

21.1 INTRODUCTION

Section 15126.6 of the California Environmental Quality Act (CEQA) Guidelines requires that an Environmental Impact Report (EIR) describe and comparatively evaluate a range of reasonable alternatives to a project, or location of the project, that would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the project's significant effects. The range of alternatives evaluated in the following analysis is dictated by the range of project significant impacts identified in this Draft PEIR, and evaluated alternatives are limited to those that would reduce or eliminate identified environmental impacts.

This Draft PEIR found that many significant impacts could be reduced to a less-than-significant level with implementation of mitigation measures outlined within this document. Exceptions include impacts in the environmental topics of agricultural resources, air quality, biological resources, global climate change, groundwater recharge, noise, population growth, traffic, and water supply. Three alternatives, in addition to the required No Project alternative, were formulated to illustrate the range of project alternatives that could be implemented as alternatives to the proposed 2030 Merced County General Plan (2030 General Plan) project. A detailed description of the proposed project is provided in Chapter 3, *Project Description*. CEQA does not require the environmental review of alternatives to be at the same level of detail as that for the proposed project [CEQA Guidelines Section 15126.6(d)]. The review must be at a sufficient level, however, to allow for a meaningful comparison of the environmental merits of each.

This meaningful comparison of the identified alternatives is summarized in Table 21-6, shown at the end of this chapter. Each of the alternatives, as well as its comparative merits, is described below.

21.1.1 FACTORS CONSIDERED IN SELECTION OF ALTERNATIVES

An EIR should briefly describe the rationale for selecting the alternatives to be discussed, identify any alternatives that were considered by the lead agency but were rejected as infeasible, and briefly explain the reasons underlying the lead agency's determination [State CEQA Guidelines Section 15126.6(c)]. This section describes the process used to select the alternatives. The proposed project and the alternatives addressed in this Draft PEIR are based on several ideas and concepts developed during the 2030 General Plan community outreach process. Citizen input was essential to the 2030 General Plan process. In 2006, key stakeholder interviews and community workshops were held, followed by rounds of focus group meetings, joint study sessions, local Municipal Advisory Council (MAC) meetings, and input from County staff, the Planning Commission, and the Board of Supervisors. In 2011, a scoping meeting initiated the environmental review process, which further contributed to the development of the selected alternatives. The alternatives addressed in the Draft PEIR were also selected in consideration of one or more of the following factors as set forth in Section 15126.6 of the State CEQA Guidelines:

- The extent to which the alternative would accomplish most of the basic objectives of the proposed project (15126.6.a);
- The extent to which the alternative would avoid or lessen any of the identified significant environmental effects of the project (15126.6.b);

- The feasibility of the alternative, taking into account location, economic viability, availability of infrastructure, and consistency with various applicable plans and regulatory limitations (15126.6.f.1);
- The appropriateness of the alternative in contributing to a “reasonable range” of alternatives (15126.6.e); and,
- The requirement of the CEQA Guidelines to consider a “no project” alternative and, where the “no project” alternative is the environmentally superior alternative, to identify an “environmentally superior” alternative in addition to the no-project alternative (15126.6.e).

The significant environmental impacts that the County, in identifying alternatives, seeks to eliminate or reduce are:

- Conversion of Prime Farmland, Unique Farmland, Farmland of Statewide Importance, Farmland of Local Importance, or Confined Animal Agriculture (Important Farmland) as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use
- Involve other land use changes that would result in conversion of farmland to non-agricultural uses from urban development
- Conversion of farmland to non-agricultural uses due to minor subdivision of rural parcels
- Involve other land use changes that would result in conversion of farmland to non-agricultural uses due to inadequate reduced parcel sizes
- Increase in operational emissions of PM₁₀ and PM_{2.5} associated with 2030 General Plan buildout
- Adverse effects to special status species and sensitive habitats due to the conversion of farmlands and open space
- Adverse effect on wetlands, riparian habitat, and other sensitive natural communities
- Increase in GHG emissions associated with 2030 General Plan buildout
- Increase in GHG emissions that would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions
- Substantially deplete groundwater supplies or interfere with groundwater recharge to the degree there would be continued aggravation of groundwater overdraft or a net reduction in aquifer volume that would negatively impact existing users or habitat needs
- Ambient and traffic noise level increases caused by development consistent with the 2030 General Plan
- Conflicts with a plan, ordinance, or policy establishing measures of effectiveness on Merced County roads
- Conflicts with a plan, ordinance, or policy establishing measures of effectiveness of State Highways
- Conflicts with an applicable plan, ordinance, or policy establishing measures of effectiveness of streets within unincorporated cities in Merced County
- Lack of sufficient water supply resources and entitlements available to accommodate continued development through buildout under the 2030 General Plan

- Cumulative Agricultural Resources impacts
- Cumulative Air Quality impacts
- Cumulative Biological Resources impacts
- Cumulative Global Climate Change impacts
- Cumulative Hydrology and Water Quality impacts
- Cumulative Noise impacts
- Cumulative Transportation impacts
- Cumulative Utilities and Service System impacts
- Irreversible Environmental Changes.

The alternative selection process was complemented by background information provided in the recently updated 2030 General Plan Background Report (Merced County 2007; updated 2012), the 2030 General Plan Alternatives Report (Merced County 2008), the 2030 General Plan Revised Alternatives Report (Merced County 2009), the project objectives, and the identification of community issues collected during outreach workshops and meetings. The discussion of the 2030 General Plan alternatives, as referenced in the Alternatives Report and the Revised Alternatives Report, is distinct from the alternatives analysis presented in this Draft PEIR. However, there is some overlap regarding certain concepts. The 2030 General Plan alternatives were designed to compare various development scenarios for the purpose of exploring different policy directions. The Draft PEIR alternatives are developed to address scenarios that reduce potentially significant impacts associated with the proposed 2030 General Plan.

Consistent with CEQA Requirements (CEQA Guidelines Section 15126.6(a)), during the Draft PEIR preparation process, each alternative scenario was reviewed to develop a range of alternatives that would feasibly attain most of the project objectives, but also avoid or lessen several significant effects associated with the proposed project. The objectives of the 2030 General Plan, based upon regulatory requirements, the vision established within the community workshops, and the County's guiding principles as set forth in the 2030 General Plan, are as follows:

1. Adopt a General Plan that complies with state law;
2. Promote a development strategy for city- and unincorporated community-centered growth that locates urban growth in the incorporated cities and unincorporated communities with existing urban services, and allows for consideration for new towns;
3. Protect and support agriculture as an integral component to the county's economic vitality and quality of life;
4. Sustain and enhance the county's natural environment, including all critical habitat areas, watersheds, wildlife corridors, and other natural communities;
5. Identify methods to expand and diversify the county's local economy in order to create and sustain employment and business opportunities that enable existing and future residents to improve their quality of life;
6. Protect the county's natural resources, including air, water, energy, wildlife, and scenery, to assure a high quality of life for current and future residents;
7. Require new growth and development to have adequate access to all essential public facilities and services, including water, sewer, storm water drainage, roadways, schools, government centers, and recreation; and

8. Coordinate, network, and maintain a multi-modal countywide transportation system, including freeways, highways, streets, bicycle and pedestrian pathways, mass transit, airports, and rail to meet the needs of residents and businesses.

21.1.2 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

The following alternatives were originally considered during the planning process for the proposed project, but were determined to not be feasible for continued evaluation because the alternatives would not avoid or lessen several significant environmental effects, or because the alternatives were too similar to other selected alternatives. As a result, the following alternatives were eliminated from further consideration.

- **Unincorporated-Community Growth Alternative.** This alternative directs a significant share of new growth to unincorporated urban communities throughout the county. The concept underlying the alternative is to provide a larger share of the growth in unincorporated urban communities (e.g., Specific Urban Development Plans) to enable the County to enact greater control over development patterns and increase revenue to pay for needed public facilities and services. This alternative does not include the creation of new communities or large-scaled master-planned communities, such as New Urban Communities. This alternative was referred to as Alternative B in the Alternatives Report (Merced County 2008). This alternative was not chosen for further planning by the Merced County Board of Supervisors during its initial review in part due to the loss of important agricultural lands that could occur with implementation of the alternative.
- **Resource Protection/Infrastructure Availability Alternative.** This alternative emphasizes growth in cities and communities that have both the infrastructure capacity to support growth and fewer resources (e.g., prime farmland, important habitat) that could be impacted by growth. Growth allocations would be determined based on a ranking system that addresses hazards (e.g., floodplains), infrastructure availability (e.g., water and sewer capacity) and proximity to important natural resources (e.g., wetlands) and productive farmland. Cities and communities with a favorable ranking based on the identified constraints would receive a larger share of growth, while those with significant constraints would receive a lower proportional share of growth. This alternative was referred to as Alternative C in the Alternatives Report (Merced County 2008). This alternative was not chosen for further planning by the Merced County Board of Supervisors during its initial review because the constraints placed on urban development would interfere with effective operation of the real estate market within the county.
- **Alternative Project Location.** None of the alternatives included consideration of an alternative project location. The CEQA Guidelines (Section 15126.6(3)(f)(2)) recommend considering an alternative project location to reduce potential project impacts. However, the goals and policies of the proposed project are specific to the geographic context of the county's planning area. Buildout of the proposed project consistent with the 2030 General Plan goals and policies at another location does not make sense for a General Plan that applies to all parcels within the County's jurisdiction and within its planning area. Therefore, the Draft PEIR does not evaluate an alternative project location.

