidelines require that an environmental impact report (EIR) evaluate the growth-inducing impacts of a proposed action (Section 15126.2(d)). A growth-inducing impact is defined by the CEQA Guidelines as:

*[T]he 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 .... It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.*

A project can have direct and/or indirect growth-inducement potential. Direct growth-inducement would result if a project actually induced or required that additional actions or projects be implemented. For instance, a new housing project could require construction of new electric transmission lines to serve the new population. A project can also have indirect growth-inducement potential if it would establish substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a substantial construction effort that would indirectly stimulate the need for additional housing and services to support the new employment demand.

Similarly, under CEQA, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as increasing the capacity of an essential public service. An example of this indirect effect, as cited in the CEQA Guidelines (Section 15126.2(d)), would be the expansion of a wastewater treatment plant, which would enable more construction in its service area.

Finally, projects that may encourage or facilitate other activities that have the potential to affect the environment, either individually or cumulatively, need to be identified and addressed in this discussion.

## 6.1.2 Approach to Growth-Inducement Analysis

The environmental impacts associated with a growth-inducing action are secondary, or indirect, physical effects of growth. Secondary effects of growth-inducing action typically include, but are not limited to, increased traffic, degradation of air quality, loss of biological resources and habitats, increased demand on public services, and changes in land use.

Local land use plans (e.g., General Plans) provide land use development patterns and growth policies that allow the planned and orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service. A project that would induce unplanned growth (i.e., conflict with the local land use plans) could indirectly cause additional adverse environmental impacts and other public services impacts not previously envisioned. Thus, to assess whether a project with the potential to induce growth will result in adverse secondary effects beyond what is anticipated by local jurisdictions, it is important to assess the degree to which the growth associated with a project would or would not be consistent with applicable land use plans.

## 6.1.3 Overview of Growth-Inducement Potential

Sanitary sewer service is an essential public service needed to support urban development. The Wastewater Treatment Plant (WWTP) Expansion Project (Project) would provide sufficient wastewater capacity to serve populations and activities planned to occur within the City of Merced's (City) Specific Urban Development Plan (SUDP) and the Long-Range Development Plan (LRDP) for the University of California-Merced (UC-Merced). Additional treatment technologies provided by the Project would improve effluent quality to satisfy more stringent Waste Discharge Requirements that the Central Valley Regional Water Quality Control Board may impose. Therefore, proposed WWTP facility upgrades are necessary to maintain future wastewater service to City residents and businesses within the SUDP.

## 6.2 Growth Trends in the City of Merced Area

Historically, the economy within Merced County has been tied to agriculture. While agriculture is still a major industry within Merced County, it is no longer the sole driving force of economic growth. Merced County, like other counties in the San Joaquin Valley, is experiencing major structural shifts in the distribution of new job growth. This job growth also requires more financial, insurance, real estate, and local government services for an increased number of people. The following section provides detailed information for current population, housing, and employment projections, based on data from the U.S. Census, the California Department of Finance, the Merced County Association of Governments, and Merced County.

## 6.2.1 Planned Population Growth

Merced's population in December 2005 was 76,225, an increase of 2.9 percent from December 2004 (DOF, 2006). The City is the primary urban center of Merced County, comprising roughly 30.6 percent of the county's total population. The 1997 City of Merced General Plan projects that the population of the SUDP will increase to 133,250 by 2015. The SUDP population is anticipated to increase to 202,070 by 2035 (City of Merced, 1997).

When the 1997 City of Merced General Plan was prepared, it envisioned that the UC-Merced campus would be constructed and add 8,200 residents by 2015 and reach 37,140 residents by 2035. Therefore, the General Plan foresaw a population in 2015 of about 157,450 residents and a population in 2035 of 230,070 people residing in the SUDP and immediate area. The 2002 UC-Merced Long-Range Development Plan estimated that a full-development population of about 31,248 students, faculty, and staff would be associated with the campus.

