4.7 HYDROLOGY AND WATER QUALITY

4.7 HYDROLOGY AND WATER QUALITY

Introduction

This section of the EIR describes existing drainage pattern and water resources for the project site and the region, and evaluates potential impacts of the project with respect to flooding, surface water resources, and groundwater resources. The hydrology and water quality impact analysis is based on information drawn from the City of Suisun City General Plan,[1] the Suisun Marketplace Hydrology and Water Quality Final Report,[2] and the Preliminary Water, Sewer and Storm Drainage Infrastructure Design.[3] These documents are available for review at City Hall.

Environmental Setting

The following setting information provides an overview of the existing conditions of the drainage systems, water quality, as well as stormwater runoff for the Gentry - Suisun project site and drainage area.

Drainage

The proposed development area is broken up into three portions: Planning Area 1, 2, and 3. Planning Area 1 consists of approximately 70.71 acres north of the Union Pacific Railroad tracks, west of Pennsylvania Avenue, south of State Route (SR) 12, and east of Ledgewood Creek. Planning Area 2 consists of approximately 13.11 acres south of the Union Pacific Railroad, north of Cordelia Road, and east of Ledgewood Creek. Planning Area 3 is approximately 4 acres bounded on the north by the existing drainage ditch, on the east by a tributary of Peytonia Slough, the south by Union Pacific Railroad right-of-way, and the west by Pennsylvania Avenue.

Planning Area 1 slopes from the northwest corner (elevation 14) to the east towards Pennsylvania Avenue (elevation 5) where the water generally collects before it is transported off site through a small culvert located on Cordelia Road. The total distance is approximately 2,676 feet at an average slope of 0.3 percent.

Planning Area 2 currently drains from the northwest to the southeast. Although the site is generally flat, it does fall from approximately elevation 10 to elevation 7 along Cordelia Road in a distance of about 660 feet or at approximately a 0.5 percent slope.

Planning Area 3 is flat and at an elevation between 5 and 4 feet with a slight slope from west to east into the ditch at the north end and to the tributary to Peytonia Slough at the east of the site (a slope of less than 0.1 percent).

The largely asphalt-paved development of Planning Area 1 will drain locally over pavement to bioswales and eventually to detention ponds. The ponds would be piped out to the Peytonia Slough. Building roofs are assumed to be drained to the surrounding finished surfaces. In addition, Planning Areas 2 and 3 would drain locally over pavement to bioswales, which would split into catch basins connecting to detention ponds. Two ponds are proposed: Pond A is specifically for filtering runoff from the truck service parking lot trench drain, since a bioswale is not feasible there, and for passing through runoff in the basin and overflow into an outlet connecting to Pond B. Pond B is placed on a portion of the northwest adjacent parcel (APN 0032-190-160). The parcel receives runoff from the first pond and from two bioswale catch basins that pipe directly into it. A series of pumps would be used to remove the contents to the northwest to Ledgewood Creek.

SCS Classification

Based on the 1972 compiled general soil map prepared by the Natural Resources Conservation Service, this site is primarily identified as Yolo-Sycamore and Capay-Clear Lake. Yolo-Sycamore is described as a nearly level well drained to somewhat poorly drained silty clay loams on alluvial fans. In addition, a portion of the easterly side of Pennsylvania Avenue is identified as Capay-Clear Lake which is nearly level and gently sloping, moderately well drained to poorly drained, silty clay loams to clays. Based on the same report exhibit 30, the entire site is a ST soil type, which is defined as a Sycamore fair silty clay loam topsoil. ST has a moderate shrink swell potential, medium sheer strength, medium compressibility, and low to medium piping hazard when compacted; however, because the water table is at a depth of 3 feet to more than 5 feet, ST in this case would be considered poor soil for use as fill material. The soil feature, if utilized for water retention structures, is moderately slow to slow permeability. Regarding agricultural drainage it is defined as moderately slow to slow permeability with moderately slow water intake and is identified as being in hydrological soil group "C" and has a high corrosivity for uncoated steel with the PH in the range of 6.1 to 8.4.

General Drainage Basin Relationships

The property east of Pennsylvania Avenue receives surface drainage directly from the City of Fairfield from the north consisting of approximately 285 acres of developed city. Flow from the City of Fairfield is collected and enters the property near the easterly edge by the railroad track, in the vicinity of Webster Street. The flow transfers through the property across the easterly edge parallel to the railroad and connects to the tributary to Peytonia Slough just north of the railroad tracks at Cordelia Road.

The project area also receives water from approximately 2,625 acres west of Pennsylvania Avenue from the area above Interstate 80, including part of the Solano County drainage. The flow enters the subject area at Pennsylvania Avenue through an improved channel, which crosses under Pennsylvania Avenue, and then continues through a ditch joining up with the other flows north of the railroad tracks. The total drainage area is 2,910 acres.

Planning Area 1 is levied from Ledgewood Creek by the Corp of Engineers Ledgewood Creek project and receives no direct flow from Ledgewood Creek and only has a small amount of Tributary area north of SR 12, which passes through equalizing culverts south of the properties on James Street, and under SR 12. The flow then collects with the onsite rainfall runoff as described above.

Planning Area 2, the area south of the railroad tracks and north of Cordelia Road, has no external tributary drainage area. Because of the levy from Ledgewood Creek, which receives no flow from the creek, all the flow eventually enters the ditch along Cordelia Road directly at the edge of the property. Ultimately, all water drains to the tributary to Peytonia Slough and finally to the Suisun Marsh.

Hydrology Parameters

The project site is currently located within Solano County. As a result, the Hydrology and Water Quality Report has utilized the Solano County water agency hydrology standards. The mean annual precipitation for this site is approximately 23 inches per year and is considered to be part of the San Francisco County drainage region. For a one day, 2-year return period storm, this represents a total rainfall of 2.41 inches. The 2-year return period may be considered the average year storm. The one day, 10-year period rainfall would be 4.12 inches. The fifteen-year storm would be 4.46 inches. The one day, 100-year storm would be 6.1 inches.

Water Quality

Planning Area 1 of the project site is occasionally used for cattle grazing and currently consists of natural grasses. Planning Areas 2 and 3 are currently vacant and are fenced and occasionally used for cattle grazing. The tributary of Peytonia Slough is a drainage swale that carries Fairfield flow through the property which was man made to convey stormwater and urban runoff to the slough. The Peytonia Slough crosses under Cordelia Road and the UPRR through an existing drainage structure, providing a filtering capability for silt materials carried to this point from Fairfield, through the existing channels and from the property as it currently drains in accordance with applicable federal, state, and local standards.

Under Section 303(d) of the 1972 Clean Water Act, states, territories and authorized tribes are required to develop a list of water quality limited segments. These waters on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution control technology. The law requires that these jurisdictions establish priority rankings for water on the lists and develop action plans, called as Total Maximum Daily Loads (TMDL), to improve water quality. On July 25, 2003 USEPA gave final approval to California's 2002 Section 303(d) List of Water Quality Limited Segments. According to this list, for Region 2 (San Francisco), the following water quality limited segments occur south of the project site (www.waterboards.ca.gov/tmdl/docs/2002reg2303dlist.pdf; March 2006):

Suisun Bay:

Pollutant	Potential Sources	TMDL	Estimated Size Affected		
Chlordane		**Low**	**27498**	**Acres**	
This listing was made by USEPA.					
	Nonpoint Source				
DDT		**Low**	**27498**	**Acres**	
This listing was made by USEPA.					
	Nonpoint Source				
Diazinon		**Low**	**27498**	**Acres**	
Diazinon levels cause water column toxicity. Two patterns: pulses through riverine systems linked to agricultural application in late winter and pulse from residential land use areas linked to homeowner pesticide use in late spring, early summer. Chlorpyrifos may also be the cause of toxicity; more data needed, however.					
	Nonpoint Source				
Dieldrin		**Low**	**27498**	**Acres**	
This listing was made by USEPA.					
	Nonpoint Source				
Dioxin Compounds		**Low**	**27498**	**Acres**	
The specific compounds are 2,3,7,8-TCDD, 1,2,3,7,8-PeCDD, 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 1,2,3,7,8,9-HxCDD, 1,2,3,4,6,7,8-HpCDD, and OCDD. This listing was made by USEPA.					
	Atmospheric Deposition				
Exotic Species		**Medium**	**27498**	**Acres**	
Disrupt natural benthos; change pollutant availability in food chain; disrupt food availability to native species.					
	Ballast Water				
Furan Compounds		**Low**	**27498**	**Acres**	
The specific compounds are 2,3,7,8-TCDF, 1,2,3,7,8-PeCDF, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 1,2,3,7,8,9-HxCDF, 2,3,4,6,7,8-HxCDF, 1,2,3,4,6,7,8-HpCDF, 1,2,3,4,7,8,9-HpCDF, and OCDF. This listing was made by USEPA.					
	Atmospheric Deposition				
Mercury		**High**	**27498**	**Acres**	**2003**
Current data indicate fish consumption and wildlife consumption impacted uses. Major source is historic: gold mining sediments and local mercury mining; most significant ongoing source is erosion and drainage from abandoned mines; moderate to low level inputs from point sources.					
	Industrial Point Sources				
	Resource Extraction				
	Atmospheric Deposition				
	Natural Sources				
	Nonpoint Source				
Nickel		**Low**	**27498**	**Acres**	
This listing was made by USEPA.					
	Source Unknown				
PCBs		**High**	**27498**	**Acres**	**2004**
This listing covers non-dioxin-like PCBs. Interim health advisory for fish; uncertainty regarding water column concentration data.					
	Unknown point source				
PCBs (dioxin-like)		**Low**	**27498**	**Acres**	
The specific dioxin-like compounds are 3,4,4,5-TCB (81), 3,3,3,3-TCB (77), 3,3,4,4,5-PeCB (126), 3,3,4,4,4,4-HxCB (169), 2,3,3,4,4-PeCB (105), 2,3,4,4,5-PeCB (114), 2,3,4,4,5-PeCB (118), 2,3,4,4,5-PeCB (123), 2,3,3,4,4,5-HxCB (156), 2,3,3,4,4,5-HxCB (157), 2,3,4,4,5,5-HxCB (167), 2,3,3,4,4,5,5-HpCB (189). This listing was made by USEPA.					
	Unknown Nonpoint Source				
Selenium		**Low**	**27498**	**Acres**	
Affected use is one branch of the food chain; most sensitive indicator is hatchability in nesting diving birds, significant contributions from oil refineries (control program in place) and agriculture (carried downstream by rivers); exotic species may have made food chain more susceptible to accumulation of selenium; health consumption advisory in effect for scaup and scoter (diving ducks); low TMDL priority because Individual Control Strategy in place.					
	Industrial Point Sources				
	Natural Sources				
	Exotic Species				

Suisun Marsh Wetlands:

Pollutant	Potential Sources	TMDL	Estimated Size Affected
Metals		**Low**	**66339 Acres**
Additional monitoring and assessment needed.			
	Agriculture		
	Urban Runoff/Storm Sewers		
	Flow Regulation/Modification		
Nutrients		**Low**	**66339 Acres**
Additional monitoring and assessment needed.			
	Agriculture		
	Urban Runoff/Storm Sewers		
	Flow Regulation/Modification		
Organic Enrichment/Low Dissolved Oxygen		**Low**	**66339 Acres**
Additional monitoring and assessment needed.			
	Agriculture		
	Urban Runoff/Storm Sewers		
	Flow Regulation/Modification		
Salinity/TDS/Chlorides		**Low**	**66339 Acres**
Additional monitoring and assessment needed.			
	Agriculture		
	Urban Runoff/Storm Sewers		
	Flow Regulation/Modification		

Suisun Slough:

Pollutant	Potential Sources	TMDL	Estimated Size Affected	
Diazinon		**High**	**1124 Acres**	**2004**
This listing was made by USEPA.				
	Urban Runoff/Storm Sewers			

It should be noted that as of September 2005, Diazinon in Suisun Bay has been recommended for delisting from the Section 303(d) list, though this has not yet occurred (www.waterboards.ca.gov/tmdl/docs/303d_update/r2_v2.pdf; March 2006).

As illustrated in the above list, a contributing source to the majority of pollutants in the water quality limited segments south of the project site is urban runoff/storm sewers.

The proposed project includes Mixed-Use and residential development on approximately 87.82 acres. Development of the proposed project would create impervious surfaces where currently no development exists. Impervious surfaces, as well as contaminants, would be introduced as a result of development of the project site. The proposed project includes the construction of vegetation swales and a biofiltration system, which would be constructed in accordance with federal, state and local standards, to filter out contaminants from stormwater runoff.

REGULATORY CONTEXT

Existing policies, laws and regulations that would apply to the proposed project are summarized below.

Federal Emergency Management Agency (FEMA)

The Federal Emergency Management Agency (FEMA) operates the National Flood Insurance Program, which issues maps of Special Flood Hazard Areas (SFHA), based on water surface elevations of the 1 percent (100-year) flood event. For any project that would result in a change to the designated 100-year floodplain, a Conditional Letter of Map Revision (CLOMR) is required to be issued by FEMA prior to the initiation of any construction activities. FEMA would issue CLOMRs to modify the elevations and/or boundaries of the Special Flood Hazard Areas (based on the 100-year flood event). FEMA requires assurance by the participating community that minimum floodplain management requirements are complied with, including minimum floor elevations above the "base flood," existing lands and structures or proposed structures are "reasonably safe from flooding," and that all supporting analysis and documentation used to make that determination is on file and available upon request. The supporting hydraulic analysis and documentation includes new topographic data and certification by a registered professional engineer or licensed land surveyor.

The floodplain areas are identified on the Flood Insurance Rate Maps (FIRMs) published by FEMA.

National Pollutant Discharge Elimination Systems (NPDES)

The National Pollutant Discharge Elimination System (NPDES) permit system was established within the Clean Water Act (CWA) to regulate municipal and industrial discharges to surface waters of the U.S. Each NPDES permit contains limits on allowable concentrations and mass emissions of pollutants contained in the discharge. Sections 401 and 402 of the CWA contain general requirements regarding NPDES permits. Section 307 of the CWA describes the factors that EPA must consider in setting effluent limits for priority pollutants.

Nonpoint sources are diffuse and originate over a wide area rather than from a definable point. Nonpoint pollution often enters receiving water in the form of surface runoff but is not conveyed by way of pipelines or discrete conveyances. As defined in the federal regulations, such nonpoint sources are generally exempt from federal NPDES permit programs requirements. However, two types of nonpoint source discharged are controlled by the NPDES program – nonpoint source discharges caused by general construction activities and the general quality of stormwater in municipal stormwater systems (either as part of a combined system or as a separate system in which runoff is carried through a developed conveyance system to specific discharge locations). The 1987 amendments to the CWA directed the federal Environmental Protection Agency (EPA) to implement the stormwater program in two phases. Phase 1 addressed discharges from large (population

250,000 or above) and medium (population 100,000 to 250,000) municipalities and also addresses discharges from certain industrial activities. Phase 2 addressed all other discharges defined by EPA that are not included in Phase 1.

Whereas point source discharges are typically regulated by individually issued NPDES permits, stormwater source discharges are regulated by general NPDES permits that have been issued to the state by the U.S. EPA. NPDES permits contain discharge prohibitions, effluent limitations, and necessary specifications and provisions that ensure proper treatment, storage, and disposal of wastewater. In California, NPDES permits are issued and enforced by the Regional Water Quality Control Boards (RWQCB). In the City of Suisun City, the San Francisco Bay RWQCB administers the program and provides the City with NPDES permit coverage.

The RWQCB has adopted a separate NPDES General Permit for stormwater discharge associated with construction activity. Stormwater runoff from construction sites that are one (1) acre or larger must be authorized under the State's General Construction Activity Storm Water Permit and must be managed by a Storm Water Pollution Prevention Plan (SWPPP). A SWPPP describes measures to control or minimize pollutants from entering stormwater. Developers whose projects are one (1) acre or larger must file a Notice of Intent with the RWQCB to obtain authorization under the General Permit. The General Permit requires the applicant to develop a SWPPP that addresses the grading/erosion impacts and the non-point source pollution impacts associated with the project, including post-construction impacts.

Water Quality Control Plan (Basin Plan) for the San Francisco Bay Region

By law, the California Regional Water Quality Control Board is required to develop, adopt (after public hearing), and implement a Water Quality Control Plan (Basin Plan) for the San Francisco Bay region. Significant waterbodies have been identified in the Basin Plan and these are organized into seven watersheds within the San Francisco Bay Region, one of which is the Suisun Basin, where the project is located.

The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the San Francisco Bay region. The plan must include:

- A statement of beneficial water uses that the Regional Board will protect;
- The water quality objectives needed to protect the designated beneficial water uses; and
- The strategies and time schedules for achieving the water quality objectives.

In general, the objectives are intended to govern the concentration of pollutant constituents in the main water mass. The same objectives cannot be applied at or immediately adjacent to submerged effluent discharge structures. Zones of initial dilution within which higher concentrations can be tolerated will be allowed for such discharges.

Specific Water Quality Objectives of the Basin Plan include:

Objectives for Surface Waters

The following objectives apply to all surface waters within the region, including Suisun Basin:

BACTERIA

The Basin Plan includes U.S. EPA's water quality criteria for water contact recreation based on the frequency of use a particular area receives. These criteria are used to differentiate between pollution sources or to supplement objectives for water contact recreation.

BIOACCUMULATION

Many pollutants can accumulate on particles, in sediment, or bioaccumulate in fish and other aquatic organisms. Controllable water quality factors shall not cause a detrimental increase in concentrations of toxic substances found in bottom sediments or aquatic life. Effects on aquatic organisms, wildlife, and human health will be considered.

BIOSTIMULATORY SUBSTANCES

Waters shall not contain biostimulatory substances in concentrations that promote aquatic growths to the extent that such growths cause nuisance or adversely affect beneficial uses. Changes in chlorophyll a and associated phytoplankton communities follow complex dynamics that are sometimes associated with a discharge of biostimulatory substances. Irregular and extreme levels of chlorophyll a or phytoplankton blooms may indicate exceedance of this objective and require investigation.

COLOR

Waters shall be free of coloration that causes nuisance or adversely affects beneficial uses.

DISSOLVED OXYGEN

For all tidal waters, the following objectives shall apply:
In the Bay:

Downstream of Carquinez Bridge	5.0 mg/l minimum
Upstream of Carquinez Bridge	7.0 mg/l minimum

For nontidal waters, the following objectives shall apply:

Waters designated as:

Cold water habitat	7.0 mg/l minimum
Warm water habitat	5.0 mg/l minimum

The median dissolved oxygen concentration for any three consecutive months shall not be less than 80 percent of the dissolved oxygen content at saturation.

Dissolved oxygen is a general index of the state of the health of receiving waters. Although minimum concentrations of 5 mg/l and 7 mg/l are frequently used as objectives to protect fish life, higher concentrations are generally desirable to protect sensitive aquatic forms. In areas unaffected by waste discharges, a level of about 85 percent of oxygen saturation exists. A three-month median objective of 80 percent of oxygen saturation allows for some degradation from this level, but still requires a consistently high oxygen content in the receiving water.

FLOATING MATERIAL

Waters shall not contain floating material, including solids, liquids, foams, and scum, in concentrations that cause nuisance or adversely affect beneficial uses.

OIL AND GREASE

Waters shall not contain oils, greases, waxes, or other materials in concentrations that result in a visible film or coating on the surface of the water or on objects in the water, that cause nuisance, or that otherwise adversely affect beneficial uses.

POPULATION AND COMMUNITY ECOLOGY

All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce significant alterations in population or community ecology or receiving water biota. In addition, the health and life history characteristics of aquatic organisms in waters affected by controllable water quality factors shall not differ significantly from those for the same waters in areas unaffected by controllable water quality factors.

pH

The pH shall not be depressed below 6.5 nor raised above 8.5. This encompasses the pH range usually found in waters within the basin. Controllable water quality factors shall not cause changes greater than 0.5 units in normal ambient pH levels.

RADIOACTIVITY

Radionuclides shall not be present in concentrations that result in the accumulation of radionuclides in the food web to an extent that presents a hazard to human, plant, animal, or aquatic life. Waters designated for use as domestic or municipal supply shall not contain concentrations of radionuclides in excess of the limits specified in Table 4 of Section 64443 (Radioactivity) of Title 22 of the California Code of Regulations, which is incorporated by reference into the Basin Plan.

SALINITY

Controllable water quality factors shall not increase the total dissolved solids or salinity of waters of the state so as to adversely affect beneficial uses, particularly fish migration and estuarine habitat.

SEDIMENT

The suspended sediment load and suspended sediment discharge rate of surface waters shall not be altered in such a manner as to cause nuisance or adversely affect beneficial uses.

Controllable water quality factors shall not cause a detrimental increase in the concentrations of toxic pollutants in sediments or aquatic life.

SETTLEABLE MATERIAL

Waters shall not contain substances in concentrations that result in the deposition of material that cause nuisance or adversely affect beneficial uses.

SUSPENDED MATERIAL

Waters shall not contain suspended material in concentrations that cause nuisance or adversely affect beneficial uses.

SULFIDE

All water shall be free from dissolved sulfide concentrations above natural background levels. Sulfide occurs in Bay muds as a result of bacterial action on organic matter in an anaerobic environment.

Concentrations of only a few hundredths of a milligram per liter can cause a noticeable odor or be toxic to aquatic life. Violation of the sulfide objective will reflect violation of dissolved oxygen objectives as sulfides cannot exist to a significant degree in an oxygenated environment.

TASTES AND ODORS

Waters shall not contain taste- or odor-producing substances in concentrations that impart undesirable tastes or odors to fish flesh or other edible products of aquatic origin, that cause nuisance, or that adversely affect beneficial uses.

TEMPERATURE

Temperature objectives for enclosed bays and estuaries are as specified in the "Water Quality Control Plan for Control of Temperature in the Coastal and Interstate Waters and Enclosed Bays of California," including any revisions to the plan.

In addition, the following temperature objectives apply to surface waters:

- The natural receiving water temperature of inland surface waters shall not be altered unless it can be demonstrated to the satisfaction of the Regional Board that such alteration in temperature does not adversely affect beneficial uses.
- The temperature of any cold or warm freshwater habitat shall not be increased by more than 5°F (2.8°C) above natural receiving water temperature

TOXICITY

All waters shall be maintained free of toxic substances in concentrations that are lethal to or that produce other detrimental responses in aquatic organisms. Detrimental responses include, but are not limited to, decreased growth rate and decreased reproductive success of resident or indicator species. There shall be no acute toxicity in ambient waters. Acute toxicity is defined as a median of less than 90 percent survival, or less than 70 percent survival, 10 percent of the time, of test organisms in a 96-hour static or continuous flow test.

There shall be no chronic toxicity in ambient waters. Chronic toxicity is a detrimental biological effect on growth rate, reproduction, fertilization success, larval development, population abundance, community composition, or any other relevant measure of the health of an organism, population, or community.

Chronic toxicity generally results from exposures to pollutants exceeding 96 hours. However, chronic toxicity may also be detected through short-term exposure of critical life stages of organisms.

The health and life history characteristics of aquatic organisms in waters affected by controllable water quality factors shall not differ significantly from those for the same waters in areas unaffected by controllable water quality factors.

TURBIDITY

Waters shall be free of changes in turbidity that cause nuisance or adversely affect beneficial uses. Increases from normal background light penetration or turbidity

relatable to waste discharge shall not be greater than 10 percent in areas where natural turbidity is greater than 50 NTU.

UN-IONIZED AMMONIA

The discharge of wastes shall not cause receiving waters to contain concentrations of un-ionized ammonia in excess of the following limits (in mg/l as N):

Annual Median	0.025
Maximum, Central Bay and upstream	0.16
Maximum, Lower Bay	0.4

The intent of this objective is to protect against the chronic toxic effects of ammonia in the receiving waters. An ammonia objective is needed for the following reasons:

- Ammonia (specifically un-ionized ammonia) is a demonstrated toxicant. Ammonia is generally accepted as one of the principle toxicants in municipal waste discharges. Some industries also discharge significant quantities of ammonia.
- Exceptions to the effluent toxicity limitations in Chapter 4 of the Plan allow for the discharge of ammonia in toxic amounts. In most instances, ammonia will be diluted or degraded to a nontoxic state fairly rapidly. However, this does not occur in all cases, the South Bay being a notable example. The ammonia limit is recommended in order to preclude any build up of ammonia in the receiving water.
- A more stringent maximum objective is desirable for the northern reach of the Bay for the protection of the migratory corridor running through Central Bay, San Pablo Bay, and upstream reaches.

The Basin also includes specific objectives for the following pollutants: Arsenic, Cadmium, Chromium VI, Copper, Cyanide, Lead, Mercury, Nickel, Selenium, Silver, Tributyltin, Zinc, PAHs. As stated in the Plan, surface waters shall not contain concentrations of the above chemical constituents in amounts that adversely affect any designated beneficial use.

Solano County Water Agency

In addition to domestic water supply, SCWA is responsible for operations and maintenance of the Ulatis Flood Control Project and the Green Valley Flood Control Project[4]. SCWA also has authority to deal with all flood control matters within the boundaries of SCWA. SCWA has prepared a Flood Control Master Plan to address County-wide flooding and drainage problems. One of the major recommendations of the Master Plan is to develop watershed studies to address flooding problems on a watershed basis. Several watershed studies have been completed and projects are being considered for implementation. SCWA also funds small projects for addressing localized flood control and drainage projects that meet specified criteria.

Suisun City General Plan Goals and Policies

The Suisun City General Plan is applicable to the proposed project. The General Plan sets forth various goals, policies, and programs that would apply to projects in the City of Suisun City. The following goals, policies and programs are applicable to the proposed project.

Chapter VII, Open Space and Conservation Element

Goal B: Environmental Preservation Goal – To improve the qualities and amenities of the Suisun Marsh environment as a natural habitat and recreation area and to the waterways emptying into the Marsh.

> Objective 1: To increase the accessibility of the Marsh to residents of Suisun City, in conjunction with State action, while assuring its protection and enhancement in accordance with State policies governing the management of lands within and adjacent to the Marsh.
>
> > Policy 9: Protection of Watercourses and Floodways – Natural watercourses and drainage channels shall be protected and preserved to the extent possible; runoff from urban development and upland watershed areas will be contained by channels and reservoirs to control debris, sediment, and the rate and dispersal of runoff.

Chapter VIII, Community Facilities and Services Element

Goal A: Municipal Services and Facilities Goal – To provide municipal and school services and facilities to both new development and existing residents and businesses at a level that will maintain and improve the standard of living for the entire community.

> Objective 2: To establish minimum standards for the location and capacity of water, sewer, and drainage lines and to assure that treatment plants have sufficient capacity to adequately serve the community.
>
> > Policy 5: Drainage – The City will require that new developments contain drainage features and facilities which channel runoff away from adjacent properties, control erosion, and assure that water quality will not be adversely affected. The City will encourage development designs which incorporate natural features into the drainage system provided water quality and erosion concerns are addressed. Drainage standards will be governed by the Development Guidelines and the Subdivision Ordinance.

Chapter IX, Noise and Safety Element

Safety Goal: To decrease the risk to Suisun City residents and workers from natural and human hazards to an acceptable level.

Objective 4: To reduce potential human injury or property damage from flooding.

Policy 21: Development in Floodways – No development will be allowed within the 100-year floodway of creeks or drainage channels identified within Suisun City by the Federal Emergency Management Agency (Community Panel Map Numbers 060372-001-B, 060631-0244-C, and 06031-0432-C, dated April 7, 1992).

IMPACTS AND MITIGATION MEASURES

The impacts to hydrology and water quality regarding the proposed project are analyzed and assessed in this section.

Standards of Significance

A hydrology or water quality impact would be significant if the proposed project were to:

- Violate any water quality standards or waste discharge requirements;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on or off site;
- Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
- Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
- Otherwise substantially degrade water quality;
- Place housing within a 100-year floodplain, as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- Place within a 100-year floodplain structures which would impede or redirect flood flows;
- Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or
- Expose people or structures to a significant risk of loss, injury or death involving flooding from inundation by seiche, tsunami, or mudflow.

Method of Analysis

This section describes the drainage and water quality related impacts that could occur with implementation of the proposed project. Impacts were assessed based upon information contained in the City of Suisun City General Plan.

Project-Specific Impacts and Mitigation Measures

4.7-1 Impact to the Existing Drainage from increased stormwater run-off.

Base Project

Planning Area 1 would be developed as a regional shopping facility with extensive parking and building structures, which would cover approximately 85 percent of the project site. Planning Area 2 would be developed in high-density housing units with parking and some open space areas, which would allow an effective coverage of approximately 70 percent of the project site. Planning Area 3, the development portion east of Pennsylvania Avenue, would similarly be developed with about 70 percent coverage utilizing high-density residential. The balance of the total parcel (approximately 73 acres) would be left in its existing condition. Approximately 93 percent of this parcel would be left undisturbed.

Developing a site and increasing its coverage increases the total amount of runoff leaving the site. When comparing the 24-hour hydrograph, undeveloped to developed, the hydrology report shows a total increase in volume from each of the basins as a result of development. Although the peak would continue to equal the undeveloped level, the total volume would increase for the 100-year storm. In addition, the basic design approach for water handling on all of the three developed parcels would be to collect roof drainage and parking lot drainage into landscape drainage swales for biofiltration of the water prior to its overflowing into the relief structures which would then be collected and brought to detention ponds on each of these sites. The detention ponds would be constructed with an invert below gravity discharge elevation and would be fitted with pumps that would maintain the ponds at a fixed level for the dry part of the season (maintaining sufficient water depth to reduce the amount of aquatic growth). During the wet season, the detention ponds would be pumped down to a lower level providing the required storm water retention capabilities and all developed flows would be routed through the ponds for two purposes:

(1) To attenuate the peak discharge from the developed conditions by pumping discharge at a level equal to the natural 100-year discharge rates so that no additional peak flow would be entering the tributary to Peytonia Slough higher than the existing conditions; and

(2) The ponds would be designed to have additional siltation capabilities to deposit some of the heavier suspended materials as well as in the intake for these pump outlets which would be at a low level and would allow floatable

materials to be captured prior to their discharge. Therefore, floatable materials would be separated and would not enter Ledgewood Creek and/or the tributary of Peytonia Slough.

According to the Suisun Marketplace Hydrology and Water Quality Report, the total volume increase entering the Peytonia Slough from the development of the proposed project represents less than 1 percent of the volume entering this area from the total tributary basin based on the existing hydrology of the basin for the 100-year SCS 24 hour hydrograph (See Table 4.7-1). In addition, as stated in the drainage discussion above, the proposed project drainage includes Best Management Practices (BMPs) including bioswales, catch basins, and detention ponds.