21.2 EVALUATION OF ALTERNATIVES

Three action alternatives, in addition to the required No Project alternative, were formulated to illustrate the range of project alternatives that could be implemented as alternatives to the proposed 2030 Merced County General Plan (2030 General Plan) project. These additional alternatives include: Alternative 2, City-Centered Growth; Alternative 3, No New Urban Communities; and Alternative 4, Dairy Digester Requirement. The characteristics of each of the four alternatives are set forth below, together with an evaluation of their potential environmental effects relative to those impacts identified for the 2030 General Plan.

ALTERNATIVE 1 – NO PROJECT ALTERNATIVE

CEQA Guidelines require discussion of the “No Project” alternative to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project [CEQA Guidelines Section 15126.6(e)]. When the project is a revision or update of an existing land use plan or regulatory policy, the No Project Alternative will be the continuation of the existing plan or policy. Under the No Project Alternative, the existing 2000 General Plan (adopted in 1990) would remain the long-range planning policy document for the county. Therefore, the effects of continued implementation of the existing 2000 General Plan would be evaluated. Consequently, current development patterns would continue to occur in accordance with the existing General Plan, Community Plans, and Zoning Ordinance.

Without approval of the proposed 2030 General Plan, the 2000 General Plan would continue to rely upon policies adopted in 1990 and would not reflect current state law and recent legislation. Because the proposed 2030 General Plan contains new and updated goals and policies to better direct urban development due to population growth, protect natural resources, and preserve agricultural lands, the No Project Alternative would not include any of the new policies and implementation programs designed to address the environmental impacts of future county development. Additionally, implementation of the No Project alternative would not include implementation of the mitigation measures identified in this Draft PEIR.

As a result, the No Project Alternative would involve a greater amount of land subject to development. It would likely result in a larger buildout population due to a lack of guiding goals and policies (designed to manage growth) and a lower-density, sprawling, and scattered development pattern. Urban and other development permitted under the existing 2000 General Plan goals and policies, and the current Zoning Ordinance, would continue under the No Project Alternative.

The No Project Alternative would increase the magnitude of anticipated environmental impacts associated with the proposed project because the new and updated goals and policies included as part of the proposed 2030 General Plan would not be implemented. Compared to the proposed 2030 General Plan, the existing 2000 General Plan lacks detailed goals and policies to protect scenic resources and minimize day and nighttime light and glare. The 2000 General Plan lacks goals and policies designed to prevent and compensate the loss of important farmlands. The 2000 General Plan also lacks specific policy direction to improve air quality and protect biological and cultural resources by directing growth to cities, designated unincorporated urban area boundaries, and New Urban Communities under certain conditions. The lack of new and updated policies would likely result in greater impacts to scenic resources, air quality, and agricultural, biological, and cultural resources.

Because the No Project Alternative lacks the protective policies set forth in the 2030 General Plan, it would allow for the conversion of greater amounts of open space land to urban uses and create more impervious surfaces, which would increase the amount of surface water runoff that also would have an adverse effect on water quality. The increase in the creation of impervious surfaces would also reduce groundwater recharge. Compared to the proposed 2030 General Plan, the existing 2000 General Plan lacks extensive goals and policies requiring the efficient and timely provision of public services, recreation facilities, and utility infrastructure. Further, the 2000 General Plan does not have updated wildland fire requirements for new development, or new standards for development within the 100-year and 200-year floodplains. It does not include updated land use and transportation policies to ensure consistency with state and regional growth, and climate change policies. While the No Project Alternative would result in some similar environmental impacts to the proposed 2030 General Plan, such as geology, soils, and minerals, most environmental impacts would be greater because the protective policies contained within the 2030 General Plan or identified as mitigation in this Draft PEIR would not be implemented. Based on the foregoing, the No Project Alternative would result in more environmental effects than the proposed 2030 General Plan project.

Table 21-1 includes an evaluation of the relative impacts of implementing Alternative 1 – No Project Alternative.

Table 21-1 Evaluation of Alternative 1 – No Project Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 1
Aesthetics		
Damage to scenic resources within a state scenic highway	LS	Increased magnitude and significance since new goals and policies would not be implemented
Degradation of the existing visual character or quality of scenic resources	LS	Increased magnitude and significance since new goals and policies would not be implemented
Create a new source of light or glare adversely affecting day or nighttime views	PS/LS	Increased magnitude and significance since new goals and policies, and EIR mitigation would not be implemented
Agricultural Resources		
Conversion of important farmland to non-agricultural use	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Conflict with zoning for agricultural use or Williamson Act contracts	PS/LS	Increased magnitude and significance since new goals and policies, and EIR mitigation would not be implemented
Land use changes that result in conversion of farmland to non-agricultural uses from urban development	PS/SU	Increased magnitude but not significance since the new goals and policies would not be implemented
Loss of forest land or changes that could convert forest land to non-forest uses	LS	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels	PS/SU	Increased magnitude, but not significance since new goals and policies, and EIR mitigation would not be implemented
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels and resultant changes in water use	LS	Increased magnitude but not significance since the new goals and policies would not be implemented

Table 21-1 Evaluation of Alternative 1 – No Project Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 1
Land use changes that result in conversion of farmland to non-agricultural uses due to inadequate reduced parcel sizes	LS PS/SU	Increased magnitude and significance since new goals and policies would not be implemented No change from project
Air Quality		
Increase in construction emissions	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Increase in operational emissions of ROG, NO _x , CO, and SO _x	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Increase in operational emissions of PM ₁₀ and PM _{2.5}	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Increase in carbon monoxide concentrations at congested intersections	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Health risks associated with locating sensitive receptors near high volume roads	PS/LS	Increased magnitude and significance since new goals and policies, and EIR mitigation would not be implemented
Health risks associated with locating sensitive receptors near odors and/or toxic air contaminants	LS	Increased magnitude and significance since new goals and policies would not be implemented
Biological Resources		
Adverse effects to special status species and sensitive habitats	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Adverse effect on wetlands, riparian habitat and other sensitive natural communities.	PS/SU	Increased magnitude but not significance since protective federally-administered policies would remain in place
Substantial loss and/or modification of federally protected wetlands.	PS/LS	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Potential interference with animal movement/migration patterns.	PS/LS	Increased magnitude and significance since new goals and policies, and EIR mitigation would not be implemented
Conflict with local policies or ordinances protecting biological resources.	LS	No change from project
Conflict with an adopted Habitat Conservation Plan or Natural Community Conservation Plan.	LS	No change from project
Cultural Resources		
Adverse change in the significance of a historical resource.	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Loss of archaeological resources, paleontological resources, unique geological features, or disturbances to human remains.	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Loss of traditional cultural properties where Native American customs and traditions are practiced.	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented

Table 21-1 Evaluation of Alternative 1 – No Project Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 1
Geology, Soils, and Mineral Resources		
Expose people or structures to earthquake fault rupture, strong seismic ground shaking, or ground failure including liquefaction, landslides, or dam failure	LS	No change from project since existing protective requirements would be unchanged
Soil erosion or topsoil loss from exposure to wind or water erosion	LS	No change from project since existing protective requirements would be unchanged
Development or structures on unstable soils or expansive soils.	LS	No change from project since existing protective requirements would be unchanged
Use of septic tanks or alternative wastewater disposal systems in unfit soils	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Global Climate Change		
Increase in GHG emissions that would have a significant environmental impact	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Increase in GHG emissions that would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Hazards and Hazardous Materials		
Hazards due to the routine transport, use, or disposal of hazardous materials or through accident conditions	LS	Increased magnitude but not significance since new goals and policies would not be implemented
Emit hazardous emissions or handles hazardous materials, within one-quarter mile of an existing or proposed school	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Located on a hazardous materials site and creates a significant hazard to the public or the environment	PS/LS	Increased magnitude and significance since new goals and policies, and EIR mitigation would not be implemented
Results in a safety hazard due to a public or private airport	PS/LS	Increased magnitude and significance since new goals and policies, and EIR mitigation would not be implemented
Exposes people or structures to wildland fires	LS	Increased magnitude and significance since the new goals and policies would not be implemented
Hydrology and Water Resources		
Violation of water quality standards or degradation of water quality	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Deplete groundwater supplies or interfere with groundwater recharge	PS/SU	Increased magnitude but not significance since new goals and policies, and EIR mitigation would not be implemented
Alter existing drainage patterns, including alteration of a stream course or river	PS/LS	Increased magnitude and significance since new goals and policies, and EIR mitigation would not be implemented
Increase the rate or amount of storm water runoff	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Allow new development to proceed within a 100-year flood hazard area	LS	Increased magnitude and significance since the new goals and policies would not be implemented

