
6. GROWTH INDUCEMENT

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An EIR must discuss the ways in which a proposed project could foster economic or population growth or the construction of additional housing in the vicinity of the project and how that growth will, in turn, affect the surrounding environment (see CEQA Guidelines Section 15126.2(d)). Growth can be induced in a number of ways, including through the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The discussion of the removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval.

A number of issues must be considered when assessing the growth-inducing effects of development plans, such as the proposed project. These include the following:

- **Elimination of Obstacles to Growth:** The extent to which infrastructure capacity provided to accommodate the proposed project would allow additional development in surrounding areas; and
- **Economic Effects:** The extent to which development of the proposed project could cause increased activity in the local or regional economy.

These issues are each addressed below.

Elimination of Obstacles to Growth

The proposed UCP would require expansion of the infrastructure systems to provide water supply, wastewater collection and treatment, storm drainage, and other utilities and roadways. The water supply would likely consist of wells drilled either on- or off- site, water storage tanks and a water distribution system similar to the City of Merced system. The stormwater conveyance system would incorporate detention basins, and a retention basin, as well as various sized conveyance pipelines and numerous pump stations to regulate the flow of stormwater. For wastewater, a hybrid system combining centralized collection, treatment, and reuse, as well as decentralized on-site treatment and subsurface disposal is proposed to collect, treat and dispose of wastewater generated by the UCP. Some or all of this wastewater may be treated at a local municipal wastewater treatment plant.

Expansion of existing infrastructure would effectively remove obstacles to growth in the area. The following is a list of infrastructure improvements anticipated to be needed for implementation of the proposed UCP:

- Dedication of new well sites;

- Dedication of a new fire station in the UCP area;
- Dedication of a new police station in the UCP area;
- Dedication of new elementary, middle, and high schools in the UCP area;
- Construction of a pump station in the UCP area;
- Connections to water, sewer, and drainage conveyance systems;
- Construction of detention and retention basins;
- Campus parkway along the western border of the UCP area; and
- New roadways throughout the UCP area.

These infrastructure improvements would be sized according to the UCP elements for fire, police, schools, water, wastewater, drainage, and streets. The UCP would provide for infrastructure to serve development approved under the plan. Development of infrastructure could precede development of certain UCP phases; that is, some UCP infrastructure improvements would be sized to accommodate more than demand at the time of implementation. However, in these instances, the excess demand would eventually be used by development for later phases of the UCP, which would already have been considered and approved under the General Plan. Furthermore, UCP Land Use Policy LU 2.9 states:

Extend infrastructure and related services and utilities to urbanizing areas only following the adoption of a Specific Plan and pursuant to its specification for such infrastructure and services. No extraterritorial services shall be extended except where necessary to independently or jointly serve the University Community and UC Merced.

For these reasons, the extension of infrastructure would generally not induce growth beyond the UCP.

Merced Rural Residential Center

The proposed UCP would provide infrastructure near a “Rural Residential Center” (RRC) area that is designated for low-density development. The RRC land use designation is intended to serve as a low-density buffer between urban and agricultural land uses. Residential development is allowed at a maximum density of one unit per acre. Development within the Merced RRC relies on septic systems for wastewater treatment and disposal and on-site wells for potable and irrigation water, rather than developed urban utility infrastructure. County zoning within the RRC allows development of as many as 3 dwelling units per acre where urban water and sewer infrastructure is provided. While UCP infrastructure would not be sized to accommodate growth beyond that required by the UCP, it could provide a point of connection for adjacent RRC.

In 1997, the County entered into a Revenue Sharing Agreement with the City of Merced. Under the current terms of that Agreement, residential land uses within the Merced RRC are limited to a density no greater than one unit per net acre. In addition, UCP policies prohibit oversizing of infrastructure that would serve the development in the University Community, and, as such, would not induce growth beyond the boundaries of the UCP area.

ECONOMIC EFFECTS

Economic effects consider the extent to which implementation of the proposed UCP could cause increased activity in the local or regional economy. Implementation of the proposed UCP would directly affect growth in the County of Merced by allowing for the construction of 11,616 new residential units that would house approximately 30,782 new residents. In addition, the proposed UCP would accommodate 5,524 new jobs.

It would be typical to evaluate the secondary economic effects of the expenditures of future University Community residents and employees. However, this case is unique in that the University Community has been planned to accommodate the growth induced by the proposed development of UC Merced. As is explained further below, in order to establish the size and land use mix of the University Community, an analysis of the economic effects of the 25,000-student campus was prepared. That analysis identified the direct, indirect, and induced growth generated by expenditures in the economy of UC Merced students, faculty and staff, as well as expenditures for goods and services by UC Merced itself. That analysis tracked the extent to which dollars spent by the UC Merced population would generate additional “indirect” employment, and secondarily the extent to which dollars spent by those “indirect” employees would further induce employment growth. The discussion below documents those economic analyses.

The results of the economic analysis formed the programmatic basis for the planning of the University Community. As planned, the size of the University Community would capture the entire indirect and induced growth effect of UC Merced, as further induced growth of those employees in the University Community. Thus, the University Community would be “growth accommodating” and would not economically induce additional employment or population growth in the region.

The Multiplier Effect

One way of measuring the economic effect is through consideration of the “multiplier” effect. “Multiplier” is an economic term used to describe interrelationships among various sectors of the economy. The multiplier effect provides a quantitative description of the direct employment effect of a project, plus the indirect and induced employment growth.