More recent population data developed by the Merced County Association of Governments (MCAG) Regional Transportation Plan (RTP) projects a slightly slower growth rate when compared to projections presented in the City's 1997 SUDP. Nonetheless, project-related engineering studies have estimated the volume of wastewater to be generated according to population projections contained in the 1997 City of Merced General Plan and the 2002 UC-Merced Campus LRDP to provide a reasonably conservative estimate of future wastewater flows (ECO:LOGIC, 2002). Table 6-1 presents the population projections presented in the SUDP (1997) and MCAG RTP (2004) and the associated wastewater flow volumes. Based on the more recent RTP projections, the City has identified a 12 mgd development phase that would be implemented if the SUDP population and development estimates prove to be high.

**TABLE 6-1  
RELATION OF WASTEWATER FLOW  
TO PLANNED POPULATION AND DEVELOPMENT**

City SUDP Projections		MCAG RTP (2004) Projections		Year
Population	MGD <sup>(1)</sup>	Population	MGD <sup>(1)</sup>	
100,880	11.6	72,600	8.35	2005
116,800	13.43	81,900	9.42	2010
133,250	15.32	89,400	10.28	2015
149,700	17.22 <sup>(2)</sup>	97,700	11.2 <sup>(2)</sup>	2020
--	--	106,800	12.28	2025
--	--	116,000	13.34	2030
202,070	23.24 <sup>(3)</sup>	--	--	2035

(1) Per capita wastewater demand = 115 gallons per day

(2) An additional 2.25 mgd of wastewater capacity would be required to accommodate UC Merced Campus at 2015.

(3) An additional 3.6 mgd of wastewater capacity would be required to accommodate UC Merced Campus at 2035.

SOURCE: City of Merced, 1997; ECO:LOGIC, 2002; UC-Merced, 2002

## 6.2.2 Economy

According to California Department of Finance statistics, there were about 52,000 nonagricultural jobs and 11,700 agricultural jobs in Merced County in 2000 (DOF, 2005). As of 2004, Merced County was ranked fifth statewide for agricultural production with a gross value of \$2.365 billion (Agricultural Commissioners Report, 2004). Of the 52,000 nonagricultural jobs, 12,300 were in the trades. Other large employment sectors in the county were state and local government, with 11,700 jobs, and manufacturing, with 10,800 jobs.

Merced accounts for approximately 43 percent of the total jobs in Merced County. Retail, services, and local government sectors account for 68 percent of those jobs. Agriculture-related employment is relatively less significant for Merced than for the county as a whole. Projections through 2020 indicate that employment in Merced County will increase to 98,200 without UC-Merced, assuming a growth rate of around 1.0 percent (UC-Merced, 2001). Most of this employment growth would occur in the services and retail sector, which will provide 27 percent and 26 percent of all new jobs, respectively.

## 6.2.3 Housing

Merced currently provides roughly one-third of the county's housing stock. According to the California Department of Finance, there were 24,757 housing units in Merced as of January 2005 (DOF, 2005). Approximately 5.1 percent of the total housing units in Merced were vacant as of January 1, 2005. The DOF considers a 5 percent vacancy rate "normal" to allow for turnover of units.

Based on the expected population growth within the city and assuming an average household size of 3.074 (DOF, 2004), it is expected that an additional 22,500 new units (a 90 percent increase) will be added to Merced's housing stock by 2015.

## 6.2.4 General Plan Growth Policies

The City's SUDP contains several goals and supporting policies that specifically direct the way in which the City is to manage planned growth. Along with these goals and policies, the City has adopted corresponding policies that identify the circumstances in which the City would consider extending sanitary sewer infrastructure to serve planned growth. These goals and policies are outlined in the following discussion.

### Goal Area UE-1 – Urban Expansion

#### Goals

- A compact urban form
- Preservation of agriculturally significant areas
- Efficient urban expansion

## Policies and Implementing Actions

**UE-1.3:** Control the timing, density, and location of new land uses within the City's urban expansion boundaries.

1.3.a: The City should require that all new urban development be contiguous to existing urban areas and have reasonable access to public services and facilities.

1.3.b: The City should develop systems to evaluate the cost of providing various services to new development and establish clear policy for meeting those costs.

1.3.f: Evaluate future annexation requests against the following conditions:

- c) Can the proposed development be served by the City water, sewer, storm drainage, fire and police protection, parks, and street systems to meet acceptable standards and service levels without requiring improvements beyond which the developer will consent to provide?