Table 21-1 Evaluation of Alternative 1 – No Project Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 1
Diverge from current state flood legislation or allow new development to proceed within a 200-year flood hazard	LS	Increased magnitude and significance since the new goals and policies would not be implemented
Expose people or structures to flooding as a result of the failure of a levee or dam	LS	No change from project
Land Use Compatibility		
Physical division of an established community	PS/LS	Increased magnitude and significance since new goals and policies, and EIR mitigation would not be implemented
Conflict with applicable plan, policy, or regulation	LS	Increased magnitude and significance since the new goals and policies would not be implemented
Noise		
Changes to existing 2000 General Plan noise policies	LS	Increased magnitude and significance since new goals and policies would not be implemented
Development of new noise sensitive land uses	LS	Increased magnitude and significance since new goals and policies would not be implemented
Development of noise-producing uses near existing sensitive land uses	LS	Increased magnitude and significance since new goals and policies would not be implemented
Traffic noise level increases from urban development	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Exposure to excessive groundborne vibration or groundborne noise levels	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Population and Housing		
Inducement of population growth for which inadequate planning has occurred	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Displacement of substantial amounts of population and housing units	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Public Services		
Demand for additional fire protection and emergency response services	LS	Increased magnitude and significance since new goals and policies would not be implemented
Demand for additional police protection and law enforcement facilities	LS	Increased magnitude and significance since new goals and policies would not be implemented
Demand for additional school facilities and libraries	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Recreation		
Increase the use of existing parks or recreational facilities	LS	Increased magnitude and significance since the new goals and policies would not be implemented
Require recreational facilities that have an adverse physical effect on the environment	LS	Increased magnitude but not significance since the new goals and policies would not be implemented

Table 21-1 Evaluation of Alternative 1 – No Project Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 1
Transportation		
Conflict with a plan, ordinance, or policy establishing measures of effectiveness on Merced County roads.	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Conflict with a plan, ordinance, or policy establishing measures of effectiveness of State Highways.	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness of streets within incorporated cities in Merced County.	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Conflict with an applicable congestion management program.	LS	No change from project
Result in change to air traffic patterns	LS	Increased magnitude and significance since the new goals and policies would not be implemented
Substantially increase hazards due to a design feature	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Result in inadequate emergency access.	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Conflict with adopted polices, plans or programs regarding, public transit, bicycle, or pedestrian facilities	PS/LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Utilities & Service Systems		
Lack of sufficient water supplies and entitlements to accommodate development	PS/SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Require new construction or expansion of existing water treatment facilities	LS	Increased magnitude and significance since the new goals and policies would not be implemented
Lack of adequate wastewater treatment capacity to serve the projected demand	LS	Increased magnitude and significance since the new goals and policies would not be implemented
Require new or substantial alteration of existing solid waste disposal facilities	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Cumulative Impacts		
Aesthetics	LS	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Agricultural Resources	SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Air Quality	SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Biological Resources	SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented

Table 21-1 Evaluation of Alternative 1 – No Project Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 1
Cultural Resources	LS	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Geology, Soils, and Mineral Resources	LS	No change from project
Global Climate Change	SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Hazards and Hazardous Materials	LS	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Hydrology and Water Resources	SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Land Use Compatibility	LS	Increased magnitude and significance since new goals and policies would not be implemented
Noise	SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Population and Housing	LS	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Public Services	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Recreation	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Transportation	SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Utilities and Service Systems	SU	Increased magnitude but not significance since the new goals and policies, and EIR mitigation would not be implemented
Growth Inducement & Secondary Effects	LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Energy Use	LS	Increased magnitude and significance since the new goals and policies, and EIR mitigation would not be implemented
Irreversible Commitment of Resources	LS	Increased magnitude but not significance since the new goals and policies would not be implemented
Irreversible Environmental Changes	SU	Increased magnitude but not significance since the new goals and policies would not be implemented
Potential Environmental Damage from Accidents	LS	Increased magnitude but not significance since the new goals and policies would not be implemented

Notes:

LS = Less than significant impact PS = Potentially significant impact SU = Significant and unavoidable impact PS/LS – Less than significant impact after mitigation PS/SU – Significant and unavoidable impact after mitigation

Source: Planning Partners, 2012.

Implementation of the No Project Alternative would not fully meet the following objectives of the proposed 2030 General Plan project.

- Adopt a General Plan that complies with state law;
- Promote a development strategy for city- and unincorporated community-centered growth that locates urban growth in the incorporated cities and unincorporated communities with existing urban services, and allows for consideration for new towns;
- Protect and support agriculture as an integral component to the County's economic vitality and quality of life;
- Sustain and enhance the County's natural environment, including all critical habitat areas, watersheds, wildlife corridors, and other natural communities;
- Identify methods to expand and diversify the County's local economy in order to create and sustain employment and business opportunities that enable existing and future residents to improve their quality of life;
- Protect the County's natural resources, including air, water, energy, wildlife, and scenery, to assure a high quality of life for current and future residents;
- Require new growth and development to have adequate access to all essential public facilities and services, including water, sewer, storm water drainage, roadways, schools, government centers, and recreation; and
- Coordinate, network, and maintain a multi-modal countywide transportation system, including freeways, highways, streets, bicycle and pedestrian pathways, mass transit, airports, and rail to meet the needs of residents and businesses.

ALTERNATIVE 2 – CITY-CENTERED GROWTH

Under the City-Centered Growth Alternative, urban growth would be directed to the six incorporated cities and designated unincorporated urban community areas. The six incorporated cities and the unincorporated urban community areas in Merced County would accept additional population growth by increasing their density and by developing contiguous land within their spheres of influence (SOI) boundaries.

This alternative would discourage new development in the county’s unincorporated areas, especially in unincorporated rural areas outside existing designated unincorporated urban community boundaries (i.e., Rural Residential Centers, Rural Centers, Isolated Urban Areas). This alternative would revise or remove goals and policies that permit development in Rural Residential Centers, Rural Centers, New Urban Communities, or Isolated Urban Areas. Policies LU-1.2 and LU-1.3 (Countywide Growth and Development); Goal LU-3 and Policies LU-3.1 through LU-3.4 (Rural Residential Centers); Goal LU-4 and Policies LU-4.1 through LU-4.8 (Rural Centers); Goal LU-5.F and Policies LU-5.F.1 through LU-5.F.5 (New Urban Communities); and Goal LU-8 and Policies LU-8.1 through LU-8.2 (Isolated Urban Communities) would be removed from the Land Use Element.

Under this alternative, land within the cities’ SOI would be annexed as necessary. New development under this alternative would be consistent with current growth trends. This alternative implies the establishment of cooperative development and fiscal arrangements between the County and the six cities. However, under this alternative, while more growth would be directed to the six incorporated cities, Merced County would not have land use discretion over development activities within the each city’s planning area. This alternative assumes that cities may have fewer protective environmental policies compared to the County. With the exception of policies that permit urban development outside designated unincorporated urban community area boundaries (i.e., Rural Centers), all other proposed 2030 General Plan goals and policies would apply.

The City-Centered Growth Alternative would decrease the magnitude of most anticipated environmental impacts associated with the proposed project because urban development would be directed to cities and designated unincorporated urban communities, and away from important farmlands and natural resources. Assuming that development within cities and designated unincorporated urban communities more efficiently uses land resources compared to development within rural parts of the unincorporated county, this alternative would result in a compact and smaller development footprint, and there would be fewer impacts on environmental resources. As a result, the City-Centered Growth Alternative would convert less open space and important farmlands, preserve scenic resources, reduce vehicle miles traveled and related automobile emissions, convert less sensitive plant and wildlife habitat, better protect undiscovered cultural resources, reduce exposure of structures and people to high wildfire risk, decrease the creation of impervious surfaces and surface water runoff associated with increased urbanization, and reduce impacts associated with the construction of utilities and facilities needed to serve growth. Based on the foregoing, the City-Centered Growth Alternative would result in fewer environmental effects than the proposed 2030 General Plan project.

Table 21-2 includes an evaluation of the relative impacts of implementing Alternative 2 – City-Centered Growth Alternative.

