

4 ALTERNATIVES

4.1 INTRODUCTION

An EIR is required to contain a discussion and analysis of a reasonable range of alternatives to the project, or to the location of the project, that could feasibly attain the basic project objectives (State CEQA Guidelines Section 15126.6[a]). Section 15126.6(a) of the State CEQA Guidelines requires EIRs to describe:

“...a range of reasonable alternatives to the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. The lead agency is responsible for selecting a range of project alternatives for examination and must publicly disclose its reasoning for selecting those alternatives. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason.”

The process of comparing relative environmental impacts of alternatives helps decision makers to consider whether a different project design, location, or other variation on the proposed project would have environmentally superior results. The CEQA Guidelines provide guidance on defining and analyzing alternatives:

“... the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly” (CEQA Guidelines Section 15126.6[b]).

The CEQA Guidelines further require that the alternatives be compared to the proposed project’s environmental impacts and that lead agencies should include the “no project” alternative in this evaluation (Guidelines Section 15126.6[e]). Lead agencies have broad discretion in defining “feasibility” for the purpose of developing and considering alternatives:

“Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives” (CEQA Guidelines Section 15126.6[f][1]).

4.2 PROJECT OBJECTIVES

In determining what alternatives should be considered in the EIR, it is important to acknowledge the objectives of the project, the project’s significant effects, and unique project considerations. These factors are crucial to the development of alternatives that meet the criteria specified in CEQA Guidelines Section 15126.6(a). As noted

elsewhere in this EIR, the “project,” as described in the CEQA guidance summarized above, is the 2035 General Plan.

The City’s intent for development and conservation is outlined throughout the Elements of the 2035 General Plan. These key policy issues were developed based on direction from the City Council in the 2035 General Plan Guiding Principles. The City’s Guiding Principles were developed to set a framework for the 2035 General Plan. They allow the City to measure future actions to ensure that the City grows consistent with its values. The Guiding Principles are referenced throughout the General Plan Elements to set the stage for goals, objectives, policies, and programs. The Guiding Principles also serve as the Project Objectives for this EIR. They include the following:

4.2.1 COMMUNITY CHARACTER

- ▶ Strive to enhance the City's authentic, local identity as a vibrant waterfront community.
- ▶ Preserve and restore historic resources and use design review to ensure compatibility with existing development.
- ▶ Focus higher-density development and mixed-use projects in areas adjacent to the train station.
- ▶ Provide regional leadership by working cooperatively to improve the economy and the quality of life in Solano County.

4.2.2 DESTINATION TOURISM AND ENTERTAINMENT

- ▶ Encourage the development of uses and protection of resources that attract visitors, enhancing the community as a tourism destination.
- ▶ Promote a vibrant Downtown that provides both daytime and nighttime activities to attract visitors.
- ▶ Protect and enhance the Suisun Marsh as a natural scenic recreational resource.
- ▶ Provide a variety of high-quality passive and active recreation and leisure activities.
- ▶ Promote arts and culture in the community, including theaters, galleries, museums, music venues, and other activities.
- ▶ Provide conference and meeting facilities.

4.2.3 DOWNTOWN

- ▶ Continue to develop the Downtown as a vibrant, pedestrian-scaled commercial and entertainment center that reflects our community's unique waterfront character.
- ▶ Develop the Downtown as the social and cultural heart of the community.

- ▶ Provide convenient linkages from the train station and other regional connectors to bring patrons to the Downtown.
- ▶ Ensure safe and efficient walking, biking, driving, and parking in the Downtown.
- ▶ Strategically develop the Priority Development Area to provide convenient, attractive housing, shopping, services, and employment in the Downtown neighborhood.

4.2.4 ECONOMIC VITALITY

- ▶ Strive for economic vitality, providing jobs, services, revenues, and opportunities.
- ▶ Maintain an economic base that is fiscally balanced and provides a wide range of job opportunities.
- ▶ Encourage a mix of uses that sustains a tax base that will allow the City to provide public services to the residents, businesses, and visitors of the community.
- ▶ Strategically develop vacant, underutilized, and infill land throughout the City, and especially in the Downtown.
- ▶ Retain and attract new businesses to support the tax base and provide jobs and services for the community.

4.2.5 INFRASTRUCTURE

- ▶ Provide quality community services and sound infrastructure.
- ▶ Deliver public facilities and services in a timely and cost-effective manner.
- ▶ Ensure availability of water and sewer services to accommodate the City's continued growth and prosperity.
- ▶ Plan for the design and cost of future infrastructure to serve the community as it grows.

4.2.6 NEIGHBORHOOD VITALITY

- ▶ Ensure that neighborhoods maintain their character and vitality.
- ▶ Maintain complete, well-designed, and walkable neighborhoods, with places to gather, nearby services, and multi-modal access to jobs, recreation, and other community and regional services.
- ▶ Create policies and programs to maintain the character and vitality of neighborhoods.
- ▶ Foster transit-oriented development around the train station.

4.2.7 PUBLIC SAFETY AND EMERGENCY PREPAREDNESS

- ▶ Strive to protect the community and minimize vulnerability to disasters.

- ▶ Foster neighborhood safety through sensitive community planning practices, fire safety measures, building codes/seismic requirements, and effective code enforcement.
- ▶ Protect life and property through reliable law enforcement and fire protection, as well as active, sensitive service to members of the community in need.
- ▶ Minimize the City's vulnerability to natural and man-made disasters and strengthen the City's emergency response systems.

4.2.8 QUALITY OF COMMUNITY LIFE

- ▶ Suisun City will foster an inclusive, multigenerational community that is economically and ethnically diverse.
- ▶ Foster volunteerism and encourage and recognize our service, non-profit, and faith-based organizations and their impact on the community.
- ▶ Encourage our community to live, work, and play locally, while supporting social and cultural activities, facilities and programs.
- ▶ Provide a full-spectrum of activities and services to meet the needs of the entire community, including youth and seniors.

4.2.9 SUSTAINABILITY

- ▶ Suisun City will practice economically, fiscally and environmentally responsible municipal decision-making to avoid shifting today's costs to future generations.
- ▶ Utilize sustainable development and land use practices that provide for today's residents and businesses while preserving choices for the community in the future.
- ▶ Encourage a healthy living environment.
- ▶ Preserve and enhance natural resources and minimize negative environmental impacts.

4.2.10 TRANSPORTATION

- ▶ Suisun City will provide choices for attractive, convenient transportation.
- ▶ Maintain and construct roadway infrastructure as needed.
- ▶ Design for active pedestrian and bicycle-friendly paths and streets and public spaces.
- ▶ Provide transportation alternatives to the automobile, especially capitalizing on the location of the train station.

4.3 GENERAL PLAN UPDATE ALTERNATIVES

During the General Plan Update process, there were a number of conceptual land use alternatives considered by City staff, decision makers, and the public. The City developed a series of diagrams, with accompanying analysis and narrative to facilitate a public discussion regarding the preferred alternative that should be used as the basis of developing the 2035 General Plan.