Table 4.7-1
Results of Hydrological Analysis

	PA1			PA2			PA3			Total Watershed
	Pre Project	**Post Project**	**Change**	**Pre Project**	**Post Project**	**Change**	**Pre Project**	**Post Project**	**Change**	**Existing**
Area (Ac)	69.53	69.53		11.64	11.64		4.97	4.97		2910
Land Use	Pasture	Commercial		Pasture	Residential		Pasture	Residential		
Hydraulic Length (ft)	2.676	2,676		660	660		850	850		29000
High Elevation (ft)	14	15		10	11		5	9		600
Low Elevation (ft)	5	8		7	8		4	8		5
Average Slope (%)	0.003	0.003		0.005	0.005		0.001	0.001		0.021
SCS Curve Number (CN)	79	94		79	90		79	90		90
10-yr peak flow (cfs)	14.7	29.3	14.6	4.3	7.8	3.5	1.2	3.3	2.1	385.9
10-yr runoff volume (cf)	555,420	800,138	244,718	93,877	133,433	39,556	39,549	56,973	17,424	24,716,730
10-yr peak outflow (cfs)		14.7	0.0		7.5	3.2		1.2	0.0	
100-year peak flow (cfs)	29.0	48.6	19.6	8.5	12.8	4.3	2.4	5.5	3.1	992.7
100-yr runoff volume (cf)	1,017,577	1,309,298	291,721	171,990	218,341	46,351	72,457	93,227	20,770	41,558,100
100-yr peak outflow (cfs)		28.8	-0.2		8.5	0.0		2.4	0.0	
Total 100-yr Post Project Increased Runoff (cf) = 358,842				**Percent of 100-yr Post Project Increased runoff to total basin volume = 0.9%**						

Alternative 1

Alternative 1 differs from the Base Project by including approximately 13 acres of medium-density residential in the northwest corner of Planning Area 1 and reducing the residential in Planning Area 2 from high to medium density. Thus, Alternative 1 would have less impervious surface area than the Base Project thereby reducing peak flow from the Base Project. The preliminary storm

drainage infrastructure design would remain relatively similar to the base project with ponds and bioswales draining the Planning Areas.

Alternative 2

Alternative 2 differs from the Base Project by including approximately 15.5 acres of medium-density residential in the northwest corner of Planning Area 1 and reducing the residential in Planning Area 2 from high to medium density. Thus, Alternative 2 would have less impervious surface area than the Base Project thereby reducing peak flow from the Base Project. The preliminary storm drainage infrastructure design would remain relatively similar to the base project with ponds and bioswales draining the Planning Areas.

Therefore, the Base Project, Alternative 1, and Alternative 2 would include drainage best management practices (BMPs) would meet the City of Suisun Design Standard that post-development peak runoff be restricted to 95 percent of the pre-development peak runoff. However, because the storm drainage infrastructure design is preliminary, the final design is unknown. Therefore, the exact impacts from the proposed project are uncertain, which would result in a ***potentially significant*** impact.

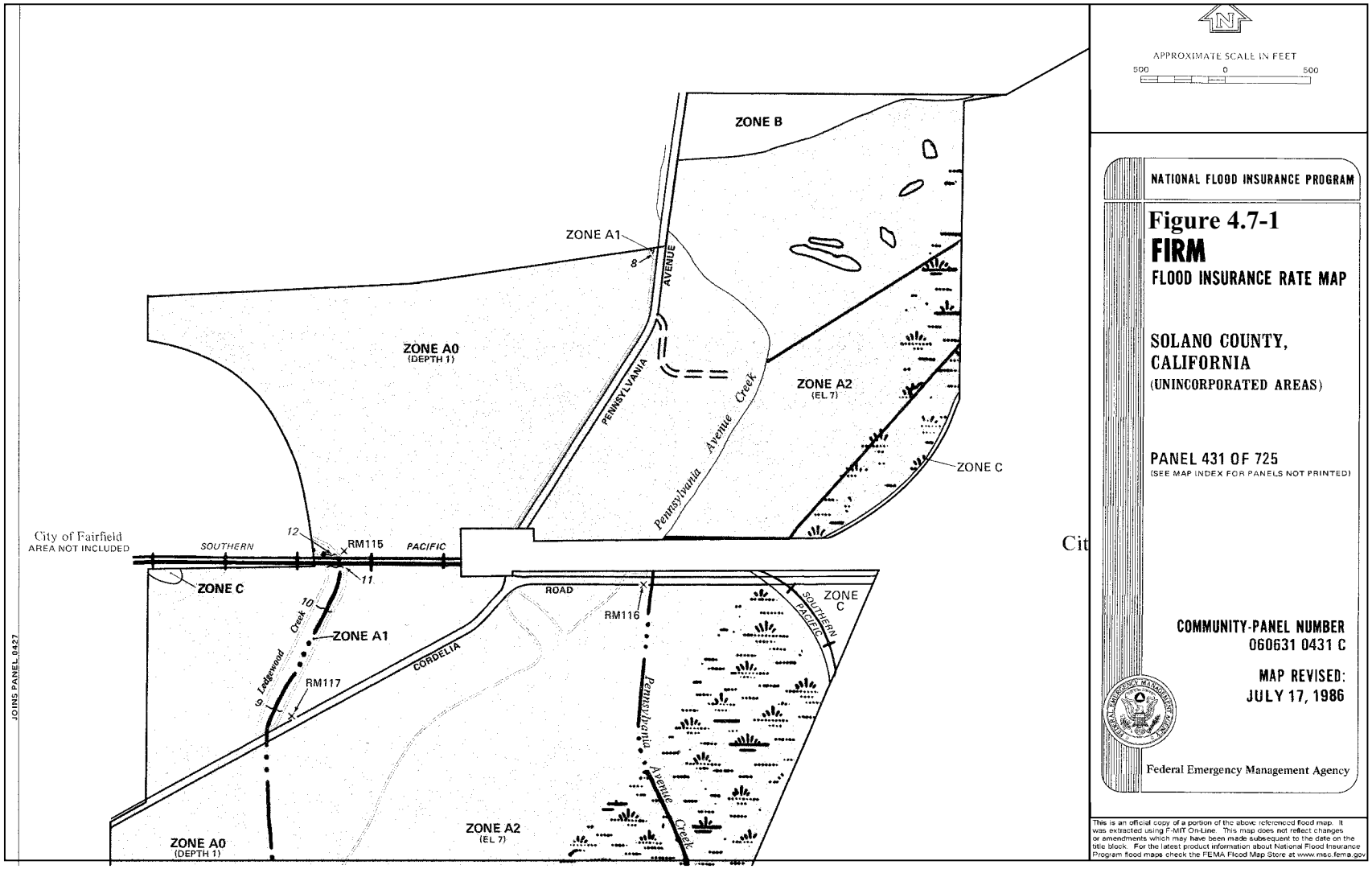
Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the proposed project impact to a *less-than-significant* level.

4.7-1 *Prior to the issuance of grading permits, the developer shall submit to the City Engineer for review and approval a final design-level hydrology study for the on-site drainage and detention basins prepared by a registered Civil Engineer (State of California), including but not limited to basin capacity and basin depth.*

4.7-2 Placement of structures with a 100-year floodplain potentially impeding flood flows and exposing people/structures to loss, injury, or death involving flooding.

Base Project, Alternative 1, and Alternative 2

The proposed project site is presented on the Flood Insurance Rate Map (FIRM) of Solano County panel #431 of 725, community panel number 0606310431C, as revised July 1986. The FIRM map designates the entire proposed project site as being within the 100-year floodplain, with Planning Areas 1 and 2 as a zone A0 and Planning Area 3 as an A2 flood zone (See Figure 4.7-1). Planning Areas 1 and 2 are designated with a one-foot depth and Planning Area 3 with a seven-foot depth. Therefore, implementation of the Base Project, Alternative 1, and Alternative 2 would result in a ***potentially significant*** impact.


APPROXIMATE SCALE IN FEET
500 0 500
ZONE B
ZONE A1
8
AVENUE
ZONE A0
(DEPTH 1)
PENNSYLVANIA
Pennsylvania Avenue Creek
ZONE A2
(EL 7)
ZONE C
City of Fairfield
AREA NOT INCLUDED
SOUTHERN
PACIFIC
12
RM115
11
ZONE C
10
Creek
ZONE A1
to Ledgewood
RM117
CORDELIA
ROAD
RM116
ZONE C
SOUTHERN PACIFIC
Pennsylvania Avenue Creek
ZONE A2
(EL 7)
ZONE A0
(DEPTH 1)
JOINS PANEL 0427
NATIONAL FLOOD INSURANCE PROGRAM
Figure 4.7-1
FIRM
FLOOD INSURANCE RATE MAP
SOLANO COUNTY, CALIFORNIA
(UNINCORPORATED AREAS)
PANEL 431 OF 725
(SEE MAP INDEX FOR PANELS NOT PRINTED)
COMMUNITY-PANEL NUMBER
060631 0431 C
MAP REVISED:
JULY 17, 1986
Federal Emergency Management Agency
This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the impact to the proposed on-site structures to a *less-than-significant* level.

4.7-2 Prior to issuance of any grading permits, in accordance with FEMA standards, all building pad elevations shall be designed to be at least one-foot above the 100-year flood plain or drainage release path (100-year flood elevation), whichever is greater, and the applicant shall submit to the City Engineer a CLOMR obtained for the proposed project.

4.7-3 Degradation of water quality.

Base Project, Alternative 1, and Alternative 2

Short-term grading and construction activities may cause an increase in erosion, leading to sedimentation of waterbodies in the affected watershed. In addition, pollutants may be transported from construction areas to downstream locations due to improper handling practices. Other pollutants, such as solvents, fuels, lubricants, and chemical wastes, may be spilled, dumped or discarded on construction sites. These pollutants may be picked up in site runoff and ultimately enter downstream waterways, which could result in stormwater pollution.

Stormwater pollution control is the responsibility of the State Water Resources Control Board and Regional Water Quality Control Board, and is implemented through the use of National Pollution Discharge Elimination System (NPDES) permits. In addition, the City of Suisun City is responsible for ensuring compliance with the stormwater pollution control standards.

Long-term operation of the project would result in materials being deposited by cars in the parking lots and floatable debris from trash as well as the contaminants of landscaping, fertilizers, and other contaminants, which would affect stormwater. With the post-development project, all roof drainage would be collected separately and taken directly to the drainage biofilter swales by direct piping. The water entering the swales would only pick up the dust particles and materials that settle on the roof of the structures for this portion of the drainage. The runoff from driveways and parking areas would also be directed to biofilter swales, which would then help to remove some of the particulate matter, and some of the petroleum residuals that would normally pass directly downstream.

Runoff would also be controlled through the proposed detention ponds, and with the pump discharge, the ability exists to monitor the quality of the effluent of the discharge flow. A monitoring program would be established to meet agency requirements to determine the level of materials in the discharges.

However, water bodies that would receive short-term and long-term project runoff include Peytonia Slough, Suisun Marsh, and ultimately Suisun Bay. These water

bodies are impaired water bodies according to the Section 303(d) list of impaired water bodies for the state. According to Richard Looker at the San Francisco Bay Regional Water Quality Control Board, the fact that the project would be discharging stormwater into impaired water bodies would result in more stringent water quality requirements for the project; however, through acquisition of applicable permits and compliance with all Regional Water Quality Board requirements and programs, stormwater discharge would be permitted.[5] Furthermore, a contributing source to the majority of pollutants in the water quality limited segments south of the project site (e.g., Suisun Marsh, Suisun Bay) is urban runoff/storm sewers. Therefore, should these water bodies receive additional pollutants, a ***potentially significant*** impact would occur.

Mitigation Measure(s)
The following mitigation measure would reduce the above impact to water quality to a *less-than-significant* level.

4.7-3(a) *Prior to occupancy, the project applicant shall produce an operational stormwater quality monitoring plan for review and approval of the City Engineer. The monitoring plan shall include but not be limited to monitoring locations, intervals, and duration. Should the monitoring show that the applicable water quality standards are not being met, additional BMPs shall be added, such as fossil filters with filter media on inlet structures, as approved by the City Engineer to meet applicable water quality standards. However, should monitoring show stormwater quality to meet the applicable water quality standards for two consecutive wet seasons, further monitoring would not be required with the approval of the City Engineer.*

4.7-3(b) *Prior to issuance of grading permits, the applicant shall obtain applicable NPDES permits from the San Francisco Bay Regional Water Quality Control Board and comply with all applicable programs.*

Cumulative Impacts and Mitigation Measures

4.7-4 Long-term increased stormwater drainage into the existing drainage system.

Base Project, Alternative 1, and Alternative 2

The proposed Gentry-Suisun project, along with reasonably foreseeable projects within the City of Suisun City and the City of Fairfield (See Chapter 6, *Statutorily Required Sections*, for a list of cumulative projects) would increase the stormwater runoff within the geographic area of Fairfield and Suisun City. The cumulative stormwater drainage impacts of the project, together with the related impacts of other foreseeable projects would be considered less-than-significant.

This is because both the City of Fairfield and the City of Suisun City require that development projects limit post-development flows to below pre-development levels. For example, according to Charlie Beck, Fairfield Public Works Director, all projects are required to limit post-development flows to 90 percent of pre-development flows.[6] In addition, as noted above, Suisun City requires that projects limit post-development peak flows to 95 percent of pre-development peak flows.

In addition, the project's incremental contribution to cumulative stormwater drainage impact would not be cumulatively considerable. The proposed Mixed-Use and residential development project would create impervious surfaces where none currently exist. The addition of impervious surfaces to the project site would increase the stormwater drainage downstream of the project site. However, as discussed in impact statements 4.7-1 and 4.7-3, the proposed project inclusion of BMPs in the project design in addition to implementation of Mitigation Measure 4.7-1 would ensure less-than-significant impacts to local drainage and downstream flooding. Therefore, the proposed project would not significantly contribute to cumulative stormwater drainage impacts resulting in a ***less-than-significant*** impact.

Mitigation Measure(s)
None Required.

4.7-5 Long-term degradation of water quality.

Base Project, Alternative 1, and Alternative 2

The proposed Gentry-Suisun project, along with reasonably foreseeable projects within the City of Suisun City and the City of Fairfield (See Chapter 6, *Statutorily Required Sections*, for a list of cumulative projects) would further degrade receiving water quality within the geographic area of Fairfield and Suisun City. The cumulative water quality impacts of the project, together with the related impacts of other foreseeable projects would be considered significant. Cumulative development in Suisun and Fairfield, including the proposed project, would result in increased impervious surfaces that could increase the rate and amount of runoff, thereby potentially adversely affecting existing surface water quality through increased erosion and sedimentation. The primary sources of water pollution include runoff from roadways and parking lots; runoff from landscaping areas; commercial activities; non-stormwater connections to the drainage system; accidental spills; and illegal dumping. Runoff from roadway and parking lots could contain oil, grease, and heavy metals; additionally, runoff from landscaped areas could contain elevated concentrations of nutrients, fertilizers, and pesticides. Furthermore, although the incorporation of BMPs would be required in the design of all future projects (consistent with local and state requirements), these BMPs are not 100 percent effective in eliminating urban pollutants. It is also important to note that the water bodies that would receive stormwater runoff from the City

of Fairfield and Suisun City are impaired water bodies and therefore the allowable pollutant levels are less than other unimpaired water bodies.

The project's incremental contribution to the cumulative degradation of water quality would be cumulatively considerable. Construction of the proposed project would contribute to the cumulative increase of urban pollutant loading, which would adversely affect water quality. Operation of the proposed project would also increase the urban pollutant load in received impaired water bodies. Without implementation of proper BMPs, this project and other future projects would result in the continued decrease of the water quality of local drainage systems. As a result, a ***potentially significant*** water quality impact would occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce the above impact to a *less-than-significant* level.

4.7-5 Implement Mitigation Measure 4.7-3.

Endnotes

[1] City of Suisun City, *City of Suisun City General Plan – Volume I*, May 1992.
[2] Creegan & D'Angelo, *Suisun Marketplace Hydrology and Water Quality Final Report*, January 2005.
[3] Creegan & D'Angelo, *Preliminary Water, Sewer and Storm Drainage Infrastructure Design*, March 2004.
[4] Solano County Water Agency, *SCWA Briefing Book*, 2002.
[5] Personal Communication with Mr. Richard Looker, San Francisco Bay Regional Water Quality Control Board, March 29, 2006.
[6] Personal Communication with Mr. Charlie Beck, Fairfield Public Works Director, March 29, 2006.

4.8 PUBLIC SERVICES AND UTILITIES

4.8 PUBLIC SERVICES AND UTILITIES

Introduction

This section will summarize setting information and identify potential new demands on water supply, wastewater systems, solid waste disposal, law enforcement, fire protection, schools, libraries, and parks and recreation, which would result from buildout of the proposed Gentry-Suisun project. Information for this section was drawn from project information provided by the City of Suisun April 2005 Municipal Services Review Comprehensive Annexation Plan,[1] Water Supply Assessment for the Gentry Gateway Project,[2] and personal communication with service providers.

Environmental Setting

This setting section describes the existing project site, including the water system, wastewater collection and treatment, law enforcement, fire protection, schools, solid waste collection and disposal, parks and recreation facilities, and other related public utilities.

Project Site

The proposed project site is located in Suisun City in central Solano County. The City is located on the Suisun Channel, which connects with Suisun and Grizzly Bays and links the City with the Sacramento River and the San Francisco Bay. The project site is located approximately 45 miles northeast of San Francisco and 45 miles southwest of Sacramento. Solano County is bordered by Napa, Yolo, San Joaquin, and Contra Costa Counties and covers 823 square miles, about half of which lies in the Sacramento Valley. In addition, the project site is located within the Suisun City Sphere of Influence (SOI).

The Gentry-Suisun project site consists of approximately 171.50 acres in Solano County, which would be annexed to the City of Suisun City as part of the proposed project.

Project Description

The proposed project involves two components, the annexation of the Gentry site of approximately 171.50 acres and a Mixed Use Development component that consists of the subdivision and development of a mixed use project on the approximately 87.82-acre Mixed Use site. The Mixed Use site is comprised of Planning Area 1, Planning Area 2, and Planning Area 3. The proposed project includes a Base Project, Alternative 1, and Alternative 2.

Base Project
Planning Area 1 would be comprised of 655,499 square feet of commercial space on approximately 70.71 acres, 15,682 square feet of Limited Industrial / Business Park on the Ardave Parcel, and 65,340 square feet of retail on the Gilbert Parcel. Planning Area 2 would accommodate approximately 275 residential dwelling units on approximately 13.1 acres. Planning Area 3 would also accommodate 84 residential dwelling units on approximately 4 acres. Planning Area 4 would remain as open space.

Alternative 1
Planning Area 1 would be comprised of 480,000 square feet of commercial space and 120 residential dwelling units on approximately 70.71 acres, 12,000 square feet of Limited Industrial / Business Park and 4,000 sq. ft. of office uses on the Ardave Parcel, and 10,000 square feet of retail and 50,000 sq. ft. of limited industrial land uses on the Gilbert Parcel. Planning Area 2 would accommodate approximately 196 residential dwelling units on approximately 13.1 acres. Planning Area 3 would also accommodate 96 residential dwelling units on approximately 4 acres. Planning Area 4 would remain as open space.

Alternative 2
Planning Area 1 would be comprised of 350,000 square feet of commercial space and 250 residential dwelling units on approximately 70.71 acres, 12,000 square feet of Limited Industrial / Business Park and 4,000 sq. ft. of office land uses on the Ardave Parcel, and 10,000 square feet of retail and 50,000 sq. ft. of limited industrial uses on the Gilbert Parcel. Planning Area 2 would accommodate approximately 196 residential dwelling units on approximately 13.1 acres. Planning Area 3 would also accommodate 96 residential dwelling units on approximately 4 acres. Planning Area 4 would remain as open space.

Water System

The proposed project site is located within the Suisun-Solano Water Authority (SSWA), which manages water supply and distribution to the City. The SSWA is a joint powers authority between the City of Suisun City and the Solano Irrigation District under an implementation agreement entered into in 1990. Both Suisun City and Solano Irrigation District have contracted with the Solano County Water Agency for water supplies from the federal Solano Project. The Solano County Water Agency is the contracting agency with the United States Bureau of Reclamation (USRB) for water supplies from the Solano Project.

In 1996 the SSWA adopted the "Master Plan for the Water Supply and Delivery System" ("Plan"), which provides comprehensive details about past, present, and projected water supply and delivery issues. The SSWA currently has a water treatment facility that receives surface water from the Solano Project, and following treatment, delivers it to the service area. Table 4.8-1 summarizes the annual allocations Suisun City and the Solano Irrigation District have from the Solano Project water. The table also lists an annual

allocation Suisun City has from the State Water Project's North Bay Aqueduct. Table 4.8-2 shows the City's State Water Project allocation will continue to increase at 50 acre-feet per year until the maximum amount of 1,300 acre-feet per year is reached in 2015.

Table 4.8-1
Solano Project Water Supplies

Agency	Annual Entitlement (Acre Feet)
Suisun City	1,600
Solano Irrigation District (Ag, M & I)	141,000

Source: Water Supply Assessment, 2004.

Table 4.8-2
State Water Project Supplies

Agency	Annual Entitlement (Acre Feet)				
	2000	2005	2010	2015	2020
Suisun City	550	800	1,050	1,300	1,300

Source: Water Supply Assessment, 2004.

Service Area Boundary

The SSWA is responsible for the City's water treatment and distribution system. The SSWA provides potable water to development within the City limits. The service area consists of two separate and distinct areas. The largest area is located southerly of the Union Pacific Railroad and includes Suisun City and the Tolenas area. A smaller service area is located northwesterly of the Gregory Hill Water Storage in Suisun Valley. This rural area includes twenty-six service connections. The service area encompasses a current population of approximately 28,000. Ultimate population projections are based on aerial photography of acreage within the service area that has yet to be developed in addition to acreage adjacent to the service area targeted for future development. The Suisun City General Plan population data was utilized to establish residential and apartment density factors (units per acre). The Suisun City and SSWA ultimate service area population is estimated at approximately 32,000.

Water Supply and Demand

Supply

The Solano Project, operated by the United States Bureau of Reclamation, will provide a reliable water supply for the buildout of the City. The watershed includes 576 square miles above Monticello Dam, and the Lake Berryessa reservoir provides a storage capacity of 1,602,000 acre-feet. The average annual inflow from Putah Creek is estimated at 360,000 acre-feet. The inflow over the period of record has varied from a maximum of 1,140,000 acre-feet in 1983 to a minimum of 35,000 acre-feet in 1941. The Lake Berryessa storage capacity allows Solano Project water users the ability to store and carry over 440 percent of the project's average annual yield. A primary reason for construction

of the large reservoir was to increase the annual safe yield. With a 1,602,000 acre-foot reservoir, a pre-project operation study estimated the safe annual yield at 262,000 acre-feet. The annual contractual entitlements of Solano Project water users are 207,350 acre-feet. The remaining inflow covers the reservoir evaporation losses and downstream flow requirements. During a normal rainfall year, defined as a year when the average annual runoff for the Solano Project is available, the SSWA will be able to meet its demands using water allocations mentioned above. During drought years 1987 – 1992 the cumulative Putah Creek runoff to Lake Berryessa was approximately 800,000 acre-feet. However, due to the large storage capacity in Lake Berryessa, mandatory curtailments in contractual entitlements did not begin until 1992, the sixth year of the drought. Table 4.8-3 summarizes the historic water deliveries to SSWA from the Solano Irrigation District contractual entitlement, and which are delivered to SSWA under their Implementation Agreement. The Solano Irrigation District was able to provide the additional supplies needed during the drought.

Demand

In 1996 an Updated Master Plan for the Water Supply and Delivery System of SSWA was prepared. This report provided a demand analysis model for the ultimate build out of the service area using projected Suisun City General Plan population data. A study of housing and commercial development modified to estimate current water use within SSWA was completed in 2004 (Water Supply Assessment for the Gentry Gateway Project, January 2004). Table 4.8-3 provides a reasonably accurate estimate of the annual water supply/demand deliveries from 1990 - 2001.

Table 4.8-3
Historic Solano Project Water Supply Deliveries (Acre-Feet)

	1990	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**1999**	**2000**	**2001**
Suisun City	1,600	1,600	1,256	1,600	1,436	1,600	1,600	1,600	1,600	1,600	1,600	1,600
SID-Suisun	1,863	1,318	2,003	1,768	2,393	2,261	2,573	2,748	2,425	2,846	2,779	3,159
Total	3,463	2,918	3,259	3,368	3,829	3,861	4,173	4,384	4,025	4,446	4,379	4,759

Comparison of Water Supply and Demand

The ultimate SSWA projected water demand anticipated in the 1996 Master Plan for Water Supply and Deliver Systems is 6,500 acre-feet per year, and is based on a population of 33,000 in the year 2020. This estimate is fairly consistent with ABAG's *Projections 2005,* which forecast a total population of 35,400 in this same year.

With an average of 3.2 residents per residential dwelling (U.S. Census Bureau), the City's population will grow by approximately 1,968 when the 615 homes discussed under "near term annexations" are built. Based on a consumption of 120 gpd per capita, these homes will increase water demand by approximately 264 acre-feet per year. New water treatment facilities and distribution pipelines will be constructed as development occurs.

Therefore, Suisun City and Solano Irrigation District's Solano Project allocations, together with the Suisun City's additional State Water Project water allocations, will provide SSWA the ability to meet its estimated water demands.

Wastewater Collection and Treatment

Service Area Boundary

The Fairfield-Suisun Subregional Wastewater Treatment Plant (WWTP) provides tertiary treatment of wastewater generated from domestic, commercial, and industrial sources within the City boundaries of Fairfield and Suisun City. Service is also provided to Travis Air Force Base and Anheuser Busch. The WWTP is owned by Fairfield-Suisun Sewer District (District) and is located on Chadbourne Road just southeast of Interstate 80. The District also maintains a network of gravity sewers and pump station to collect wastewater and convey it to the treatment plant.

Existing Collection and Treatment Facilities

Collection

The existing collection system consists of gravity sewers, pump stations, and forcemains. Responsibility for operation and maintenance of gravity pipelines smaller than 12-inches in diameter lies with the City of Fairfield and the City of Suisun City. All pipelines of 12-inch size and larger, as well as pump stations and forcemains, are operated and maintained by the District.

The system is laid out with small gravity sewers (City-operated) contributing flow to the larger District-operated sewers. Wastewater, flowing by gravity, eventually reaches one of three conveyance pump stations. Conveyance pump stations include Cordelia, Central, and Suisun Pump Stations. In addition, the Inlet Pump Station, located at the WWTP, pumps wastewater from nearby portions of the City of Fairfield and return/recycle flows from within the WWTP. Several smaller pump stations serve as lift stations. The District-operated portion of the collection system includes a total of approximately 340,000 lineal feet (64 miles) of gravity sewer ranging from 12-inch to 48-inch diameter.

Approximately $20 million has been spent on collection system upgrades over the last 15 years. Projects have included upgrades for capacity deficient sewers, rehabilitation of old and/or leaking sewers with modern, leak-resistant materials, and pump stations upgrades to increase capacity and improve reliability.

The system exhibits only moderate infiltration/inflow. The generally good level of infiltration/inflow is due, in part, to the District's collection system monitoring and maintenance programs. An integral part of the District's program is an ongoing schedule of collection system flow monitoring. Portable flow monitoring equipment has been placed at critical locations throughout the system to record flows before, during, and after storm events.

Collection System Analysis

The Fairfield-Suisun Sewer District (FSSD) studied collection system capacity in its 2002 Collection System Master Plan. The area currently served by sewers was divided into a set of sub-basins for analysis. Each sub-basin was assumed to contribute all its flow at one manhole. Flows were calculated by intersecting the land use information with these sub-basins. Additional sub-basins were created for areas where sewer service extension is expected. Zones reserved for future development were minimal.

Sewers were considered undersized if the 20-year design storm caused an overflow. Using the model, a set of improvement projects was developed that would prevent overflows during the 20-year design storm. To verify the calibration, the model was run to simulate conditions during the largest storm for which hourly flow data were available at the plant. The storm began on February 2, 1998 and continued for approximately 30 hours. This storm produced 3.23 inches of precipitation during the maximum 24 hours, slightly less than a 5-year storm.

Treatment (Flow and Capacity)

The existing WWTP serves an area with an estimated population of 122,600 based on 2000 population data. The rated average dry weather capacity of the Fairfield-Suisun WWTP is 17.5 mgd while the wet weather capacity is estimated to be 40 mgd. The 2001 average dry weather and annual average flows were 14.3 and 15.3 mgd, respectively (1999 values).

Wastewater flows were estimated using the land use criteria evaluated in the Sewer System and Treatment Master Plan (Volume 2). In that Plan flow projections for six planning periods (year 2000, 2005, 2010, 2015, 2020, and ultimate buildout) were derived from unit flow factors and projected land-use and development densities.

Following the desktop analysis and field tests, an assessment of the entire treatment plant was performed to determine the rated capacity based on field test results and recommended modes of operation. Process operating modifications for optimizing the existing treatment facilities focus on the secondary treatment process, specifically the aeration basin and secondary clarifiers. These modifications include:

- Maintaining a sludge age of 12 days instead of 18 days.
- Reducing RAS flow rates from 5.5 mgd per clarifier under any conditions to a more typical operating range of 40 to 60 percent of the influent flow.

Based on adopting these operating modifications, the rated sustained peak flow capacity of the treatment facility is 30.5 mgd, which is equivalent to an average dry weather flow of 15.5 mgd based on historic factors. This flow represents a continuous sustained flow over a 7- to 10-day duration. With the improvements to the existing secondary clarifiers, the rated capacity of the existing treatment plant is expected to increase to 34.8 mgd.

Based on average dry weather flow conditions alone, the rated capacity is 17.9 mgd. These factors indicate there will be sufficient wastewater capacity for Suisun to meet its estimated wastewater demands.

Solid Waste Collection and Disposal

Suisun City's solid waste is hauled to the Potrero Hills Landfill (PHL), owned and operated by Republic Services, Inc. PHL's current service area encompasses portions of the Bay Area, Central Valley, Sierra foothills, and north coast of California, within an approximately 150-mile radius. PHL accepts wastes from a variety of communities and transfer facilities located throughout northern California, including the Sierra foothill counties and Alameda, Contra Costa, Marin, Mendocino, Napa, Sacramento, Santa Clara, San Mateo, Solano, and Yolo Counties. The City contracts with Solano Garbage Company to provide waste disposal services for residents, businesses and industries within City limits. Residential, commercial, and industrial service is mandatory.

The PHL is a municipal solid waste landfill where residual non-hazardous wastes are buried, coupled with a materials processing center where resource recovery activities are conducted and materials are diverted from landfilling through composting, wood recycling, concrete and asphalt rubble crushing and screening, metal salvage recovery, and other recycling services.