Table 21-2 Evaluation of Alternative 2 – City-Centered Growth Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 2
Aesthetics		
Damage to scenic resources within a state scenic highway	LS	No change from project
Degradation of the existing visual character or quality of scenic resources	LS	Decreased magnitude but not significance since less growth would occur within the unincorporated county
Create a new source of light or glare adversely affecting day or nighttime views	PS/LS	Decreased magnitude but not significance since less growth would occur within the unincorporated county
Agricultural Resources		
Conversion of important farmland to non-agricultural use	PS/SU	Decreased magnitude but not significance since less growth would occur within the unincorporated county
Conflict with zoning for agricultural use or Williamson Act contracts	PS/LS	Decreased magnitude but not significance since less growth would occur within the unincorporated county
Land use changes that result in conversion of farmland to non-agricultural uses from urban development	PS/SU	Decreased magnitude but not significance since less growth would occur within the unincorporated county
Loss of forest land or changes that could convert forest land to non-forest uses	LS	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels	PS/SU	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels and resultant changes in water use	LS	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to inadequate reduced parcel sizes	LS PS/SU	No change from project
Air Quality		
Increase in construction emissions	LS	Decreased magnitude but not significance since less growth would occur within the unincorporated county, and resulting development would be more compact
Increase in operational emissions of ROG, NO _x , CO, and SO _x	LS	Decreased magnitude but not significance since less growth would occur within the unincorporated county and automobile use and trucking operations would be reduced
Increase in operational emissions of PM ₁₀ and PM _{2.5}	PS/SU	Decreased magnitude but not significance since less growth would occur within the unincorporated county, and resulting development would be more compact
Increase in carbon monoxide concentrations at congested intersections	LS	Increased magnitude but not significance since more traffic congestion would occur within the incorporated cities
Health risks associated with locating sensitive receptors near high volume roads	PS/LS	Decreased magnitude but not significance since fewer vehicle trips would occur on high volume roads
Health risks associated with locating sensitive receptors near odors and/or toxic air contaminants	LS	Increased magnitude but not significance since compact development could be located more closely to urban sources of odors and toxic air contaminants

Table 21-2 Evaluation of Alternative 2 – City-Centered Growth Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 2
Biological Resources		
Adverse effects to special status species and sensitive habitats	PS/SU	Decreased magnitude but not significance since less growth would occur within the unincorporated county
Adverse effect on wetlands, riparian habitat and other sensitive natural communities	PS/SU	Decreased magnitude but not significance since less urban development would occur within the unincorporated county
Substantial loss and/or modification of federally protected wetlands	PS/LS	Decreased magnitude but not significance since less growth would occur within the unincorporated county
Potential interference with animal movement/migration patterns.	PS/LS	Decreased magnitude but not significance since less growth would occur within the unincorporated county
Conflict with local policies or ordinances protecting biological resources	LS	No change from project
Conflict with an adopted Habitat Conservation Plan or Natural Community Conservation Plan	LS	No change from project
Cultural Resources		
Adverse change in the significance of a historical resource.	PS/LS	Decreased magnitude but not significance since less urban development would occur within rural areas in the unincorporated county
Loss of archaeological resources, paleontological resources, unique geological features, or disturbances to human remains.	PS/LS	Decreased magnitude but not significance since less urban development would occur within rural areas or on farmland within the unincorporated county
Loss of traditional cultural properties where Native American customs and traditions are practiced.	PS/LS	Decreased magnitude but not significance since less urban development would occur within rural areas in the unincorporated county
Geology, Soils, and Mineral Resources		
Expose people or structures to earthquake fault rupture, strong seismic ground shaking, or ground failure including liquefaction, landslides, or dam failure	LS	No change from project
Soil erosion or topsoil loss from exposure to wind or water erosion	LS	No change from project
Development or structures on unstable soils or expansive soils.	LS	No change from project
Use of septic tanks or alternative wastewater disposal systems in unfit soils	PS/LS	Decreased magnitude but not significance since less growth would occur within the unincorporated county, reducing the need for septic tanks or alternative wastewater disposal systems
Global Climate Change		
Increase in GHG emissions that would have a significant environmental impact	PS/SU	Decreased magnitude but not significance since more growth would occur within cities and existing urbanized areas, reducing automobile use

Table 21-2 Evaluation of Alternative 2 – City-Centered Growth Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 2
Increase in GHG emissions that would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions	PS/SU	Decreased magnitude but not significance since more growth would occur within cities and existing urbanized areas, reducing automobile and energy use and increasing reliance on existing public infrastructure and services
Hazards and Hazardous Materials		
Hazards due to the routine transport, use, or disposal of hazardous materials or through accident conditions	LS	No change from project
Emit hazardous emissions or handles hazardous materials, within one-quarter mile of an existing or proposed school	LS	No change from project
Located on a hazardous materials site and creates a significant hazard to the public or the environment	PS/LS	No change from project
Results in a safety hazard due to a public or private airport	PS/LS	Increased magnitude and significance since more growth would occur within public airport influence areas in Merced and Los Banos
Exposes people or structures to wildland fires	LS	Decreased magnitude but not significance since less growth would occur within rural areas of the unincorporated county where there is a higher wildfire threat
Hydrology and Water Resources		
Violation of water quality standards or degradation of water quality	LS	Decreased magnitude but not significance since more development would occur within existing urbanized areas where existing storm water infrastructure is in place
Deplete groundwater supplies or interfere with groundwater recharge	PS/SU	Decreased magnitude but not significance since less low-density development would occur within the unincorporated county, reducing impervious surfaces and improving groundwater recharge potential
Alter existing drainage patterns, including alteration of a stream course or river	PS/LS	Increased magnitude and significance since more high-density development would occur adjacent to streams in Los Banos and Merced
Increase the rate or amount of storm water runoff	LS	Decreased magnitude but not significance since more high-density development would occur, decreasing impacts to surface water runoff
Allow new development to proceed within a 100-year flood hazard area	LS	No change from project
Diverge from current state flood legislation or allow new development to proceed within a 200-year flood hazard	LS	No change from project
Expose people or structures to flooding as a result of the failure of a levee or dam	LS	No change from project
Land Use Compatibility		
Physical division of an established community	PS/LS	No change from project

Table 21-2 Evaluation of Alternative 2 – City-Centered Growth Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 2
Conflict with applicable plan, policy, or regulation	LS	No change from project
Noise		
Changes to existing 2000 General Plan noise policies	LS	No change from project
Development of new noise sensitive land uses	LS	No change from project
Development of noise-producing uses near existing sensitive land uses	LS	No change from project
Traffic noise level increases from urban development	PS/SU	No change from project
Exposure to excessive groundborne vibration or groundborne noise levels	PS/LS	No change from project
Population and Housing		
Inducement of population growth for which inadequate planning has occurred	PS/LS	No change from project
Displacement of substantial amounts of population and housing units	LS	No change from project
Public Services		
Demand for additional fire protection and emergency response services	LS	No change from project
Demand for additional police protection and law enforcement facilities	LS	No change from project
Demand for additional school facilities and libraries	LS	No change from project
Recreation		
Increase the use of existing parks or recreational facilities	LS	No change from project
Require recreational facilities that have an adverse physical effect on the environment	LS	No change from project
Transportation		
Conflict with a plan, ordinance, or policy establishing measures of effectiveness on Merced County roads.	PS/SU	Decreased magnitude but not significance since high-density development would reduce vehicle trips but would result in increased traffic congestion
Conflict with a plan, ordinance, or policy establishing measures of effectiveness of State Highways.	PS/SU	No change from project
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness of streets within incorporated cities in Merced County.	PS/SU	Increased magnitude but not significance since more growth would occur within incorporated cities, increasing traffic congestion on city roadways
Conflict with an applicable congestion management program.	LS	No change from project

Table 21-2 Evaluation of Alternative 2 – City-Centered Growth Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 2
Result in change to air traffic patterns	LS	No change from project
Substantially increase hazards due to a design feature	PS/LS	No change from project
Result in inadequate emergency access.	PS/LS	Increased magnitude but not significance since more growth would occur within incorporated cities, increasing traffic congestion
Conflict with adopted polices, plans or programs regarding, public transit, bicycle, or pedestrian facilities	PS/LS	Decreased magnitude but not significance since alternative transportation modes would be better supported within higher-density urbanized areas
Utilities & Service Systems		
Lack of sufficient water supplies and entitlements to accommodate development	PS/SU	No change from project
Require new construction or expansion of existing water treatment facilities	LS	No change from project
Lack of adequate wastewater treatment capacity to serve the projected demand	LS	No change from project
Require new or substantial alteration of existing solid waste disposal facilities	LS	No change from project
Cumulative Impacts		
Aesthetics	LS	Decreased magnitude but not significance since less growth would occur within the rural landscapes of the unincorporated county
Agricultural Resources	SU	Decreased magnitude but not significance since growth would be at increased densities, thereby reducing the amount of land converted to urban uses
Air Quality	SU	No change from project
Biological Resources	SU	Decreased magnitude but not significance since growth would be at increased densities, thereby reducing the amount of land converted to urban uses
Cultural Resources	LS	Decreased magnitude but not significance since growth would be at increased densities, thereby reducing the amount of land converted to urban uses
Geology, Soils, and Mineral Resources	LS	No change from project
Global Climate Change	SU	No change from project
Hazards and Hazardous Materials	LS	No change from project
Hydrology and Water Resources	SU	Decreased magnitude but not significance since growth would be at increased densities, thereby reducing the amount of water used per residence
Land Use Compatibility	LS	No change from project
Noise	SU	No change from project
Population and Housing	LS	No change from project