The primary difference between General Plan and EIR alternatives has to do with their purpose. General Plan alternatives are designed to evaluate various development and conservation concepts for the purpose of exploring different policy directions and emphasis in the General Plan Update process. General Plan alternatives provide the platform for a discussion of pros and cons of different conceptual approaches to managing land use change, resource conservation, transportation, local economy, and other key General Plan policy topics. EIR alternatives – those presented in this section – are developed specifically to reduce potentially significant impacts attributable to implementing the 2035 General Plan.

4.4 GENERAL PLAN EIR ALTERNATIVES

The focus for alternatives analysis in this EIR is whether different locations, amounts, or design of development would reduce potentially significant impacts attributable to the project. The City has considered a range of alternatives designed to reduce one or more potentially significant impacts associated with General Plan implementation. Exhibits in this section conceptually depict EIR alternatives. Please refer to Table 4-1, below, which summarizes development potential under each alternative and the 2035 General Plan. Please refer to the Project Description section of this EIR (Section 2) for a narrative description and graphic illustration of the 2035 General Plan.

Alternative	Dwelling Units	Population	Local Jobs
2035 General Plan	11,300	32,400	10,900
1 – No Project	12,500	38,500	8,800
2	10,900	33,000	10,700
3	12,800	38,200	8,000

At buildout of the 2035 General Plan, the City could have as many as approximately 33,500 residents, 11,000 dwelling units, and 10,200 local jobs. Alternatives 1 and 3 include a greater number of future housing units and residences compared to the 2035 General Plan. Alternative 2 includes a greater number of local jobs compared to the 2035 General Plan.

- ▶ **Alternative 1. No Project: Buildout of the 1992 General Plan.** This alternative assumes that the 2035 General Plan would not be implemented and instead the City would build out as provided in the 1992 General Plan, as it has been amended in the time since adoption.
- ▶ **Alternative 2.** This alternative would avoid development in sensitive natural areas outside City limits to the west and would increase flexibility in allowable land use by increasing the amount of mixed-use development

allowed in certain development opportunity areas throughout the City. This alternative would facilitate a greater number of professional office jobs by increasing the amount of this type of development and reducing slightly the amount of service sector jobs compared to the 2035 General Plan. This alternative would still allow for all local retail and service needs to be met, however.

- ▶ **Alternative 3.** This alternative would avoid development in sensitive natural areas outside City limits to the west and would also avoid development of properties outside City limits to the east. Alternative 3 also increases the number of compact residential development opportunities in areas with good transportation access. Alternative 3 would provide roughly 1/3rd of dwelling units in a higher-density residential category compared to approximately 1/5th in the 2035 General Plan. This alternative also is designed to ensure adequate capacity to serve local retail and service needs.

4.5 ALTERNATIVES REJECTED FOR FURTHER EVALUATION

Although the City considered a variety of approaches to land use and transportation as a part of the General Plan Update process, there were no other alternatives specifically developed for consideration in the context of this EIR.

4.6 ALTERNATIVES EVALUATION

The alternatives analysis is less detailed than the analyses presented throughout Chapter 3 of this EIR, consistent with CEQA Guidelines Section 15126.6. The analysis that follows compares a series of alternatives to the impacts of the 2035 General Plan to allow for a meaningful evaluation, but not at an equal level of analysis as that provided throughout the balance of this EIR.

4.6.1 AGRICULTURAL RESOURCES

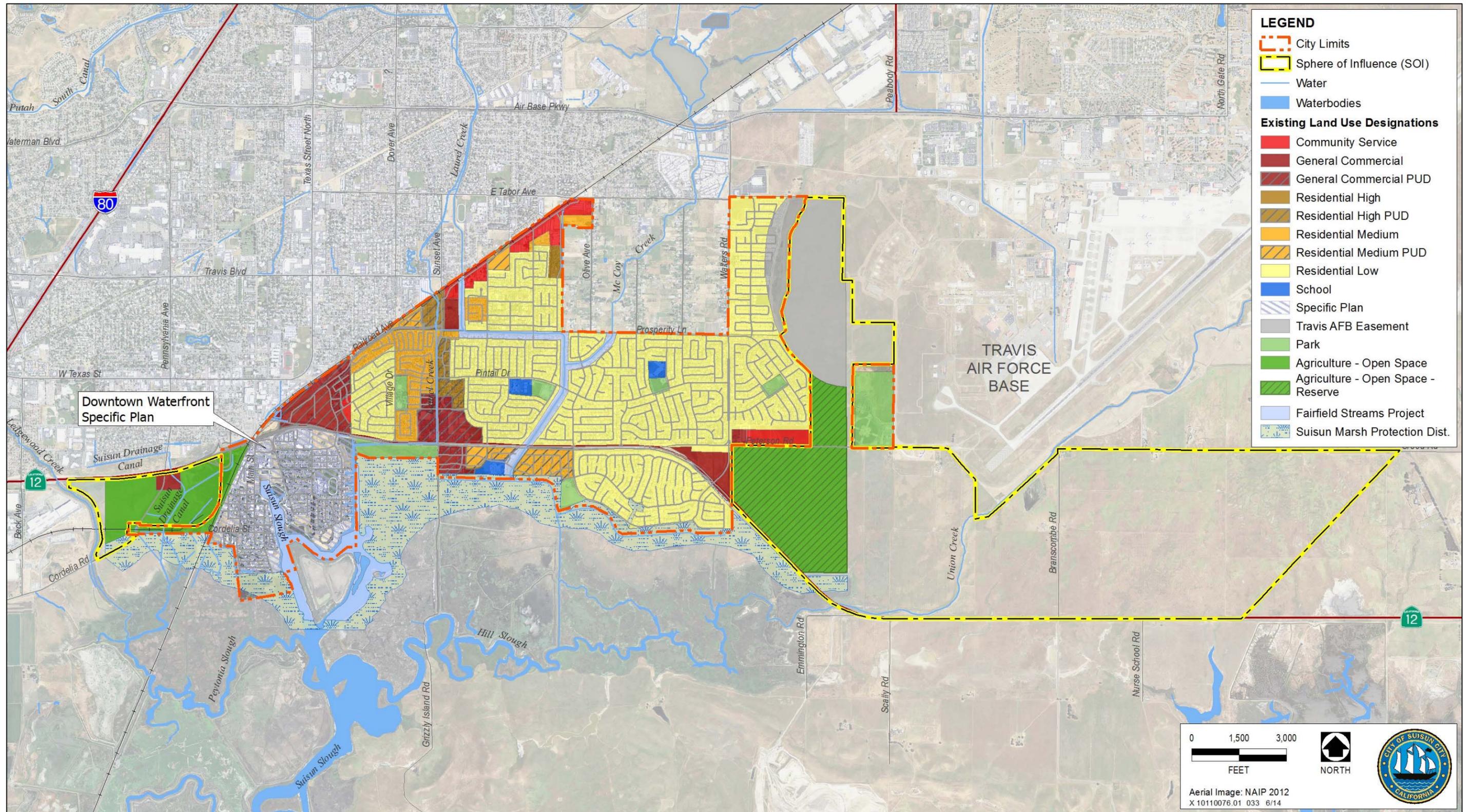
Land use changes accommodated under the 2035 General Plan would not directly or indirectly convert Important Farmland (Prime Farmland, Farmland of Statewide Importance, or Unique Farmland) to nonagricultural uses. No lands adjacent to the Planning Area are designated as Important Farmland. Lands north and west of the City limits are designated as Urban and Built-Up Land and lands south, southeast, and east of the Planning Area are designated as Grazing Land. Lands in the eastern and western portions of the City's Planning Area are currently in unincorporated Solano County and have agricultural zoning designations. Implementation of the 2035 General Plan could accommodate land use change to a non-agricultural use for parcels with current Solano County agricultural zoning designations.