<u>Existing and Projected Facilities and Capacity</u>

The PHL 190-acre Phase I portion of the 320-acre currently permitted land parcel contains a potential total fill capacity (wastes plus soil cover) of about 21.5 million cubic yards (cy). The 2001 Annual Monitoring Report, submitted to the County as required by the conditional land use permit (CLUP) and Solid Waste Facility Permit (SWFP), indicates that the remaining expected life of PHL as now permitted is between 8 and 11 years, depending largely on the rate of wastes received. As seen in Table 4.8-4 below, the landfill currently receives 2,602 tons of solid waste per day and 949,713 tons per year. A reasonable estimate, based on this disposal rate, is that the PHL would be able to accept wastes until about 2010. Therefore, expansion planning is necessary and currently underway.

Currently capacity at Potrero Landfill is expected to be reached in 2010. However, the owner's plans to expand the landfill would increase capacity by 61.6 million cubic yards, adding 35 years of disposal life to the site. Therefore, when the landfill expansion is approved and construction is completed, the landfill would have the capacity to meet solid waste needs at buildout of the City's General Plan. Suisun City also has the option of contracting to use other landfills in Northern California, which have excess capacity.

Table 4.8-4
Actual and Projected Annual Waste Stream for Potrero Hills Landfill (1985-2049)

Year	Total Annual Waste Received		Year	Total Annual Waste Received	
	TPD7	Tons		TPD7	Tons
1985			2018	2,961	1,080,862
1986	75	27,375	2019	2,991	1,091,670
1987	324	118,260	2020	3,021	1,102,587
1988	515	187,975	2021	3,051	1,113,613
1989	610	222,650	2022	3,082	1,124,749
1990	612	223,380	2023	3,112	1,135,996
1991	564	205,860	2024	3,143	1,147,356
1992	788	287,620	2025	3,175	1,158,830
1993	616	224,840	2026	3,207	1,170,418
1994	715	260,975	2027	3,239	1,182,122
1995	489	178,485	2028	3,271	1,193,944
1996	629	229,407	2029	3,304	1,205,883
1997	1,030	376,121	2030	3,337	1,217,942
1998	1,336	487,481	2031	3,370	1,230,121
1999	1,042	380,195	2032	3,404	1,242,422
2000	1,095	399,623	2033	3,438	1,254,847
2001	1,427	520,827	2034	3,472	1,267,395
2002[a]	1,741	635,535	2035	3,507	1,280,069
2003	1,759	641,891	2036	3,542	1,292,870
2004[b]	2,576	940,310	2037	3,578	1,305,799
2005	2,602	949,713	2038	3,613	1,318,857
2006	2,628	959,210	2039	3,649	1,332,045
2007	2,654	968,802	2040	3,686	1,345,366
2008	2,681	978,490	2041	3,723	1,358,819
2009	2,708	988,275	2042	3,760	1,372,407
2010	2,735	998,158	2043	3,798	1,386,131
2011	2,762	1,008,139	2044	3,836	1,399,993
2012	2,790	1,018,220	2045	3,874	1,413,993
2013	2,818	1,028,403	2046	3,913	1,428,133
2014	2,846	1,038,687	2047	3,952	1,442,414
2015	2,874	1,049,074	2048	3,991	1,456,838
2016	2,903	1,059,564	2049	4,031	1,471,406
2017	2,932	1,070,160			

Notes:
TPD7 - Tons per day averaged over 7 days of wastes that are buried in the landfill; does not include recyclable materials.

The 1986-2001 tonnage data were obtained from computer records of actual quantities of wastes disposed in the landfill; estimates after 2001 assumed an increase of 1 percent per year.

a – Added 300 TPD7 additional out-of-county wastes.
b – Added 800 for West Contra Costa County.
Source: PHLF 2002a

Law Enforcement

The Police Department provides safety services within the incorporated Suisun City limits. The Police Department provides patrol and detective services with support from the Solano County Sheriff's Department pursuant to a Memorandum of Understanding

between the County and the City. Suisun City currently has a budget for 22 sworn full-time staff that support the police department including: 1 police chief, 1 lieutenant, 5 sergeants, 14 police officers, 1 school resource officer (Suisun City CAP, 2005). The Department also employs 11 full-time and 5 part-time non-sworn staff, including: 1 youth services specialist, 1 administrative services manager, 5 communication technicians, 1 administrative assistant, 1 crime prevention specialist, 2 neighborhood preservation specialists, 1 police aide (part-time), and 1 background investigator (part-time). The city maintains one primary station and one small substation in the new Peterson Ranch Subdivision, which houses three non-sworn staff.

Currently, 206 community volunteers provide a variety of services to the Department. The Solano County Sheriff's Department provides additional support services to the City under a Memorandum of Understanding, including two fully equipped Deputy Sheriff patrol units to augment law enforcement activities in the city limits of Suisun City between the hours of 2:00 am and 7:00 am.

As the City experiences additional growth and annexations, increased call volume will occur for Police Department services, which are primarily funded through the City's General Fund. The Department has planned for a maximum buildout population of approximately 35,000. The Department has also established a policy to provide one officer per every 1,000 residents, which at build out would be a need for 35 sworn officers. The need for personnel would represent an increase of 13 more officers than are currently employed, and additional non-sworn personnel to support the additional need.

Currently, the Department's response time to emergency calls is 4:08 minutes, and 8:34 minutes for non-emergency calls. The Gentry-Suisun Project would increase the City's' population by approximately 2,000. Therefore, the Department would require two additional officers, including necessary safety equipment, at the completion of the entire project. The Department would also require an additional Communications Technician, 520 square feet of added police station space, two police interceptor vehicles, 21% of the cost of a SWAT van and 21% of the cost of an I.D. van.

Fire Protection

The Suisun City Fire Department has one fire station, which was built in 1981 and is located at the intersection of Pintail and East Widgeon. The Fire Department is a volunteer fire department protecting approximately 28,000 residents within four square miles of area. The Department has a paid staff of one (1) Fire Chief, two (2) paid Captains, and 45 volunteers.

The Fire Department is currently unable to meet the General Plan policy of a 3-minute response time to calls. The minimum response time averages 4 to 6.5 minutes as shown in Table 4.8-5. As traffic increases in the future, the response times will become longer and at certain times of the day, they may be dramatically longer. As population growth occurs with Suisun City, additional fire services will be needed which would include the following: an increase in the Fire Department's overall budget, construction of a new fire station, the purchase of new equipment and fire engines, and hiring additional fire support staff. More specifically, the Fire Chief has indicated that response times to the

Gentry Project site would be six minutes or greater due to the fact that the project site is located west of the City and the existing station is located in the center of the City at Pintail Drive and East Widgeon Way.[3] In addition, the Chief has indicated that a new fire station is needed to adequately serve the project, but that the project site would not be a desirable location for the new station; the preferred location for a new fire station would be at SR 12 and Marina Boulevard.

Table 4.8-5
Fire Department Response Times

Time/Min	Location	Route	Area
4.5	Charleston & Fort Ord	Pintail-Walters-Bella Vista-Charleston-Fort Ord	Peterson
4.0	Whitby & Potrero	Pintail-Emperor-SR 12 E-E Lawler Ranch Pkwy-Whitby-Potrero	SE Lawler Ranch
4.5	Corp Yard	Pintail-Walters-Peterson	East Side
4.5	Oliver & Tabor	Pintail-Cacklng-Canvasback-Worley-Railroad-Tabor-Olive	North
4.0	Marina & Railroad	Pintail-Buena Vista-Marina-Railroad	NW
5.0	Cordelia & Pennsylvania	Pintail-Emperor-SR 12-Pennsylvania-Cordelia	SW
6.5	Boat Ramp	Pintail-Emperor-SR 12-Main-Cordelia-Kellogg	South

Suisun City anticipates that impact fees and annual property tax payments associated with the development of these projects, in particular those anticipated with the Gentry annexation, would pay for some of the costs of expanding fire services. The City has recommended the exercising of a concrete plan of action to increase fire support services, including sustainable revenue.

Schools

The Fairfield-Suisun Unified School District provides service to all incorporated areas of the City of Suisun City. Existing school information contained in Tables 4.8-6 through 4.8-7 was provided by the Fairfield-Suisun Unified School District:[4]

Table 4.8-6 Fairfield-Suisun Unified School District Enrollment		
Name of School	**Current Enrollment***	**Capacity**
Crescent Elementary School (K-5) 1001 Anderson Drive Suisun City, CA 94585 (707) 435-2771	768	776
Crystal Middle School (7-8) 400 Whispering Bay Lane Suisun City, CA 94585 (707) 435-5800	780	913
Rodriguez High School (9-12) 5000 Red Top Rd Fairfield, CA 94534 (707) 863-7950	2,174	2,036 + 280 in portable classrooms
*Enrollment numbers are estimated based on current registration figures.		

Table 4.8-7 Student Generation Rates			
Development Type	**K-6 Elementary**	**7-8 Middle**	**9-12 High School**
Single Family (SF)	0.343	0.109	0.195
Multi Family (MF)	0.053	0.024	0.041

Library

The Suisun City Library is the only public library located in Suisun City and is part of the larger Solano County Library system. The Suisun City Library is relatively small with inadequate services and not easily accessible requiring local residents to use the Fairfield-Suisun Community Library instead. Currently the Suisun City Library has no program space in the library except for an open area in the children's area used for story hour, which hinders a full complement of library services. The Suisun City Library is located at 333 Sunset Avenue on the second floor. The library is currently open on Monday and Thursday from 10:00am-9:00pm, Tuesday and Thursday from 10:00am-6:00pm, and Friday and Saturday from 10:00am-5:00pm.

Although the Suisun City Library is small, future plans for a new library are in the planning stages. A community partnership between the City of Suisun City, Solano-County Library, and the Fairfield-Suisun Unified School District has been established to determine what type of library and community facilities would be needed to serve the growing Suisun City. Recently a Community Meeting was held at the Joe Nelson Community Center on May 12, 2005 to present and discuss several site plan ideas for a much larger community library and community facilities which would include many amenities to service Suisun City.

Parks and Recreation Facilities

The City's Recreation and Community Services Department is responsible for providing park and recreation services for residents of Suisun City. The Department oversees all City sponsored recreation programs and facilities. The service area boundary is the incorporated land of the City.

The General Plan indicates a standard for park development of 3.0 acres per 1,000 residents for Neighborhood Parks and 1.5 acres per 1,000 acres for Communitywide Parks. Currently 18 parks exist within the City limits with 45.3 acres of Neighborhood Parks and a Communitywide Park of 50 acres totaling 90.41 acres. In addition to existing parks as shown in Table 4.8-8, the City has anticipated an additional 3 parks would be constructed as development occurs within the City as shown in Table 4.8-9. As indicated in the Municipal Services Review and Comprehensive Annexation Plan, Suisun City is in a solid position to provide parks and recreation services to new growth as it occurs. The City continues to expand its recreation program to serve existing and new residents as population increase. New parks in new growth areas would be built as new residential growth develops through the City's Public Faculties Fee Program

Table 4.8-8
Suisun City Public Parks Inventory

Park	Acres
Day Park (NP)	3.0
Florida Street Mini Park (SNP)	0.1
Main Street Plaza Park (SNP)	1.1
Solano Street Mini Park (SNP)	0.1
Hall Park (NP)	11.4
Harbor Park (NP)	0.5
Geopp Park (NP)	4.3
Lawler Falls Park (NP)	3.5
Harbor Village Park (NP)	5.0
Montebello Vista Park (NP)	5.1
Boat Launch (NP)	2.5
Heritage Park (NP w/CP characteristics)	10.0
McCoy Park (SNP)	1.0
Lambrecht Sports Complex (CP)	35
Merganser Park (SNP)	0.2
Josiah Circle Park (SNP)	1.0
Peterson Ranch Park 1	3.98
Peterson Ranch Park 3	2.63
Total Park Acreage	**90.41**

NP=Neighborhood Park SNP=Sub-Neighborhood Park CP=Communitywide Park

Table 4.8-9 Planned Park Development	
Park	**Acres**
Peterson Ranch Park 2 (under construction)	4.67
Lawler Ranch Park (under construction)	10
Sheldon Plaza Park (within 5 years)	1.5
Total Planned Park Development	**16.17**

Building Inspection

The impact on the Building Department from the Gentry-Suisun project would be as follows:

If the entire project, comprised of commercial space and residential unites, were to be under construction at one time at least four and one half additional people would be required to handle the paperwork and inspection load. This is based on the assumption that one inspector could handle about three hundred home in one year. Therefore two inspectors would be necessary to handle the residential portion. The commercial space could probably be handled by two inspectors. All plan checks are already sent out to an outside consultant for review so no additional plan checkers would be needed, but additional clerical support will be needed to process the permit issuance and other clerical duties. Therefore, at least one half of one employee will be needed for clerical. Adding all of these up, we need approximately four and one half people.

In as much as the cost of operating the Building Department is covered by building permit fees, the cost for these additional people should be covered by the permits issued for the project. All fees are collected at the time of the permit issuance. At the appropriate time the City will make the decision to hire additional employees or bring in contract inspectors for the project. The number of additional employees that are needed will depend partly on the phasing schedule of the project.

If the developer desires expedited service above normal service levels, the developer will be given the option of paying for additional staffing. This additional staffing would be at an additional cost above normal permit costs and at the option of the developer.

REGULATORY CONTEXT

Existing policies, laws and regulations that would apply to the proposed project are summarized below.

SB 610

Senate Bills 610, which took effect January 1, 2002 requires extensive, specific information about water availability be presented and considered by land use agencies during the processing of certain land use entitlement applications. SB 610 apply to residential projects that include more than 500 residential units and retail projects with

more than 500,000 square feet of floor space, as well as other kinds of projects of similar magnitude.

SB 610

SB 610 refers to numerous details that must be addressed in the water supply assessment, which are described in portions of the amended Water Code § 10910:

> (d) (1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system…under the existing water supply entitlements, water rights, or water service contracts.
>
> (2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system […] shall be demonstrated by providing information related to all of the following: (A) Written contracts or other proof of entitlement to an identified water supply. (B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system. (C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply. (D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.
>
> (e) If no water has been received in prior years by the public water system […] under the existing water supply entitlements, water rights, or water service contracts, the public water system […] shall also include in its water supply assessment […] an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water…
>
> (f) If a water supply for a proposed project includes groundwater, the following additional information shall be included in the water supply assessment:
>
> (1) A review of any information contained in the urban water management plan relevant to the identified water supply for the proposed project.
>
> (2) A description of any groundwater basin or basins from which the proposed project will be supplied. For those basins for which a court or the board has adjudicated the rights to pump groundwater, a copy of the order or decree adopted by the court or the board and a description of the amount of groundwater the public water system, or the City or county if either is required to comply with this part pursuant to subdivision (b), has the legal right to pump under the order or decree. For basins that have not been adjudicated, information as to whether the department has identified the basin or basins as overdrafted or has projected that the basin will become overdrafted if present

management conditions continue, in the most current bulletin of the department that characterizes the condition of the groundwater basin, and a detailed description by the public water system, or the City or county if either is required to comply with this part pursuant to subdivision (b), of the efforts being undertaken in the basin or basins to eliminate the long-term overdraft condition.

(3) A detailed description and analysis of the amount and location of groundwater pumped by the public water system, or the City or county if either is required to comply with this part pursuant to subdivision (b), for the past five years from any groundwater basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(4) A detailed description and analysis of the amount and location of groundwater that is projected to be pumped by the public water system, or the City or county if either is required to comply with this part pursuant to subdivision (b), from any basin from which the proposed project will be supplied. The description and analysis shall be based on information that is reasonably available, including, but not limited to, historic use records.

(5) An analysis of the sufficiency of the groundwater from the basin or basins from which the proposed project will be supplied to meet the projected water demand associated with the proposed project.

A water supply assessment shall not be required to include the information required by this paragraph if the public water system determines…that the sufficiency of groundwater necessary to meet the initial and project demand associated with the project was addressed in [its urban water management plan].

SB 50

Senate Bill 50 (SB 50) and Proposition 1A provided a comprehensive school facilities financing and reform program. The provisions of SB 50 prohibit local agencies from denying land use approvals on the basis that school facilities are inadequate and reinstate the school facility fee cap for legislative actions. Government Code Section 65996 states that the development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation."

Suisun-Solano Water Authority (SSWA)

The Suisun-Solano Water Authority (SSWA) manages water supply and distribution to the City. The SSWA is a joint powers authority between the City of Suisun City and the Solano Irrigation District under an implementation agreement entered into in 1990. Both Suisun City and Solano Irrigation District have contracted with the Solano County Water

Agency for water supplies from the federal Solano Project. In 1996 the SSWA adopted the "Master Plan for the Water Supply and Delivery System," which provides comprehensive details about past, present, and projected water supply and delivery issues.

Solano Irrigation District

The Solano Irrigation District (SID) is an independent special district, a local governmental agency, formed in 1948. SID currently has entitlements for 151,000 acre-feet of agricultural and domestic water for service to many areas in Solano County each year. The District also is the operator of the Solano Project which delivers Lake Berryessa water to four cities and Maine Prairie Water District and the SID customers. The District owns and operates the hydroelectric power plant at the base of Monticello Dam. SID is partners with the Cities of Dixon and Suisun City in water delivery.

Suisun City General Plan

The City of Suisun City General Plan (1992) addresses water service and wastewater service in the Community Services and Facilities Element (Chapter VIII). The following General Plan goals and policies apply to the proposed project:

<u>Chapter VIII. Community Facilities and Services Element</u>

Municipal Services and Facilities

Goal: To provide municipal and school services and facilities to both new development and existing residents and businesses at a level that will maintain and improve the standard of living for the entire community.

> Objective 1: To ensure that new development does not exceed the capacity of the City to provide adequate municipal services and does not overly burden the capacity of existing infrastructure and service levels.
>
> > Policy 1: The Community Services Element sets forth policies for the provision of public services and facilities and how these will be provided to accommodate new development and redeveloped areas. The City's Capital Improvements Program (CIP) sets forth standards for public services and facilities and timelines for public improvements. A property owner may wish to develop in advance of the schedule set forth by the City. The City will not attempt to dictate the timing of development so long as land proposed for development is properly designated under the General Plan and zoned for the proposed use, so long as the applicant has an adequate plan for providing needed facilities and services in advance of the schedule set forth by the CIP, and so long as the proposal will not be detrimental to the implementation of the CIP or other City programs or services.

The City would approve development in an area without services and facilities, in advance of their scheduled installation under the CIP, only if the developer agrees to extend needed sewer and water lines, provide drainage facilities, and install other necessary improvements to serve that property and adjacent properties. The developer could seek reimbursement at a later date as adjacent properties develop.

Policy 2: Water Treatment Plant - As water use in Suisun City approaches the design capacity of the Cement Hill water treatment plant, the City should consider increasing water treatment capacity at the plant to service a target population of approximately 32,000 and a worker population of approximately 4,700.

Policy 3: Water Conservation- Water conservation should continue through regulations which require the installation of practical water conservation devices with homes, businesses and industries, and public facilities.

Policy 4: Wastewater Treatment – Suisun will require that all development connect to the regional water system. Standards for trunk lines and connections to individual properties will be governed by the Suisun City Subdivision Ordinance.

Policy 5: Drainage - The City will require that new developments contain drainage features and facilities which channel run-off away from adjacent properties, control erosion, and assure that water quality will not be adversely affected. The City will encourage development designs which incorporate natural features into the drainage system provided water quality and erosion concerns are addressed. Drainage standards will be governed by the Development Guidelines and Subdivision Ordinance.

Objective 4: To ensure that school capacity is adequate to serve children expected to reside in new residential developments between 1992 and 2010.

Emergency Services

Goal: To maintain an acceptable level of emergency services for public safety.

Objective 1: To maintain acceptable ISO fire ratings, water pressure, and emergency response times for police and fire services.

Policy 11: Emergency Services Standards – The City will acquire and maintain sufficient equipment and high sufficient personnel to achieve an ISO rating of 4 or better, with a three minute response time for fire emergencies. Water delivery capacity, buildings, and equipment standards

for fire and police emergency services shall be established by the Capital Improvements Program.

Park Facilities

Goal: To meet the recreational, leisure time, and cultural arts needs of all age groups and segments of the population, concentrating on those activities, facilities, or experiences for which people are largely unable to be provided through private resources.

Objective 1: To provide sufficient park facilities to accommodate a wide range of active and passive recreation activities according to the standards of the Capital Improvement Program.

Policy 15: Park and Recreation Space Standards for Suisun City – The City shall require new developments to provide or fund, through payment of development fees or other financial mechanisms acceptable to the City, park facilities that meet the following standards:

Neighborhood Parks:	3.0 acres/1000 population
Community-wide Parks:	1.5 acres/1000 population

Policy 17: Park and recreation requirements for new residential developments – Each large new residential development should provide recreation opportunities within walking distance of local residents and also contribute to recreation facilities and programs that meet the needs of the entire City. Recreation facilities that serve residents within the immediate vicinity of their homes and should be included within each development include:

- Informal open spaces (no play equipment) that are within two or three blocks of the residents they are intended to serve;
- Children's play equipment and space for adult passive recreation within a five-minute (1/4 mile) walk of most residents;
- Neighborhood parks within ½ mile of most users; and
- Community-wide facilities, if the Community Facilities Map indicates such a facility located within the development.

Policy 18: Localized (neighborhood or smaller) recreation facilities benefit the residents of the development only and should be set aside for acquisition through development fees or be required through dedication as part of the subdivision approval process. The City may require a landscaped informal open space of between 10,000 and 12,000 square feet for each 50 to 75 dwelling units and/or a pocket park of one-half to one

acre for each 150 to 250 dwelling units (depending on the density and housing type) in new development that are not within ½ mile of existing parks.

Policy 19: In addition to localized and neighborhood facilities, all new development should contribute to community-wide facilities. The amount of land required to be set aside for parks, and the number and types of recreational facilities needs, are to be based on the standards in Policy 14 and the Capital Improvement Program.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

An impact to the public services and utilities of the proposed project area would be considered significant if the proposed project would:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:
  - Fire Protection,
  - Police Protection,
  - Schools,
  - Parks, or
  - Other public facilities.
- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board;
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects;
- Have insufficient water supplies available to serve the project from existing or permitted entitlements and resources, or require new or expanded entitlements;
- Result in a determination by the wastewater treatment provider that serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments;
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs;

- Fail to comply with federal, state, and local statutes and regulations related to solid waste;
- Increase demand on existing water supply and distribution facilities, such that the facilities cannot meet the demand;
- Adversely impact the wastewater delivery system and increase the wastewater capacity beyond the ability of the wastewater treatment plant;
- Increase the demand for additional law enforcement or fire protection services beyond the ability of the existing departments to provide adequate service;
- Increase the demand for recreational uses beyond the existing or proposed parks and recreational facilities; and
- Exceed the available provisions of local solid waste disposal/recycling agencies.

Method of Analysis

The following section evaluates the impacts of the proposed project on the existing public services that would occur if the project as currently proposed went into effect. Impact significance is determined by comparing project conditions to the existing conditions. The responsible agencies for each service have been contacted regarding the potential impacts on their facilities.

Project-Specific Impacts and Mitigation Measures

4.8-1 Impact to existing water supply and distribution facilities

Base Project, Alternative 1, and Alternative 2

Water Supply

Water Code § 10910 (c)(3) requires an analysis of the projected water demand for the Gentry-Suisun project. In 1996 an *Updated Master Plan for the Water Supply and Delivery System* of SSWA was prepared. In this report a water demand analysis model for the ultimate buildout of the service area was developed using projected Suisun City General Plan population data. For the Water Supply Assessment (WSA) prepared for the project, a review of the residential and commercial development projects completed over the past seven years has been made and the 1996 demand analysis has been modified to estimate current water use within SSWA as of 2003 (See Table 3 of Appendix H to this Draft EIR). The model provides a reasonably accurate estimate of the annual water usage. In 2003 the water delivered by SSWA was 4,778 acre-feet, and converting the estimated annual average flow of 2,823 gpm to acre-feet, estimates a usage of 4,553 acre-feet. A further review of undeveloped sites within the service area was made with Suisun City staff, and using the demand analysis model, an ultimate buildout water demand for SSWA is estimated (See Table 4 of Appendix H to this Draft EIR). The additional water demand anticipated from the proposed project is included in this estimate.

The population growth within Suisun City has been approximately 19 percent over the last fifteen years. Although according to the WSA the population of the City (as of 2004) should be close to 28,500, population estimates from the Association of Bay Area Governments indicate the current population is approaching 27,000, and current Suisun City estimates indicate commercial development is at approximately 102 acres. Table 4.8-10 summarizes the population growth since the 1990 census and the projected growth through buildout in 2020. The estimated ultimate population for Suisun City was projected at approximately 33,000 in the 1996 *SSWA Updated Master Plan for the Water Supply and Delivery System*. Significant reductions occurred in the 1996 development estimates, but the additional residential development proposed for the Gentry-Suisun project would not be expected to exceed the estimated 33,000.

Table 4.8-10
Suisun City Population Growth
Existing and Projected

Year	Population	Estimated Households
1990 Census	22,686[1]	6,645[1]
2000 Census	26,118[2]	7,987[2]
2002	26,635[2]	8,296[2]
2003	26,869[2]	8,212[2]
2005 est.	29,600[3]	9,080[6]
2010 est.	31,900[3]	9,785[6]
2015 est.	32,500[4]	9,969[6]
2020 est.	33,000[5]	10,123[6]

Notes:
1. 1990 Census, Suisun City Demographics
2. Data from California Department of Finance, Demographic Research Unit
3. Data from Association Bay Area of Government Projects
4. Estimated
5. Estimated Builout
6. Calculated from persons per household rate (2003) of 3.26

Source: Water Supply Assessment, 2004.

Based upon the assumption that the proposed Gentry-Suisun project would be complete within five years and the ultimate buildout of the remaining residential and commercial areas within Suisun City are completed by 2020, the estimated water supplies SSWA will need to meet the projected water demand through buildout in the SSWA service area are listed in Table 4.8-11. The water supplies would come from the existing water allocations of Suisun City and Solano Irrigation District, as described in the SSWA Implementation Agreement.

Table 4.8-11 Suisun-Solano Water Authority Required Water Supply	
Year	**Required Water Supply (Acre Feet)**
2003	4,778[1]
2005	5,500[2]
2010	6,100[2]
2015	6,300[2]
2020	6,500[2]

[1] Actual Water Delivered
[2] Estimated
Source: Water Supply Assessment, 2004.

All present and future deliveries would be provided from the City of Suisun and Solano Irrigation District Solano Project water supplies or the City of Suisun State Water Project North Bay Aqueduct supplies. As indicated in Table 4.8-11, the ultimate buildout water demand is estimated to be approximately 6,500 acre-feet per year. According to the WSA, Suisun City and Solano Irrigation District's Solano Project entitlements, together with the Suisun City's additional State Water Project water rights, would provide SSWA the ability to meet their estimated water demand for the proposed project and for the ultimate build out of SSWA, even if a single or a series of four dry years occur. In addition, the applicant would be required to pay development impact fees to the City in accordance with AB 1600, as stated in the Suisun City CAP.

Water Delivery Infrastructure

On-site Water Network
The project includes the construction of the necessary water delivery infrastructure. On-site piping for water would consist of several loops of 8 and 12-inch piping totaling approximately 14,000 feet (Planning Areas 1-3). Domestic water lines would be 8-inch lines, totaling approximately 6,000 feet within Planning Areas 1-3.

Off-site Water Network
Two alternative schemes for supplying the project from off-site facilities are being considered. These include a single supply pipe, 16-inches in diameter, constructed under Pennsylvania Avenue and terminating at the site connection approximately 100 feet south of Cordelia Road. Alternatively, a 12-inch pipe could be constructed under Pennsylvania Avenue connecting to the existing 20-inch Suisun-Solano Water Authority (SSWA) pipe and a 12-inch pipe constructed under Cordelia Road connecting to a 6-inch SSWA pipe west of the Union Pacific Railroad crossing of Cordelia Road.

Because adequate water supply exists to serve the proposed project and the applicant would construct the necessary water delivery infrastructure needed to serve the proposed project, a ***less-than-significant*** impact would result.

Mitigation Measure(s)
None Required.

4.8-2 Increased demand for wastewater and sewer infrastructure.

Base Project, Alternative 1, and Alternative 2

Wastewater Treatment

The project engineer provided the expected sewer demand associated with the Base Project, Alternative 1, and Alternative 2. These calculated demands are included below in Table 4.8-12. The below sewage flow analysis is based upon the Fairfield-Suisun Sewer Districts' March 2004 Pump Station and Collection System Design Standards.

Although the Gentry-Suisun project was not anticipated for development in the Suisun City General Plan, Marcie Bodeaux, P.E., from the Fairfield-Suisun Sewer District, studied potential impacts of this project on sewer collection and concluded it would have "minimal hydraulic impacts to the system and would not require the developer to pay for any improvements to the existing collection system."[5] Furthermore, the project applicant would be required to pay the applicable connection fees to the Fairfield-Suisun Sewer District and development impact fees to the City in accordance with AB 1600.

Table 4.8-12
Project Sewer Demands

Gentry-Suisun Project	Base Project	Project Alt. 1	Project Alt. 2
SEWAGE PRODUCTION			
Dry Weather flows			
Average Day rate (gpd) =	185,636	158,648	163,068
Max Day rate (gpd) =	255,178	207,924	209,484
Peak Hour rate (gpd) =	298,271	260,714	274,520
Peak Hour rate (gpm) =	207	181	191
Infiltration Flows			
Average Day rate (gpd) =	9,400	9,400	9,400
Max Day rate (gpd) =	9,400	9,400	9,400
Peak Hour rate (gpm) =	7	7	7
20 yr Storm Related Inflow (Central)			
Max Day rate (gpd) =	197,400	197,400	197,400
Peak Hour rate (gpm) =	137	137	137
Total Dry+Infiltration+Storm Flows			
Max Day rate (gpd) =	461,978	414,724	416,284
Peak Hour rate (gpd) =	505,071	467,514	481,320
Peak Hour rate (gpm) =	**351**	**325**	**334**

Source: Creegan and DeAngelo, 2005.

Wastewater Delivery Infrastructure

On-site Sewer Network
A sewer network has been designed for Planning Areas 1, 2, and 3 of the proposed Gentry-Suisun project based upon anticipated flows (See Table 4.8-12). As part of the proposed project, an estimated 6,000 feet of on-site piping would be required. The network would cross from Planning Areas 1 and 2 to Planning Area 3 via a bore under the Union Pacific Railroad. A pump station is proposed at the southeast corner of Planning Area 3 near Cordelia Road.

Off-site Sewer Network
Effluent water from the project site would be pumped off-site to the southwest parallel to Cordelia Road, to a 27-inch sewer at Beck Avenue via a bore under Ledgewood Creek. The required pipe diameter from pump to the Beck Avenue sewer is estimated at six inches (6-inch). Beyond the connection at Beck Avenue, an existing 33-inch pipe on Cordelia Road is deemed to have adequate capacity.