Table 21-2 Evaluation of Alternative 2 – City-Centered Growth Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 2
Public Services	LS	Decreased magnitude but not significance since growth would be at increased densities, thereby permitting the more efficient delivery of services
Recreation	LS	Decreased magnitude but not significance since growth would be at increased densities, thereby permitting the more efficient delivery of services
Transportation	SU	Decreased magnitude but not significance since growth would be at increased densities, thereby permitting the more efficient delivery of public transportation services
Utilities and Service Systems	SU	Decreased magnitude but not significance since growth would be at increased densities, thereby permitting the more efficient delivery of services
Growth Inducement & Secondary Effects	LS	No change from project
Energy Use	LS	Decreased magnitude but not significance since growth would be at increased densities, thereby permitting more efficient energy use
Irreversible Commitment of Resources	LS	Decreased magnitude but not significance; although growth would be at increased densities, major commitments of resources would still occur
Irreversible Environmental Changes	SU	Decreased magnitude but not significance; although growth would be at increased densities, major environmental changes would still occur
Potential Environmental Damage from Accidents	LS	Decreased magnitude but not significance since growth would be at increased densities, thereby permitting the more efficient delivery of services, including those related to public safety

Notes:

LS = Less than significant impact PS = Potentially significant impact SU = Significant and unavoidable impact PS/LS – Less than significant impact after mitigation PS/SU – Significant and unavoidable impact after mitigation

Source: *Planning Partners, 2012.*

Implementation of the City-Centered Growth Alternative would not fully meet the following objectives of the proposed 2030 General Plan project.

- Promote a development strategy for city- and unincorporated community-centered growth that locates urban growth in the incorporated cities and unincorporated communities with existing urban services, and allows for consideration for new towns.

ALTERNATIVE 3 – NO NEW URBAN COMMUNITIES

Under the No New Urban Communities Alternative, no New Urban Communities would be permitted within the unincorporated county, nor would the County accept applications for the establishment of New Urban Communities. This alternative would remove goals and policies that permit New Urban Communities. Goal LU-5.F, and supporting Policies LU-5.F.1 through LU-5.F.5 would be removed from the Land Use Element. Instead, this alternative would include a revised

policy that would prohibit new development, such as large-scale master-planned communities in unincorporated rural areas outside designated unincorporated urban area boundaries. Similar to the City-Centered Growth Alternative, new development under this alternative would be limited to incorporated areas within the six cities in the county, and to existing designated unincorporated urban area boundaries. Also, new development would be consistent with current growth trends. While the objective supporting consideration of New Urban Communities, and all goals and policies that allow consideration of New Urban Communities would be removed from the 2030 General Plan with the adoption of this alternative, all other proposed 2030 General Plan goals, objectives, and policies would remain.

Similar to the City-Centered Growth Alternative, the No New Urban Communities Alternative would decrease the magnitude of many anticipated environmental impacts associated with the proposed project because new development outside cities and designated unincorporated urban areas would not be permitted. Because development would not occur outside cities or the boundaries of designated unincorporated urban areas, there would be fewer impacts on environmental resources. As a result, like the City-Centered Growth Alternative, the No New Urban Communities Alternative would convert less open space and important farmlands than the 2030 General Plan to developed uses, preserve scenic resources, reduce vehicle miles traveled and related automobile emissions, convert less sensitive plant and wildlife habitat, better protect undiscovered cultural resources, and decrease the creation of impervious surfaces and surface water runoff associated with urbanization. The main reason for these reduced impacts is that the New Communities would be growth inducing and are assumed to result in growth over and above the buildout from the General Plan without adding urban communities. Based on the foregoing, the No New Urban Communities Alternative would result in fewer environmental effects than the proposed 2030 General Plan project.

Table 21-3 includes an evaluation of the relative impacts of implementing Alternative 3 – No New Urban Communities Alternative.

Table 21-3 Evaluation of Alternative 3 – No New Urban Communities Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 3
Aesthetics		
Damage to scenic resources within a state scenic highway	LS	Decreased magnitude but not significance since no New Urban Communities would occur adjacent to Interstate 5, a state designated scenic highway
Degradation of the existing visual character or quality of scenic resources	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated County
Create a new source of light or glare adversely affecting day or nighttime views	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated County
Agricultural Resources		
Conversion of important farmland to non-agricultural use	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county

Table 21-3 Evaluation of Alternative 3 – No New Urban Communities Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 3
Conflict with zoning for agricultural use or Williamson Act contracts	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Land use changes that result in conversion of farmland to non-agricultural uses from urban development	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Loss of forest land or changes that could convert forest land to non-forest uses	LS	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels	PS/SU	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels and resultant changes in water use	LS	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to inadequate reduced parcel sizes	LS PS/SU	No change from project
Air Quality		
Increase in construction emissions	LS	No change from project
Increase in operational emissions of ROG, NO _x , CO, and SO _x	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Increase in operational emissions of PM ₁₀ and PM _{2.5}	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Increase in carbon monoxide concentrations at congested intersections	LS	No change from project
Health risks associated with locating sensitive receptors near high volume roads	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Health risks associated with locating sensitive receptors near odors and/or toxic air contaminants	LS	No change from project
Biological Resources		
Adverse effects to special status species and sensitive habitats	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Adverse effect on wetlands, riparian habitat and other sensitive natural communities	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Substantial loss and/or modification of federally protected wetlands	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county

Table 21-3 Evaluation of Alternative 3 – No New Urban Communities Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 3
Potential interference with animal movement/migration patterns.	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Conflict with local policies or ordinances protecting biological resources	LS	No change from project
Conflict with an adopted Habitat Conservation Plan or Natural Community Conservation Plan	LS	No change from project
Cultural Resources		
Adverse change in the significance of a historical resource.	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Loss of archaeological resources, paleontological resources, unique geological features, or disturbances to human remains.	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Loss of traditional cultural properties where Native American customs and traditions are practiced.	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Geology, Soils, and Mineral Resources		
Expose people or structures to earthquake fault rupture, strong seismic ground shaking, or ground failure including liquefaction, landslides, or dam failure	LS	No change from project
Soil erosion or topsoil loss from exposure to wind or water erosion	LS	No change from project
Development or structures on unstable soils or expansive soils.	LS	No change from project
Use of septic tanks or alternative wastewater disposal systems in unfit soils	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Global Climate Change		
Increase in GHG emissions that would have a significant environmental impact	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Increase in GHG emissions that would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Hazards and Hazardous Materials		
Hazards due to the routine transport, use, or disposal of hazardous materials or through accident conditions	LS	No change from project
Emit hazardous emissions or handles hazardous materials, within one-quarter mile of an existing or proposed school	LS	No change from project

Table 21-3 Evaluation of Alternative 3 – No New Urban Communities Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 3
Located on a hazardous materials site and creates a significant hazard to the public or the environment	PS/LS	No change from project
Results in a safety hazard due to a public or private airport	PS/LS	No change from project
Exposes people or structures to wildland fires	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county, reducing the need to provide fire protection services
Hydrology and Water Resources		
Violation of water quality standards or degradation of water quality	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Deplete groundwater supplies or interfere with groundwater recharge	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Alter existing drainage patterns, including alteration of a stream course or river	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Increase the rate or amount of storm water runoff	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Allow new development to proceed within a 100-year flood hazard area	LS	No change from project
Diverge from current state flood legislation or allow new development to proceed within a 200-year flood hazard	LS	No change from project
Expose people or structures to flooding as a result of the failure of a levee or dam	LS	No change from project
Land Use Compatibility		
Physical division an established community	PS/LS	No change from project
Conflict with applicable plan, policy, or regulation	LS	No change from project
Noise		
Changes to existing 2000 General Plan noise policies	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Development of new noise sensitive land uses	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Development of noise-producing uses near existing sensitive land uses	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county

Table 21-3 Evaluation of Alternative 3 – No New Urban Communities Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 3
Traffic noise level increases from urban development	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Exposure to excessive groundborne vibration or ground- borne noise levels	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Population and Housing		
Inducement of population growth for which inadequate planning has occurred	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Displacement of substantial amounts of population and housing units	LS	No change from project
Public Services		
Demand for additional fire protection and emergency response services	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Demand for additional police protection and law enforcement facilities	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Demand for additional school facilities and libraries	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Recreation		
Increase the use of existing parks or recreational facilities	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Require recreational facilities that have an adverse physical effect on the environment	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Transportation		
Conflict with a plan, ordinance, or policy establishing measures of effectiveness on Merced County roads.	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Conflict with a plan, ordinance, or policy establishing measures of effectiveness of State Highways.	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness of streets within incorporated cities in Merced County.	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Conflict with an applicable congestion management program.	LS	No change from project
Result in change to air traffic patterns	LS	No change from project
Substantially increase hazards due to a design feature	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county