The multiplier effect is measured through the use of an input/output model, which tracks the intricate web of production linkages among industries in the region. The results of the model reveal the extent to which expenditures of employees, residents, and developers would lead to additional employment in the region as a result of the implementation of a project. The multiplier effect will tend to be greater in regions with larger diverse economies due to a decrease in the requirement to import goods and services from outside the region.

Economic Analysis

As part of the planning process leading to the development of the proposed UCP, extensive economic analysis was undertaken to more fully understand the economic effect of UC Merced in the local economy of Merced. The analyses are contained in a report entitled *Merced County University Community Plan/UC Merced Economic Background Report*.¹

The economic background studies included use of an input/output model to establish the economic multiplier effect of the campus. The analysis assumed that the campus at full development would have 25,000 students and approximately 6,600 faculty and staff. These characteristics represent the “direct” effect of the campus. The analysis concluded that the UC Merced campus would generate an additional approximately 6,000 jobs in a variety of economic sectors as a result of the multiplier effect. Approximately 500 of those jobs would be in economic sectors that would not require additional space, including agriculture, mining, construction, and transportation; about 5,500 of those jobs would require additional space. The University Community would provide land adequate to develop 400,000 sq. ft. of research and development space, 907,000 sq. ft. of office space, and 716,000 sq. ft. of local serving retail space. This allocation of space would accommodate the 5,524 jobs in the University Community.

Additional Housing

The proposed University Community would accommodate development of 11,616 housing units. The housing capacity of the University Community was based on an assumption that the UC Merced campus would accommodate 25 percent of students on campus and no faculty or staff. The UC Merced Long Range Development Plan establishes a campus goal of housing 50 percent of the campus students and 50 percent of faculty.

In the event that the campus surpasses the on-campus housing assumptions upon which the UCP was based, capacity would be available in the Community for housing of additional growth not directly affiliated with the campus, but potentially induced by campus-related growth. The source of population for this housing could come from a number of sources, including:

- *Housing for employees of businesses within the University Community.* As is described above, the housing capacity of the University Community was established as a level equivalent to the off-campus housing demand of UC Merced based on a set of assumptions, including on-campus housing. However, the 5,500 additional employees in the University Community, indirect growth of the campus, would require additional housing. The exact amount of additional housing is difficult to predict, as some of those employees may be students, spouses of UC Merced students, faculty or staff, or others. To the extent that employees in the University Community are UC Merced students, faculty, staff, or family members, there would not be an additional housing demand created. However some of the University Community employees would require housing that could occur in the University Community, or elsewhere in the Merced region.
- *Growth caused by campus synergy.* The UC Merced campus has the potential to increase demand for a range of development due to the type of activities and individuals it will

attract. Specifically, the campus could serve as a long-term economic development catalyst, inducing regional growth that may not otherwise have occurred. For example, additional businesses may be attracted to the Merced area due to the presence of the campus and resulting labor force improvements. In addition, UC Merced faculty and graduates may themselves generate spin-off economic activity based on their academic training.

It is not possible to quantify these long-term economic effects because the amount and timing of these effects are highly dependent upon factors that cannot be predicted at this time, including development of academic programs and institutions on the campus and regional economic development policies and trends. However, some of the employees of additional growth stimulated by the synergistic effect of the UC Merced campus could be housed in the University Community, if such housing is available.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

The following standards of significance are based on Appendix G of the CEQA Guidelines. For the purposes of this EIR, impacts are considered significant if the implementation of the proposed UCP would:

- Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure); or
- Foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment.

Impacts and Mitigation Measures

6-1 Implementation of the UCP would accommodate growth induced by the UC Merced campus, and would not induce substantial economic and population growth in the region, and would not result in the construction of substantial amounts of additional housing. This growth is expected to result in less-than-significant environmental effects.

Applicable Regulations: None.

Significance: Less than Significant

Mitigation included in the UCP: Policies LU 2.9, and AA2.1 and 2.4

Significance after Mitigation in the UCP: Less than Significant

Additional Mitigation: None required

Residual Significance: Less than Significant

As is explained above, the UCP would accommodate indirect and induced growth of the UC Merced campus. The development capacity of the UCP has been specifically designed to account for a level of development equivalent to the new off-campus demand of the proposed UC Merced campus at 25,000 student enrollment. This includes indirect and induced growth as a result of the expenditure patterns of the campus and campus population. Because the proposed UCP would serve to accommodate growth induced by the campus, it would not induce additional growth in population or employment in and of itself.

The Land Use, Agriculture and Infrastructure policies of the UCP are specifically intended to eliminate the possibility that the provision of infrastructure to the University Community would induce growth on nearby lands by eliminating infrastructure limitations that may currently exist. As is describe above, Policies LU 2.9 and AA2.4 would prohibit the provision of infrastructure capacity to areas outside of the University Community and/or the UC Merced campus. Policy AA 2.1 would establish the University Community Plan SUDP boundary as an urban limit line, eliminating the possibility of incremental additional growth through expansion of the University Community SUDP.

As such, by design and through UCP policies the UCP would not induce substantial amounts of additional growth in the region.

ENDNOTES

1. Economic and Planning Systems, *Draft Report, Merced County University Community Plan/UC Merced Economic Background Report*, March 2000. This document was prepared as part of the development of the University Community Plan and is on file and available for review at the Merced County UC Development Office, 3531 M Street, Merced, CA.