Conclusion

Based upon information provided by the Fairfield-Suisun Sewer District, the requirement for the project applicant to pay connection fees to the District, and the construction of needed wastewater delivery infrastructure by the project applicant, the proposed project would have a ***less-than-significant*** impact.

Mitigation Measure(s)
None Required.

4.8-3 Adequate ratio of fire department personnel to residents.

Base Project

The proposed project is located within the jurisdiction of and is currently provided services by the Suisun City Fire Department. Applying the California Department of Finance 2005 standard of 3.2 average persons per household, the Base Project would add approximately 1,148 residents (359 du x 3.2). Policy 11 of the Suisun City General Plan states that "the City will acquire and maintain sufficient equipment and high sufficient personnel to achieve an ISO rating of 4 or better, with a three-minute response time for fire emergencies." In order to maintain the Department's goal of a three-minute response time, additional fire protection services would be required as a result of the introduction of approximately 1,148 new residents to the City. As mentioned above, the Fire Chief has indicated that response times to the Gentry project site would be six minutes or greater due to the fact that the project site is located west of the City and the existing station is located in the center of the city at Pintail Drive and East Widgeon Way. In addition, the Chief has indicated that a new fire station is needed to adequately serve the project, but that the project site would not be a desirable location for the

new station; the preferred location for a new fire station would be at SR 12 and Marina Boulevard. Should a new fire station be constructed, the Fire Chief has indicated that three additional paid staff would be needed to operate the station. Additional Volenteer Firefighters will also be needed to staff the station. The minimum requirement will be to have seven on duty per shift in the City (two engine crews of three and one chief officer). Because the Base Project would contribute to the need for a new station and result in the need for additional personnel, the project would have a ***potentially significant*** impact.

Alternative 1

Applying the California Department of Finance 2005 standard of 3.2 average persons per household, Alternative 1 would add approximately 1,280 residents (400 du x 3.2). Similar to the Base Project, because Alternative 1 would contribute to the need for a new station and result in the need for additional personnel, the Alternative would have a ***potentially significant*** impact.

Alternative 2

Applying the California Department of Finance 2005 standard of 3.2 average persons per household, Alternative 2 would add approximately 1,696 residents (530 du x 3.2). Similar to the Base Project, because Alternative 2 would contribute to the need for a new station and result in the need for additional personnel, the Alternative would have a ***potentially significant*** impact.

Mitigation Measure(s)
Implementation of the following mitigation measure, which requires the developer to make a fair share contribution, would reduce this impact, but not to a less-than-significant level. Therefore, the impact would remain *significant and unavoidable*.

4.8-3 *Prior to the issuance of any building permits, the project applicant shall pay impact fees towards the construction of a new fire station as well as hiring additional personnel and acquiring needed equipment. The fee amount for the above shall be determined by the Suisun Fire Department and the City Manager.*

However, it should be noted that this project will generate sales tax from the City, which is discretionary funding. This funding source could be used to meet fire protection needs and reduce this impact to less-than-significant.

4.8-4 Adequate ratio of law enforcement personnel to residents.

Base Project

The Base Project involves the construction of commercial and residential development which is proposed for annexation into the City of Suisun City.

Currently the City's service ratio standard is 1 officer per 1,000 population. At this time 22 sworn officers currently serve the City of Suisun City. The Base Project would introduce an additional 1,148 residents into the City limits. Utilizing the City's service ratio standard of 1 officer per 1,000 residents, the Base Project would require an additional 1.1 officers. Because the project site was not identified for residential development in the General Plan, the direct increase in population associated with the Base Project would result in previously unanticipated demands for police services.

Alternative 1

Alternative 1 would introduce an additional 1,280 residents into the City limits. Utilizing the City's service ratio standard of 1 officer per 1,000 residents, Alternative 1 would require an additional 1.3 officers. Because the project site was not identified for residential development in the General Plan, the increased population associated with Alternative 1 would result in previously unanticipated demands for police services.

Alternative 2

Alternative 2 would introduce an additional 1,696 residents into the City limits. Utilizing the City's service ratio standard of 1 officer per 1,000 residents, Alternative 2 would require an additional 1.3 officers. Because the project site was not identified for residential development in the General Plan, the increased population associated with Alternative 2 would result in previously unanticipated demands for police services.

However, the buildout of the proposed project would also result in a marked increase in city revenue through taxes and increased economic activity. The increased revenue would contribute to the City's General Fund and, in turn, provide additional funding for the Suisun Police Department. Additionally, the proposed project would be required by the City to contribute to Public Facilities Fees upon the approval of the final maps. A portion of the Public Facilities Fees contribute to public safety, and would further help fund any necessary increases in staff and equipment for the Suisun Police Department. Therefore, because the proposed project would result in an overall increase in revenue for the City, and because the project would contribute to the Public Facilities Fee program, the impact would be expected to be ***less-than-significant***.

Mitigation Measure(s)
None Required.

4.8-5 Increased demand for solid waste disposal services.

Base Project, Alternative 1, and Alternative 2

Solid waste services are provided to the City of Suisun City by the Solano Garbage Company. All non-recyclable waste collected from the City is disposed of at the Potrero Hills Landfill (PHL) which is owned and operated by Republic Services, Inc. Currently capacity at PHL is expected to be reached in 2010. However, the owner's plans to expand the landfill would increase capacity by 61.6 million cubic yards. The ultimate Phase I plus Phase II fill capacity is about 83 million cubic yards (See above discussion for more detail). These improvements would add 35 years of disposal life to the site. Once the landfill expansion is approved and construction is completed, the landfill would have the capacity to meet solid waste needs at buildout of the City of Suisun City General Plan. In addition, Suisun City has the option of contracting to use other landfills in Northern California, which have excess capacity. As discussed in the Suisun City CAP, user fees provide all funding for solid waste disposal.

The proposed project includes the development of a Mixed-Use site and also involves the annexation of several parcels into the City of Suisun City. The project would introduce approximately 1,148 (Base Project), 1,280 (Alternative 1), or 1,696 (Alternative 2) residents to the City of Suisun City. Although the General Plan did not anticipate that buildout of the project site would result in a direct population increase from residential uses, the project site was planned for General Commercial and Light Industrial uses in the GP, which would still generate waste. Furthermore, commercial tenants and residential customers would be required to pay user fees. As a result, the Base Project, Alternative 1, and Alternative 2 would be expected to have ***less-than-significant*** impacts to solid waste disposal.

Mitigation Measure(s)
None Required.

4.8-6 Increased demand for park and recreation services and facilities.

Base Project

The City's standard for the provision of parkland acreage for new developments requires the provision of 3 acres per 1,000 people for neighborhood parks and 1.5 acres per 1,000 people for community-wide parks. Therefore, the Base Project would be required to provide 3.4 acres of neighborhood park (1,148 people * 3 acres per 1,000 people = 3.44 acres) and 1.72 acres of community-wide park(1,148 dwelling units * 1.5 acres per 1,000 people = 1.72 acres). The current site plan indicates that the project would provide numerous parks within the residential development areas, but the amount of parkland has yet to be

determined. Therefore, because the site plan does not specify acreage for the proposed parks, a ***potentially significant*** impact would occur.

Alternative 1

Alternative 1 would be required to provide 3.84 acres of neighborhood park (1,280 people * 3 acres per 1,000 people = 3.84 acres) and 1.92 acres for a community-wide park (1,280 people * 1.5 acres per 1,000 people = 1.92 acres). The current site plan indicates that the project would provide numerous parks within the residential development areas, but the amount of parkland has yet to be determined. Therefore, because the site plan does not specify acreage for the proposed parks, a ***potentially significant*** impact would occur.

Alternative 2

Alternative 2 would be required to provide 5.08 acres of neighborhood park (1,696 people * 3 acres per 1,000 people = 5.08 acres) and 2.54 acres for a community-wide park (1,696 people * 1.5 acres per 1,000 people = 2.54 acres). The current site plan indicates that the project would provide park acres within the residential development areas, but the total dedicated acres have not been provided to date. Therefore, because total parkland acreage is not provided on the site plan and because parkland acreage cannot be determined whether or not sufficient acreage exists, a ***potentially significant*** impact would occur.

Mitigation Measure(s)
Implementation of the following mitigation measure would reduce this impact to a *less-than-significant* level.

4.8-6 *The developer shall dedicate parkland in accordance with the provisions of State law and city ordinances and/or pay associated Public Facilities Fees, which include Park Improvement Plan Fees. The City shall determine appropriate acreage or in-lieu fees in accordance with City Council Resolution No. 94-6, prior to approval of the Final Map(s).*

4.8-7 Increased demand for library services and facilities.

Base Project, Alternative 1, and Alternative 2

The Suisun City Library is the only public library located in Suisun City and is part of the larger Solano County Library system. The Suisun City Library is relatively small with inadequate services and not easily accessible requiring local residents to use the Fairfield-Suisun Community Library instead. Currently the Suisun City Library has no program space in the library except for an open area in the children's area used for story hour, which hinders a full complement of library services.

Although the Suisun City Library is small, future plans for a new library are in the planning stages. A community partnership between the City of Suisun City, Solano-County Library, and the Fairfield-Suisun Unified School District has been established to determine what type of library and community facilities would be needed to serve the growing Suisun City.

At full buildout, the proposed project would introduce an additional 1,148 to 1,280 residents to the City of Suisun. This increase would further strain the already overburdened library system within the City. However, the project developer would be required to pay Public Facilities Fees, in accordance with Suisun City Counsel Resolution No. 94-6, which provides funding for library services. Therefore, the proposed project would have a ***less-than-significant*** impact after the payment of Public Facilities Fees.

Mitigation Measure(s)
None required.

4.8-8 Impacts to school facilities.

Base Project, Alternative 1, and Alternative 2

Using the student generation rates provided in Table 4.8-13, the project would be expected to generate the following number of students:

Table 4.8-13
Student Generation Estimates

Description	K-6 Elementary	7-8 Middle	9-12 High School
Base Project 359 SF Units	19	8.6	14.7
Alternate 1 400 SF Units	21.2	9.6	16.4
Alternate 2 530 SF Units	57.93	21.45	37.59

As indicated in the Memo provided by the Fairfield-Suisun Unified School District, according to current enrollment and school building capacities, the District will likely not have the ability to accommodate the students generated from the proposed project at Crescent Elementary School and Rodriguez High School. However, the District appears to have the capacity to accommodate the additional students at Crystal Middle School. Furthermore, the District has indicated that in order to accommodate the students from the project at the elementary and high school, the District will likely have to do one or more of the following:

- Adjust attendance boundaries and send the students to another school with available classrooms or acreage necessary for the additional classrooms that would have to be constructed.
- Add portables at the above mentioned schools.

The proposed project is not within a School District Mello-Roos Community Facilities District (CFD). New homes that are not within a Mellos-Roos CFD are subject to a per square-foot development fee. As indicated by the District, the current fee is $3.50 per square-foot for both single and multi-family dwelling units, as set forth by SB 50; however, the fee would not provide the District with enough revenue to fund the full cost of accommodating new students.

The provisions of SB 50 prohibit local agencies from denying land use approvals on the basis that school facilities are inadequate and reinstate the school facility fee cap for legislative actions. Government Code Section 65996 states that the development fees authorized by SB 50 are deemed to be "full and complete school facilities mitigation." Without the payment of appropriate SB 50 fees, the project would have a ***potentially significant*** impact.

Mitigation Measure(s)
Implementation of the following mitigation measure would, as a matter of state law, reduce this impact to a *less-than-significant* level.

4.8-8 *Prior to approval of the Final Map(s), the developer shall pay fees to the Fairfield-Suisun Unified School District in accordance with the "per square-foot" fee in effect at the time of approval of Final Map(s).*

Cumulative Impacts and Mitigation Measures

4.8-9 Long-term impacts to public services and facilities from the proposed project in combination with existing and future developments in the Suisun area.

Base Project, Alternative 1, and Alternative 2

Implementation of the Base Project, Alternative 1, and Alternative 2 would contribute toward an increased demand for public services and facilities in the City of Suisun City. Public service and facility needs for the City of Suisun City have been evaluated in the Suisun General Plan and ensure that adequate services will be available for build out of the General Plan according to the Land Use Diagram. The proposed project is located outside the City limits, but is located within the Sphere of Influence. The proposed project includes annexation of several properties, currently located within Solano County, to Suisun City. Therefore, development of the project site with urban uses would exceed the demand for public services and facilities anticipated in the General Plan. However, as demonstrated in this Draft EIR, with the incorporation of mitigation

measures, impacts to public services and facilities as a result of the proposed project would be less-than-significant. Therefore, the project's cumulative contribution to the City's public service and facility needs would also be less-than-significant. Furthermore, other future development projects would be required by the City to pay their fair share fees toward the expansion and creation of public services and facilities. Therefore, although certain facilities would be adversely impacted as a result of project implementation, cumulative impacts associated with public services and facilities would be considered ***less-than-significant*** after the incorporation of the mitigation measures identified above.

Mitigation Measure(s)
None Required.

Endnotes

[1] City of Suisun City, Municipal Services Review, Comprehensive Annexation Plan, April 2005.
[2] Suisun-Solano Water Authority, Water Supply Assessment for the Gentry Gateway Project, City of Suisun City, California, March 2004.
[3] Personal communication with Mr. Mike O'Brien, Fire Chief, March 14, 2006.
[4] Fairfield-Suisun Unified School District, EIR comments on Gentry Development in Suisun City Sphere of Influence Located Near Pennsylvania Avenue, South of State Route 12, near the junction of the Union Pacific and Northern Pacific Railroads, March 13, 2006.
[5] Fairfield-Suisun Sewer District, Letter to Gentry project engineer, November 30, 2004.

4.9 Energy

4.9 ENERGY

Introduction

This section describes the current energy and electrical utilities needs of the City of Suisun City as well as potential impacts associated with the development of the proposed project. This section also discusses energy consumption and addresses the issue of potential for wasteful, inefficient, or unnecessary use of energy from implementation of the Gentry-Suisun Project. This chapter is based on the City of Suisun City General Plan and Title 24 of the California Code of Regulations. Other public services, including water, wastewater, and solid waste disposal, are addressed in Chapter 4.8, Public Service and Utilities.

Environmental Setting

Project Description

The proposed project involves three components, the annexation of the Gentry-Suisun site of approximately 171.50 acres, a Mixed Use Development component that consists of the subdivision and development of a mixed use project on the approximately 87.82-acre Mixed Use site, and approximately 390 acres (planning Areas 4 and 5) for open space, agriculture, wetlands and other on-site mitigation uses. The Mixed Use site is comprised of Planning Area 1, Planning Area 2, and Planning Area 3. This Draft EIR analysis includes a Base Project, Alternative 1, and Alternative 2.

Base Project

Planning Area 1 would be comprised of 655,499 square feet of commercial space on approximately 70.71 acres, 15,682 square feet of Limited Industrial / Business Park on the Ardave Parcel, and 65,340 square feet of retail on the Gilbert Parcel. Planning Area 2 would accommodate approximately 275 residential dwelling units on approximately 13.1 acres. Planning Area 3 would also accommodate 84 residential dwelling units on approximately 4 acres. Planning Areas 4 and 5 would remain as open space.

Alternative 1

Planning Area 1 would be comprised of 480,000 square feet of commercial space and 120 high-density residential dwelling units on approximately 71.3 acres, 12,000 square feet of Limited Industrial / Business Park and 4,000 sq. ft. of office uses on the Ardave Parcel, and 10,000 square feet of retail and 50,000 sq. ft. of limited industrial on the Gilbert Parcel. Planning Area 2 would accommodate approximately 196 high-density residential dwelling units on approximately 13.1 acres. Planning Area 3 would also

accommodate 84 high-density residential dwelling units on approximately 4 acres. Planning Areas 4 and 5 would remain as open space.

Alternative 2

Planning Area 1 would be comprised of 350,000 square feet of commercial space and 2562 residential dwelling units on approximately 70.71 acres, 12,000 square feet of Limited Industrial / Business Park and 4,000 sq. ft. of office uses on the Ardave Parcel, and 10,000 square feet of retail and 50,000 sq. ft. of limited industrial on the Gilbert Parcel. Planning Area 2 would accommodate approximately 196 high-density residential dwelling units on approximately 13.1 acres. Planning Area 3 would also accommodate 84 high-density residential dwelling units on approximately 4 acres. Planning Areas 4 and 5 would remain as open space.

Utility Energy

Pacific Gas & Electric (PG&E) currently provides gas and electric services to Suisun City homes and businesses and is regulated by the California Public Utilities Commission (CPUC). PG&E's service area extends from Eureka to Bakersfield (north to south) and from the Sierra Nevada to the Pacific Ocean (east to west).

PG&E obtains its energy supplies from power plants and natural gas fields in northern California and from energy purchased outside its service area and delivered through high voltage transmission lines. PG&E purchases both gas and electrical power from a variety of sources, including utility companies in other western states and Mexico (CEC, 2003). To promote the safe and reliable maintenance and operation of utility facilities, the CPUC has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities.

Electrical power is provided to the City of Suisun City from various distribution feeders located throughout the City; natural gas is provided to the City from several gas lines stretching from Milpitas to San Francisco. Additionally, the Solano Irrigation District (SID), an independent special district, owns and operates the hydroelectric power plant at the base of Monticello Dam.

Currently, PG&E gas lines are located throughout portions of the Gentry-Suisun Project Area.

REGULATORY CONTEXT

Federal Regulations

The National Energy Policy

The National Energy Policy, developed in May 2001, proposes recommendations on energy use and on the repair and expansion of the nation's energy infrastructure. The

policy is based on the finding that growth in U.S. energy consumption is outpacing the current rate of production. Over the next 20 years, the growth in the consumption of oil is predicted to increase by 33 percent, natural gas by over 50 percent, and electricity by 45 percent. While federal policy promotes further improvements in energy use through conservation, it focuses on increased development of domestic oil, gas, and coal and the use of hydroelectric and nuclear power resources. To address the over-reliance on natural gas for new electric power plants, the federal policy proposes research in clean coal technology and expanding the generation of energy to include energy derived from landfill gas, wind, and biomass sources.

State Regulations

California Public Utilities Commission

The California Constitution vests in the CPUC, the exclusive power and sole authority to regulate privately-owned or investor-owned public utilities such as PG&E. This exclusive power extends to all aspects of the location, design, construction, maintenance, and operation of public utility facilities. Nevertheless, the CPUC has provisions for regulated utilities to work closely with local governments and give due consideration to their concerns.

Title 24 of the California Code of Regulations

The State of California regulates energy consumption under Title 24 of the California Code of Regulations. The Title 24 Building Energy Efficiency Standards were developed by the California Energy Commission (CEC) and apply to energy consumed for heating, cooling, ventilation, water heating, and lighting in new residential and non-residential buildings. The CEC updates these standards periodically and adopted the latest standards in 2005. Under Assembly Bill 970, signed September 2000, the CEC will update and implement its appliance and building efficient standards to make "maximum feasible" reduction in unnecessary energy consumption.

Local Regulations

City of Suisun City General Plan

The following are applicable General Plan goals and policies related to energy consumption:

Circulation and Transportation Element

Goal 3: To coordinate commercial vehicular circulation with other types of circulation to reduce conflicts and promote the movement of materials, goods, and services through the community.

Goal 5: To provide efficient and viable public transportation choices for all segments of the community, especially those for which private automobile transportation is not feasible.

Goal 6: To increase opportunities for an access to regional public transportation, including passenger rail service, intercity bus service, commuter bus, rail and transit, and paratransit.

Community Facilities and Service Element

Objective 1: To ensure that new development does not exceed the capacity of the City to provide adequate municipal services and does not overly burden the capacity of existing infrastructure and service levels.

Policy 1: Managing growth by assuring adequate facilities.

IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this analysis, an impact would be considered significant if the proposed project would result in:

- Wasteful, inefficient, or unnecessary consumption of energy by residential, commercial, industrial, or public uses;
- The construction of additional energy infrastructure facilities, the construction of which could cause significant environmental effects.

Method of Analysis

The analysis of energy is based on information provided by PG&E, the CEC, project plans, the proposed General Plan, and applicable regulations and guidelines.

Project Impacts and Mitigation Measures

4.9-1 Project impacts concerning wasteful, inefficient, or unnecessary consumption of energy by residential, commercial, industrial, or public uses.

<u>Base Project, Alternative 1, and Alternative 2</u>

Development of the proposed project would occur in a location that is adjacent to electricity and gas service**.** The proposed project would increase electricity and natural gas consumption, but not to a level that would be considered substantial in relation to regional or statewide energy supplies.

The project would be subject to the standards of Title 24, California's Energy Efficiency Standards. Title 24 measures consist of developing an energy budget for structures and designing the structures to use no more energy that what is budgeted. Improved site planning and building design as well as energy conservation measures, as outlined in Title 24 would minimize the potential for wasteful, inefficient, or unnecessary consumption of energy. The project would be subject to the minimum energy conservation requirements of Title 24 of the California Code of Regulations, which are applicable to all building construction. The Supercenter is proposed to include a number of energy-conserving features which extend beyond the requirements of Title 24. These include the use of skylights, energy-efficient HVAC units, solar reflective roofing materials, energy-efficient lighting systems and the reclamation of the "heat of rejection" from refrigerator equipment to generate hot water, among other things.

The project would not result in energy demands that would require the development of new energy sources or affect service to existing customers. Therefore, the project would result in a ***less-than-significant*** impact concerning inefficient or wasteful energy use.

Mitigation Measure(s)
Although the impact is less-than-significant, implementation of the following proposed condition of approval beyond the requirements of Title 24 would further reduce the impacts.

4.9-1 Prior to the issuance of any building permits for the commercial component of the development, the applicant shall demonstrate to the City Building Official that building plans comply with Title 24. In addition, where reasonably feasible, measures beyond Title 24 shall be implemented to further increase energy efficiency. The proposed measures shall be reviewed and approved by the City Building Official. Such measures could include the use of skylights, energy-efficient HVAC units, solar-reflective roofing materials, energy-efficient lighting systems, and the reclamation of the "heat of rejection" from refrigeration equipment to generate hot water, among other things.

4.9-2 Project-related construction of additional energy infrastructure facilities, the construction of which could cause significant environmental effects.

Base Project, Alternative 1, and Alternative 2

The project has the ability to connect with existing energy facilities serving the existing development on the project site, and new transmission facilities would not be necessary to serve the proposed project. However, to meet potential energy demand for build out under the proposed General Plan, PG&E would be required to upgrade its existing infrastructure in Suisun City as necessary. The

upgrade of existing infrastructure would not cause significant environmental effects and the impact would be ***less-than-significant***.

Mitigation Measure
None required.

Cumulative Impacts and Mitigation Measures

4.9-3 Impacts related to increased energy consumption from the proposed project in combination with other foreseeable projects in the region.

Base Project, Alternative 1, and Alternative 2

The proposed project in combination with other future development projects would result in an increased demand on energy resources. Gas and electric service providers would be subject to increased pressure to supply additional energy resources, which could result in the need to expand existing facilities or to build new power plants. Furthermore, adequate delivery infrastructure would likely not be available to serve future energy demands. Although it is speculative to try to predict where in PG&E's vast service area any new power plants or expanded generation capacity might be located, any proposed new facilities or new capacity will be subject to strict environmental permitting requirements intended to address any air and water pollution, or other environmental effects that might result from new plants or new capacity.

As indicated above (See Mitigation Measure 4.9-1), the project would be subject to the minimum energy conservation requirements of Title 24 of the California Code of Regulations, which would serve to reduce the amount of energy resources needed to operate the project. The project applicant would also be required to fund the necessary infrastructure improvements to ensure that the project receives adequate energy resources. Because other future developments would also be required to comply with Title 24 and fund the construction of the necessary utility infrastructure improvements, and because the City is aware of no evidence indicating that PG&E, through its long-term planning, will not be able to keep pace with increasing demands, cumulative energy impacts would be considered ***less-than-significant***.

Mitigation Measure(s)
None required.

4.10 SOCIO-ECONOMIC

4.10 SOCIO-ECONOMIC

Introduction

This section of the EIR considers whether the proposed project would result in significant adverse physical deterioration of properties or structures, or urban decay, due to economic impacts on existing businesses and the inability of adversely affected property owners to lease existing vacant buildings and buildings that may be vacated as a consequence of economic impacts resulting from the proposed project. Documents referenced to prepare this section include the *Gentry-Suisun Mixed Use Project Economic Impact Analysis* prepared by Sedway Group[1] and the *City of Suisun City General Plan*.[2]

Environmental Setting

The proposed project includes the development of an 87.82-acre Mixed Use site and consists of four Planning Areas. For the purpose of this analysis the proposed project consists of a Base Project, Alternative 1, and Alternative 2.

The Base Project consists of approximately 721,000 square feet of retail space on approximately 70.71 acres within Planning Area 1 of the Gentry-Suisun site as shown on Table 4.10-1. The Base Project would include a 227,200 square-foot supercenter, a 162,700 square-foot home improvement retailer, a 3,000 square-foot gas station, and 139,5000 square feet of apparel, home furnishings, and eating and drinking establishments. The remaining 123,099 square feet of space represents "unknown retail". The Base Project would also include 65,340 square feet of retail space on the Gilbert Parcel and 15,682 sq. ft. of office on the Ardave Parcel. In addition to the retail component, Planning Area 2, comprised of 13.11 acres, would include the development of 275 residential units (town homes). Planning Area 3 would include 84 residential units (town homes) on 4.0 acres.

Alternative 1 consists of approximately 490,000 square feet of retail space on approximately 70.71 acres within Planning Area 1 of the Gentry-Suisun site as shown on Table 4.10-1. Alternative 1 includes a 217,572 square-foot supercenter, a 169,793 square-foot home improvement retailer, a 3,000 square-foot gas station, and 64,000 square feet of apparel, home furnishings, and eating and drinking establishments. The remaining 25,635 square feet of space represents unknown retail. Alternative 1 also includes 10,000 square feet of retail space on the Gilbert Parcel and 50,000 sq. ft. of limited industrial. In addition, Alternative 1 includes 4,000 sq. f.t of office and 12,000 sq. ft. of limited industrial on the Ardave Parcel. Planning Area 1 would include a residential component of 120 duet homes on 13.05 acres. Planning Area 2, comprised of 13.1 acres, would include the development of 196 residential units (town homes and duet units). Planning Area 3 would include 84 residential units (town homes) on 4.0 acres.

Alternative 3 consists of approximately 360,000 square feet of retail space on approximately 70.71 acres within Planning Area 1 of the Gentry-Suisun site as shown on Table 4.10-1. Alternative 2 would include a 217,572 square-foot supercenter, a 3,000 square-foot gas station, and 64,000 square feet of apparel, home furnishings, and eating and drinking establishments. The remaining 65,428 square feet of space represents unknown retail. Alternative 2 would also include 10,000 square feet of retail space and 5,000 sq. ft. of limited industrial on the Gilbert Parcel and 4,000 sq. ft. of office and 12,000 sq. ft. of limited industrial on the Ardave Parcel. Planning Area 1 would also include a residential component of 147 duet homes on 15.47 acres as well as 103 single-family lots (3,500 square feet) located on 12.69 acres. Planning Area 2, comprised of 13.11 acres, would include the development of 196 residential units (town homes and duet units). Planning Area 3 would include 84 residential units (town homes) on 4.0 acres.

Table 4.10-1
Gentry-Suisun Project
Type of Retail and Associated Square Feet

Retailer	Base Project		Alternative 1		Alternative 2	
	Sq. Ft.	% Distrib.	Sq. Ft.	% Distrib.	Sq. Ft.	% Distrib.
Supercenter (1)	227,200	34.7%	217,572	45.3%	217,572	62.2%
Home Improvement (2)	162,700	24.8%	169,793	35.4%	0	0.0%
Apparel	88,000	13.4%	20,000	4.2%	20,000	5.7%
Home Furnishings	27,500	4.2%	14,000	2.9%	14,000	4.0%
Restaurant	18,000	2.7%	20,000	4.2%	20,000	5.7%
Fast Food	6,000	0.9%	10,000	2.1%	10,000	2.9%
Unknown Retail	123,099	18.8%	25,635	5.3%	65,428	18.7%
Gas Station	3,000	0.5%	3,000	0.6%	3,000	0.9%
Total Planning Area 1	**655,499**	**100.0%**	**480,000**	**100%**	**350,000**	**100%**
Gilbert Parcel Unknown Retail	65,340		10,000		10,000	
Total Area Retail	**720,839**		**490,000**		**360,000**	
Office-Ardave	15,682		4,000		4,000	
Ltd. Indust. Gilbert & Ardave	0		62,000		62,000	
(1) includes garden center sf. of:	20,800		11,014		11,014	
(2) includes garden center sf. of:	28,900		31,659		31,659	

Sources: Tom Gentry Company and Sedway Group

Market Area Definitions

- Primary Market Area. The primary market area (PMA) for the Gentry-Suisun project's retail demand is defined as the cities of Suisun City and Fairfield with residents of the primary market area comprising the largest share of demand for retail sales (refer to Figure 4.10-1). Sedway Group's retail leakage analysis documented in this chapter (see "Retail Leakage Analysis" discussion) indicates that resident spending represents the equivalent of 78.5 percent of sales in the primary market area. Thus, the primary market area generates many of its own retail sales, but the primary market area also captures sales from non-residents. Further examination of the primary market area's spending and sales patterns

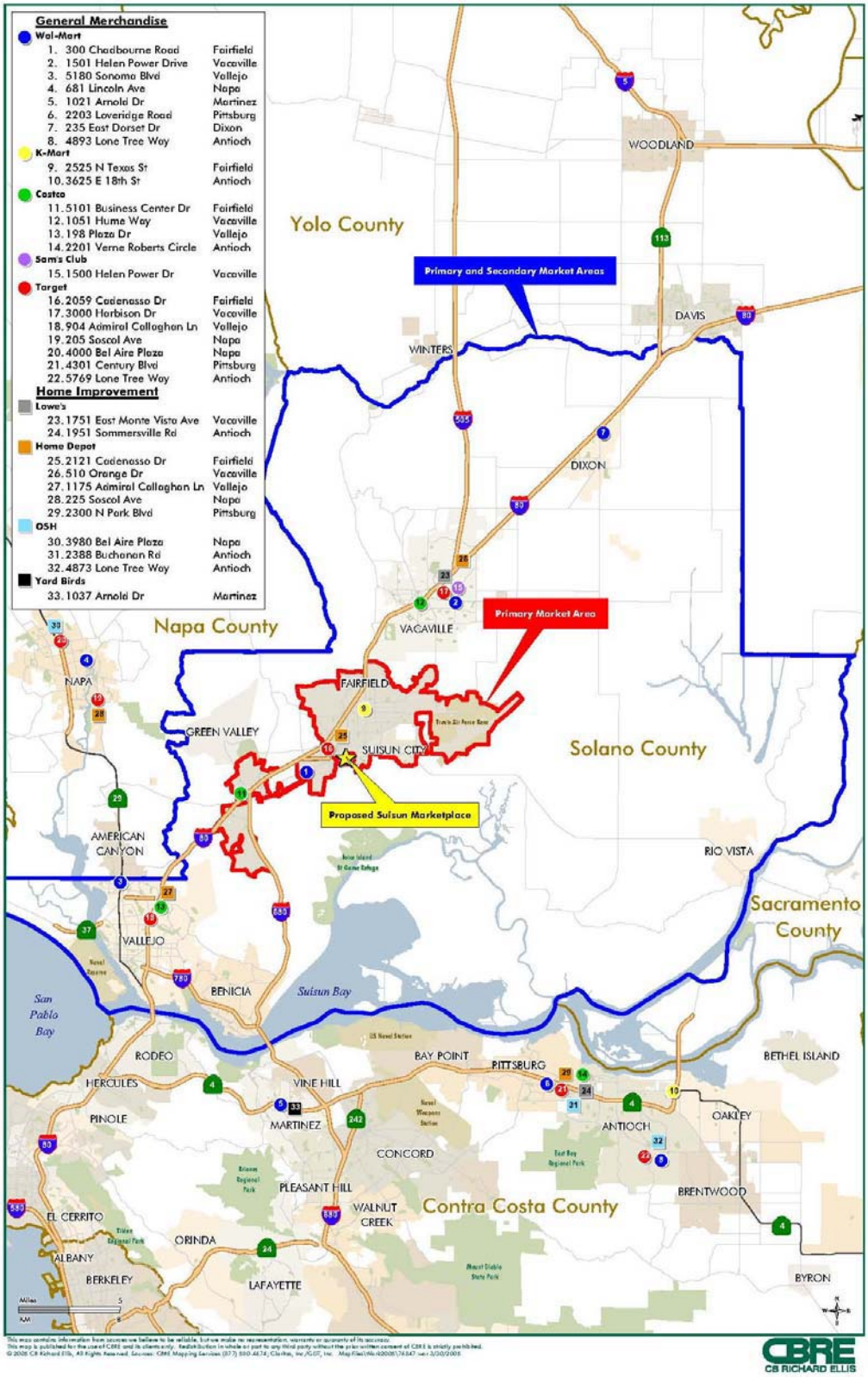
indicates that the primary market area attracts sales in most categories but has sales leakage in the eating and drinking places and building materials categories.