Alternative 1 would reduce the development footprint for an area west of the City that has a current Solano County agricultural zoning of A-40 and that is identified for development under the 2035 General Plan.

Alternative 1 would also preserve in agricultural open space an area north of Peterson Road that currently has a Solano County agricultural zoning of A-20 that is identified for development under the 2035 General Plan.

Otherwise, impacts related to agricultural resources for Alternative 1 are the same as those anticipated under the 2035 General Plan.

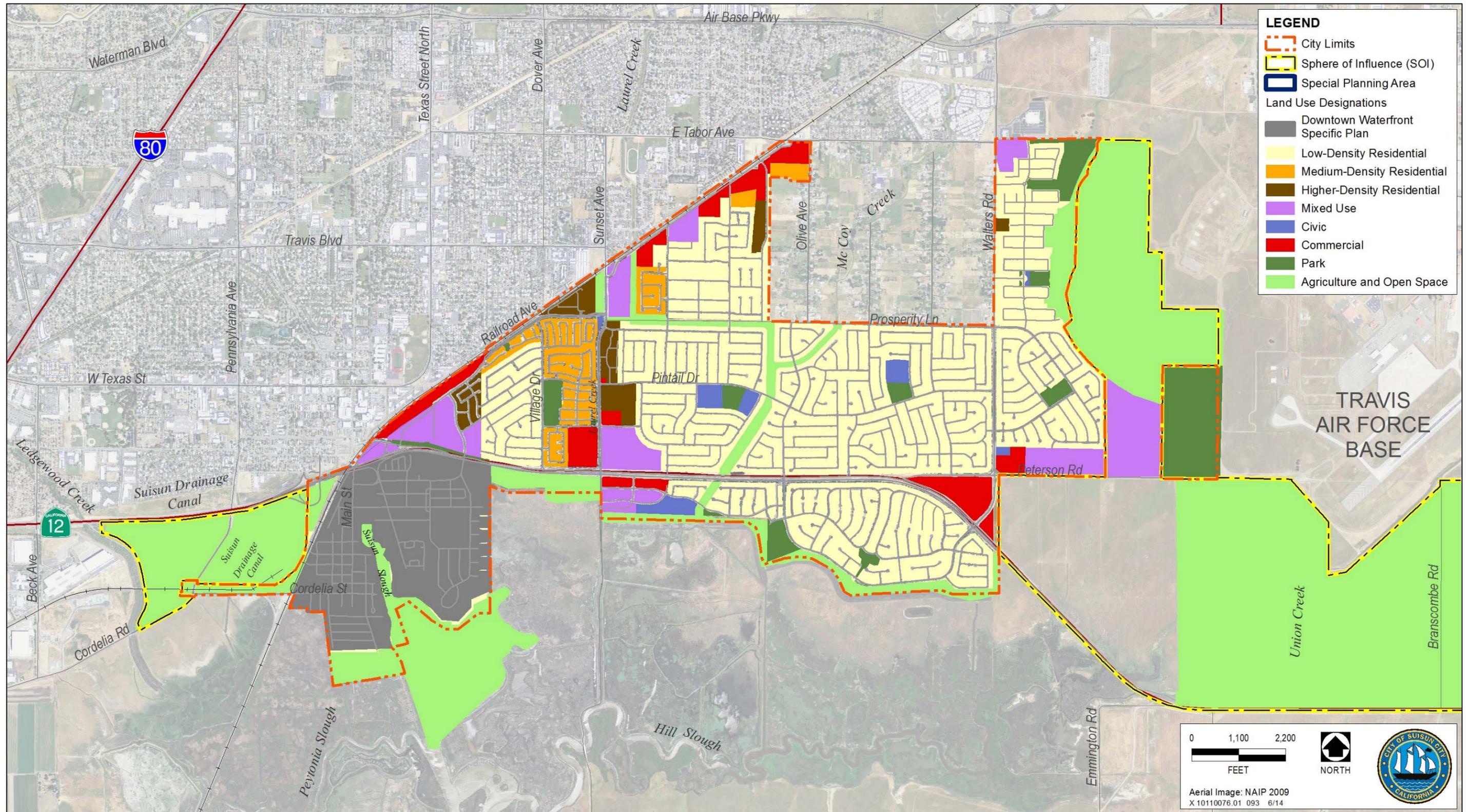
Alternative 2 would avoid development of an area west of the City that has a current Solano County agricultural zoning of A-40 and that is identified for development under the 2035 General Plan. Otherwise, impacts related to agricultural resources for Alternative 2 are the same as those anticipated under the 2035 General Plan.