**UE-1.7:** Promote annexation of developed areas within the City's Specific Urban Development Plan (SUDP) during the planning period.

**1.7.a:** The City should promote the annexation of unincorporated urban areas within the urban expansion boundaries which cause a duplication of public services and hinder extension of City services to new development.

**1.7.c:** Provide assistance to residents of unincorporated areas to address public health and safety concerns of on-site water and sewer systems.

## Goal Area P-1: Public Facilities and Services

### Goals

- Maintenance and improvement of Merced's existing infrastructure
- New development which includes a full complement of infrastructure and public facilities
- Efficient and cost-effective public service delivery

### Policies and Implementing Actions

**P-1.1:** Provide adequate public infrastructure and services to meet the needs of future development.

1.1.a: Through development review, ensure that utilities are adequately sized to accommodate the proposed development and, if applicable, allow for extensions for future developments, consistent with master plans.

1.1.b: Master infrastructure plans for newly developing areas may be prepared and adopted as necessary.

1.1c: Include Specific Plans and master plans, a phasing plan for providing access, sewer, water, drainage, flood control, schools, parks and other appropriate governmental facilities and services.

1.1d: Construct a stormwater drainage system, water system and sewer system in accordance with master plans.

1.1e: Apply for Federal, State, and regional funding sources set aside to finance infrastructure costs to the maximum extent feasible.

**P-1.2:** Utilize existing infrastructure and public service capacities to the maximum extent possible and provide for the logical, timely and economically efficient extension of infrastructure and services where necessary.

1.2.a: Develop plans which establish priorities to address existing inadequacies in the City's infrastructure system.

1.2.b: Expand existing facilities to the extent possible at present locations.

1.2.c: Periodically evaluate the City's service delivery system and identify policies and programs which may improve operating efficiency and/or reduce service delivery costs.

**P-1.3:** Require new development to provide or pay for its fair share of public facility and infrastructure improvements.

1.3.a: Prepare and adopt adequate fee schedules commensurate with the cost of planned improvements and services, with annual review and update.

1.3.b: Periodically evaluate the City's service delivery system and identify policies and programs which may be applied to new development to improve operating efficiency and/or reduce service delivery costs.

1.3.c: All new development shall contribute its fair share of the cost of on-site and off-site public infrastructure and services as appropriate.

1.3.d: The City may require developments to install off-site facilities which also benefit other properties.

## **Goal Area P-4: Wastewater**

### **Goals**

- An adequate wastewater collection, treatment and disposal system in Merced

### **Policies and Implementing Actions**

**P-4.1:** Provide adequate wastewater collection, treatment and disposal capacity for projected future needs.

4.1.a: Maintain the existing wastewater system to increase the lifetime of the system.

4.1.b: Develop wastewater master plans to serve future Merced urban expansion

4.1.c: Design wastewater collection systems that discourage development of prime agricultural soils.

4.1.d: Coordinate wastewater planning activities with the County.

**P-4.2:** Consider the use of reclaimed water to reduce non-potable water demands whenever practical.

4.2.a: Consider designs for reclaimed water systems, including pipelines, pump stations and storage ponds, to primarily serve as irrigation for feed and fodder crops.

4.2.b: Consider conducting a reclaimed water market study to identify potential users.

4.2.c: Consider preparing a plan for the use of reclaimed water which evaluates the facilities and costs required to serve potential users, determines required capacities of facilities, and presents and implementation plan.

## 6.3 Growth-Inducement Potential of the Project

### Significance Criteria

The Project would result in a growth-inducing effect if it would induce substantial population growth in an area, either directly or indirectly; including situation where the Project would remove an obstacle to, encourage, or otherwise facilitate future population growth or development.