- Secondary Market Area. Sedway Group identified a secondary market area for the proposed Gentry-Suisun Project and Gilbert Parcel defined as the balance of Solano County. This secondary market area definition reflects the existing nature and mix of retailing in the primary market area and the location of other major general merchandise and home improvement retailers in the region. Sedway Group identified all major general merchandise and home improvement retailers within an approximately 25-mile radius of the proposed Gentry-Suisun Project and Gilbert Parcel site. The research included locations in Solano County, Napa County to the west, and Contra Costa County to the south. The boundaries of the secondary market area, as depicted in Figure 4.10-1, are reflective of the area from which the proposed Gentry-Suisun Project will most likely draw the largest balance of its customers.

  Sedway Group assumed that residents in areas south of the secondary market area would be attracted to retailers in Contra Costa County; residents in areas north of the secondary market area would be attracted to retailers in Yolo County; residents to the west would be attracted to Napa County; and residents to the east would be attracted to yet other more remote locations.

  Within the combined primary and secondary market area depicted in Figure 4.10-1, the major general merchandise and home improvement retailers are located in the cities of Vacaville, Fairfield, and Vallejo. Currently, twelve major general merchandise retailers are located within the combined primary and secondary market area. Of the twelve retailers, four (Wal-Mart, Target, Costco, and K-Mart) have locations within the primary market area, all within the City of Fairfield. Major general merchandise retailers are not currently located in the City of Suisun City, although four major home improvement retailers are within the combined primary and secondary market area. Of these four retailers, only one, a Home Depot, has a location within the primary market area, in the City of Fairfield.

Figure 4.10-1
General Merchandise and Home Improvement Retailers Map



In addition, a Wal-Mart Supercenter site is currently in planning stages in the City of Fairfield. The proposed supercenter is located on North Texas Street and would replace an existing Wal-Mart Discount store, located at Chadbourne road and SR 12, which is expected to close. The location of other major general merchandise and home improvement retailers may change as new development occurs within the secondary market area. These issues will be addressed in the cumulative impacts section.

Sedway Group estimates that primary and secondary market area residents would generate 90 percent of Gentry-Suisun sales. Thus, residents coming from tertiary markets will generate the remaining 10 percent of sales. The 10 percent tertiary percentage allocation is consistent with the retail leakage analysis findings below that indicate that the combined primary and secondary market area collectively attracts 10.1 percent of sales from other areas.

The concept of a percentage share allocation of demand from a market area is consistent with general real estate market analysis principles, which recognize that regional retailers have primary, secondary, and often tertiary market areas. This concept is also consistent with discussions Sedway Group had with retail brokerage professionals.

Retail Leakage Analysis

Sedway Group operates a proprietary model that estimates retail spending potential for a market area (usually a city, grouping of cities, or county) based upon population, income, and consumer spending patterns. The model then determines the extent to which a market area is or is not capturing its sales potential based upon taxable sales data published by Board of Equalization (BOE) or provided by city tax consultants. In order to determine the anticipated pattern of retail spending for a market area, the model uses a benchmarked control area. For the purposes of this study, the control area has been defined as the nine Bay Area Counties, the regional planning area of the Association of Bay Area Governments (ABAG) which includes the following: Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, and Sonoma. The purpose of the control area is to control for characteristics unique to individual markets that might artificially inflate or deflate the calculated spending pattern of area residents.

Retail categories in which spending is not fully captured are called “leakage” categories, while retail categories in which more sales are captured than are generated by residents are called “attraction” categories. Generally, attraction categories signal particular strengths of a retail market, while leakage categories signal particular weaknesses. Sedway Group’s leakage model conducts the analysis for all retail sales in an area, including taxable and nontaxable. However, for purposes of this study, the findings below focus on the categories most relevant to the proposed project, e.g., apparel, general merchandise, building materials, home furnishing and appliances, eating and drinking places, and other retail stores.

Population Estimates

Staff at the City of Suisun City indicated to Sedway Group that they generally rely on ABAG population figures. As a result, Sedway Group relied on ABAG's population figures and projections for leakage analysis as shown in Table 4.10-2. ABAG uses the U.S. Census estimate of population in 2000 and projects in five-year increments to 2030. Sedway Group utilized the population projections to estimate the primary market area's (cities of Suisun City and Fairfield) population each year to 2020. To interpolate the population between the data points, Sedway Group utilized the compound annual growth rate in three periods: 2000 to 2005, 2005 to 2015, and 2015 to 2020.

Adjustment Required Due to Confidentiality

The leakage analysis conducted for the combined primary and secondary market area involved an analytic adjustment necessitated due to data limitations. When the Board of Equalization publicly reports data, the Board will not report data for a sales category if it does not meet certain disclosure requirements. For example, if only one or two stores exist in a category or if one retailer dominates the category sales in a single city, then the sales in that category will not be released. Instead, they will be combined with the sales in the "other retail stores" category. This phenomenon is more prone to occur in retail markets where the number of retailers is small or one large retailer makes up most of the sales, as is the case with the apparel and general merchandise sales in the City of Suisun City. For the City of Suisun City, the Board of Equalization combined the apparel and general merchandise sales with "other retail stores." Table 4.10-3 details how Sedway Group made adjustments to avoid overstating the "other retail stores" category and understating the apparel and general merchandise categories.

Findings

Three leakage analyses were conducted to assess the state of the primary market area's retail climate. The first leakage analysis examines the primary market area's sales performance relative to its own population base in order to assess the degree to which the primary market area is serving the retail needs of its resident population. A second leakage analysis examines the sales performance of the Gentry-Suisun project's combined primary and secondary market area. The combined primary and secondary market area is defined as Solano County. Finally, a third leakage analysis examines the secondary market area sales performance.

Table 4.10-2
Base Project

POPULATION ASSUMPTIONS (1)
PRIMARY MARKET AREA AND PRIMARY AND SECONDARY MARKET AREAS
2000 ESTIMATE AND 2005 - 2020 PROJECTION

		Calculated					Calculated							Average Annual Growth Rate			
Area	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2015	2020	00-05	05-10	10-15	15-20
Primary Market Area																	
City of Suisun City	26,640	27,002	27,369	27,741	28,118	28,500	29,150	29,814	30,494	31,189	31,900	33,800	35,400	1.4%	2.3%	1.2%	0.9%
City of Fairfield	96,545	98,477	100,448	102,458	104,509	106,600	109,082	111,621	114,220	116,879	119,600	130,500	136,800	2.0%	2.3%	1.8%	0.9%
Total	123,185	125,479	127,817	130,199	132,626	135,100	138,231	141,435	144,714	148,068	151,500	164,300	172,200	1.9%	2.3%	1.6%	0.9%
Primary and Secondary Market Area																	
Solano County	394,542	400,227	405,995	411,845	417,780	423,800	431,941	440,239	448,696	457,315	466,100	504,500	532,400	1.4%	1.9%	1.6%	1.1%

Notes:
(1) As reported by the Association of Bay Area Governments ("ABAG"), Projections 2005. Data for 2000, 2005, 2010, 2015 and 2020 provided by ABAG with intermediate years (2001 to 2004 and 2006 to 2009) estimated by Sedway Group.

Sources: Association of Bay Area Governments, Projections 2005; and Sedway Group.

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Table 4.10-3

TAXABLE SALES DATA AND ANALYTIC ADJUSTMENT (1)
PRIMARY AND COMBINED PRIMARY AND SECONDARY MARKET AREAS
2003 DOLLARS ($000)

Retail Category	Primary Market Area: City of Fairfield [A]	Primary Market Area: Suisun City [B]	Primary Market Area: Primary Market Area [C = A+B]	Primary and Secondary Market Area (Solano County) [D]
As Reported by the California Board of Equalization				
Apparel Stores	$62,442	N/A (2)	$62,442	$182,142
General Merchandise Stores	$268,546	N/A (2)	$268,546	$701,505
Food Stores	$58,514	$15,144	$73,658	$225,641
Eating and Drinking Places	$108,188	$14,413	$122,601	$380,271
Home Furnishings and Appliances	$55,020	$2,176	$57,196	$156,856
Building Materials	$87,150	$6,949	$94,099	$374,052
Auto Dealers and Auto Supplies	$330,430	$2,144	$332,574	$864,996
Service Stations	$84,129	$20,705	$104,834	$321,596
Other Retail Stores	$217,695	$10,350 (2)	$228,045	$526,287
Total	$1,272,114	$71,881	$1,343,995	$3,733,346
Percent of Total	94.7%	5.3%		
Adjusted by Sedway Group				
Apparel Stores	$62,442	$735 (3)	$63,177	$182,142
General Merchandise Stores	$268,546	$3,604 (4)	$272,150	$701,505
Food Stores	$58,514	$15,144	$73,658	$225,641
Eating and Drinking Places	$108,188	$14,413	$122,601	$380,271
Home Furnishings and Appliances	$55,020	$2,176	$57,196	$156,856
Building Materials	$87,150	$6,949	$94,099	$374,052
Auto Dealers and Auto Supplies	$330,430	$2,144	$332,574	$864,996
Service Stations	$84,129	$20,705	$104,834	$321,596
Other Retail Stores	$217,695	$6,011 (5)	$223,706	$526,287
Total	$1,272,114	$71,881	$1,343,995	$3,733,346
Percent of Total	94.7%	5.3%		

Notes:
(1) Due to disclosure issues, per the California State Board of Equalization, the apparel stores and general merchandise data are reported with the other retail stores category for Suisun City. However, in order to accurately assess the impact to the apparel stores and general merchandise categories, adjustments are necessary to estimate sales in those categories. The estimated taxable sales in apparel stores and general merchandise categories are then deducted from the other retail stores category.
(2) Due to disclosure issues apparel stores and general merchandise sales are included under the "other retail stores."
(3) Data provided by the City of Suisun City suggests that there were approximately $735,000 in taxable apparel store sales in Suisun City in 2003.
(4) According to City of Suisun City staff there is an existing 18,000-square-foot Rite Aid store in Suisun City. The Retail MAXIM reports 2003 sales per square foot of $286 for Rite Aid, which adjusted by 70 percent to account for only taxable sales is equivalent to $200 per square foot. Sedway Group estimated taxable sales of $3.6 million. Rite Aid store sales are categorized under the general merchandise category.
(5) The other retail stores category was adjusted downward to account for the apparel stores and general merchandise sales estimates.

Source: Source: City of Suisun City Staff; Retail MAXIM, July 2004 publication; and Sedway Group.
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Program Summary.xls]Ex1[JB] 06-Mar-06

The leakage analyses were conducted using 2003 sales data and extrapolated to 2009, reflecting the sales estimates for the Gentry-Suisun Project upon completion. The per capita expenditure trends from 2003 were assumed to be equivalent to the per capita expenditure trends for 2009, with adjustments for interim population growth and inflation. The purpose of this adjustment was to maximize comparison with the Gentry-Suisun Project's anticipated net additional combined primary and secondary market area sales during its first full year of operations in 2009.

The leakage results for the primary market, and the combined primary and secondary market area are shown in Tables 4.10-4 and 4.10-5, respectively. Tables 4.10-6 and Table 4.10-7 show the combined primary and secondary market area results. For benchmark purposes, detailed results for all retail categories are presented in each market area.

The primary market has overall attraction in retail sales, meaning that stores within the primary market area tend to attract shoppers who live outside that area. Nearly all of the retail categories, with the exception of eating and drinking places and building materials, experienced attraction in sales. Spending by primary market area residents represents the equivalent of approximately 78.5 percent of total retail spending in the primary market area, indicating that the primary market area has strong overall attraction with an additional 21.5 percent of spending after retaining the equivalent of its own residents' spending. Similarly, the combined primary and secondary market area experience overall attraction, bringing in an additional 21.5 percent of spending after retaining the equivalent of its own residents' spending. In the primary and secondary market area combined, the only categories experiencing sales leakage are eating and drinking places, home furnishings and appliances, and other retail. The combined sales leakage of those categories totals an estimated at $229.4 million in 2009 dollars.

Despite this amount of leakage, the primary and secondary market area combined have overall attraction, bringing in an additional 10 percent of spending after retaining the equivalent of its own residents' spending.

Sedway Group estimated the leakage/attraction of the secondary market area (i.e., the combined primary and secondary market area less the primary market area), as shown in Table 4.10-8. Consistent with the results of the leakage analysis discussed above, the secondary market has overall attraction of sales. However, the overall attraction of sales in the secondary market area is just 3.5 percent. In the secondary market area, the categories experiencing sales leakage are eating and drinking places, home furnishings and appliances, and "other retail stores." The combined sales leakage of those categories totals an estimated $255.3 million in 2009 dollars.

Table 4.10-4

RETAIL SALES LEAKAGE ANALYSIS (1)
PRIMARY MARKET AREA (PMA)
2003

	PER CAPITA (2)			TOTAL			
Type of Retailer	Control Area Average Sales (3)	PMA Spending (4)	PMA Sales	PMA Spending	PMA Sales (5)	Attraction/ (Leakage)	Percent Attraction/ (Leakage)
Apparel Stores	$497	$399	$485	$51,927,723	$63,177,000	$11,249,277	17.8%
General Merchandise Stores (6)	$1,590	$1,290	$2,198	$167,905,533	$286,145,865	$118,240,332	41.3%
Food Stores (7)	$1,839	$1,684	$1,886	$219,236,487	$245,526,667	$26,290,179	10.7%
Eating and Drinking Places	$1,276	$1,053	$942	$137,081,407	$122,601,000	($14,480,407)	(10.6%)
Home Furnishings and Appliances	$518	$427	$439	$55,539,864	$57,196,000	$1,656,136	2.9%
Building Materials (8)	$917	$727	$723	$94,590,006	$94,099,000	($491,006)	(0.5%)
Auto Dealers and Auto Supplies	$1,812	$1,494	$2,554	$194,454,429	$332,574,000	$138,119,571	41.5%
Service Stations	$761	$679	$805	$88,386,949	$104,834,000	$16,447,051	15.7%
Other Retail Stores (9)	$1,815	$1,473	$1,718	$191,738,545	$223,706,400	$31,967,855	14.3%
Totals	$11,024	$9,223	$11,750	$1,200,860,943	$1,529,859,932	$328,998,988	21.5%

Notes:
(1) All figures are expressed in constant 2003 dollars.
(2) 2003 primary market area population of 130,199, based on Association of Bay Area Governments data. Refer to Exhibit 5.
(3) Control Area defined as Nine-county Bay Area: San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Solano, Napa, Sonoma, and Marin counties.
(4) Analysis assumes 2003 average household income of $69,279, per Claritas, Inc.
(5) Refer to Exhibit 6.
(6) Includes general merchandise and drug stores. Drug stores are assumed to comprise 12 percent of total general merchandise sales based on Sedway Group's analysis of control area averages. Taxable transactions for drug stores have been adjusted by 0.70, to account for non-taxable sales. Therefore, 70 percent of all drug store sales are taxable.
(7) Taxable transactions for grocery stores have been adjusted by 0.30, to account for non-taxable sales. Therefore, 30 percent of all food store sales are taxable.
(8) Building materials group includes hardware stores, plumbing and electrical supplies, paint and wallpaper products, glass stores, farm implement dealers, and lumber.
(9) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office and school supplies, second-hand merchandise, farm and garden supply stores, mobile homes/trailers and campers, boat and motorcycle dealers, and miscellaneous other retail stores. It is especially relevant to note for this analysis that this category includes garden supply stores.

Source: State Board of Equalization Taxable Sales in California – 2003; Associated Bay Area Governments Projections 2005; Claritas, Inc; and Sedway Group

Table 4.10-5

PROJECTED RETAIL SALES LEAKAGE
PRIMARY MARKET AREA (PMA)
2009 ESTIMATE

	PMA Annual Per Capita				2009 Estimated Total (3)			
	2003 (1)		2009 Estimate (2)					
Type of Retailer	Spending	Sales	Spending	Sales	PMA Spending	PMA Sales	Attraction / (Leakage)	Percent Attraction/ (Leakage)
Apparel Stores	$399	$485	$468	$569	$69,281,845	$84,290,604	$15,008,759	17.8%
General Merchandise Stores (4)	$1,290	$2,198	$1,513	$2,578	$224,019,165	$381,775,136	$157,755,972	41.3%
Food Stores (5)	$1,684	$1,886	$1,975	$2,212	$292,504,803	$327,581,098	$35,076,295	10.7%
Eating and Drinking Places	$1,053	$942	$1,235	$1,105	$182,893,689	$163,573,964	($19,319,725)	(10.6%)
Home Furnishings and Appliances	$427	$439	$500	$515	$74,101,155	$76,310,768	$2,209,613	2.9%
Building Materials (6)	$727	$723	$852	$848	$126,201,763	$125,546,663	($655,099)	(0.5%)
Auto Dealers and Auto Supplies	$1,494	$2,554	$1,752	$2,997	$259,440,639	$443,719,444	$184,278,805	41.5%
Service Stations	$679	$805	$796	$945	$117,925,658	$139,869,275	$21,943,617	15.7%
Other Retail Stores (7)	$1,473	$1,718	$1,728	$2,016	$255,817,114	$298,468,550	$42,651,436	14.3%
Totals	$9,223	$11,750	$10,821	$13,785	$1,602,185,830	$2,041,135,503	$438,949,672	21.5%

Notes:
(1) Refer to Exhibit 7.
(2) Adjusted for inflation based on the consumer price index for all urban consumers in the San Francisco MSA, as defined by the U.S. Department of Labor, Bureau of Labor Statistics. Inflation for the year 2003-2004 period is 1.2 percent; assumed annual inflation rate of 3.0 percent for projected years.
(3) Estimated 2009 primary market area population of 148,068, based on Association of Bay Area Governments data. Refer to Exhibit 5.
(4) Includes general merchandise and drug stores. Drug stores are assumed to comprise 12 percent of total general merchandise sales based on Sedway Group's analysis of control area averages. Taxable transactions for drug stores have been adjusted by 0.70, to account for non-taxable sales. Therefore, 70 percent of all drug store sales are taxable.
(5) Taxable transactions for grocery stores have been adjusted by 0.30, to account for non-taxable sales. Therefore, 30 percent of all food store sales are taxable.
(6) Building materials group includes hardware stores, plumbing and electrical supplies, paint and wallpaper products, glass stores, farm implement dealers, and lumber.
(7) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office and school supplies, second-hand merchandise, farm and garden supply stores, mobile homes/trailers and campers, boat and motorcycle dealers, and miscellaneous other retail stores. It is especially relevant to note for this analysis that this category includes garden supply stores.

Sources: Benchmarked to Exhibit 7 and State Board of Equalization "Taxable Sales in California- 2003"; Claritas, Inc.; U.S. Department of Labor, Bureau of Labor Statistics; Association of Bay Area Governments "Projections 2005"; and Sedway Group.

08-Mar-06

Table 4.10-6

RETAIL SALES LEAKAGE ANALYSIS (1)
PRIMARY AND SECONDARY MARKET AREAS (P&SMA)
2003

	PER CAPITA (2)			TOTAL			
Type of Retailer	Control Area Average Sales (3)	P&SMA Spending (4)	P&SMA Sales	P&SMA Spending	P&SMA Sales (5)	Attraction/ (Leakage)	Percent Attraction/ (Leakage)
Apparel Stores	$497	$408	$442	$167,880,960	$182,142,000	$14,261,040	7.8%
General Merchandise Stores (6)	$1,590	$1,316	$1,791	$541,840,003	$737,582,400	$195,742,397	26.5%
Food Stores (7)	$1,839	$1,697	$1,826	$698,783,845	$752,136,667	$53,352,822	7.1%
Eating and Drinking Places	$1,276	$1,073	$923	$441,763,031	$380,271,000	($61,492,031)	(13.9%)
Home Furnishings and Appliances	$518	$435	$381	$179,071,046	$156,856,000	($22,215,046)	(12.4%)
Building Materials (8)	$917	$742	$908	$305,654,041	$374,052,000	$68,397,959	18.3%
Auto Dealers and Auto Supplies	$1,812	$1,521	$2,100	$626,534,228	$864,996,000	$238,461,772	27.6%
Service Stations	$761	$685	$781	$282,289,815	$321,596,000	$39,306,185	12.2%
Other Retail Stores (9)	$1,815	$1,502	$1,278	$618,750,390	$526,287,000	($92,463,390)	(14.9%)
Totals	$11,024	$9,379	$10,431	$3,862,567,361	$4,295,919,067	$433,351,706	10.1%

Notes:
(1) All figures are expressed in constant 2003 dollars.
(2) 2003 primary and secondary market areas population of 411,845, based on Association of Bay Area Governments data. Refer to Exhibit 5.
(3) Control Area defined as Nine-county Bay Area: San Francisco, San Mateo, Santa Clara, Alameda, Contra Costa, Solano, Napa, Sonoma, and Marin counties.
(4) Analysis assumes 2003 average household income of $71,414, per Claritas, Inc.
(5) Refer to Exhibit 6.
(6) Includes general merchandise and drug stores. Drug stores are assumed to comprise 12 percent of total general merchandise sales based on Sedway Group's analysis of control area averages. Taxable transactions for drug stores have been adjusted by 0.70, to account for non-taxable sales. Therefore, 70 percent of all drug store sales are taxable.
(7) Taxable transactions for grocery stores have been adjusted by 0.30, to account for non-taxable sales. Therefore, 30 percent of all food store sales are taxable.
(8) Building materials group includes hardware stores, plumbing and electrical supplies, paint and wallpaper products, glass stores, farm implement dealers, and lumber.
(9) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office and school supplies, second-hand merchandise, farm and garden supply stores, mobile homes/trailers and campers, boat and motorcycle dealers, and miscellaneous other retail stores. It is especially relevant to note for this analysis that this category includes garden supply stores.

Sources: State Board of Equalization "Taxable Sales in California - 2003"; Association of Bay Area Governments "Projections 2005"; Claritas, Inc.; and Sedway Group.

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Table 4.10-7

PROJECTED RETAIL SALES LEAKAGE
PRIMARY AND SECONDARY MARKET AREAS (P&SMA)
2009 ESTIMATE

Type of Retailer	P&SMA Annual Per Capita				2009 Estimated Total (3)			
	2003 (1)		2009 Estimate (2)		P&SMA	P&SMA	Attraction /	Percent Attraction/
	Spending	Sales	Spending	Sales	Spending	Sales	(Leakage)	(Leakage)
Apparel Stores	$408	$442	$478	$519	$218,700,455	$237,278,475	$18,578,020	7.8%
General Merchandise Stores (4)	$1,316	$1,791	$1,543	$2,101	$705,861,192	$960,857,061	$254,995,868	26.5%
Food Stores (5)	$1,697	$1,826	$1,991	$2,143	$910,313,738	$979,817,071	$69,503,333	7.1%
Eating and Drinking Places	$1,073	$923	$1,258	$1,083	$575,489,773	$495,383,398	($80,106,375)	(13.9%)
Home Furnishings and Appliances	$435	$381	$510	$447	$233,277,908	$204,338,112	($28,939,796)	(12.4%)
Building Materials (6)	$742	$908	$871	$1,066	$398,179,029	$487,281,835	$89,102,806	18.3%
Auto Dealers and Auto Supplies	$1,521	$2,100	$1,785	$2,464	$816,193,333	$1,126,840,220	$310,646,888	27.6%
Service Stations	$685	$781	$804	$916	$367,742,183	$418,946,801	$51,204,618	12.2%
Other Retail Stores (7)	$1,502	$1,278	$1,763	$1,499	$806,053,237	$685,600,117	($120,453,120)	(14.9%)
Totals	$9,379	$10,431	$11,003	$12,237	$5,031,810,848	$5,596,343,090	$564,532,243	10.1%

Notes:
(1) Refer to Exhibit 9.
(2) Adjusted for inflation based on the consumer price index for all urban consumers in the San Francisco MSA, as defined by the U.S. Department of Labor, Bureau of Labor Statistics. Inflation for the year 2003-2004 period is 1.2 percent; assumed annual inflation rate of 3.0 percent for projected years.
(3) Estimated 2009 primary and secondary market areas population of 457,315, based on Association of Bay Area Governments data. Refer to Exhibit 5.
(4) Includes general merchandise and drug stores. Drug stores are assumed to comprise 12 percent of total general merchandise sales based on Sedway Group's analysis of control area averages. Taxable transactions for drug stores have been adjusted by 0.70, to account for non-taxable sales. Therefore, 70 percent of all drug store sales are taxable.
(5) Taxable transactions for grocery stores have been adjusted by 0.30, to account for non-taxable sales. Therefore, 30 percent of all food store sales are taxable.
(6) Building materials group includes hardware stores, plumbing and electrical supplies, paint and wallpaper products, glass stores, farm implement dealers, and lumber.
(7) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office and school supplies, second-hand merchandise, farm and garden supply stores, mobile homes/trailers and campers, boat and motorcycle dealers, and miscellaneous other retail stores. It is especially relevant to note for this analysis that this category includes garden supply stores.

Sources: Benchmarked to Exhibit 9 and State Board of Equalization "Taxable Sales in California- 2003"; Claritas, Inc.; U.S. Department of Labor, Bureau of Labor Statistics; Association of Bay Area Governments "Projections 2005"; and Sedway Group.

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Table 4.10-8

PROJECTED RETAIL SALES LEAKAGE (1)
SECONDARY MARKET AREA (2)
2009 ESTIMATE

Type of Retailer	Secondary Market Area Spending	Secondary Market Area Sales	Attraction/ (Leakage)	Percent Attraction/ (Leakage)
Apparel Stores	$149,418,609	$152,987,871	$3,569,261	2.3%
General Merchandise	$481,842,028	$579,081,924	$97,239,897	16.8%
Food Stores	$617,808,935	$652,235,973	$34,427,038	5.3%
Eating and Drinking Places	$392,596,084	$331,809,433	($60,786,651)	(15.5%)
Home Furnishings and Appliances	$159,176,753	$128,027,344	($31,149,409)	(19.6%)
Building Materials	$271,977,266	$361,735,172	$89,757,905	24.8%
Auto Dealers and Supplies	$556,752,694	$683,120,776	$126,368,082	18.5%
Service Stations	$249,816,525	$279,077,527	$29,261,002	10.5%
Other Retail Stores	$550,236,123	$387,131,568	($163,104,556)	(29.6%)
Total	$3,429,625,017	$3,555,207,588	$125,582,571	3.5%

Notes:
(1) The figures are calculated by deducting Exhibit 8 results from Exhibit 10 results.
(2) The secondary market area is defined as Solano County less the primary market area (cities of Suisun City and Fairfield).

Source: Sedway Group.