Source: City of Suisun City 2010

Exhibit 4-1

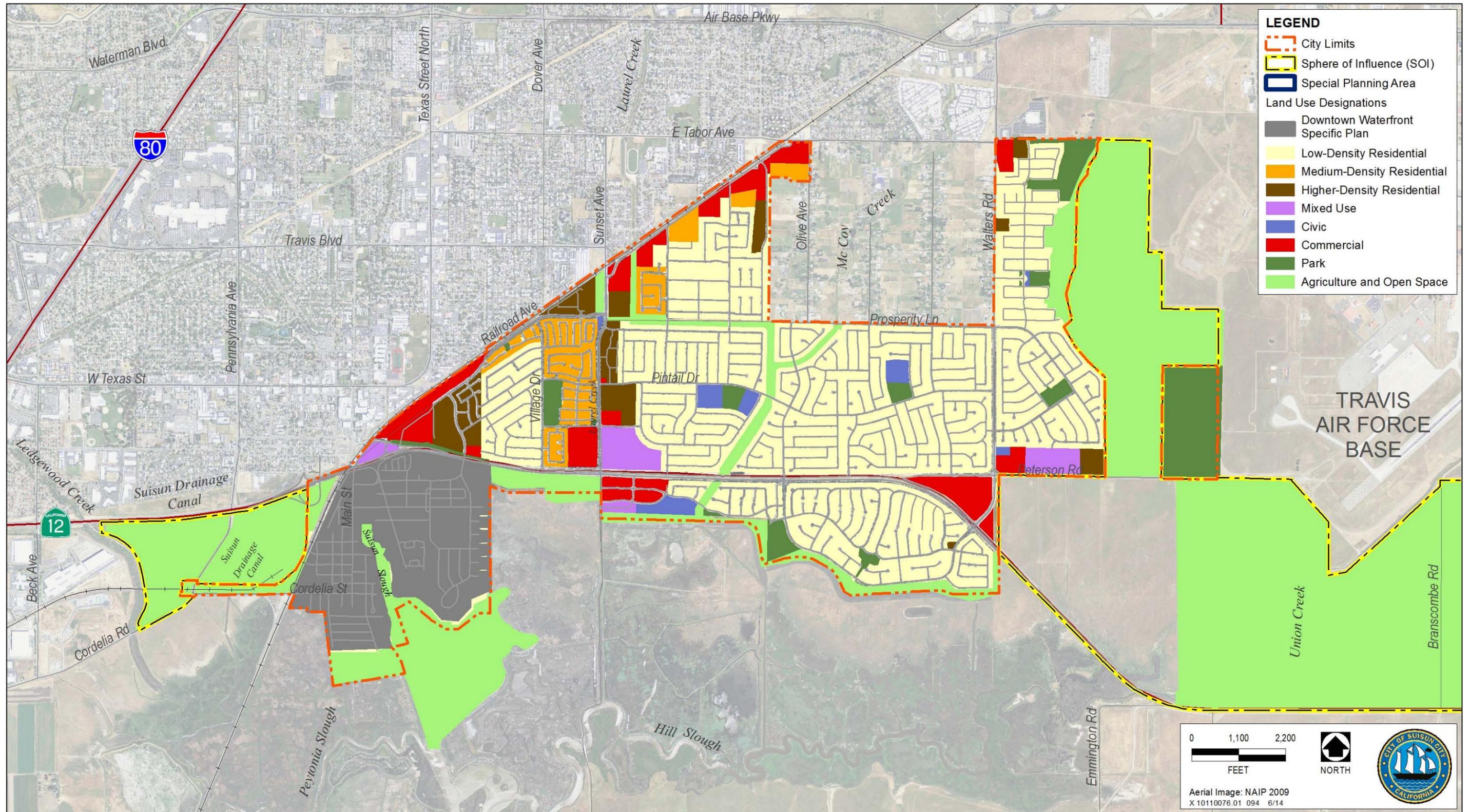
Alternative 1, No Project Alternative (1992 General Plan)



Source: AECOM 2014

Exhibit 4-2

Alternative 2



Source: AECOM 2014

Exhibit 4-3

Alternative 3

Alternative 3 would avoid development of an area west of the City that has a current Solano County agricultural zoning of A-40. Alternative 3 would also preserve in agricultural open space an area north of Peterson Road that currently has a Solano County agricultural zoning of A-20 that is identified for development under the 2035 General Plan. Otherwise, impacts related to agricultural resources for Alternative 3 are the same as those anticipated under the 2035 General Plan.

4.6.2 AIR QUALITY

Under the 2035 General Plan, land use change would result in long-term, operational emissions of criteria air pollutants that affect regional air quality. The primary source of criteria air pollutants would be transportation, such as vehicular trips made by residents of the Planning Area and trips to commercial uses and places of employment. Construction of projects accommodated under the 2035 General Plan would also generate short-term air pollutant emissions.

Alternative 1 would reduce vehicle miles traveled (VMT) by approximately 10% compared with the 2035 General Plan. Since transportation is the major source of criteria air pollutant emissions for this alternative and for the 2035 General Plan, this would reduce air quality impacts. VMT per capita would be reduced by approximately 5% under this alternative, when compared with the 2035 General Plan. This alternative would also involve a smaller development footprint compared to the 2035 General Plan and construction-related emissions would be reduced slightly by comparison.

Alternative 2 anticipates a very slight reduction in dwelling units and population compared with the 2035 General Plan and residential vehicular trips would be reduced as a result. This alternative also includes increased local employment opportunities for residents. Since transportation would be the major source of criteria air pollutants for the 2035 General Plan and for this alternative, and since the commute trip represents a substantial portion of total travel, this would reduce operational air pollutant emissions relative to the 2035 General Plan. Alternative 2 reduces commercial retail and service development compared to the 2035 General Plan, which would also reduce air pollutant emissions. Finally, this alternative would reduce the overall development footprint compared to the 2035 General Plan and construction-related emissions would be reduced, as a result.

Alternative 3 anticipates an increase in total dwelling units and population compared with the 2035 General Plan. However, some of the increases in residential density would occur in areas that are served with transit and close to non-residential services and employment opportunities. These factors may together increase the amount of travel that occurs by transit, walking, and biking compared to the 2035 General Plan. The increased share of non-automobile trips could offset the increased amount of residential development, in terms of air quality impacts. Alternative 3 also includes increased local employment opportunities for residents. Since transportation would be the major source of criteria air pollutants for the 2035 General Plan and for this alternative, and since the commute trip represents a substantial portion of total travel, this would reduce operational air pollutant emissions impacts relative to the 2035 General Plan. Alternative 3 reduces commercial retail and service development compared to the 2035 General Plan, which would also reduce air pollutant emissions. Finally, this alternative would reduce the overall development footprint compared to the 2035 General Plan and construction-related emissions would be reduced, as a result.

4.6.3 BIOLOGICAL RESOURCES

The 2035 General Plan could result in direct removal or degradation of habitat known to be occupied by rare species. Loss of suitable habitat could result in direct removal of these species. In addition to direct removal, habitat modification and fragmentation could degrade habitat quality to a degree that it is no longer suitable for special-status plants to regenerate and these plant populations could eventually die out. Indirect impacts could result from pollutants transported by urban runoff and other means, airborne particulates, changes in vegetation as a result of changes in land use and management practices, altered hydrology from the construction of adjacent development and roadways, habitat fragmentation, and the introduction of invasive species or noxious weeds from surrounding development. Implementation of the 2035 General Plan would allow development in areas that contain waterways, both natural and manmade, that support riparian habitat. Development in these areas could result in removal of riparian vegetation or habitat degradation from pollutants transported by urban runoff, changes in vegetation as a result of changes in land use and management practices, and altered site hydrology from the construction of adjacent urban development and roadways or alteration of stream channels. Additional indirect impacts on riparian habitats could result from habitat fragmentation, introduction of invasive species or noxious weeds, vegetation management practices (e.g., clearing for fire control), and intrusion by humans and domestic animals that could disturb riparian vegetation and reduce habitat values. Implementing the 2035 General Plan would accommodate land conversion in areas that currently support wetlands and other waters, including saline and freshwater emergent wetlands (i.e., marsh), vernal pools and other seasonal wetlands, creeks, and sloughs. Impacts on wetlands and other waters could occur through habitat conversion, encroachment, routine maintenance, or other activities in the immediate vicinity of waterways and in habitat supporting wetlands. Land conversion could result in direct fill of wetlands and other waters. Indirect impacts could result from adjacent development that leads to habitat modifications, such as changes in hydrology and reduction in water quality caused by urban runoff, erosion, and siltation. The 2035 General Plan directs development away from the Jepson Prairie-Suisun Marsh Corridor, but there is still the possibility that land use changes could be implemented in or adjacent to the movement corridor.