Table 21-3 Evaluation of Alternative 3 – No New Urban Communities Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 3
Result in inadequate emergency access.	PS/LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Conflict with adopted policies, plans or programs regarding, public transit, bicycle, or pedestrian facilities	PS/LS	No change from project
Utilities & Service Systems		
Lack of sufficient water supplies and entitlements to accommodate development	PS/SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Require new construction or expansion of existing water treatment facilities	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Lack of adequate wastewater treatment capacity to serve the projected demand	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Require new or substantial alteration of existing solid waste disposal facilities	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Cumulative Impacts		
Aesthetics	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Agricultural Resources	SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Air Quality	SU	No change from project
Biological Resources	SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Cultural Resources	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Geology, Soils, and Mineral Resources	LS	No change from project
Global Climate Change	SU	No change from project
Hazards and Hazardous Materials	LS	No change from project
Hydrology and Water Resources	SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Land Use Compatibility	LS	No change from project
Noise	SU	No change from project
Population and Housing	LS	No change from project
Public Services	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county

Table 21-3 Evaluation of Alternative 3 – No New Urban Communities Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 3
Recreation	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Transportation	SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Utilities and Service Systems	SU	No change from project
Growth Inducement & Secondary Effects	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Energy Use	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Irreversible Commitment of Resources	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Irreversible Environmental Changes	SU	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county
Potential Environmental Damage from Accidents	LS	Decreased magnitude but not significance since no New Urban Communities would occur within the unincorporated county

Notes:

LS = Less than significant impact PS = Potentially significant impact SU = Significant and unavoidable impact PS/LS – Less than significant impact after mitigation PS/SU – Significant and unavoidable impact after mitigation

Source: Planning Partners, 2012.

Implementation of the No New Urban Communities Alternative would not fully meet the following objective of the proposed 2030 General Plan project.

- Promote a development strategy for city- and unincorporated community-centered growth that locates urban growth in the incorporated cities and unincorporated communities with existing urban services, and allows for consideration for new towns.

ALTERNATIVE 4– DAIRY DIGESTER REQUIREMENT ALTERNATIVE

Under the Dairy Digester Requirement Alternative, all existing and new dairies in the county would be required to install a manure digester system sized to sufficiently capture methane gas, reduce greenhouse gas (GHG) emissions, and to generate an alternative source of energy. California GHG emissions contributing to global climate change are attributable in large part to human activities associated with the industrial, transportation, residential, commercial, institutional, and agricultural sectors. In Merced County, the greatest contributor to the county’s total GHG emissions is agriculture. To reduce GHG emissions associated with agricultural operations, specifically dairy operations, this alternative involves collaboration between the County and confined livestock operators to identify potential funding assistance for the implementation of methane biogas control

systems and related renewable energy generation systems. New development under this alternative would be consistent with current growth trends. Under this alternative, all proposed 2030 General Plan goals and policies would apply.

The Dairy Digester Requirement Alternative would decrease the magnitude of increased GHG emissions impacts because this alternative would substantially reduce methane and nitrous oxide emission from dairy cattle. It would reduce conflicts with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. Under this alternative, the mitigated emission estimates assume that by 2020, 90 percent of the methane and nitrous oxide emissions from dairy cattle mature would be captured (Yolo County 2010). The 90 percent reduction would not apply to non-dairy GHG emissions generated by beef cattle, steers, poultry, goats, hogs, sheep, or lambs, nor would it apply to enteric fermentation emissions from dairy cattle.

Table 21-4 compares the emissions associated with the Dairy Digester Requirement Alternative in 2020 and 2030 to the 2020 and 2030 Business as Usual (BAU) emissions. In 2020, the Dairy Digester Requirement Alternative would reduce emissions by 32.3 percent compared to BAU. In 2030, the Dairy Digester Requirement Alternative would reduce emissions by 35.3 percent. This alternative would reduce GHG emission impacts to a less-than-significant level because the emission reduction in 2020 would exceed the California Air Resources Board’s (CARB) Scoping Plan 29 percent reduction threshold.

Table 21-4 Comparison of Business as Usual (2020 and 2030) to Agricultural Alternative (2020 and 2030)				
Emission Source Category	2020 BAU	2020 Dairy Digester Requirement Alternative	2030 BAU	2030 Dairy Digester Requirement Alternative
Transportation	1,891,148	1,465,102	2,356,991	1,633,445
Area Source	76,396	17,892	105,270	24,658
Electricity	174,234	92,957	256,869	131,092
Natural Gas	152,317	136,780	214,322	184,102
Water & Wastewater	36,359	21,601	50,059	29,741
Solid Waste	56,754	56,754	86,721	86,721
Ag – Livestock	2,697,604	1,489,941	2,979,833	1,645,822
Ag- Equipment	145,651	145,651	142,148	142,148
Ag – Fertilizers	414,532	393,805	413,873	393,179
Ag - Water Pumping	65,466	42,814	65,362	42,745
Total	5,710,459	3,863,298	6,671,448	4,313,655
Percent Reduction from BAU		32.3%		35.3%

Source: URS Corporation, 2012.

Implementation of the Dairy Digester Requirement Alternative would also reduce conflicts with applicable plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The CARB Climate Change Scoping Plan represents the primary plan to reduce GHG emissions throughout California. This Plan is designed to reduce California’s statewide 2020 GHG emissions by 29 percent as compared to the 2020 BAU scenario (CARB, 2008). Under the proposed 2030 General Plan, Merced County’s 2020 and 2030 mitigated emissions will exceed the 29 percent

reduction threshold in 2020 and 2030 (as compared to BAU emissions). Since emission reductions proposed under the Dairy Digester Requirement Alternative would exceed the 29 percent emission reduction goal within unincorporated Merced County, this alternative would be consistent with California’s Climate Change Scoping Plan, and it would reduce the potential conflict with applicable plans, policies, or regulations designed to reduce GHG emission to a less-than-significant level. With the exception of a reduction in GHG emissions (shown in Table 21-4) and water quality impacts, and increased air quality and potential human health impacts, all remaining environmental impacts would be the same as the proposed project.

Table 21-5 includes an evaluation of the relative impacts of implementing Alternative 4 – Dairy Digester Requirement Alternative.

Table 21-5 Evaluation of Alternative 4 – Dairy Digester Requirement Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 4
Aesthetics		
Damage to scenic resources within a state scenic highway	LS	No change from project
Degradation of the existing visual character or quality of scenic resources	LS	No change from project
Create a new source of light or glare adversely affecting day or nighttime views	PS/LS	No change from project
Agricultural Resources		
Conversion of important farmland to non-agricultural use	PS/SU	No change from project
Conflict with zoning for agricultural use or Williamson Act contracts	PS/LS	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses from urban development	PS/SU	No change from project
Loss of forest land or changes that could convert forest land to non-forest uses	LS	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels	PS/SU	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels and resultant changes in water use	LS	No change from project
Land use changes that result in conversion of farmland to non-agricultural uses due to inadequate reduced parcel sizes	LS PS/SU	No change from project
Air Quality		
Increase in construction emissions	LS	No change from project
Increase in operational emissions of ROG, NOx, CO, and SOx	LS	Increased magnitude but not significance since dairy digesters may increase criteria pollutant emissions

Table 21-5 Evaluation of Alternative 4 – Dairy Digester Requirement Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 4
Increase in operational emissions of PM ₁₀ and PM _{2.5}	PS/SU	Increased magnitude but not significance since dairy digesters may increase criteria pollutant emissions
Increase in carbon monoxide concentrations at congested intersections	LS	No change from project
Health risks associated with locating sensitive receptors near high volume roads	PS/LS	No change from project
Health risks associated with locating sensitive receptors near odors and/or toxic air contaminants	LS	Increased magnitude but not significance since dairy digesters may increase criteria pollutant emissions
Biological Resources		
Adverse effects to special status species and sensitive habitats	PS/SU	No change from project
Adverse effect on wetlands, riparian habitat and other sensitive natural communities	PS/SU	No change from project
Substantial loss and/or modification of federally protected wetlands	PS/LS	No change from project
Potential interference with animal movement/migration patterns.	PS/LS	No change from project
Conflict with local policies or ordinances protecting biological resources	LS	No change from project
Conflict with an adopted Habitat Conservation Plan or Natural Community Conservation Plan	LS	No change from project
Cultural Resources		
Adverse change in the significance of a historical resource.	PS/LS	No change from project
Loss of archaeological resources, paleontological resources, unique geological features, or disturbances to human remains.	PS/LS	No change from project
Loss of traditional cultural properties where Native American customs and traditions are practiced.	PS/LS	No change from project
Geology, Soils, and Mineral Resources		
Expose people or structures to earthquake fault rupture, strong seismic ground shaking, or ground failure including liquefaction, landslides, or dam failure	LS	No change from project
Soil erosion or topsoil loss from exposure to wind or water erosion	LS	No change from project
Development or structures on unstable soils or expansive soils.	LS	No change from project
Use of septic tanks or alternative wastewater disposal systems in unfit soils	PS/LS	No change from project