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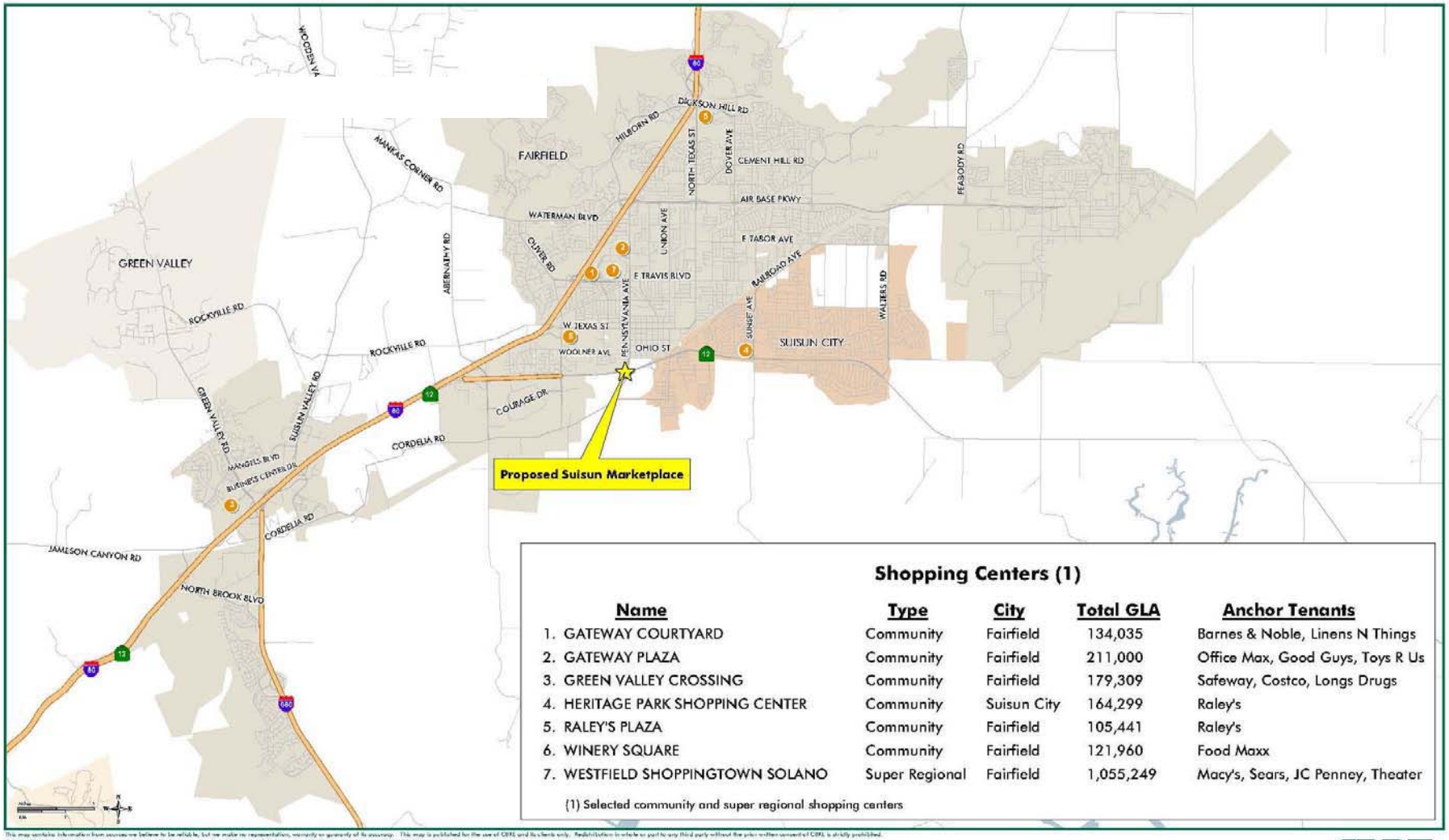
Existing Conditions

Sedway Group visited competitive shopping centers and major general merchandise, food stores, and home improvement stores in the primary market area in April 2005 to visually assess their performance, to determine their market niche, and to qualitatively assess the degree to which they may actually incur lost sales due to the addition of the Gentry-Suisun Project and the Gilbert Parcel. Sedway Group identifies competitive shopping centers based on their size and retail focus relative to Gentry-Suisun and the Gilbert Parcel. Sedway Group located existing competitive stores via store location information provided by InfoUSA. The major competitive shopping center and stores are discussed according to their category of sales. Shopping centers and selected store locations are mapped on Figure 4.10-2 and Figure 4.10-3, respectively. The figures also depict the location of the proposed Gentry-Suisun Project.

Figure 4.10-2
Selected Shopping Centers



Shopping Centers (1)

Name	Type	City	Total GLA	Anchor Tenants
1. GATEWAY COURTYARD	Community	Fairfield	134,035	Barnes & Noble, Linens N Things
2. GATEWAY PLAZA	Community	Fairfield	211,000	Office Max, Good Guys, Toys R Us
3. GREEN VALLEY CROSSING	Community	Fairfield	179,309	Safeway, Costco, Longs Drugs
4. HERITAGE PARK SHOPPING CENTER	Community	Suisun City	164,299	Raley's
5. RALEY'S PLAZA	Community	Fairfield	105,441	Raley's
6. WINERY SQUARE	Community	Fairfield	121,960	Food Maxx
7. WESTFIELD SHOPPINGTOWN SOLANO	Super Regional	Fairfield	1,055,249	Macy's, Sears, JC Penney, Theater

(1) Selected community and super regional shopping centers

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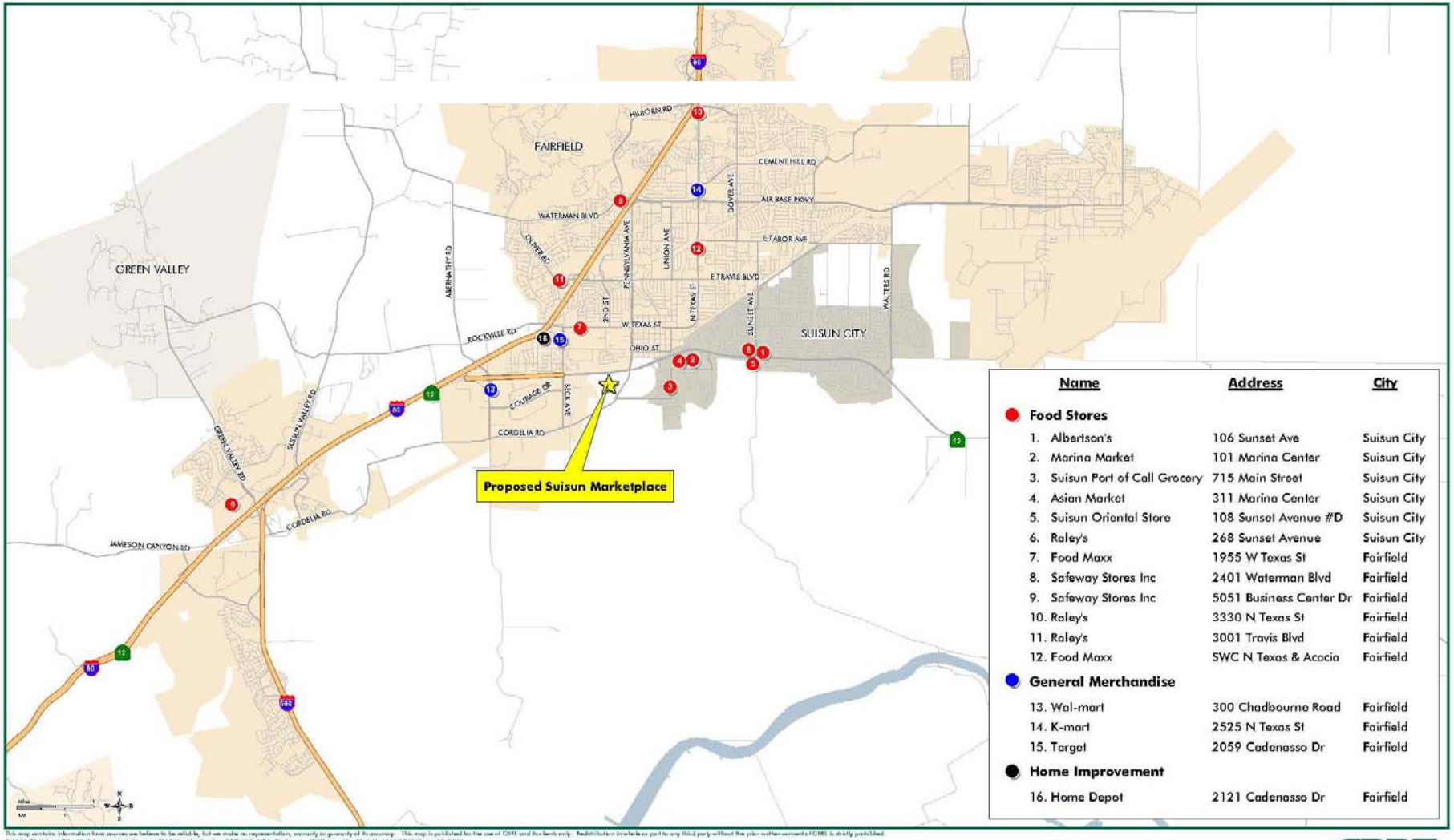
Figure 4.10-3
Existing Food Stores, Selected General Merchandise, and Home Improvement Retailers



Name	Address	City
Food Stores		
1. Albertson's	106 Sunset Ave	Suisun City
2. Marina Market	101 Marina Center	Suisun City
3. Suisun Port of Call Grocery	715 Main Street	Suisun City
4. Asian Market	311 Marina Center	Suisun City
5. Suisun Oriental Store	108 Sunset Avenue #D	Suisun City
6. Raley's	268 Sunset Avenue	Suisun City
7. Food Maxx	1955 W Texas St	Fairfield
8. Safeway Stores Inc	2401 Waterman Blvd	Fairfield
9. Safeway Stores Inc	5051 Business Center Dr	Fairfield
10. Raley's	3330 N Texas St	Fairfield
11. Raley's	3001 Travis Blvd	Fairfield
12. Food Maxx	SWC N Texas & Acacia	Fairfield
General Merchandise		
13. Wal-mart	300 Chadbourne Road	Fairfield
14. K-mart	2525 N Texas St	Fairfield
15. Target	2059 Cadenasso Dr	Fairfield
Home Improvement		
16. Home Depot	2121 Cadenasso Dr	Fairfield

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Regulatory Context

Existing policies, laws, and regulations that would apply to the proposed project are summarized below.

City of Suisun City General Plan

Chapter IV Land Use Element - Commercial

Goal 1: To expand job-creating activities needed to support population growth, construction, and the delivery of public services. Opportunities for improving the economic base should be pursued.

> Objective 1: To establish a range of commercial districts, with appropriate population density and building intensity standards, that will provide a full range of commercial services for City residents, provide for commercial uses that are compatible with the historic and waterfront character of Old Town, increase employment opportunities, and enhance the City's economic base.
>
> Objective 2: Provide for limited commercial activities within the unincorporated area to service primarily unincorporated community needs, as well as, limited highway service commercial facilities.
>
>> Policy 13: Suisun City's Commercial Needs. The City seeks to attract a variety of non-residential land uses. The City's commercial needs will be of three general types, and the General Plan establishes land use classifications accordingly (see Policies C-1.2, C-1.3, and C-1.4). These three general types of commercial land uses are shown below. The purpose of these categories is to segregate commercial uses based on function and the level of impact, with those commercial land uses most compatible with residential development and providing goods and services to residences being located adjacent to residential neighborhoods. Other commercial uses are designated for areas which can be isolated from residential neighborhoods by location and site design. The three commercial categories are:
>>
>> - Retail and service commercial centers serving the several neighborhoods in Suisun City.
>> - Regional serving commercial lands uses oriented to access along arterial streets or Highway 12.
>> - Business parks containing a mixture of land uses involving light manufacturing, assembly of components for finished products, sales/business offices, storage, and distribution.

Impacts and Mitigation Measures

Standards of Significance

Although CEQA is not directly concerned with the purely socio-economic effects of projects, such effects can lead to significant effects on the physical environment where the socio-economic impacts indirectly cause either of the following physical consequences:

- a "chain reaction of store closures and long-term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake" (see *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184, 1204); or

- physical deterioration to properties or structures that is so prevalent and substantial that it impairs the proper utilization of the properties or structures, and/or the health, safety and welfare of the surrounding community.

For purposes of the second significance threshold, physical deterioration includes, but is not limited, abnormally high business vacancies, abandoned buildings, boarded doors and windows, parked trucks and long-term unauthorized use of properties and parking lots, extensive or offensive graffiti painted on buildings, dumping of refuse or overturned dumpsters on properties, dead trees and shrubbery and uncontrolled weed growth or homeless encampments.

Method of Analysis

As stated in the introduction, the analysis is based on a report prepared by Sedway Group entitled *Gentry-Suisun Mixed-Use Project Economic Impact Analysis* dated February 2006, and included as Appendix E to this DEIR. Sedway Group's report relied upon many resources for their study, including information provided by Tom Gentry California Company and the City of Suisun City. Additional study resources included ABAG's "Projections 2005" population estimates and projections, and taxable sales data generated by the BOE. The BOE published taxable sales numbers for counties and major cities; its most recent full-year taxable sales numbers are from 2003 in its publication, *Taxable Sales in California – 2003.* Business-specific data identifying primary and secondary market area retailers were obtained from the 2004 Shopping Center Directory for the Western United States, Claritas, Inc., and other sources. Additional resources prepared by Claritas, Inc., a national provider of demographic and economic data, were relied upon for mean household income trend data. Inflationary adjustments were made based on the Consumer Price Index for all urban consumers in the Bay Area. Local commercial and residential real estate brokers also provided insight and information.

Projected Gentry-Suisun Project Sales

Total Gentry-Suisun Project Store Sales

In order to determine the annual sales of the proposed Gentry-Suisun Project, Sedway Group made assumptions based on the Retail MAXIM's *Perspectives on Retail Real Estate and Finance, July 2004*. The Retail MAXIM publication provides average sales per square foot figures for many national retailers and aggregates the data by specific retail categories. Tom Gentry California Company anticipates that the Gentry-Suisun Project would be completed in the fourth quarter 2008, with the first full year of sales in 2009. Thus, all sales estimates were projected to 2009 using the inflation assumptions in Table 4.10-9. Sedway Group used the resulting sales per square foot figures to estimate annual sales based on the total square feet for each targeted retail category.

While not all specific retailers have been identified, targeted retail categories for a majority of the space are proposed. Where the retailer was known, Sedway Group prepared sales estimates based on relevant retailer information provided by the Retail MAXIM publication. For example, a Supercenter, which could include a Wal-Mart, is a possible, though by no means certain, anchor for the Gentry-Suisun Project. Therefore, in order to estimate the sales per square foot, Sedway Group utilized the average sales per square foot of Wal-Mart as reported in the Retail MAXIM. This is a kind of "worst case" analysis, in that Wal-Mart is considered to be a more effective economic competitor than any other "big box" retailer doing business in California. When the targeted retail category was known, Sedway Group utilized an average representative of stores within that category, as reported by the Retail MAXIM. This approach was taken for the home improvement, apparel, home furnishings, restaurant, and fast food space. All of the per square foot sales estimates and assumptions are detailed in Table 4.10-9.

Where the targeted retail category was unknown, Sedway Group relied on the industry-accepted standard of $300 per square foot of sales per year. Sedway Group assumed that $300 sales per square foot represents 2003 data and inflated the amount to 2009 dollars based on inflation assumptions in Table 4.10-9. Sedway Group used the $300 figure as a floor for 2003 sales per square foot estimates for unknown retail categories, which might overstate sales at Gentry-Suisun if some of the tenants are local non-chain retailers who achieve lower sales per square foot. Overall, it is a conservative approach when trying to determine the maximum impact of the project on primary market area retail, as this study seeks to accomplish.

Table 4.10-9

ESTIMATED ANNUAL SALES
SUISUN MARKETPLACE AND GILBERT PARCEL
2003 AND 2009 YEAR DOLLARS

Retail Type of Retail	Total Square Feet (1)	Average Sales per Square Foot 2003 (2)	Average Sales per Square Foot 2009 (3)	2009 Estimated Sales
Anchor Tenants				
Supercenter	227,200	$362 (4)	$425	$96,490,273
Home Improvement	162,700	$327 (5)	$384	$62,416,864
Apparel	88,000	$276 (6)	$324	$28,494,326
Additional Tenants				
Home Furnishings	27,500	$230 (7)	$270	$7,420,397
Restaurant	18,000	$285 (8)	$334	$6,018,441
Fast Food	6,000	$365 (9)	$428	$2,569,276
Unknown Retail	123,099	$300	$352	$43,325,384
Gilbert Parcel				
Other Retail Stores (Books)	21,780	$316 (10)	$371	$8,074,425
Home Furnishings	21,780	$230 (7)	$270	$5,876,955
Home Furnishings (Electronics)	21,780	$428 (11)	$502	$10,936,246
Total	717,839		$378	$271,622,586

Notes:
(1) Annual sales estimates do not include the 3,000-square-foot gas station.
(2) Sedway Group relied on Retail MAXIM's July 2004 report of 2003 retail sales per square foot estimates, which also includes averages for different categories of retailers. For all unidentified retail, Sedway Group assumed the generally accepted industry standard average sales of $300 per square foot in 2003 dollars.
(3) Adjusted for inflation based on the consumer price index for all urban consumers in the San Francisco/Oakland/San Jose MSA as defined by the U.S. Department of Labor Bureau of Labor Statistics. Inflation for the 2003-04 period is 1.2 percent; assumed annual inflation of 3.0 percent for projected years.
(4) Average sales per square foot of Wal-Mart, per Retail MAXIM.
(5) Average sales per square foot of Home Depot and Lowes, per Retail MAXIM.
(6) Average sales per square foot of Loehman's, Mervyn's, Old Navy, Ross, Stein Mart, and TJ Maxx, per Retail MAXIM.
(7) Average sales per square foot of Bed Bath and Beyond, Cost-Plus, Home Goods, Kirklands, Linens 'N Things, Pier One, and Sears Great Outdoors, per Retail MAXIM.
(8) Average sales per square foot of the casual dining and family dining categories per Retail MAXIM.
(9) Average sales per square foot of fast food chains per Retail MAXIM.
(10) Average sales per square foot of Barnes and Noble and Borders, per Retail MAXIM.
(11) Average sales per square foot of the electronics category per Retail MAXIM.

Sources: Highland Development Company; Retail MAXIM's Perspectives on Retail Real Estate and Finance, July 2004; and Sedway Group.

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Tom Gentry California Company currently estimates Gentry-Suisun Project's opening by fourth quarter 2008. Stabilized sales for a shopping center generally are not expected to occur the first year of store operations, but rather the second or third year, which is more typical of new retail operations. For the purposes of this analysis, stabilized sales are conservatively assumed to occur in 2009, the first full year of operations. Based on the methodology described above and detailed in Table 4.10-9, Sedway Group estimates Gentry-Suisun Project sales in 2009 would total $271.6 million.

Project Sales by Category

The new sales generated by the Gentry-Suisun Project would be spread across many store-merchandising categories due to the range of retailers anticipated. Sedway Group contacted the BOE to obtain the categories in which the sales of the targeted Gentry-Suisun Project retailers would be classified for sales tax purposes. The unknown retail sales were allocated to specific retail categories using information provided by Tom Gentry California Company and assumptions prepared by Sedway Group. The representative BOE retail categories at the Gentry-Suisun Project are apparel, general merchandise, food stores, eating and drinking places, home furnishings and appliances, building materials, and "other retail stores." Table 4.10-10 presents Gentry-Suisun Project sales by retail category, including assumptions developed by Sedway Group with input from Tom Gentry California Company regarding the unknown retail.

In general, the BOE records a retailer's sales in only one sales category; however, a more detailed breakdown of sales is required for the supercenter and home improvement retailers. Ultimately, the BOE will record the supercenter's sales in the general merchandise category. However, the supercenter's sales will impact the food stores (due to the grocery component) and the "other retail stores" (due to the garden center) categories as well.

As a result, Sedway Group allocated the supercenter's sales to those three categories based on the assumptions detailed in Table 4.10-10.

Table 4.10-10

ESTIMATED SALES BY RETAIL CATEGORY
SUISUN MARKETPLACE AND GILBERT PARCEL
2009 DOLLARS

	Suisun Marketplace and Gilbert Parcel (1)		California Board of Equalization Retail Category (2)						
Type of Retail	Total Square Feet	2009 Estimated Sales	Apparel	General Merchandise (3)	Food Stores	Eating and Drinking Places	Home Furnishings and Appliances	Building Materials	Other Retail Stores (4)
Supercenter (5)	227,200	$96,490,273	$0	$63,683,580	$24,122,568	$0	$0	$0	$8,684,125
As % of estimated store sales			0.0%	66.0%	25.0%	0.0%	0.0%	0.0%	9.0%
Home Improvement (6)	162,700	$62,416,864	$0	$0	$0	$0	$18,725,059	$37,450,118	$6,241,686
As % of estimated store sales			0.0%	0.0%	0.0%	0.0%	30.0%	60.0%	10.0%
Apparel	88,000	$28,494,326	$28,494,326	$0	$0	$0	$0	$0	$0
As % of estimated store sales			100.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Home Furnishings	27,500	$7,420,397	$0	$0	$0	$0	$7,420,397	$0	$0
As % of estimated store sales			0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Restaurant	18,000	$6,018,441	$0	$0	$0	$6,018,441	$0	$0	$0
As % of estimated store sales			0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Fast Food	6,000	$2,569,276	$0	$0	$0	$2,569,276	$0	$0	$0
As % of estimated store sales			0.0%	0.0%	0.0%	100.0%	0.0%	0.0%	0.0%
Unknown Retail (7)	123,099	$43,325,384	$16,463,646	$4,332,538	$866,508	$2,166,269	$0	$0	$19,496,423
As % of estimated store sales			38.0%	10.0%	2.0%	5.0%	0.0%	0.0%	45.0%
Gilbert Parcel Books	21,780	$8,074,425	$0	$0	$0	$0	$0	$0	$8,074,425
As % of estimated store sales			0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%
Gilbert Parcel Home Furnishings	21,780	$5,876,955	$0	$0	$0	$0	$5,876,955	$0	$0
As % of estimated store sales			0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Gilbert Parcel Electronics	21,780	$10,936,246	$0	$0	$0	$0	$10,936,246	$0	$0
As % of estimated store sales			0.0%	0.0%	0.0%	0.0%	100.0%	0.0%	0.0%
Total	717,839	$271,622,586	$44,957,972	$68,016,118	$24,989,076	$10,753,986	$42,958,657	$37,450,118	$42,496,658

Notes:
(1) Estimated square feet and annual sales are from Exhibit 2. Does not include the gas station.
(2) Selected retail categories as defined by the California Board of Equalization that pertain to the type of retail targeted for the Suisun Marketplace and Gilbert Parcel.
(3) The general merchandise category includes limited price variety, department, dry goods, general merchandise, country, and drug stores.
(4) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office and school supplies, second-hand merchandise, farm and garden supply stores, mobile homes/trailers and campers, boat and motorcycle dealers, and miscellaneous other retail stores. It is especially relevant to note for this analysis that this category includes garden supply stores.

(5) The Supercenter sales were divided into appropriate retail categories to determine the potential impact on those categories. The analysis assumes an approximately 56,000-square-foot grocery component, an 20,800-square-foot garden center. The grocery square footage is an estimate developed by Sedway Group based on previous work and includes both sales floor area and stockroom space.
(6) The home improvement sales were divided into appropriate retail categories to determine the potential impact on those categories. Based on breakdown of sales at Lowe's and Home Depot stores provided for in the relevant Form 10-Ks on file with the United States Securities and Exchange Commission.
(7) Highland Development Company has identified targeted retail categories for some spaces but not others. In the case of unknown retail, Highland Development Company provided generic retail categories. Based on this information, Sedway Group allocated the unknown retail sales to specific retail categories.

Source: Highland Development Company; Retail Maxim's Perspectives on Retail Real Estate and Finance, July 2004; Lowes 2004 Form 10-K; Home Depot, 2004 Form 10-K; and Sedway Group

Further, the BOE will record the home improvement retailer's sales in the building materials category. However, the home improvement retailer's sales would impact the building materials, home furnishings and appliances, and "other retail stores" (due to the garden center) categories as well. As a result, Sedway Group allocated the home improvement retailer's sales to those three categories based on the assumptions detailed in Table 4.10-11. The additional detail provided by this level of analysis enables better understanding of the types of retail sales to be generated by Gentry-Suisun and the Gilbert Parcel, and its potential impact on specific retail categories. Table 4.10-11 attributes sales to the appropriate category and sums the total sales of the Gentry-Suisun Project by BOE retail category. The results are summarized in Table 4.10-11 below.

Table 4.10-11
Estimated Gentry-Suisun Sales by Retail Category[1]
2009 Dollars, in Millions

Retail Category	Estimated Retail Sales	Alternative 1 Estimated Retail Sales	Alternative 2 Estimated Retail Sales
Apparel	$45.0	$11.6	$16.9
General Merchandise	68.0	64.7	66.1
Food Stores	25.0	23.7	23.9
Eating and Drinking Places	10.8	11.4	12.1
Home Furnishings and Appliances	43.0	23.3	3.8
Building Materials	37.5	39.1	0
"Other Retail Stores"[2]	42.5	20.1	19.9
Total[3]	**$271.6**	**$193.8**	**$142.7**

Notes:
(1) Based on California Board of Equalization retail categories.
(2) Includes the estimated garden center sales.
(3) Figures may not total due to rounding.
Sources: Exhibit 1, 2, and 3 of Appendix A of Economic Impact Analysis; Tom Gentry California Company; and Sedway Group.

The following analysis examines whether the Gentry-Suisun Project would attract new sales to the primary market area as opposed to diverting sales from existing retailers. The degree of impact on existing primary market area retailers is considered.

New Sales to the Primary Market Area

To assess the prospective minimum share of the Gentry-Suisun Project sales that would be new to the primary market area and the potential impacts on existing Suisun City retailers, Sedway Group estimated the following:

- Primary market area;
- Secondary market area;
- Share of Gentry-Suisun and Gilbert Parcel sales originating from a tertiary market area;

- Primary market area and combined primary and secondary market area retail leakage and attraction;
- Maximum share of Gentry-Suisun and Gilbert Parcel sales likely to be initially diverted from existing primary market area retailers on a worst case basis; and,
- Impact of population growth and other factors on sales impacts.

Market Area Sales

Applying the estimated division of sales between the combined primary and secondary market area (90 percent) and tertiary market area (10 percent) to the stabilized Gentry-Suisun sales estimates of $271.6 million indicates that the sales from Gentry-Suisun would be distributed as shown in Table 4.10-12.

Table 4.10-12
Origin of Gentry-Suisun Project Sales
2009 Dollars, in Millions

Retail Category	Total	Primary and Secondary Market Area	Tertiary Market Area
Apparel	$45.0	$40.5	$4.5
General Merchandise	68.0	61.2	6.8
Food Stores	25.0	22.5	2.5
Eating and Drinking Places	10.8	9.7	1.1
Home Furnishings and Appliances	43.0	38.7	4.3
Building Materials	37.5	33.7	3.7
Other Retail	42.5	38.2	4.2
Total	**$271.6**	**$244.5**	**$27.2**

Source: Sedway Group.

The estimates shown in Table 4.10-12 indicate that a total of approximately $244.5 million in Gentry-Suisun Project sales would be generated from within the center's combined primary and secondary market area, with $27.2 million of sales generated from a tertiary market.

Implications for New Sales Generation

Sedway Group has developed an analytic approach that conservatively estimates the maximum impact of retailers such as those proposed for the Gentry-Suisun Project on existing retailers. For this analysis, the approach assumes that if the Gentry-Suisun Project is adding sales to a category in an amount greater than any primary or combined primary and secondary market area leakage in the category, then at worst, the amount of Gentry-Suisun Project sales in that category in excess of any leakage would be diverted away from existing primary market area (Cities of Suisun City and Fairfield) retailers in proportion to the primary market area retailers' contribution to combined primary and secondary market area (Solano County) sales. In other words, the negative economic impacts of Gentry-Suisun Project sales would be spread proportionally among all the like retailers in the combined primary and secondary

market area. This diversion estimate, prepared for analytic purposes, conservatively assumes no recovery among the impacted retailers.

Sedway Group's approach is displayed in Table 4.10-13, which takes into account the following factors for the most relevant retail sales categories:

- Gentry-Suisun Project sales by major category;
- Estimated Gentry-Suisun Project sales by major category generated by combined primary and secondary market area residents;
- The primary market area's (cities of Suisun City and Fairfield) share of combined primary and secondary market area sales based upon the historic distribution of sales;
- Leakage, if any, occurring in the primary market area or secondary market area;
- The portion of leakage, if any, in the primary market area or secondary market area that might be absorbed by the Gentry-Suisun Project sales;
- The share of the Gentry-Suisun Project sales estimated, at maximum, to be diverted from existing primary market area (cities of Suisun City and Fairfield) retailers upon stabilization; and
- The minimum new sales achieved by the Gentry-Suisun Project not diverted away from existing primary market area (cities of Suisun City and Fairfield) retailers (i.e., sales resulting from recaptured leakage, if any, and from secondary and tertiary market areas).

This approach is conservative in that it assumes a net increase will not occur in combined primary and secondary market area sales after the Gentry-Suisun Project achieves market stabilization. Such increases commonly happen as residents shift their shopping patterns or increase their expenditures based upon the enhanced availability of consumer goods, which is why Sedway Group considers the resulting existing retailer impacts as maximum estimates upon stabilization, and the resulting new sales to the primary market area (cities of Suisun City and Fairfield) as minimum estimates.

Table 4.10-13

MAXIMUM SUISUN MARKETPLACE AND GILBERT PARCEL SALES IMPACTS
ON PRIMARY MARKET AREA (PMA) RETAIL SALES
2009 ESTIMATE (IN MILLIONS)

		Source of Sales (2)		Retail Sales			Leakage Available for Capture			
Type of Retailer	Suisun Marketplace New Sales (1) [A]	Primary and Secondary Market Areas [B]	Tertiary Market Area [C]	Primary Market Area (3) [D]	Primary and Secondary Market Areas (4) [E]	PMA Percent of P&SMA [F = D/E]	Primary Market Area Leakage (5) [G]	Secondary Market Area Leakage (6) [H]	Maximum Sales Diverted from PMA Retailers (7) [I = BxF+G+H]	Minimum Net New Sales to PMA (8) [J = A+I]
Apparel Stores	$45.0	$40.5	$4.5	$84.3	$237.3	35.5%	$0.0	$0.0	($14.4)	$30.6
General Merchandise	$68.0	$61.2	$6.8	$381.8	$960.9	39.7%	$0.0	$0.0	($24.3)	$43.7
Food Stores	$25.0	$22.5	$2.5	$327.6	$979.8	33.4%	$0.0	$0.0	($7.5)	$17.5
Eating and Drinking Places	$10.8	$9.7	$1.1	$163.6	$495.4	33.0%	($19.3)	$0.0	$0.0	$10.8
Home Furnishings and Appliances	$43.0	$38.7	$4.3	$76.3	$204.3	37.3%	$0.0	($10.4)	($4.1)	$38.9
Building Materials	$37.5	$33.7	$3.7	$125.5	$487.3	25.8%	($0.7)	$0.0	($8.0)	$29.4
Other Retail Stores	$42.5	$38.2	$4.2	$298.5	$685.6	43.5%	$0.0	($54.3)	$0.0	$42.5
Total	$271.6	$244.5	$27.2	$1,457.5	$4,050.6	36.0%	($20.0)	($64.7)	($58.3)	$213.3

Notes:
(1) These figures are from Exhibit 3.
(2) Sedway Group estimates that 90 percent of sales will be generated from primary and secondary market area residents, with the 10 percent balance of sales generated by tertiary market area residents. This tertiary market area is not defined, but extends beyond the boundaries of Solano County.
(3) Refer to Exhibit 8, primary market area sales. Does not include all retail categories, only those categories impacted by sales at Suisun Marketplace and the Gilbert Parcel.
(4) Refer to Exhibit 10, primary and secondary market area sales. Does not include all retail categories, only those categories impacted by sales at Suisun Marketplace and the Gilbert Parcel.
(5) Refer to Exhibit 8. Assumes any existing primary market area leakage is absorbed by Suisun Marketplace and Gilbert Parcel sales.
assumed that up to 33.3 percent of the leakage in the secondary market area could be absorbed by Suisun Marketplace and the Gilbert Parcel. Assumption developed by Sedway Group based on market observations and professional judgment.
(7) The figures in this column comprise the maximum amount of net new primary market area Suisun Marketplace and the Gilbert Parcel sales diverted from existing primary market area retailers, assuming sales in excess of any leakage will be diverted away from existing primary market area retailers in proportion to the primary market area retailers' estimated contribution to combined primary and secondary market areas sales. This implies that any negative impacts of the Suisun Marketplace and Gilbert Parcels' sales will be spread proportionally among all the like retailers by retail category in the primary market area.
(8) This column comprises all new Suisun Marketplace and Gilbert Parcel sales less the maximum sales diverted from primary market area retailers. Figures may not total due to rounding.