Alternative 1 would reduce the development footprint for an area west of the City that could support special-status species anticipated for development under the 2035 General Plan. Biological resources impacts would be reduced under this alternative compared to the 2035 General Plan, as a result.

Alternative 2 would avoid development in an area west of the current City limits that could support special-status species and is anticipated for development under the 2035 General Plan. Biological resources impacts would be reduced under this alternative compared to the 2035 General Plan, as a result.

Alternative 3 would avoid development in an area west of the current City limits that could support special-status species and is anticipated for development under the 2035 General Plan. Biological resources impacts would be reduced under this alternative compared to the 2035 General Plan, as a result.

4.6.4 CULTURAL RESOURCES

Although policies and programs would largely avoid adverse effects, implementation of the 2035 General Plan could potentially adversely affect historic resources and their settings. Implementation of the 2035 General Plan could result in the demolition or alteration of historic structures to allow for development. Land use change accommodated under the 2035 General Plan would involve grading, excavation, and potentially other ground-

disturbing activities, which could disturb or damage as-yet-undiscovered archaeological resources or human remains. It is possible that archaeological resources have been covered by deposits that could be removed, exposing the cultural deposits during project-related construction activities.

Alternative 1 would reduce the development footprint compared to the 2035 General Plan. Potential cultural resources impacts would be reduced under this alternative compared to the 2035 General Plan, as a result. This alternative anticipates development of the Downtown Waterfront Area in the same way as does the 2035 General Plan and potential impacts to historic resources would be the same.

Alternative 2 would reduce the development footprint compared to the 2035 General Plan. Potential cultural resources impacts would be reduced under this alternative compared to the 2035 General Plan, as a result. This alternative anticipates development of the Downtown Waterfront Area in the same way as does the 2035 General Plan and potential impacts to historic resources would be the same.

Alternative 3 would reduce the development footprint compared to the 2035 General Plan. Potential cultural resources impacts would be reduced under this alternative compared to the 2035 General Plan, as a result. This alternative anticipates development of the Downtown Waterfront Area in the same way as does the 2035 General Plan and potential impacts to historic resources would be the same.

4.6.5 GREENHOUSE GAS EMISSIONS

Under the 2035 General Plan, land use change would result in long-term, operational emissions of greenhouse gas (GHG) emissions that would contribute to cumulative global climate-change impacts to the economy, public health, and environment. The primary source of GHG emissions under the 2035 General Plan and alternatives would be transportation, such as vehicular trips made by residents of the Planning Area and trips to commercial uses and places of employment. Construction of projects accommodated under the 2035 General Plan would also generate GHG emissions.

Alternative 1 would reduce VMT by approximately 10% compared with the 2035 General Plan. Since transportation is the major source of GHG emissions under the 2035 General Plan and alternatives, this would reduce GHG emissions impacts. VMT per capita would be reduced by approximately 5% under this alternative, when compared with the 2035 General Plan. Per-employee emissions under this alternative, however, would increase compared to the 2035 General Plan (by approximately 7%). This alternative would involve a smaller development footprint compared to the 2035 General Plan and construction-related GHG emissions would be reduced.

Alternative 2 anticipates a very slight reduction in dwelling units and population compared with the 2035 General Plan and residential vehicular trips would be reduced as a result. This alternative also includes increased local employment opportunities for residents. Since transportation would be the major source of GHG emissions for the 2035 General Plan and for this alternative, and since the commute trip represents a substantial portion of total travel, this would reduce operational GHG emissions relative to the 2035 General Plan. Alternative 2 reduces commercial retail and service development compared to the 2035 General Plan, which would also reduce GHG emissions associated with transportation, as well as emissions related to heating and cooling of buildings, among other sources. Finally, this alternative would reduce the overall development footprint compared to the 2035 General Plan and construction-related GHG emissions would be reduced, as a result.

Alternative 3 anticipates an increase in total dwelling units and population compared with the 2035 General Plan. However, some of the increases in residential density would occur in areas that are served with transit and close to non-residential services and employment opportunities. These factors may together increase the amount of travel that occurs by transit, walking, and biking compared to the 2035 General Plan. The increased share of non-automobile trips could offset the increased amount of residential development, in terms of GHG emissions impacts. Alternative 3 also includes increased local employment opportunities for residents. Since transportation would be the major source of GHG emissions for the 2035 General Plan and for this alternative, and since the commute trip represents a substantial portion of total travel, this would reduce operational GHG emissions relative to the 2035 General Plan. Alternative 3 reduces commercial retail and service development compared to the 2035 General Plan, which would also reduce GHG emissions associated with transportation, as well as emissions related to heating and cooling of buildings, among other sources. Finally, this alternative would reduce the overall development footprint compared to the 2035 General Plan and construction-related emissions would be reduced, as a result.

4.6.6 ENERGY

New residential, commercial, civic, and other uses that could be developed under the 2035 General Plan would increase local energy demand. Depending on how energy use is calculated, transportation accounts for 40 to 54% of all energy use in California – the largest energy-consuming sector by far (U.S. Energy Information Administration 2010, Lawrence Berkeley National Laboratory 2005). Transportation accounts for more energy consumption than heating, cooling, and powering of buildings, powering industry, or any other use. Increased travel demand associated with buildout of the 2035 General Plan would increase energy use. Construction of buildings and associated heating and cooling needs would also increase local energy use.

Alternative 1 is anticipated to increase slightly energy demand compared to the 2035 General Plan, based on the increased residential development potential. Since the transportation sector is the single largest consumer of energy, and since this alternative would reduce travel demand slightly compared to the 2035 General Plan, energy use would also be reduced compared with the 2035 General Plan.

Alternative 2 anticipates a very slight reduction in dwelling units and population compared with the 2035 General Plan and residential energy use would be reduced as a result. This alternative also includes increased local employment opportunities for residents. Since transportation is the major consumer of energy for the 2035 General Plan and for this alternative, energy use would be reduced under this alternative. Alternative 2 reduces commercial retail and service development compared to the 2035 General Plan, which would also reduce energy use associated with transportation and the heating and cooling of buildings.