Table 21-5 Evaluation of Alternative 4 – Dairy Digester Requirement Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 4
Global Climate Change		
Increase in GHG emissions that would have a significant environmental impact	PS/SU	Decreased magnitude and significance since the dairy digester requirement would reduce overall GHG emissions
Increase in GHG emissions that would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions	PS/SU	Decreased magnitude and significance since the dairy digester requirement would reduce overall GHG emissions
Hazards and Hazardous Materials		
Hazards due to the routine transport, use, or disposal of hazardous materials or through accident conditions	LS	No change from project
Emit hazardous emissions or handles hazardous materials, within one-quarter mile of an existing or proposed school	LS	No change from project
Located on a hazardous materials site and creates a significant hazard to the public or the environment	PS/LS	No change from project
Results in a safety hazard due to a public or private airport	PS/LS	No change from project
Exposes people or structures to wildland fires	LS	No change from project
Hydrology and Water Resources		
Violation of water quality standards or degradation of water quality	LS	Decreased magnitude but not significance since the dairy digesters would reduce potential water quality impacts
Deplete groundwater supplies or interfere with groundwater recharge	PS/SU	No change from project
Alter existing drainage patterns, including alteration of a stream course or river	PS/LS	No change from project
Increase the rate or amount of storm water runoff	LS	No change from project
Allow new development to proceed within a 100-year flood hazard area	LS	No change from project
Diverge from current state flood legislation or allow new development to proceed within a 200-year flood hazard	LS	No change from project
Expose people or structures to flooding as a result of the failure of a levee or dam	LS	No change from project
Land Use Compatibility		
Physical division an established community	PS/LS	No change from project
Conflict with applicable plan, policy, or regulation	LS	No change from project
Noise		
Changes to existing 2000 General Plan noise policies	LS	No change from project

Table 21-5 Evaluation of Alternative 4 – Dairy Digester Requirement Alternative

Impact	Level of Impact for Project	Level of Impact of Alternative 4
Development of new noise sensitive land uses	LS	No change from project
Development of noise-producing uses near existing sensitive land uses	LS	No change from project
Traffic noise level increases from urban development	PS/SU	No change from project
Exposure to excessive groundborne vibration or ground-borne noise levels	PS/LS	No change from project
Population and Housing		
Inducement of population growth for which inadequate planning has occurred	PS/LS	No change from project
Displacement of substantial amounts of population and housing units	LS	No change from project
Public Services		
Demand for additional fire protection and emergency response services	LS	No change from project
Demand for additional police protection and law enforcement facilities	LS	No change from project
Demand for additional school facilities and libraries	LS	No change from project
Recreation		
Increase the use of existing parks or recreational facilities	LS	No change from project
Require recreational facilities that have an adverse physical effect on the environment	LS	No change from project
Transportation		
Conflict with an plan, ordinance, or policy establishing measures of effectiveness on Merced County roads.	PS/SU	No change from project
Conflict with a plan, ordinance, or policy establishing measures of effectiveness of State Highways.	PS/SU	No change from project
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness of streets within incorporated cities in Merced County.	PS/SU	No change from project
Conflict with an applicable congestion management program.	LS	No change from project
Result in change to air traffic patterns	LS	No change from project
Substantially increase hazards due to a design feature	PS/LS	No change from project
Result in inadequate emergency access.	PS/LS	No change from project
Conflict with adopted polices, plans or programs regarding, public transit, bicycle, or pedestrian facilities	PS/LS	No change from project

Table 21-5 Evaluation of Alternative 4 – Dairy Digester Requirement Alternative		
Impact	Level of Impact for Project	Level of Impact of Alternative 4
Utilities & Service Systems		
Lack of sufficient water supplies and entitlements to accommodate development	PS/SU	No change from project
Require new construction or expansion of existing water treatment facilities	LS	No change from project
Lack of adequate wastewater treatment capacity to serve the projected demand	LS	No change from project
Require new or substantial alteration of existing solid waste disposal facilities	LS	No change from project
Cumulative Impacts		
Aesthetics	LS	No change from project
Agricultural Resources	SU	No change from project
Air Quality	SU	Increased magnitude but not significance since dairy digesters may increase criteria pollutant emissions
Biological Resources	SU	No change from project
Cultural Resources	LS	No change from project
Geology, Soils, and Mineral Resources	LS	No change from project
Global Climate Change	SU	Decreased magnitude and significance since the dairy digester requirement would reduce overall GHG emissions so that Merced County would make no cumulatively considerable contribution to this effect.
Hazards and Hazardous Materials	LS	No change from project
Hydrology and Water Resources	SU	Decreased magnitude but not significance since the dairy digesters would reduce potential water quality impacts
Land Use Compatibility	LS	No change from project
Noise	SU	No change from project
Population and Housing	LS	No change from project
Public Services	LS	No change from project
Recreation	LS	No change from project
Transportation	SU	No change from project
Utilities and Service Systems	SU	No change from project
Growth Inducement & Secondary Effects	LS	No change from project
Energy Use	LS	Decreased magnitude but not significance since digestion would provide an alternative sources of energy
Irreversible Commitment of Resources	LS	No change from project
Irreversible Environmental Changes	SU	No change from project
Potential Environmental Damage from Accidents	LS	No change from project

Notes:

LS = Less than significant impact PS = Potentially significant impact SU = Significant and unavoidable impact PS/LS – Less than significant impact after mitigation PS/SU – Significant and unavoidable impact after mitigation

Source: *Planning Partners, 2012.*

Implementation of the Dairy Digester Requirement Alternative would fully meet all the objectives of the proposed 2030 General Plan project.

21.3 COMPARISON OF THE ENVIRONMENTAL MERITS OF EACH ALTERNATIVE

In Table 21-6, the symbol “-5” means that an alternative has a lower magnitude of impact and level of significance than that for the project (e.g., the adverse environmental condition is less than for the project, so that the impact is less than significant rather than significant). The symbol “-1” means that an alternative has a lower magnitude of impact than that for the project (e.g., the adverse environmental condition is somewhat less than for the project, but the significance of the impact is unchanged). The symbol “0” means that the alternative has an environmental effect that is equal in significance and magnitude to the proposed project. The symbol “+1” means that an alternative has a higher magnitude of impact than that for the project (e.g., adverse environmental condition is more than for the project, but the significance of the impact is unchanged). Finally, the symbol “+5” means that an alternative has a more significant impact than the proposed project (i.e., a significant impact rather than less than significant). These numerical values have been assigned to these categories in order to assess each alternative across a large number of impact areas.

Definition	Numerical Value (as shown in Table 21-6)
Decreased magnitude and significance of impact compared to proposed project	-5
Decreased magnitude of impact, but no change in level of significance	-1
Same magnitude and significance of impact as proposed project	0
Increased magnitude of impact, but no change in level of significance	1
Increased magnitude and significance of impact compared to proposed project	5

Because the emphasis of the alternatives analysis is on minimizing or avoiding impacts, those categories associated with avoiding or causing impacts not attributable to the project are assigned a value of -5 or 5 respectively. If an alternative lessens or increases the magnitude of an impact without changing its significance, the category is assigned a value of -1 or 1. The number at the bottom of Table 21-6 indicates, for each alternative, the net number of identified impacts of the project that were avoided or reduced by the alternative.

CEQA requires the selection of an environmentally superior alternative; however, if the environmentally superior alternative is the “No Project” alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). In the case of this PEIR, the No Project Alternative is the least effective of the evaluated alternatives in reducing or avoiding the environmental effects of the 2030 General Plan. Rather, the No Project Alternative would result in substantially greater numbers of adverse effects and an increase in the severity of impacts compared to the proposed 2030 General Plan. Based on a comparative evaluation of all the alternatives, Alternative 3 (No New Urban Communities Alternative) would reduce the magnitude of the most impacts as an action alternative. Alternative 3 would be the environmentally superior alternative.

Merced County will consider the selection of a preferred project upon review of this Draft PEIR and other information in the public record. Identification of an environmentally superior alternative does not require that Merced County choose that alternative. In choosing a preferred project, Merced County is required to make written findings regarding its choice of a project to implement, including the reasons why it chose not to implement an environmentally superior alternative or alternatives, if the selected project is not the environmentally superior alternative. In the findings, Merced County must set forth its reasoning for proceeding with the 2030 General Plan project. Such reasoning could include the social, economic, or other benefits provided by the 2030 General Plan project. This process allows a lead agency to balance any environmental harm with other factors appropriate in judging the merits of a project.