### Impact Analysis

**Impact 6.1: The Project would indirectly induce substantial population growth by eliminating an obstacle for growth by increasing wastewater treatment capacity, an essential service for urban development. (Significant)**

The Project would incrementally increase the WWTP's operating capacity up to 20 mgd. Incremental capacity increases of 12, 16, and ultimately 20 mgd would be driven by increasing wastewater inflows and the rate of near-term development in new growth areas. Because wastewater infrastructure is recognized as a constraint to continued population growth in the Merced SUDP and the UC-Merced campus, the additional capacity provided by the Project would be considered as removing an existing obstacle to growth. Growth-inducement within the SUDP and the UC-Merced campus is addressed in environmental documents previously prepared for the 1997 SUDP Update (City of Merced, 1997a) and the 2001 UC-Merced LRDP (University of California, 2001). Both EIRs were certified and included the adoption of a Statement of Overriding Considerations for the unavoidable significant impacts associated with the implementation of both plans. The unavoidable impacts identified in these documents are disclosed in the following discussion and would be accommodated as a consequence of implementing the Project.

While some of the effects of implementing the 1997 SUDP and 2001 UC-Merced LRDP are significant and unavoidable, others can be mitigated to a less-than-significant level. Potentially significant impacts associated with implementation of the 1997 SUDP include:

- Loss of agricultural land,
- Loss of habitat,

- Increased traffic and traffic congestion,
- Air quality impacts,
- Increased traffic noise,
- Increased energy demand,
- Alteration of the region's visual character, and
- Increased use of non-renewable fossil fuels.

The General Plan's policy framework is its main tool for mitigating these effects, except those identified as significant and unavoidable in the 1997 SUDP EIR. These impacts include:

- Effects to Air Quality – Implementation of the General Plan would contribute to the cumulative regional impact on PM<sub>10</sub> and ozone concentrations that exceed the Attainment status of the San Joaquin Valley Air Basin.
- Loss of Agricultural Soils – Implementation of the General Plan would result in the loss of Prime Farmland as a consequence of conversion to urban land uses.

The EIR prepared for the UC-Merced LRDP identified significant impacts that could not be eliminated or reduced to a less-than significant level by mitigation measures imposed by the university. These significant and unavoidable impacts would result from the development proposed under build-out of the Phase 1 portion of the campus and include:

- Aesthetic Resources – Implementation of the Phase 1 Campus would create new sources of light or glare. Campus development, in combination with other community development, would change the visual character of the area and affect scenic vistas and other scenic resources.
- Aesthetic Resources – Lighting for Phase 1 Campus buildings and other facilities would create a new source of light or glare that could spill onto Lake Yosemite Regional Park and other sensitive areas.
- Agriculture – Implementation of the LRDP will result in the conversion of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland to nonagricultural use.
- Air Quality – Development of the Phase 1 Campus would generate increased emissions levels of carbon monoxide and ozone precursors (reactive organic gases and nitrogen oxides).
- Biological Resources – Development under the LRDP, in conjunction with other development, would result in the loss or adverse modification of important native plant and wildlife habitat, including wetlands, vernal pool habitat, clay playa habitat, and annual grassland habitat, and adverse effects to special-status species associated with these habitats.
- Noise – Implementation of the Phase 1 Campus development would result in significant and unavoidable increased ambient noise levels because of increased traffic on the local roadways. Construction of the campus facilities could expose nearby receptors, especially users of the county park, to elevated noise levels (UC-Merced, 2001).



- **Public Services** – The development of the campus would generate demand for elementary and secondary educational services, which could result in physical effects on the environment.
- **Recreation** – Cumulative growth in area population will result in an increased demand for recreational facilities, which could cause a deterioration of the current facilities.
- **Traffic and Circulation** – Implementation of the LRDP, in combination with the proposed University Community and regional growth in Merced County, would result in increased traffic levels in the vicinity of the campus and exceedance of the roadway level of service thresholds.
- **Utilities** – Implementation of the LRDP would induce substantial economic and population growth in the region and would result in the construction of additional housing.

In addition to these significant unavoidable effects, the university identified significant irreversible changes to the environment resulting from build-out of the Phase 1 Campus. These significant irreversible changes generally fall into three categories: (1) irretrievable commitment of materials and energy during construction and maintenance of the project; (2) loss of agricultural, biological, and cultural resources when undeveloped lands are converted to urban uses; and (3) increased use of natural resources due to increased population at and surrounding the campus site. In the context that the Project would accommodate a critical infrastructure component of both plans, this impact is identified as a significant and unavoidable effect of the Project for which no mitigation is available.