Alternative 3 anticipates an increase in total dwelling units and population compared with the 2035 General Plan and residential energy use would increase as a result. However, some of the increases in residential density would occur in areas that are served with transit and close to non-residential services and employment opportunities. These factors may together increase the amount of travel that occurs by transit, walking, and biking compared to the 2035 General Plan. The increased share of non-automobile trips could offset the increased amount of residential development, in terms of total use of energy. Alternative 3 also includes increased local employment opportunities for residents. Since transportation would be the major energy user for the 2035 General Plan and for this alternative, and since the commute trip represents a substantial portion of total travel, this would reduce local energy use relative to the 2035 General Plan. Alternative 3 reduces commercial retail and service development

compared to the 2035 General Plan, which would also reduce GHG emissions associated with transportation and the heating and cooling of buildings.

4.6.7 GEOLOGY, SOILS, MINERAL RESOURCES, AND PALEONTOLOGICAL RESOURCES

Ground shaking, motion that occurs as a result of energy released during faulting, could potentially result in the damage or collapse of buildings and other structures in the Planning Area as a result of activity along the Green Valley, Cordelia, or Kirby Hills Faults, in addition to other active faults in the region, such as the Rodgers Creek and the San Andreas. The western and southern portions of the Planning Area are located in areas of moderate to very high liquefaction potential. Land use change accommodated under the 2035 General Plan would involve grading, excavation, and earth-moving activities associated with construction of infrastructure and building and road foundations. Although these activities would occur in soils that have a low erosion hazard (because of the relatively flat topography and the high soil clay content), construction would result in the temporary disturbance of soil and would expose disturbed areas to winter storm events. Planning Area soils have been rated with high to moderate limitations for construction of buildings and roads because of low soil strength, subsidence potential, and ponding and soil saturation. Construction in unstable soils could result in structural damage to buildings, roads, and bridges. Most of the soil types in the Planning Area have a high shrink-swell potential, indicating that the soils are expansive. Eastern portions of the Planning Area are underlain by paleontology sensitive geologic formations.

Alternative 1 provides for a similar level and location of development as does the 2035 General Plan. Therefore, this alternative would have similar impacts related to soils limitations, seismic risk, and paleontological resources. Alternative 1 reduces the development footprint in an area with moderate liquefaction potential. Alternative 2 also preserves in open space an area north of Peterson Road that has high shrink-swell potential and a paleontology sensitive geologic formation. Otherwise, impacts would be similar to those anticipated under the 2035 General Plan.

Alternative 2 provides for a similar level and location of development as does the 2035 General Plan. Therefore, this alternative would have similar impacts related to soils limitations, seismic risk, and paleontological resources. Alternative 2 reduces the development footprint in an area with moderate liquefaction potential. Otherwise, impacts would be similar to those anticipated under the 2035 General Plan.

Alternative 3 provides for a similar level and location of development as does the 2035 General Plan. Therefore, this alternative would have similar impacts related to soils limitations, seismic risk, and paleontological resources. Alternative 3 reduces the development footprint in an area with moderate liquefaction potential. Alternative 3 also preserves in open space an area north of Peterson Road that has high shrink-swell potential and a paleontology sensitive geologic formation. Otherwise, impacts would be similar to those anticipated under the 2035 General Plan.

4.6.8 HAZARDS AND HAZARDOUS MATERIALS

The 2035 General Plan would accommodate development of new residential, commercial, and light industrial uses. New residential development would result in increased use, storage, and disposal of household hazardous materials. The amount of hazardous materials transported through the Planning Area on main local, regional

routes, and state routes (i.e., State Route [SR] 12) could increase as a result of new development allowed by the 2035 General Plan and region growth. The amount of hazardous materials transported through the City on railways could potentially increase during buildout of the Planning Area. Redevelopment through the planning horizon of the 2035 General Plan may include capital improvement projects that could disturb contaminated soils or subsurface hazardous structures. Asbestos-containing materials and lead-based paints may be present in structures located in the Planning Area and the renovation or demolition of existing structures constructed before 1978 can pose an exposure risk to workers from lead-based paint and those constructed before 1989 can pose an exposure risk to workers from asbestos-containing materials. There are areas of high fire risk in the south-central portion of the Planning Area east of Sunset Avenue and south of SR 12 and within the western portion of the Planning Area north and northwest of Cordelia Road and south of SR 12.

Alternative 1 would involve the same overall level and type of development, and the same location of development as anticipated under the 2035 General Plan. Hazards and hazardous materials impacts would also be similar, then. Alternative 1 includes a smaller development footprint west of the existing City limits compared to the 2035 General Plan in an area of high fire risk. Otherwise, impacts would be similar.

Alternative 2 would involve the same overall level and type of development, and the same location of development as anticipated under the 2035 General Plan. Hazards and hazardous materials impacts would also be similar, then. Alternative 2 includes a smaller development footprint west of the existing City limits compared to the 2035 General Plan in an area of high fire risk. Otherwise, impacts would be similar.

Alternative 3 would involve the same overall level and type of development, and the same location of development as anticipated under the 2035 General Plan. Hazards and hazardous materials impacts would also be similar, then. Alternative 3 includes a smaller development footprint west of the existing City limits compared to the 2035 General Plan in an area of high fire risk. Otherwise, impacts would be similar.

4.6.9 HYDROLOGY AND WATER QUALITY

The 2035 General Plan is anticipated to accommodate a variety of land use changes, including intensification of development on existing sites, demolition of existing structures with replacement land uses, and changes from undeveloped agricultural and open spaces lands to developed, urban uses – all of which has the potential to affect the type, quantity, and timing of contaminant discharges in stormwater runoff. The 100-year floodplain has also been mapped along McCoy Creek, Laurel Creek, Ledgewood Creek, the Suisun Drainage Canal, and within and adjacent to Suisun Marsh. This includes the entire southwest portion of the Planning Area (including the Downtown Waterfront Area). Soil types in the Planning Area consist of clays, clay loams, and silty clay loams that have low permeability – meaning that water percolation through the soil is restricted. Land use change accommodated under the 2035 General Plan would result in construction of additional impervious surfaces (e.g., parking lots, rooftops, driveways, sidewalks, and roads) that would reduce the amount of water percolating through the soil to recharge the groundwater aquifer.

With a similar level and character of development, it is anticipated that impacts related to water quality standards would be basically the same as anticipated under the 2035 General Plan. Alternative 1 would involve a slightly smaller development footprint than would the 2035 General Plan and therefore would have reduced impacts related to erosion, construction-related impacts, and interference with groundwater recharge.

With a similar level and character of development, it is anticipated that impacts related to water quality standards would be basically the same as anticipated under the 2035 General Plan. Alternative 2 would involve a smaller development footprint than would the 2035 General Plan and therefore would have reduced impacts related to erosion, construction-related impacts, and interference with groundwater recharge.

With a similar level and character of development, it is anticipated that impacts related to water quality standards would be basically the same as anticipated under the 2035 General Plan. Alternative 3 would involve a smaller development footprint than would the 2035 General Plan and therefore would have reduced impacts related to erosion, construction-related impacts, and interference with groundwater recharge.