Impact	Level of Impact for Project	Alternative 1 No Project	Alternative 2 City-Centered Growth	Alternative 3 No New Urban Communities	Alternative 4 Dairy Digester Requirement
Aesthetics					
Damage to scenic resources within a state scenic highway	LS	5	0	-1	0
Degradation of the existing visual character or quality of scenic resources	LS	5	-1	-1	0
Create a new source of light or glare adversely affecting day or nighttime views	PS/LS	5	-1	-1	0
Agricultural Resources					
Conversion of important farmland to non-agricultural use	PS/SU	1	-1	-1	0
Conflict with zoning for agricultural use or Williamson Act contracts	PS/LS	5	-1	-1	0
Land use changes that result in conversion of farmland to non-agricultural uses from urban development	PS/SU	1	-1	-1	0
Loss of forest land or changes that could convert forest land to non-forest uses	LS	0	0	0	0
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels	PS/SU	1	0	0	0
Land use changes that result in conversion of farmland to non-agricultural uses due to Minor Subdivision of Rural Parcels and resultant changes in water use	LS	1	0	0	0
Land use changes that result in conversion of farmland to non-agricultural uses due to inadequate reduced parcel sizes	LS PS/SU	5 0	0	0	0

Table 21-6 Relative Comparison of Alternatives					
Impact	Level of Impact for Project	Alternative 1 No Project	Alternative 2 City-Centered Growth	Alternative 3 No New Urban Communities	Alternative 4 Dairy Digester Requirement
Air Quality					
Increase in construction emissions	LS	1	-1	0	0
Increase in operational emissions of ROG, NOx, CO, and SOx	LS	1	-1	-1	1
Increase in operational emissions of PM ₁₀ and PM _{2.5}	PS/SU	1	-1	0	1
Increase in carbon monoxide concentrations at congested intersections	LS	1	1	0	0
Health risks associated with locating sensitive receptors near high volume roads	PS/LS	5	-1	-1	0
Health risks associated with locating sensitive receptors near odors and/or toxic air contaminants	LS	5	1	0	1
Biological Resources					
Adverse effects to special status species and sensitive habitats	PS/SU	1	-1	-1	0
Adverse effect on wetlands, riparian habitat and other sensitive natural communities	PS/SU	1	-1	-1	0
Substantial loss and/or modification of federally protected wetlands	PS/LS	1	-1	-1	0
Potential interference with animal movement/migration patterns.	PS/LS	5	-1	-1	0
Conflict with local policies or ordinances protecting biological resources	LS	0	0	0	0
Conflict with an adopted Habitat Conservation Plan or Natural Community Conservation Plan	LS	0	0	0	0

Table 21-6 Relative Comparison of Alternatives					
Impact	Level of Impact for Project	Alternative 1 No Project	Alternative 2 City-Centered Growth	Alternative 3 No New Urban Communities	Alternative 4 Dairy Digester Requirement
Cultural Resources					
Adverse change in the significance of a historical resource.	PS/LS	5	-1	-1	0
Loss of archaeological resources, paleontological resources, unique geological features, or disturbances to human remains.	PS/LS	5	-1	-1	0
Loss of traditional cultural properties where Native American customs and traditions are practiced.	PS/LS	5	-1	-1	0
Geology, Soils, and Mineral Resources					
Expose people or structures to earthquake fault rupture, strong seismic ground shaking, or ground failure including liquefaction, landslides, or dam failure	LS	0	0	0	0
Soil erosion or topsoil loss from exposure to wind or water erosion	LS	0	0	0	0
Development or structures on unstable soils or expansive soils.	LS	0	0	0	0
Use of septic tanks or alternative wastewater disposal systems in unfit soils	PS/LS	5	-1	-1	0
Global Climate Change					
Increase in GHG emissions that would have a significant environmental impact	PS/SU	1	-1	-1	-5
Increase in GHG emissions that would conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions	PS/SU	1	-1	-1	-5

Table 21-6 Relative Comparison of Alternatives					
Impact	Level of Impact for Project	Alternative 1 No Project	Alternative 2 City-Centered Growth	Alternative 3 No New Urban Communities	Alternative 4 Dairy Digester Requirement
Hazards and Hazardous Materials					
Hazards due to the routine transport, use, or disposal of hazardous materials or through accident conditions	LS	1	0	0	0
Emit hazardous emissions or handles hazardous materials, within one-quarter mile of an existing or proposed school	LS	1	0	0	0
Located on a hazardous materials site and creates a significant hazard to the public or the environment	PS/LS	5	0	0	0
Results in a safety hazard due to a public or private airport	PS/LS	5	5	0	0
Exposes people or structures to wildland fires	LS	5	-1	-1	0
Hydrology and Water Resources					
Violation of water quality standards or degradation of water quality	LS	1	-1	-1	-1
Deplete groundwater supplies or interfere with groundwater recharge	PS/SU	1	-1	-1	0
Alter existing drainage patterns, including alteration of a stream course or river	PS/LS	5	5	-1	0
Increase the rate or amount of storm water runoff	LS	1	-1	-1	0
Allow new development to proceed within a 100-year flood hazard area	LS	5	0	0	0
Diverge from current state flood legislation or allow new development to proceed within a 200-year flood hazard	LS	5	0	0	0
Expose people or structures to flooding as a result of the failure of a levee or dam	LS	0	0	0	0

Table 21-6 Relative Comparison of Alternatives					
Impact	Level of Impact for Project	Alternative 1 No Project	Alternative 2 City-Centered Growth	Alternative 3 No New Urban Communities	Alternative 4 Dairy Digester Requirement
Land Use Compatibility					
Physical division an established community	PS/LS	5	0	0	0
Conflict with applicable plan, policy, or regulation	LS	5	0	0	0
Noise					
Changes to existing 2000 General Plan noise policies	LS	5	0	-1	0
Development of new noise sensitive land uses	LS	5	0	-1	0
Development of noise-producing uses near existing sensitive land uses	LS	5	0	-1	0
Traffic noise level increases from urban development	PS/SU	1	0	-1	0
Exposure to excessive groundborne vibration or ground- borne noise levels	PS/LS	5	0	-1	0
Population and Housing					
Inducement of population growth for which inadequate planning has occurred	PS/LS	5	0	-1	0
Displacement of substantial amounts of population and housing units	LS	1	0	0	0
Public Services					
Demand for additional fire protection and emergency response services	LS	5	0	-1	0
Demand for additional police protection and law enforcement facilities	LS	5	0	-1	0
Demand for additional school facilities and libraries	LS	1	0	-1	0
Recreation					
Increase the use of existing parks or recreational facilities	LS	5	0	-1	0

Table 21-6 Relative Comparison of Alternatives					
Impact	Level of Impact for Project	Alternative 1 No Project	Alternative 2 City-Centered Growth	Alternative 3 No New Urban Communities	Alternative 4 Dairy Digester Requirement
Require recreational facilities that have an adverse physical effect on the environment	LS	1	0	-1	0
Transportation					
Conflict with a plan, ordinance, or policy establishing measures of effectiveness on Merced County roads.	PS/SU	1	-1	-1	0
Conflict with a plan, ordinance, or policy establishing measures of effectiveness of State Highways.	PS/SU	1	0	-1	0
Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness of streets within incorporated cities in Merced County.	PS/SU	1	1	-1	0
Conflict with an applicable congestion management program.	LS	0	0	0	0
Result in change to air traffic patterns	LS	5	0	0	
Substantially increase hazards due to a design feature	PS/LS	5	0	-1	0
Result in inadequate emergency access.	PS/LS	5	1	-1	0
Conflict with adopted polices, plans or programs regarding, public transit, bicycle, or pedestrian facilities	PS/LS	5	-1	0	0
Utilities and Service Systems					
Lack of sufficient water supplies and entitlements to accommodate development	PS/SU	1	0	-1	0
Require new construction or expansion of existing water treatment facilities	LS	5	0	-1	0
Lack of adequate wastewater treatment capacity to serve the projected demand	LS	5	0	-1	0

Table 21-6 Relative Comparison of Alternatives					
Impact	Level of Impact for Project	Alternative 1 No Project	Alternative 2 City-Centered Growth	Alternative 3 No New Urban Communities	Alternative 4 Dairy Digester Requirement
Require new or substantial alteration of existing solid waste disposal facilities	LS	1	0	-1	0
Cumulative Impacts					
Aesthetics	PS/LS	1	-1	-1	0
Agricultural Resources	PS/SU	1	-1	-1	0
Air Quality	PS/SU	1	0	0	1
Biological Resources	PS/SU	1	-1	-1	0
Cultural Resources	PS/LS	1	-1	-1	0
Geology, Soils, and Mineral Resources	LS	0	0	0	0
Global Climate Change	PS/SU	1	0	0	-5
Hazards and Hazardous Materials	LS	1	0	0	0
Hydrology and Water Resources	PS/SU	1	-1	-1	-1
Land Use Compatibility	LS	5	0	0	0
Noise	PS/SU	1	0	0	0
Population and Housing	LS	1	0	0	0
Public Services	LS	1	-1	-1	0
Recreation	LS	1	-1	-1	0
Transportation	PS/SU	1	-1	-1	0
Utilities and Service Systems	PS/SU	1	0	0	0
Growth Inducement & Secondary Effects	LS	5	0	-1	0
Energy Use	LS	5	-1	-1	-1
Irreversible Commitment of Resources	LS	1	-1	-1	0
Irreversible Environmental Changes	PS/SU	1	-1	-1	0
Potential Environmental Damage from Accidents	LS	1	-1	-1	0
Impacts Relative to Project		+229 +224	-23	-57	-15

Source: Planning Partners, 2012.

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