Source: Sedway Group

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Leakage Consideration by Market Area

In this impact analysis, primary market area leakages should be distinguished from combined primary and secondary market area leakages. As presented in Table 4.10-13, the new retail sales from the Gentry-Suisun Project expected to be generated from primary market area residents is netted against any leakages within the primary market area to determine maximum impacts in each category. If the leakage exceeds the new sales, no impact is estimated.

Sedway Group's impact analysis generally assumes that given the same retail opportunities closer to home, residents will shift shopping to the more convenient location. Thus, whereas a primary market area resident might have traveled to Vallejo or Vacaville for a certain purchase, that resident will likely choose to make that purchase closer to home at the new retail center given the enhanced critical mass of retail space. Instead of leaking those sales, the primary market area would divert them from Vacaville. This can occur even if an attraction exists in the combined primary and secondary market area. If only leakages of the combined primary and secondary market area were considered, a large attraction in the secondary market area might mask leakages in the primary market area.

In a similar way, an attraction might occur in the primary market area while an overall leakage might occur in the combined primary and secondary market area in a certain category. If only the primary market area is considered, it would indicate that the market already attracts sales in that category and, therefore, any new sales in that category would then exceed resident spending and cause an impact on existing retail. Yet this conclusion cannot be drawn without considering the secondary market area. Despite a primary market area attraction, the secondary market area might be leaking a large amount of sales that might be redirected to new retail development in the primary market area. The new retail in the primary market area would be more convenient than, or as convenient as, other retail opportunities for secondary market area residents. In turn, the new retail would shift some spending to the primary market area.

Based on the considerations above, the sales leakages in the primary market area and secondary market area should be considered separately because a leakage in either could help to reduce the sales impacts of the Gentry-Suisun Project. Table 4.10-13 calculates the maximum sales diverted from primary market area retailers after assuming that the primary market area would absorb existing leakage in the primary market area and up to 33.3 percent of the leakage in the secondary market area.

Project Impacts and Mitigation Measures

4.10-1 The proposed project's apparel, general merchandise, food stores, eating and drinking places, and "other retail stores" competition with existing businesses in the primary and secondary market area and the project's potential to result in urban decay.

I. Analysis of Project's Competition with Existing Businesses

Primary Market Area

Base Project

Table 4.10-14 indicates that, at worst, $58.3 million in sales generated at Gentry-Suisun upon stabilization would be diverted away from existing primary market area (cities of Suisun City and Fairfield) retailers. Thus, the balance of new sales, or $213.3 million, is the minimum estimate of the Gentry-Suisun Project sales new to the primary market area. These new sales would come from a combination of recaptured leakage (if any), the secondary market area, and tertiary market area.

These figures are conservative and are presented as an analytical benchmark. They are considered conservative for several reasons. Foremost, they assume the maximum diversion away from existing retailers upon stabilization of the Gentry-Suisun Project. Thus, they do not take into account any prospective market corrections or enhancements following the introduction of the Gentry-Suisun Project to the market, including competitive retailer repositioning. More importantly, they do not take into consideration population growth in the combined primary and secondary market area following introduction of the Gentry-Suisun Project.

Table 4.10-14
Maximum Gentry-Suisun Project Sales Impact Upon Stabilization – Base Project
2009 Dollars, in Millions

Retail Category	Gentry-Suisun Project Sales	Maximum Sales Diverted from Primary Market Area Retailers	Minimum New Sales to Primary Market Area
Apparel	$45.0	$14.4	$30.6
General Merchandise	68.0	24.3	43.7
Food Stores	25.1	7.5	17.5
Eating and Drinking Places	10.8	0.0	10.8
Home Furnishings & Appliances	43.0	4.1	38.9
Building Materials	37.5	8.0	29.4
Other Retail	42.5	0.0	42.5
Total	**$271.6**	**$58.3**	**$213.3**

Source: Sedway Group, *Gentry-Suisun Mixed Use Project Economic Impact Analysis*, 2006.

Absent any market adjustments, the Base Project's maximum sales diverted represent 4.0 percent of the estimated combined total apparel, general merchandise, food stores, eating and drinking places, home furnishings and appliances, building materials, and "other retail stores" categories in the primary market area in 2009. The maximum sales diverted as a percent of total sales in each retail category range from a low of no impact in the eating and drinking places, and "other retail stores" categories to a high of 17.1 percent in the apparel stores category. The maximum diverted sales as a percent of estimated primary market area sales by category are displayed in Table 4.10-15.

Table 4.10-15
Maximum Diverted Sales as a Percent
Of Estimated Primary Market Area (PMA) Sales
2009 Estimate (In Millions)

Type of Retailer	Maximum Sales Diverted From PMA Retailers[1]	Estimated PMA Retail Sales[2]	Diverted Sales as a Percent of Estimated Sales
Apparel Stores	($14.1)	$84.3	17.1%
General Merchandise	($24.3)	$381.8	6.4%
Food Stores	($7.5)	$327.6	2.3%
Eating and Drinking Places	$0.0	$163.6	0.0%
Home Furnishings and Appliances	($4.1)	$76.3	5.3%
Building Materials	($8.0)	$125.5	6.4%
Other Retail Stores	$0.0	$298.5	0.0%
Total	($58.3)	$1,457.5	4.0%

Notes:
1. Refer to Exhibit 12, column F.
2. Refer to Exhibit 8, primary market area sales.

Source: Sedway Group; Refer to Appendix A – Exhibit 12 of the Economic Impact Analysis.

Alternative 1

Table 4.10-16 indicates that, at worst, $42.4 million in sales generated at Gentry-Suisun upon stabilization would be diverted away from existing primary market area (cities of Suisun City and Fairfield) retailers. This represents 2.9 percent of estimated sales in the primary market area. Thus, the balance of new sales, or $151.4 million, is the minimum estimate of the Gentry-Suisun Project sales new to the primary market area. These new sales would come from a combination of recaptured leakage (if any), the secondary market area, and the tertiary market area.

Table 4.10-16
Maximum Gentry-Suisun Project Sales Impact Upon Stabilization – Alternative 1
2009 Dollars, in Millions

Retail Category	Gentry-Suisun Project Sales	Maximum Sales Diverted from Primary Market Area Retailers	Minimum New Sales to Primary Market Area
Apparel	$11.6	$3.7	$7.9
General Merchandise	64.7	23.1	41.6
Food Stores	23.7	7.1	16.5
Eating and Drinking Places	11.4	0.0	11.4
Home Furnishings & Appliances	23.3	0.0	23.3
Building Materials	39.1	8.4	30.7
Other Retail	20.1	0.0	20.1
Total	**$193.8**	**$42.4**	**$151.4**

Source: Sedway Group, *Gentry-Suisun Mixed Use Project Economic Impact Analysis*, 2006.

Alternative 2

Table 4.10-17 indicates that, at worst, $36.3 million in sales generated at Gentry-Suisun upon stabilization would be diverted away from existing primary market area (cities of Suisun City and Fairfield) retailers. This represents 2.5 percent of estimated sales in the primary market area. Thus, the balance of new sales, or $106.4 million, is the minimum estimate of the Gentry-Suisun Project sales new to the primary market area. These new sales would come from a combination of recaptured leakage (if any), the secondary market area, and the tertiary market area.

Table 4.10-17
Maximum Gentry-Suisun Project Sales Impact Upon Stabilization – Alternative 2
2009 Dollars, in Millions

Retail Category	Gentry-Suisun Project Sales	Maximum Sales Diverted from Primary Market Area Retailers	Minimum New Sales to Primary Market Area
Apparel	$16.9	$5.4	$11.5
General Merchandise	66.1	23.6	42.5
Food Stores	23.9	7.2	16.7
Eating and Drinking Places	12.1	0.0	12.1
Home Furnishings & Appliances	3.8	0.0	3.8
Building Materials	0.0	0.0	0.0
Other Retail	19.9	0.0	19.9
Total	**$142.7**	**$36.3**	**$106.4**

Source: Sedway Group, *Gentry-Suisun Mixed Use Project Economic Impact Analysis*, 2006.

Competitive Shopping Centers

The primary market area contains several competitive shopping centers. Other smaller, more neighborhood serving shopping centers are located within the primary market area. However, Sedway Group toured these shopping centers considered most competitive with the Gentry-Suisun Project. These shopping centers are also identified in Figure 4.10-2 and described below.

- *Gateway Courtyard* is a community-serving shopping center located on the northeast corner of Interstate 80 and E. Travis Boulevard in the City of Fairfield. The shopping center is located approximately 1.6 miles north of the proposed Gentry-Suisun Project site. The center opened in 2000 and has approximately 135,000 square feet of gross leaseable area. Major anchor tenants include Barnes & Noble and Linens 'N Things. Additional tenants include Aaron Brothers, Sprint PCS, Hallmark and Mimi's Café. Gateway Courtyard is located immediately west of Westfield Shoppingtown Solano.

- *Gateway Plaza* is a community-serving shopping center located at the intersection of Pennsylvania Avenue and Gateway Boulevard in the City of Fairfield. The shopping center is located approximately 1.6 miles north of the proposed Gentry-Suisun Project site. The center opened in 1988 and has approximately 211,000 square feet of gross leaseable area. Major anchor tenants include Trader Joes, Office Max, Good Guys, and Toys R Us. Additional tenants include Sally Beauty Supply, Countryside Mortgage, Red Wing Shoes, and Verizon Wireless. Gateway Plaza is located immediately north of Westfield Shoppingtown Solano.

- *Green Valley Crossing* is a community-serving shopping center located at the intersection of Green Valley and Business Center drives in the City of Fairfield. This shopping center is located approximately 5.4 miles southwest of the proposed Gentry-Suisun Project. The center opened in 2001 and has approximately 180,000 square feet of gross leaseable area. Major anchor tenants include Safeway, and Longs Drugs. Additional tenants include TJ Maxx, Ethan Allen, and Radio Shack. A Costco store is also located adjacent to the center.

- *Heritage Park Shopping Center* is a community-serving shopping center located at the intersection of SR 12 and Sunset Avenue in the City of Suisun City. Heritage Park Shopping Center is a grocery store anchored center located approximately 1.8 miles east of the proposed project site. The center opened in 1989 and has approximately 165,000 square feet of gross leaseable area. The anchor tenant is a Raley's grocery store discussed later in this chapter.

- *Raley's Plaza* is a community-serving shopping center located on the southeast corner of North Texas Street and Dickson Hill Road in the City of Fairfield. Raley's Plaza is a grocery store anchored center located approximately 4.2 miles north of the proposed Gentry-Suisun Project. The center opened in 1997 and has

approximately 105,000 square feet of gross leaseable area. The anchor tenant is a Raley's grocery store discussed later in this chapter.

- *Winery Square* is a community-serving shopping center located on the southeast corner of Texas Street and Beck Avenue in the City of Fairfield. Winery Square is a grocery store anchored center located approximately 1.3 miles northwest of the proposed project site. The center opened in 1986 and has approximately 122,000 square feet of gross leaseable area. The anchor tenant is a Food Maxx grocery store discussed later in this chapter.

- *Westfield Shoppingtown Solano* is a super regional center located on the northwest corner of Travis and Gateway Boulevards in the City of Fairfield. The shopping center is located approximately 1.6 miles north of the proposed Gentry-Suisun Project site. The Westfield Shoppingtown Solano is a major indoor mall that opened in 1981 and has approximately 1.0 million square feet of gross leaseable area. Several anchor tenants, including Macy's, Sears, and JC Penny, and an Edward's Cinema are located within this super regional center.

Mitigating Effects of Population Growth and Other Factors

The maximum diverted sales estimate summarized in Tables 4.10-15 through 4.10-17 would likely be reduced by the time the Gentry-Suisun Project achieves stabilization after about two to three years because new demand from anticipated population growth in the primary market area and secondary market area would absorb some of the new sales.

The greatest mitigating factor to any potential negative economic impacts is the anticipated population growth and the associated spending of these new residents. For example, between 2009 and 2014, the primary market area's population is anticipated to grow by 12,586, while the combined primary and secondary market area population is anticipated to grow by 39,260 (refer to Table 4.10-2). Given the estimated per capita spending for the primary market area and combined primary and secondary market area residents, and the primary market area's historic share of combined primary and secondary market area sales, this new population is estimated to generate new sales by 2014 as summarized in Table 4.10-18.

The data in Table 4.10-18 indicates that by 2014, primary market area retailers are estimated to capture an additional $119.6 million in sales categories impacted by the Gentry-Suisun Project. The majority of this new demand, approximately 67 percent, would be generated in the general merchandise, food stores, and "other retail stores" categories. These figures are substantial and would mitigate the sales estimated to be diverted away from primary market area retailers as a result of the Gentry-Suisun Project.

Table 4.10-18
New Population Retail Demand
Primary Market Area (PMA) and Secondary Market Area
2009 – 2014, in 2009 Dollars, in Millions

Retail Category	Primary Market Area	Secondary Market Area	Estimated Primary Market Area Capture[1]
Apparel	$6.4	$18.8	$6.7
General Merchandise	20.6	60.6	24.1
Food Stores	26.6	78.1	26.1
Eating and Drinking Places	16.8	49.4	16.3
Home Furnishings & Appliances	6.8	20.0	7.5
Building Materials	11.6	34.2	8.8
"Other Retail Stores"	23.5	69.2	30.1
Total	$112.4	$330.3	$119.6

Notes:
1. The estimated primary market area capture rate based on the primary market area's estimated share of primary and secondary market area sales, by category. Refer to Exhibit 12 and 15 of Appendix A of the Economic Impact Analysis.

Source: Sedway Group, *Gentry-Suisun Mixed Use Project Economic Impact Analysis*, 2006.

New demand and corresponding sales from population growth as shown in Table 4.10-18 might be understated due to conservative population forecasts. Currently, substantial amounts of new residential construction are in the pipeline for the primary market area as shown in Table 4.10-19. This amount of growth suggests that the preceding primary market area population growth forecast of 13,586 between 2009 and 2014 may understate actual growth in the primary market area and associated retail spending. According to the cities of Suisun City and Fairfield Planning Departments, as of June 2005, there were approximately 6,672 known new residential units in the planning process that were either under construction (1,681) or in planning (4,991) in the primary market area. Applying the 2000 U.S Census average household size for each of the primary market area cities (Suisun City and Fairfield) to the projects in their respective cities, the planned residential development might accommodate an additional 20,277 residents in the primary market area. This compares to 13,586 residents based on estimates presented in Table 4.10-20.

The extent to which diverted sales truly would impact existing retailers depends on many additional factors, such as their market niche, hours of operation, market strength, store and management quality, and location relative to the Gentry-Suisun Project. Included below is a more product-specific discussion.

Table 4.10-19

NEW RESIDENTIAL DEVELOPMENT IN PLANNING AND UNDER CONSTRUCTION
PRIMARY MARKET AREA
AS OF JUNE 2005 (1)

Location Development Status	Projects	Total Units	Estimated Persons/HH (2)	Estimated Population
Primary Market Area				
City of Suisun City (3)				
In Planning Process	7	1,407	3.26	4,587
Projects Under Construction	0	0	3.26	0
City of Fairfield				
In Planning Process	5	3,584	2.98	10,680
Projects Under Construction	26	1,681	2.98	5,009
Total				
In Planning Process	12	4,991		15,267
Project Under Construction	26	1,681		5,009
Totals	38	6,672		20,277

Notes:
(1) While Fairfield information was compiled by the City in April 2005, city staff validated its continued accuracy in June 2005.
(2) Population estimate based on average household size data, per the U.S. Census of Population 2000.
(3) Includes the 282 units planned to be located adjacent to the Suisun Markeptlace

Sources: City of Fairfield, Planning Department; City of Suisun City Planning Department; U.S. Census 2000; and Sedway Group.

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Table 4.10-20

NEW POPULATION RETAIL DEMAND (CUMULATIVE)
PRIMARY MARKET AREA AND COMBINED PRIMARY AND SECONDARY MARKET AREAS (1)
2009 - 2014
2009 DOLLARS (MILLIONS)

	Per Capita Retail Spending (2)	Calendar Year 09-10	10-11	11-12	12-13	13-14
Primary Market Area						
Annual Population Growth (3)		3,432	5,908	8,425	10,984	13,586
Estimated Additional Sales						
Apparel	$468	$1.6	$2.8	$3.9	$5.1	$6.4
General Merchandise	$1,513	$5.2	$8.9	$12.7	$16.6	$20.6
Food Stores	$1,975	$6.8	$11.7	$16.6	$21.7	$26.8
Eating and Drinking Places	$1,235	$4.2	$7.3	$10.4	$13.6	$16.8
Home Furnishings and Appliances	$500	$1.7	$3.0	$4.2	$5.5	$6.8
Building Materials	$852	$2.9	$5.0	$7.2	$9.4	$11.6
Other Retail Stores	$1,728	$5.9	$10.2	$14.6	$19.0	$23.5
Total		$28.4	$48.9	$69.7	$90.9	$112.4
Primary and Secondary Market Area						
Annual Population Growth (3)		8,785	16,224	23,781	31,459	39,260
Estimated Additional Sales						
Apparel	$478	$4.2	$7.8	$11.4	$15.0	$18.8
General Merchandise	$1,543	$13.6	$25.0	$36.7	$48.6	$60.6
Food Stores	$1,991	$17.5	$32.3	$47.3	$62.6	$78.1
Eating and Drinking Places	$1,258	$11.1	$20.4	$29.9	$39.6	$49.4
Home Furnishings and Appliances	$510	$4.5	$8.3	$12.1	$16.0	$20.0
Building Materials	$871	$7.6	$14.1	$20.7	$27.4	$34.2
Other Retail Stores	$1,763	$15.5	$28.6	$41.9	$55.4	$69.2
Total		$73.9	$136.5	$200.1	$264.7	$330.3
Projected Primary Market Area Capture of New Retail Sales Demand (4)						
Apparel		$1.5	$2.8	$4.0	$5.3	$6.7
General Merchandise		$5.4	$9.9	$14.6	$19.3	$24.1
Food Stores		$5.8	$10.8	$15.8	$20.9	$26.1
Eating and Drinking Places		$3.7	$6.7	$9.9	$13.1	$16.3
Home Furnishings and Appliances		$1.7	$3.1	$4.5	$6.0	$7.5
Building Materials		$2.0	$3.6	$5.3	$7.1	$8.8
Other Retail Stores		$6.7	$12.4	$18.2	$24.1	$30.1
Total		$26.8	$49.4	$72.4	$95.8	$119.6

Notes:
(1) The cities of Suisun City and Fairfield comprise the primary market area and Solano County comprises the primary and secondary market areas.
(2) Refer to Exhibit 8 for the primary market area and Exhibit 10 for the primary and secondary market areas.
(3) Refer to Exhibit 5. Interim population numbers not indicated in Exhibit 5 are estimated using the calculated growth rates.
(4) Primary market area's potential capture rate based upon the primary market area's estimated share of primary and secondary market area sales, by category. Refer to Exhibit 12, column F.

Source: Sedway Group.

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Apparel Stores

The primary market area (Cities of Suisun City and Fairfield) contains several apparel stores. The primary market area includes both national and specialty/boutique apparel retailers. The national chain retailers sell a variety of clothes that appeal to all family members. The specialty/boutique stores represent niche retail spaces targeting specific customer groups.

Base Project

The adjusted leakage analysis indicates that in 2009 dollars, a maximum of $14.4 million in sales may be diverted away from existing apparel stores in the primary market area, comprising 17.1 percent of estimated 2009 apparel sales of $84.3 million (see Table 4.10-15). This level of diverted sales and the associated percentage share of sales assume the Gentry-Suisun Project achieves full stabilization in 2009, which is unlikely. This level of sales is equivalent to support for approximately 40,800 square feet of apparel store space. The extent to which this would negatively impact existing stores would depend upon their ability to sustain a downturn in sales, but this downturn would diminish over time as new market area residents generate additional sales. The cumulative retail demand estimates due to population growth documented in Table 4.10-20 indicate that it would take more than ten years to generate $14.4 million in apparel sales from new growth following the assumed 2009 full year operation of the Gentry-Suisun Project. However, if stores cannot withstand this downturn in sales, a maximum of 40,800 square feet of existing apparel store space is at risk of closing.

Alternative 1

The adjusted leakage analysis indicated that in 2009 dollars, a maximum of $3.7 million in sales may be diverted away from existing apparel stores in the primary market area.

Alternative 2

The adjusted leakage analysis indicated that in 2009 dollars, a maximum of $5.4 million in sales may be diverted away from existing apparel stores in the primary market area.

General Merchandise

Sedway Group researched major general merchandise stores in the primary market area. The four major general merchandise stores in the primary market area include the following: Wal-Mart, K-Mart, Target, and Costco. All of the major general merchandise stores are located in the City of Fairfield.

- *Wal-Mart* is located off of SR 12 at Chadbourne Road, approximately 2.0 miles west of the proposed Gentry-Suisun Project. The existing Wal-Mart is a traditional discount store, not a supercenter. However, as discussed in the cumulative impact section of this analysis, Sedway Group understands that Wal-Mart intends to build a Wal-Mart Supercenter store in the City of Fairfield and to close the existing discount store. The location of the proposed Fairfield Wal-Mart Supercenter is the existing, vacant Mission Village shopping center, which is located approximately 3.1 miles from the Gentry-Suisun Project site.

- *K-Mart* is located at 2525 N. Texas Street immediately south of the vacant Mission Village in the City of Fairfield. The K-Mart appears to be an older store in a depressed shopping center with a few additional discount-oriented retailers (Big Lots and Dollar Tree) and a Bingo Center. The K-Mart is located approximately 3.1 miles northeast of the proposed project site.

- *Target* is located 1.5 miles northwest of the proposed project site at Cadenasso Drive and Beck Avenue. The Target has a garden center and pharmacy. The center is of good quality and includes a Home Depot. An adjacent shopping center includes a Smart and Final, 99 Cent Store, and McDonald's.

- *Costco* is located 5.4 miles southwest of the proposed Gentry-Suisun Project site. The Costco is located in the Green Valley Crossing shopping center discussed in the preceding section.

Base Project

The adjusted leakage analysis indicated that in 2009 dollars, a maximum of $24.3 million in sales may be diverted away from existing general merchandise stores in the primary market area, comprising 6.4 percent of estimated 2009 general merchandise sales of $381.8 million as shown in Table 4.10-15. This level of diverted sales and the associated percentage share of sales assume the Gentry-Suisun Project achieves full stabilization in 2009, which is unlikely. This level of sales is equivalent to support for approximately 69,100 square feet of general merchandise store space. Stores of this type could potentially sustain a reduction in sales, at least until new demand is generated by population growth.

The extent to which this would negatively impact existing stores would depend upon their ability to sustain a downturn in sales, but this downturn would diminish over time as new market area residents generate additional sales. The cumulative retail demand estimates due to population growth documented in Table 4.10-19 indicates that it would take slightly more than five years to generate $24.3 million in general merchandise sales within the primary market area from new growth following the assumed 2009 full year operation of the Gentry-Suisun Project. However, if stores cannot withstand this temporary downturn in sales, a maximum of 69,100 square feet of general merchandise space is at risk of closing.

Alternative 1

The adjusted leakage analysis indicated that in 2009 dollars, a maximum of $23.1 million in sales may be diverted away from existing general merchandise stores in the primary market area.

Alternative 2

The adjusted leakage analysis indicated that in 2009 dollars, a maximum of $23.6 million in sales may be diverted away from existing general merchandise stores in the primary market area.

Food Stores

As shown in Figure 4.10-2, food stores are dispersed throughout the primary market area. Sedway Group identified a total of twelve food stores, with six located in each of the cities of Suisun City and Fairfield. The food stores located nearest the proposed Gentry-Suisun Project include Suisun Port of Call Grocery, Asian Market, and Marina Market. Based upon Sedway Group's fieldwork, the existing food stores can be classified into one of two store categories reflecting their size, range of merchandise, and independent (not a national chain) nature. These categories, and the corresponding stores, are as follows:

- *Major Grocery Stores*: Albertson's; Raley's; Food Maxx; Safeway; Trader Joe's; and
- *Convenience/Niche Markets*: Marina Market; Suisun Port of Call Grocery; Asian Market; and Suisun Oriental Store.

The stores were classified in this manner for the following reasons. Albertson's, Raley's, Food Maxx, and Safeway are traditional full-service grocery stores selling the full complement of expected food and related items. In addition, these grocery stores are also located in neighborhood- or community-oriented shopping centers. The convenience/niche market stores, Marina Market, Suisun Port of Call Grocery, Asian Market, and Suisun Oriental Store, sell many of the same items as traditional stores, but are classified as convenience/niche markets largely because of their tendency toward specialized goods and services, including ethnic goods.

Major Grocery Stores

- *Albertson's*: The Albertson's is located at 106 Sunset Avenue in the Sunset Center shopping center in Suisun City. The Albertson's is a full-service grocery store offering fresh bakery, deli counter, and fresh meat and seafood counter. Albertson's is approximately 1.8 miles east of the proposed Gentry-Suisun Project. The Sunset Center is located on SR 12 at Sunset Avenue in Suisun City. Additional tenants located in the Sunset Center include Rite Aid, Taco Bell, UPS Store, KFC/Pizza Hut, McDonalds, Great Clips, Curves for Women, a dry

cleaners, hair salon, laundromat, beauty shop, and several smaller independent restaurants. At the time of Sedway Group's fieldwork one space was available for lease. According to the listing agent, the space is approximately 600 square feet. The agent reported significant interest from smaller "mom and pop" retailers, but no lease was signed. In addition, Sedway Group observed a single outpad under construction.

- *Raley's*: Three Raley's stores located in the primary market area as follows:

  - 268 Sunset Avenue: The Raley's grocery store is located in the Heritage Park Shopping Center at the intersection of SR 12 and Sunset Avenue in Suisun City. The store is approximately 1.8 miles south of the proposed Gentry-Suisun Project. The Raley's is a full-service grocery store with a fresh bakery, deli counter, florist, fresh meat and seafood, organic and health goods, a pharmacy, photo center, video rentals, and prepared foods. Additional tenants located in Heritage Park include Ace Hardware, Hollywood Video, Cingular Wireless, 99 Cent Plus Discount, Auto Zone, H&R Block, Round Table Pizza, a cigarette store, hair cut salons/barbers, a nail salon, optometrist, chiropractor, dry cleaners, dentists, a beauty salon, and smaller independent restaurants. At the time of Sedway Group's fieldwork, identifiable vacant storefronts were not observed.

  - 3330 North Texas Street: The Raley's grocery store is located in Fairfield at the intersection of North Texas Street and Dickson Hill Road approximately 4.2 miles north of the proposed Gentry-Suisun Project. The store is a full-service grocery store offering fresh bakery, deli counter, fresh meat and seafood, organic and health goods, pharmacy, photo center, garden/patio furniture, and prepared foods. The Raley's includes the Paradise Café, which provides hot and cold prepared foods and a seating area. Additional tenants located in the center include Washington Mutual Bank, Round Table Pizza, Blockbuster, Panda Express, Starbucks, Dreyers Ice Cream, Supercuts, UPS, Subway, ERA real estate, Nextel, Century 21, a nail salon, hair cut salons/barbers, and smaller independent restaurants. At the time of Sedway Group's fieldwork vacant storefronts were not identified.

  - 3001 Travis Boulevard: The Raley's grocery store is located in the Geri Towne Mall at the intersection of Holiday and Travis Boulevard on the west side of Highway 80 in Fairfield. The Raley's is approximately 2.4 miles north of the proposed Gentry-Suisun Project. The store is a full-service grocery store with a fresh bakery, deli counter, fresh meat and seafood, pharmacy, and some prepared foods. Additional tenants located in the center include H&R Block, Subway, Farmers Insurance, a cigarette store, vitamin store, dry cleaners, nail salon, check cashing business, a credit union, and dog grooming.

- Food Maxx: Two Food Maxx stores (discount warehouse stores) are located in the primary market area as follows:

- 1955 W. Texas Street: The Food Maxx is located in the Winery Square shopping center at the intersection of Beck Avenue and Cadenasso Drive just east of the Target and Home Depot in Fairfield. The Food Maxx offers bulk items, Hispanic-themed goods, fresh meat, and the traditional range of grocery goods. Food Maxx is located approximately 1.3 miles northwest of the proposed Gentry-Suisun Project. Additional tenants located at Winery Square include Walgreens, Blockbuster, Max Home Furnishings, a cigarette store, and smaller independent restaurants. The Food Maxx is open 24 hours. At the time of Sedway Group's fieldwork, one vacancy existed. However, the listing agent did not have information to provide regarding potential interest on the space.

- SWC N. Texas Street and Acacia Street*:* The Food Maxx is located in the Oakmont Plaza shopping center on the southwest corner of N. Texas Street and Acacia Street in Fairfield. The Food Maxx appears to be a newer store and offers bulk items, Hispanic-themed goods, fresh meat, and the traditional range of grocery goods. Food Maxx is located approximately 2.4 miles north of the proposed Gentry-Suisun Project. Additional tenants located in Oakmont Plaza include Hollywood Video, Kragen Auto, and Game Crazy. The Food Maxx is open 24 hours. While vacancies did not exist in the center, a listing for anchor and junior anchor build-to-suit opportunities was identified. Several calls to the listing agents were not returned.

- Safeway: Two Safeway stores are located in the primary market area as follows:

  - 2401 Waterman Boulevard*:* The Safeway is located in the Waterman Village shopping center at the intersection of Airbase Parkway and Hillborn Road in Fairfield. The store is approximately 3.0 miles north of the proposed Gentry-Suisun Project. The store offers the typical range of food sales consistent with a full-service grocery store including a fresh bakery, deli counter, florist, fresh meat and seafood, pharmacy, and prepared foods. In addition, the Safeway offers a small café, Chinese Express, and sandwich counter to purchase prepared foods with an adjacent indoor seating area. Other tenants in the Waterman Village center include Blockbuster, Round Table Pizza, Coffee World, Cost Cutters, UPS store, Choice Wireless, dry cleaners, and a staffing agency. The Safeway store is open 24 hours. At the time of the fieldwork, Sedway Group observed no vacancies.