4.6.10 LAND USE AND PLANNING

The 2035 General Plan provides a framework for the orderly and efficient long-term growth and conservation within Suisun City. Most Suisun City neighborhoods are built out or nearly built out, and are not likely to change substantially between present and 2035. The 2035 General Plan also anticipates land use change in currently undeveloped portions of the Planning Area, where there are no existing established communities. The 2035 General Plan does not identify future transportation facilities that would be located within existing developed communities or other changes that could disrupt or divide existing neighborhoods.

Alternative 1 anticipates the same basic mix of land uses as anticipated under the 2035 General Plan and a similar location for future development. Alternative 1 is not anticipated to divide existing communities and the relationship between Alternative 1 and relevant policies developed to avoid or reduce environmental effects is similar. Future annexations under Alternative 1 would be subject to the same Solano Local Agency Formation Commission and Travis Air Force Base Land Use Compatibility Plan requirements as the 2035 General Plan.

Alternative 2 anticipates the same basic mix of land uses as anticipated under the 2035 General Plan and a similar location for future development. Alternative 2 is not anticipated to divide existing communities and the relationship between Alternative 2 and relevant policies developed to avoid or reduce environmental effects is similar. Future annexations under Alternative 1 would be subject to the same Solano Local Agency Formation Commission and Travis Air Force Base Land Use Compatibility Plan requirements as the 2035 General Plan.

Alternative 3 anticipates the same basic mix of land uses as anticipated under the 2035 General Plan and a similar location for future development. Alternative 3 is not anticipated to divide existing communities and the relationship between Alternative 3 and relevant policies developed to avoid or reduce environmental effects is similar. Future annexations under Alternative 1 would be subject to the same Solano Local Agency Formation Commission and Travis Air Force Base Land Use Compatibility Plan requirements as the 2035 General Plan.

4.6.11 NOISE AND VIBRATION

The 2035 General Plan could accommodate construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours) and in areas immediately adjoining noise sensitive land uses. Noise generating construction activities related to 2035 General Plan implementation would include demolition activities, site grading and excavation, building erection, paving, and landscaping. With implementation of the 2035 General Plan, future development of noise-sensitive uses (e.g., residences, schools, hospitals, parks, hotels, places of worship, libraries) would occur in areas that either are currently exposed to or would be exposed to

future traffic or railroad noise levels that exceed noise standards for noise-sensitive uses. It is also possible that noise-sensitive development could be exposed to non-transportation noise in excess of applicable standards. The 2035 General Plan would accommodate a variety of land uses, including residential; commercial, office, and industrial; open space and recreation; and institutional and public facilities (e.g., electrical substations, wastewater conveyance facilities, and schools). The long-term operation of these uses could result in noise from landscape and building maintenance activities, voices, amplified music, mechanical equipment (e.g., pumps, generators heating, ventilation, and cooling systems), loading dock activities, parking lots, garbage collection, and other noise sources. Development anticipated under the 2035 General Plan would generate and attract vehicular traffic, which would increase traffic noise levels along existing and future roadways. Construction and demolition activities associated with future projects implemented under the 2035 General Plan have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used, the location of construction activities relative to sensitive receptors, and operations/activities involved.

Operational noise related impacts under Alternative 1 would be similar to the impacts identified for the 2035 General Plan, since the same overall location, scale, and type of development would occur. Construction noise and vibration impacts under Alternative 1 would be similar those anticipated for the 2035 General Plan, with a similar level and extent of development assumed. Alternative 1 has a smaller development footprint than the 2035 General Plan, so the extent of construction-related noise and vibration would be reduced. Since Alternative 1 would have lower travel demand compared to the 2035 General Plan, traffic noise impacts would be reduced.

Alternative 2 would also have similar noise and vibration impacts as those anticipated under the 2035 General Plan since the same overall location, scale, and type of development would occur. Alternative 2 has a smaller development footprint than the 2035 General Plan, so the extent of construction-related noise and vibration would be reduced.

Alternative 3 anticipates an increase in total dwelling units in areas with good transportation access and also somewhat elevated transportation noise levels. This could increase noise impacts compared to the 2035 General Plan if future residential projects in these areas were not designed to avoid adverse impacts to future residents. This alternative would reduce the overall development footprint compared to the 2035 General Plan and construction-related noise and vibration would be reduced, as a result.

4.6.12 POPULATION, EMPLOYMENT, AND HOUSING

Implementation of the General Plan could generate a temporary increase in population and housing demand as a result of construction jobs. Implementation of the 2035 General Plan would accommodate population growth associated with future development of residential land uses and indirectly through future development of commercial, retail, office, and light industrial uses throughout the Planning Area that could attract additional residential development. The 2035 General Plan does not propose to displace existing housing.

Alternative 1 would accommodate more housing and population relative to the 2035 General Plan, although population growth in and of itself is not an adverse effect. Overall, impacts attributable to the implementation of this alternative would be similar to those anticipated for the 2035 General Plan.

Alternative 2 would accommodate slightly less housing and population relative to the 2035 General Plan, although population growth in and of itself is not an adverse effect. Overall, impacts attributable to the implementation of this alternative would be similar to those anticipated for the 2035 General Plan.

Alternative 3 would accommodate more housing and population relative to the 2035 General Plan, although population growth in and of itself is not an adverse effect. Overall, impacts attributable to the implementation of this alternative would be similar to those anticipated for the 2035 General Plan.

4.6.13 UTILITIES AND SERVICE SYSTEMS, PUBLIC SERVICES, AND RECREATION

Implementation of the 2035 General Plan would designate land uses that, if developed to full buildout, would increase water demand. Construction of new or expansion of existing water treatment and conveyance facilities could have adverse effects on the physical environment. Land use change accommodated under the 2035 General Plan would increase wastewater effluent discharged to wastewater systems. Land use change accommodated under the 2035 General Plan would increase the local demand for wastewater collection and conveyance facilities and require the expansion and extension of wastewater infrastructure to deliver services. The 2035 General Plan would require new or the extension of existing stormwater conveyance and discharge facilities. Land use change accommodated under the 2035 General Plan would increase the population of Suisun City and increase solid waste streams. Land use change accommodated under the 2035 General Plan would accommodate construction of new physical structures and population, which would create additional demand for fire protection services, over current demand levels. Land use change accommodated under the 2035 General Plan would result in the development of new homes, businesses, and other facilities in the city, which would result in the increased need for police protection services. The 2035 General Plan would accommodate new school-aged children requiring school services. Implementation of the 2035 General Plan would result in the development of new residences in Suisun City, which would add new population and increase demand for new and existing parks, as well as recreation facilities.

Alternative 1 would accommodate more housing and population relative to the 2035 General Plan, which could increase slightly the demand for solid waste services, fire protection, law enforcement, and recreational facilities. However, this alternative also anticipates a reduced overall amount of non-residential square footage. Water demand would be similar. Demand for wastewater collection and treatment services would be similar. Overall, public services and utilities impacts attributable to the implementation of this alternative would be similar to those anticipated for the 2035 General Plan.

Alternative 2 would accommodate the same amount of housing and population relative to the 2035 General Plan, and the same level of impacts related to solid waste services, fire protection, law enforcement, and recreational facilities. This alternative also anticipates a reduced overall amount of non-residential square footage and therefore, impacts may be reduced related to water demand, construction of water and wastewater facilities, storm drainage, and other service systems.

Alternative 3 would accommodate more housing and population relative to the 2035 General Plan, which could increase slightly the demand for solid waste services, fire protection, law enforcement, and recreational facilities. However, this alternative also anticipates a reduced overall amount of non-residential square footage. Water demand would be similar. Demand for wastewater collection and treatment services would be similar. Overall,

public services and utilities impacts attributable to the implementation of this alternative would be similar to those anticipated for the 2035 General Plan.

4.6.14 TRAFFIC AND TRANSPORTATION

The 2035 General Plan would increase travel demand through accommodating land use change that would generate and attract new trips. The 2035 General Plan would result in greater levels of traffic on area roadways, when compared to existing conditions. Implementation of the 2035 General Plan could contribute to traffic congestion, including congestion that would exceed applicable California Department of Transportation (Caltrans) standards.

Alternative 1 would reduce VMT by approximately 10% compared with the 2035 General Plan, reducing potential traffic and transportation impacts.

Alternative 2 anticipates a very slight reduction in dwelling units and population compared with the 2035 General Plan and residential vehicular trips would be reduced as a result. This alternative also includes increased local employment opportunities for residents, which could help to reduce travel demand compared to the 2035 General Plan. Alternative 2 reduces commercial retail and service development compared to the 2035 General Plan, which would also reduce transportation impacts.

Alternative 3 anticipates an increase in total dwelling units and population compared with the 2035 General Plan. However, some of the increases in residential density would occur in areas that are served with transit and close to non-residential services and employment opportunities. These factors may together increase the amount of travel that occurs by transit, walking, and biking compared to the 2035 General Plan. The increased share of non-automobile trips could offset the increased amount of residential development, in terms of travel demand impacts. Alternative 3 also includes increased local employment opportunities for residents, which could reduce commute-related travel demand relative to the 2035 General Plan. Alternative 3 reduces commercial retail and service development compared to the 2035 General Plan, which would also reduce travel demand.

4.6.15 VISUAL RESOURCES

Implementation of the 2035 General Plan would involve land use change that could permanently alter and block some views of the Suisun Marsh, the Coastal Range, Cement Hill, the Potrero Hills, and the Vaca Mountains, which are important local scenic vistas. The 2035 General Plan would alter the existing visual character of the City. The 2035 General Plan would accommodate land use change that would add new lighting that could potentially obscure nighttime views of stars. Urban development would create additional reflective services, and cause additional glare, including glare affecting motorists.

Alternative 1 would have similar impacts to the 2035 General Plan with regard to blockage of scenic views. The same areas would be developed, in large part, under Alternative 1 as anticipated under the 2035 General Plan. Alternative 1 includes a smaller footprint area outside City limits to the west, however, compared to the 2035 General Plan in a currently undeveloped area. This alternative also would retain in open space areas north of Peterson Road east of the existing City limits. This would reduce nighttime lighting impacts in these portions of the City's Planning Area. Otherwise, impacts associated with Alternative 1 are similar to those anticipated under the 2035 General Plan.

Alternative 2 would have similar impacts to the 2035 General Plan with regard to blockage of scenic views. The same areas would be developed, in large part, under Alternative 2 as anticipated under the 2035 General Plan. Alternative 2 would preserve in open space an area outside City limits to the west. Since this area is undeveloped today, this would avoid nighttime lighting impacts and a change in visual character for this portion of the City’s Planning Area. Otherwise, impacts associated with Alternative 2 are similar to those anticipated under the 2035 General Plan.

Alternative 3 would have similar impacts to the 2035 General Plan with regard to blockage of scenic views. The same areas would be developed, in large part, under Alternative 3 as anticipated under the 2035 General Plan. Alternative 3 would preserve in open space an area outside City limits to the west. Since this area is undeveloped today, this would avoid nighttime lighting impacts and a change in visual character for this portion of the City’s Planning Area. Alternative 3 would also preserve in open space an area outside City limits to the east, which would avoid nighttime lighting impacts and a change in visual character for this portion of the City’s Planning Area. Otherwise, impacts associated with Alternative 3 are similar to those anticipated under the 2035 General Plan.

4.7 SUMMARY OF COMPARATIVE EFFECTS OF THE ALTERNATIVES

Table 4-2 provides a summary comparison of the environmental impacts of the alternatives, as presented in the environmental analysis above, to the environmental impacts of the 2035 General Plan. The environmental impacts of the 2035 General Plan are addressed in detail throughout this EIR.

Environmental Topic	Alternative 1	Alternative 2	Alternative 3
Agricultural Resources	Lesser	Lesser	Lesser
Air Quality	Lesser	Lesser	Lesser
Biological Resources	Lesser	Lesser	Lesser
Cultural Resources	Lesser	Lesser	Lesser
Greenhouse Gas Emissions/Climate Change	Lesser	Lesser	Lesser
Energy	Lesser	Lesser	Lesser
Geology, Soils, Mineral Resources, and Paleontological Resources	Lesser	Lesser	Lesser
Hazards and Hazardous Materials	Lesser	Lesser	Lesser
Hydrology and Water Resources	Lesser	Lesser	Lesser
Land Use and Planning	Similar	Similar	Similar
Noise and Vibration	Lesser	Lesser	Greater
Population and Housing	Similar	Similar	Similar
Utilities and Service Systems, Public Services, and Recreation	Similar	Lesser	Similar
Traffic and Transportation	Lesser	Lesser	Lesser
Visual Resources	Lesser	Lesser	Lesser
Total	12 Lesser 3 Similar 0 Greater	13 Lesser 2 Similar 0 Greater	11 Lesser 3 Similar 1 Greater

Each of the alternatives, overall, would reduce potential environmental effects compared to that which is anticipated to occur under the 2035 General Plan. Just one impact area – exposure to transportation noise – could potentially be increased by an alternative (Alternative 3).

4.8 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

In addition to the discussion and comparison of impacts of the alternatives to the 2035 General Plan, CEQA requires that an “environmentally superior” alternative among the alternatives considered be selected and that the reasons for such selection be disclosed. In general, the environmentally superior alternative is the alternative that would generate the fewest or least severe adverse impacts.

For the purposes of this EIR, Alternative 2 is environmentally superior. Alternative 2 would reduce environmental impacts, compared to the 2035 General Plan, for 13 of the 15 environmental topic areas analyzed in this section.