  - 5051 Business Center Drive*:* The Safeway is located in the Green Valley Crossing shopping center at 5051 Business Center Drive in Fairfield. The Green Valley Crossing is a newer center in excellent condition that opened in 2001 and is located approximately 6.0 miles southwest of the proposed Gentry-Suisun Project. The Safeway store offers the typical range of food sales consistent with a full-service grocery store including fresh bakery, deli counter, florist, fresh meat and seafood, a US Bank counter, and a small area of garden/patio furniture. Other tenants in the Green Valley Crossing Center

include Longs Drugs, Curves for Women, UPS store, Washington Mutual, Applebee's, Ethan Allen, Subway, TJ Maxx, tanning salon, a dentist, Travis Credit Union, Round Table Pizza, a jeweler, and several independent restaurants. The Safeway store is open 24 hours. At the time of the fieldwork, Sedway Group observed new buildings and pad sites under construction immediately south of the existing center.

- Trader Joe's is located at 1350 Gateway Boulevard in the Gateway Plaza shopping center in Fairfield. The Trader Joe's is a neighborhood grocery store offering both traditional and specialty items. Trader Joe's is approximately 1.6 miles north of the proposed Gentry-Suisun Project. Additional tenants located in the Gateway Plaza include Office Max, Good Guys, Toys R Us, Sally Beauty Supply, Countryside Mortgage, Red Wing Shoes, and Verizon Wireless.

Convenience/Niche Markets

In addition to the major grocery stores, Sedway Group toured selected convenience/niche markets. Several convenience/niche markets are located within the primary market area. However, Sedway Group toured those locations most proximate to the proposed Gentry-Suisun Project. The convenience/niche markets included the Marina Market, Suisun Port of Call Grocery, Asian Market, and Suisun Oriental Store. The stores were classified as convenience/niche markets for the following reasons: the stores are smaller format; they are convenience-oriented; or they provide specialty, primarily ethnic goods. The goods offered are specialty-oriented or ethnic in nature and do not directly compete with the broad draw of a supercenter.

While the convenience/niche markets may sell some of the same items as a supercenter (primarily drinks, snacks, and some small household goods), they are providing goods to the residents of the immediate area on a convenience basis as opposed to the supercenter's more regional draw. Sedway Group assumed in their analysis that existing primary market area convenience/niche markets are not competitive with the proposed project and would not experience any short- or long-term negative economic impacts due to the development of the Gentry-Suisun Project. The existing convenience/niche markets have well-established market niches. Although many of the convenience/niche markets appear marginal, the opening of the Gentry-Suisun Project is not expected to have a substantial negative impact on their operations.

Base Project

The adjusted leakage analysis indicates that in 2009 dollars, a maximum of $7.5 million in sales may be diverted away from existing food stores in the primary market area, comprising 2.3 percent of estimated 2009 food stores sales of $327.6 million (refer to Table 4.10-15). This estimated diversion of 2.3 percent is minimal when spread across all food stores and is expected to be temporary at worst because this level of diverted sales and the associated percentage share of sales assume the Gentry-

Suisun Project achieves full stabilization in 2009, which is unlikely. Moreover, population growth following the opening of the Gentry-Suisun Project would likely mitigate these potentially diverted sales within one to two years of the Gentry-Suisun Project opening (refer to Table 4.10-20). Thus, any impacts likely to be experienced by existing primary market area food stores would be mitigated within a relatively short time following the opening of the Gentry-Suisun Project.

In summary, Sedway Group believes that existing primary market area food stores would not experience any long-term negative economic impacts due to the Gentry-Suisun Project. The projected worst-case lost food sales are not anticipated to materialize, with limited to no net loss in sales following an initial market adjustment period of one to two years. The existing food stores are well-positioned relative to the primary market area's existing population base and have well-established market niches.

Alternative 1

The adjusted leakage analysis indicated that in 2009 dollars, a maximum of $7.1 million in sales may be diverted away from existing food stores in the primary market area.

Alternative 2

The adjusted leakage analysis indicated that in 2009 dollars, a maximum of $7.2 million in sales may be diverted away from existing food stores in the primary market area.

Eating and Drinking Places

Approximately $19.3 million of primary market area sales is considered leakage in the eating and drinking category (see Table 4.10-15). New eating and drinking sales generated by the Gentry-Suisun Project could be satisfied entirely by the existing leakage; therefore, substantial adverse effects to eating and drinking places are anticipated.

Home Furnishings & Appliances / Building Materials

Sedway Group considers these categories together because some retailers overlap in these areas. Sedway Group identified two major home improvement retailers in the primary market area. The local retailers that Sedway Group reviewed as part of this category are described below.

- Home Depot is a large warehouse store located at 2121 Cadenasso Drive, approximately 1.5 miles northwest of the Gentry-Suisun Project. The Home Depot is adjacent to the existing Target store in the City of Fairfield. Home Depot caters to both the do-it-yourselfer and professional customers. The Home Depot

store offers a wide variety of home improvement goods, including building materials and lawn and garden products. Additional store services include free in-store clinics regarding home improvement projects as well as design and decorating consultation, truck and tool rental, and home delivery.

- Ace Hardware is located in the Heritage Park Shopping Center at the intersection of SR 12 and Sunset Avenue. The store is approximately 1.8 miles east of the proposed project in the City of Suisun City. Raley's grocery store is also located in the Heritage Park Shopping Center. The Ace Hardware store is a much smaller store than the Home Depot in Fairfield or the proposed home improvement retailer space in the proposed project. The store offers a wide selection of hardware materials, a small garden supply area, tools, barbeques, and propane. The Ace Hardware does not offer building materials in bulk quantities like that offered by Lowe's or Home Depot. The small store appeals to convenience shoppers due to its limited retail space and selection of supplies.

Sedway Group also considered stores that would compete with the type and variety of home furnishings offered by a home furnishings retailer. One large primary market area retailer with a variety of bed- and bath-related product is K-Mart. However, K-Mart does not offer the selection or same price range as a dedicated home furnishings retailer. The other major market player in this category is Linens 'N Things, located in the Gateway Courtyard shopping center in the City of Fairfield. This store targets mass market and discount shoppers.

Base Project

The primary market area retail leakage analysis for 2009 as shown in Table 4.10-21 indicates that the PMA suffers leakage of $0.7 million in building materials and no leakage in home furnishings and appliances. The secondary market area retail leakage analysis as shown in Table 4.10-22 indicates that it suffers leakage of $31.1 million in home furnishings and appliances and no leakage in building materials. The adjusted leakage analysis in Table 4.10-23 indicates that a maximum of $8.0 million in sales may be diverted from existing building materials stores in the primary market area, and $4.1 million in sales may be diverted from existing home furnishings and appliances stores. As a percent of estimated 2009 sales, the diverted sales comprise 6.4 percent of building materials sales of $125.5 million, and 5.3 percent of home furnishings and appliances sales of $76.3 million as shown in Table 4.10-16.

Table 4.10-21

PROJECTED RETAIL SALES LEAKAGE
PRIMARY MARKET AREA (PMA)
2009 ESTIMATE

	PMA Annual Per Capita				2009 Estimated Total (3)			
	2003 (1)		2009 Estimate (2)					
Type of Retailer	Spending	Sales	Spending	Sales	PMA Spending	PMA Sales	Attraction / (Leakage)	Percent Attraction/ (Leakage)
Apparel Stores	$399	$485	$468	$569	$69,281,845	$84,290,604	$15,008,759	17.8%
General Merchandise Stores (4)	$1,290	$2,198	$1,513	$2,578	$224,019,165	$381,775,136	$157,755,972	41.3%
Food Stores (5)	$1,684	$1,886	$1,975	$2,212	$292,504,803	$327,581,098	$35,076,295	10.7%
Eating and Drinking Places	$1,053	$942	$1,235	$1,105	$182,893,689	$163,573,964	($19,319,725)	(10.6%)
Home Furnishings and Appliances	$427	$439	$500	$515	$74,101,155	$76,310,768	$2,209,613	2.9%
Building Materials (6)	$727	$723	$852	$848	$126,201,763	$125,546,663	($655,099)	(0.5%)
Auto Dealers and Auto Supplies	$1,494	$2,554	$1,752	$2,997	$259,440,639	$443,719,444	$184,278,805	41.5%
Service Stations	$679	$805	$796	$945	$117,925,658	$139,869,275	$21,943,617	15.7%
Other Retail Stores (7)	$1,473	$1,718	$1,728	$2,016	$255,817,114	$298,468,550	$42,651,436	14.3%
Totals	$9,223	$11,750	$10,821	$13,785	$1,602,185,830	$2,041,135,503	$438,949,672	21.5%

Notes:
(1) Refer to Exhibit 7.
(2) Adjusted for inflation based on the consumer price index for all urban consumers in the San Francisco MSA, as defined by the U.S. Department of Labor, Bureau of Labor Statistics. Inflation for the year 2003-2004 period is 1.2 percent; assumed annual inflation rate of 3.0 percent for projected years.
(3) Estimated 2009 primary market area population of 148,068, based on Association of Bay Area Governments data. Refer to Exhibit 5.
(4) Includes general merchandise and drug stores. Drug stores are assumed to comprise 12 percent of total general merchandise sales based on Sedway Group's analysis of control area averages. Taxable transactions for drug stores have been adjusted by 0.70, to account for non-taxable sales. Therefore, 70 percent of all drug store sales are taxable.
(5) Taxable transactions for grocery stores have been adjusted by 0.30, to account for non-taxable sales. Therefore, 30 percent of all food store sales are taxable.
(6) Building materials group includes hardware stores, plumbing and electrical supplies, paint and wallpaper products, glass stores, farm implement dealers, and lumber.
(7) Other retail stores includes packaged liquor stores, gifts, art goods and novelties, sporting goods, florists, photographic equipment and supplies, musical instruments, stationary and books, jewelry, office and school supplies, second-hand merchandise, farm and garden supply stores, mobile homes/trailers and campers, boat and motorcycle dealers, and miscellaneous other retail stores. It is especially relevant to note for this analysis that this category includes garden supply stores.

Sources: Benchmarked to Exhibit 7 and State Board of Equalization "Taxable Sales in California- 2003"; Claritas, Inc.; U.S. Department of Labor, Bureau of Labor Statistics; Association of Bay Area Governments "Projections 2005"; and Sedway Group.

08-Mar-06

Table 4.10-22

PROJECTED RETAIL SALES LEAKAGE (1)
SECONDARY MARKET AREA (2)
2009 ESTIMATE

Type of Retailer	Secondary Market Area Spending	Secondary Market Area Sales	Attraction/ (Leakage)	Percent Attraction/ (Leakage)
Apparel Stores	$149,418,609	$152,987,871	$3,569,261	2.3%
General Merchandise	$481,842,028	$579,081,924	$97,239,897	16.8%
Food Stores	$617,808,935	$652,235,973	$34,427,038	5.3%
Eating and Drinking Places	$392,596,084	$331,809,433	($60,786,651)	(15.5%)
Home Furnishings and Appliances	$159,176,753	$128,027,344	($31,149,409)	(19.6%)
Building Materials	$271,977,266	$361,735,172	$89,757,905	24.8%
Auto Dealers and Supplies	$556,752,694	$683,120,776	$126,368,082	18.5%
Service Stations	$249,816,525	$279,077,527	$29,261,002	10.5%
Other Retail Stores	$550,236,123	$387,131,568	($163,104,556)	(29.6%)
Total	$3,429,625,017	$3,555,207,588	$125,582,571	3.5%

Notes:
(1) The figures are calculated by deducting Exhibit 8 results from Exhibit 10 results.
(2) The secondary market area is defined as Solano County less the primary market area (cities of Suisun City and Fairfield).

Source: Sedway Group.

8-Mar-06

Table 4.10-23
Proposed Gentry-Suisun Project
Summary of Impacts[1]

Retail Category	Diverted Sales	Percent of Sales	Supportable Square Feet	Years to Mitigate
Apparel	$14.4	17.1%	40,800	10 +
General Merchandise	24.3	6.4	69,100	5 +
Food Stores	7.5	2.3	21,500	1 to 2
Eating and Drinking Places	0.0	0.0	N/A	N/A
Home Furnishings and Appliances	4.1	5.3	11,600	2 to 3
Building Materials	8.0	6.4	22,800	4 to 5
"Other Retail Stores"	0.0	0.0	N/A	N/A
Total	$58.3	4.0 %	165,700	

Notes:
Refer to Exhibit 12, 13, and 27 of Appendix A – Economic Impact Analysis.
Source: Sedway Group,2006.

The extent to which the diverted sales would negatively impact existing stores depends upon the stores' ability to sustain a temporary downturn in sales. This downturn will diminish over time as new market area residents generate additional sales. The cumulative retail demand estimates due to population growth documented in Table 4.10-15 indicate that it will take four to five years to generate $8.0 million in building materials sales from new growth following the assumed 2009 full year operation of the Gentry-Suisun Project. While short-term impacts to existing retailers would be likely, the impacts are not expected to be so severe as to lead to store closures.

Alternative 1

The adjusted leakage analysis indicates that in 2009 dollars, a maximum of $8.4 million in sales may be diverted away from building materials only (see Table 4.10-16).

Alternative 2
The adjusted leakage analysis indicates that in 2009 dollars, no sales would be diverted away from building materials (see Table 4.10-17).

Other Retail Stores

"Other retail stores" is a broad category that includes sales in office supplies, gardening, or other specialty retail offerings. As a result, precisely identifying the "other retail stores" is extremely difficult in the primary market area without first knowing all of the "other retail stores" tenants at the proposed Gentry-Suisun Project.

The analysis indicates that there is no primary market area leakage and $163.1 million in secondary market area sales leakage in the "other retail stores" category. Moreover, new retail demand from population growth in the combined primary and secondary market area would create new "other retail stores" demand of approximately $69.2 million within five years of Gentry-Suisun Project's opening. As a result, new "other retail stores" sales generated by the Gentry-Suisun Project would not be likely to have a substantial adverse impact on existing primary market area "other retail stores."

Summary of Analysis Regarding Competition as a Result of the Proposed Project

Table 4.10-24 provides a summary of the diverted sales impact. Assuming the Gentry-Suisun Project's new primary and secondary market area sales occurred at the proportional expense of existing primary market area retailers, existing retailers would experience a maximum annual impact of $58.3 million in sales upon stabilization of the Gentry-Suisun Project in 2009 dollars. In total, the maximum diverted sales represent 4.0 percent of the primary market area's estimated 2009 sales in relevant Gentry-Suisun Project sales categories. New population growth is anticipated to help recoup a portion of the lost store sales. In addition, retailers could successfully reposition their stores and primary market area sales could increase overall due to the enhanced regionalism of the primary market area. This approach is conservative in that this it assumes that no net increase would result in combined primary and secondary market area sales after the Gentry-Suisun Project achieves market stabilization.

II. Urban Decay

As used in CEQA, the term "urban decay" was introduced by the Court of Appeal in the case entitled, *Bakersfield Citizens for Local Control v. City of Bakersfield* (2004) 124 Cal.App.4th 1184. In that decision, the court required the City of Bakersfield to redo two EIRs for two proposed Wal-Marts because the documents both failed to address the possible indirect physical effects flowing from the direct economic effects of the two projects. Though the court does not expressly define "urban decay," the court seems to equate the concept with a "chain reaction of store closures and long-term vacancies, ultimately destroying existing neighborhoods and leaving decaying shells in their wake." (*Id.* at p. 1204.) Building upon this vision, the Sedway Group understands urban decay to be physical deterioration that is so prevalent and substantial that it impairs the proper utilization of affected real estate or the health, safety, and welfare of the surrounding community. Physical deterioration includes, but is not limited to, abnormally high business vacancies, abandoned buildings and industrial sites, boarded doors and windows, parked trucks and long-term unauthorized use of properties and parking lots, extensive gang or offensive graffiti painted on buildings, dumping of refuse or overturned dumpsters on properties, dead trees or shrubbery and uncontrolled weed growth, or homeless encampments.

Sedway Group engaged in several retail market research tasks to assess the probability of urban decay ensuing from development of Gentry-Suisun. If any primary market

area stores close due to Gentry-Suisun, the analysis considered if they are likely to remain vacant for a prolonged period of time or be leased to other retailers within a reasonable marketing period. The last step was to consider whether, if they would remain closed, urban decay would result. Several sources active in the primary market area were contacted regarding the health of the primary market area retail market and the depth of prospective demand for retail space. The purpose of this research was to determine if sufficient retailer demand exists to absorb vacated space in the event existing primary market area retailers close due to any negative economic impacts of Gentry-Suisun and the Gilbert Parcel and the other identified planned projects.

Sedway Group conducted telephone interviews with five real estate brokers experienced in the primary market area, with experience dating back twenty years. The real estate brokers represented a mix of independent commercial brokerage houses and in-house leasing agents for owners of shopping centers in the primary market area. All of the brokers contacted have experience working with tenants and landlords in the primary market area. Two of the brokers were contacted at the recommendation of City of Suisun City staff as being very knowledgeable with respect to the retail market in the primary market area. Findings from these interviews are summarized below.

Market Characterization

All of the retail brokers contacted stated that the Cities of Suisun City and Fairfield comprise the appropriate primary market area for the proposed Gentry-Suisun Project and the Gilbert Parcel. In general, the brokers characterized the primary market area's retail market as stable and well served with high occupancy rates but little rent escalation. Further, the general perception is that the primary market area's retail market is healthy with the existing supply of retailers meeting demand. Significant future retail supply expansion was thought to require additional population growth in the primary market area. The brokers indicated that Fairfield's retail market features a mix of regional, community, and neighborhood draw, whereas Suisun City's market is primarily neighborhood-serving.

Table 4.10-24

MAXIMUM SUISUN MARKETPLACE AND GILBERT PARCEL SALES IMPACTS
ON PRIMARY MARKET AREA (PMA) RETAIL SALES
2009 ESTIMATE (IN MILLIONS)

		Source of Sales (2)		Retail Sales			Leakage Available for Capture			
Type of Retailer	Suisun Marketplace New Sales (1) [A]	Primary and Secondary Market Areas [B]	Tertiary Market Area [C]	Primary Market Area (3) [D]	Primary and Secondary Market Areas (4) [E]	PMA Percent of P&SMA [F = D/E]	Primary Market Area Leakage (5) [G]	Secondary Market Area Leakage (6) [H]	Maximum Sales Diverted from PMA Retailers (7) [I = BxF+G+H]	Minimum Net New Sales to PMA (8) [J = A+I]
Apparel Stores	$45.0	$40.5	$4.5	$84.3	$237.3	35.5%	$0.0	$0.0	($14.4)	$30.6
General Merchandise	$68.0	$61.2	$6.8	$381.8	$960.9	39.7%	$0.0	$0.0	($24.3)	$43.7
Food Stores	$25.0	$22.5	$2.5	$327.6	$979.8	33.4%	$0.0	$0.0	($7.5)	$17.5
Eating and Drinking Places	$10.8	$9.7	$1.1	$163.6	$495.4	33.0%	($19.3)	$0.0	$0.0	$10.8
Home Furnishings and Appliances	$43.0	$38.7	$4.3	$76.3	$204.3	37.3%	$0.0	($10.4)	($4.1)	$38.9
Building Materials	$37.5	$33.7	$3.7	$125.5	$487.3	25.8%	($0.7)	$0.0	($8.0)	$29.4
Other Retail Stores	$42.5	$38.2	$4.2	$298.5	$685.6	43.5%	$0.0	($54.3)	$0.0	$42.5
Total	$271.6	$244.5	$27.2	$1,457.5	$4,050.6	36.0%	($20.0)	($64.7)	($58.3)	$213.3

Notes:

(1) These figures are from Exhibit 3.

(2) Sedway Group estimates that 90 percent of sales will be generated from primary and secondary market area residents, with the 10 percent balance of sales generated by tertiary market area residents. This tertiary market area is not defined, but extends beyond the boundaries of Solano County.

(3) Refer to Exhibit 8, primary market area sales. Does not include all retail categories, only those categories impacted by sales at Suisun Marketplace and the Gilbert Parcel.

(4) Refer to Exhibit 10, primary and secondary market area sales. Does not include all retail categories, only those categories impacted by sales at Suisun Marketplace and the Gilbert Parcel.

(5) Refer to Exhibit 8. Assumes any existing primary market area leakage is absorbed by Suisun Marketplace and Gilbert Parcel sales.

assumed that up to 33.3 percent of the leakage in the secondary market area could be absorbed by Suisun Marketplace and the Gilbert Parcel. Assumption developed by Sedway Group based on market observations and professional judgment.

(7) The figures in this column comprise the maximum amount of net new primary market area Suisun Marketplace and the Gilbert Parcel sales diverted from existing primary market area retailers, assuming sales in excess of any leakage will be diverted away from existing primary market area retailers in proportion to the primary market area retailers' estimated contribution to combined primary and secondary market areas sales. This implies that any negative impacts of the Suisun Marketplace and Gilbert Parcels' sales will be spread proportionally among all the like retailers by retail category in the primary market area.

(8) This column comprises all new Suisun Marketplace and Gilbert Parcel sales less the maximum sales diverted from primary market area retailers. Figures may not total due to rounding.

Sources: Sedway Group.

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Fairfield's regional attraction is generally located near Interstate 80, with the Westfield Shoppingtown Solano, Gateway Courtyard Shopping Center, and Gateway Plaza Shopping Center providing a synergistic shopping district with visibility from Interstate 80. Suisun City is home to several neighborhood-serving shopping centers, such as the Albertson's- and Raley's-anchored shopping centers at the intersection of Highway 12 and Sunset Avenue. In addition, Suisun City recently redeveloped the downtown waterfront with a commercial district, including several restaurants and boutique shops. Significant recent entries into the primary market area include the Gateway Courtyard Shopping Center in the City of Fairfield, which is anchored by Barnes and Noble and Linens 'N Things.

Retailer Interest

According to the brokers contacted, most national retailers are currently represented in the primary market area. Current interest is limited with a few notable exceptions, including the categories of apparel, general merchandise, home furnishings, and building materials. Additional projects are planned in the primary market area with major retail space including the Villages at Fairfield, the Gentry-Suisun Project and the Gilbert Parcel, and the proposed Wal-Mart Fairfield Supercenter. In addition, a broker identified Lowe's Home Improvement Warehouse is interested in establishing a location in the primary market area. PetCo (along with Starbucks coffee shop) recently opened a new store near the intersection of Holiday and Travis Boulevards in the City of Fairfield. Smaller scale retail stores are in demand in Suisun City from local independent business owners. One broker reported significant interest in smaller retail stores in Suisun City, particularly for inline shops that can be purchased by local retailers interested in owning their store.

Re-tenanting Potential

Brokers in the market were unable to predict or comment on the potential to re-tenant major store closures in the primary market area resulting from the development of the Gentry-Suisun Project and the Gilbert Parcel because there have not been significant vacancies and subsequent re-tenanting in the primary market area in recent years. The general perception from the brokers is that re-tenanting large format vacancies would not happen quickly and that such backfilling of retail space might take several years to facilitate tenant outreach, business negotiations, tenant improvements, and ultimately store opening (all of these steps are time-consuming regardless of location). However, the existing primary market area shopping centers have low vacancy rates, which is an indication of the primary market area's stable performance and ability to re-tenant smaller vacancies as they may occur. The sources have a strong belief that re-tenanting would occur in the long-term with continued population growth.

The experience of the Mission Village Shopping Center in Fairfield is worth noting in this discussion of re-tenanting potential in the primary market area. The Mission Village Shopping Center is the location of the proposed Wal-Mart Fairfield

Supercenter and has remained largely vacant for the past five years. Extenuating circumstances explain the reasons for this situation. Mission Village is located within the City of Fairfield's North Texas Street Redevelopment Project Area and is an approximately 188,000-square-foot shopping center. Currently, the only tenants include a large church and two to three small retail shops. In the late 1990s, Mission Village was anchored by an Albertson's grocery store and a Rite Aid (formerly Pay Less) Pharmacy. In addition, several smaller inline retail shops were located there. According to the City of Fairfield Planning Department, vacancy at Mission Village began to increase in 1996. By 2000, Albertson's and Rite Aid both vacated their spaces. Neither retailer reopened at new locations in Fairfield. The departure of the anchor tenants resulted in a continued decline in occupancy at Mission Village.

Two factors have delayed the reuse of Mission Village since the property was acquired by Capital and Counties, an international commercial real estate investment firm with a portfolio estimated at approximately $1.7 billion. The first was due to existing environmental issues at Mission Village and kept Mission Village in limbo for approximately one year after acquisition. In 2002, the City of Fairfield amended the General Plan and changed the property's zoning designation to accommodate mixed-use commercial development. The rezoning process added an additional 18-months beyond the environmental issue delay. The property owner is investigating the option of re-zoning the property again to eliminate the requirement for housing on the site. In addition, the City of Fairfield is analyzing a potential Wal-Mart Supercenter store for the site. As discussed in the preceding section, Fairfield has just released for public review a DEIR for a proposed 202,000-square-foot Wal-Mart Supercenter store for the site. Wal-Mart would demolish a majority of the existing Mission Village to make way for the proposed Supercenter store. Wal-Mart has stated publicly that it will close the existing Fairfield Wal-Mart store. Re-tenanting plans have not been announced for that store.

In addition to Mission Village, Sedway Group noted the existing vacant movie theater adjacent to the Westfield Shoppingtown Solano. The space is being marketed by Westfield; however, Westfield declined to comment on the status of the space.

Wal-Mart Re-tenanting Potential

The reuse of Wal-Mart stores is not an unrealistic prospect with many examples where successful reuse has occurred. Wal-Mart Stores, Inc. operates Wal-Mart Realty, a full-service real estate company, to assist with the selection, renovation, and reuse of vacated Wal-Mart stores. In recent years, Wal-Mart Realty has converted vacated stores into retail centers, call centers, warehouse and distribution centers, classrooms, churches, automotive dealerships, banks, and general office buildings. Wal-Mart stores are typically located in prime locations selected to provide high visibility, significant parking, and heavy traffic. As a result, vacated stores often present an optimal reuse opportunity for new retail tenants, and are not abandoned or left idle with the prospect of urban decay as a result.

Conclusion

While there may be alternative definitions of what constitutes urban decay, Sedway Group relied on the definition presented earlier in this section, which focused on determining whether or not prevalent and substantial physical deterioration in the primary market area would likely result from the development of Suisun Marketplace and the Gilbert Parcel. Sedway Group's conclusion is based on consideration of current primary market area conditions, retailer interest, findings regarding diverted sales, and re-tenanting potential, as summarized below.

- Current Market Conditions—In general, the primary market area's retail market is healthy with high occupancy rates and overall "attraction" in retail sales (i.e. more sales are captured in the primary market area than are generated its residents).

- Retailer Interest—National retailers have demonstrated an interest in the primary market area, as evidenced by the presence of many such retailers in existing shopping centers and the expressed interest by others in locating within the primary market area.

- Diverted Sales—The opening of the Suisun Marketplace and Gilbert Parcel may result in some existing primary market area store closures due to diverted sales. In certain categories, it could take five, ten or more years to generate additional market area sales from new population growth to offset the diverted sales in those specific categories. However, it is quite likely that the duration of this diverted sales impact would be reduced if vacated stores (such as apparel shops) are re-tenanted by other types of retail, restaurant, and/or service establishments (e.g. a jewelry store, gift shop, restaurant, etc.), which is a common occurrence in most shopping centers.

- Re-tenanting Potential—The existing primary market area shopping centers have low vacancy rates, which is an indication of the primary market area's stable performance and ability to re-tenant smaller vacancies as they may occur. Therefore, vacated retail spaces have the potential to be successfully re-tenanted. Such re-tenanting would benefit the market and expand local and regional shopping opportunities.

In conclusion, while it is expected that the Gentry-Suisun Project and Gilbert Parcel will result in some diverted sales and that some closures of primary market area stores may occur, these events are not expected to lead to physical deterioration so prevalent and substantial that it impairs the proper utilization of affected real estate or the health, safety, and welfare of the surrounding community. Therefore, Sedway Group concludes that although development of the Gentry-Suisun Project and the Gilbert Parcel may contribute to further retail vacancies in the primary market area, those vacancies are unlikely to result in urban decay, and a ***less-than-significant*** impact

would occur. Because Alternatives 1 and 2 are smaller in size than the Base Project, Sedway Group reaches the same conclusion regarding the potential for urban decay.

Mitigation Measure(s)
None required.

Cumulative Impacts and Mitigation Measures

4.10-2 Cumulative impacts to the primary market area leading to urban decay with additional retail sales which would compete with proposed retail project.

Sedway Group identified selected major retail projects in the primary market area (cities of Suisun City and Fairfield) and surrounding areas. Two projects were identified in the primary market area, with both projects located in the City of Fairfield. Projects of significance were not identified in the City of Suisun City. The selected retail projects are identified in Table 4.10-25.

- Villages at Fairfield: Lewis Operating Company has prepared an Environmental Impact Report (EIR) for a 110,000-square-foot retail center. The retail center represents the commercial component of a larger 2,400-unit residential master planned community. According to the City of Fairfield Planning Department, the proposed retail center will consist of local-serving retailers and is likely to include a grocery store, drug store, gas station, and miscellaneous inline retail shops. The City of Fairfield anticipates that the retail center will begin construction during the summer of 2006.

- Fairfield Wal-Mart Supercenter: Fairfield is preparing an EIR for a proposed 202,000- square-foot Wal-Mart Supercenter store, which includes a 15,000-square-foot garden center. According to the City of Fairfield Planning Department, approximately 30,000 square feet will be dedicated to grocery sales. Furthermore, Wal-Mart has indicated publicly its intention to close the existing 155,600-square-foot Fairfield Wal-Mart store. Assuming the Supercenter store is built and the existing Wal-Mart is closed, a net incremental addition of 46,400 square feet will exist. Sedway Group assumes that 30,000 square feet of the incremental addition will be dedicated to grocery sales (as the existing Wal-Mart does not have a significant grocery component) and the balance will represent general merchandise sales. The City of Fairfield anticipates that the retail center will begin construction during the summer of 2006.

Primary Market Area Store Sales Analysis

Sales Estimates for Planned Retail Developments

Sedway Group estimated sales for all of the proposed primary market area retail developments in Table 4.10-25. For many of the retail projects, the composition of the retail space and specific tenants were unknown due to the preliminary nature of the

Table 4.10-25

SELECTED SURVEY OF OTHER POTENTIAL MAJOR RETAIL DEVELOPMENT ACTIVITY (1)
PRIMARY AND SECONDARY MARKET AREAS
MAY 2005

Area Development	Location	Net New Sq. Ft.	Development Timeframe	Status/Information
Primary Market Area (Suisun City and Fairfield)				
Villages at Fairfield/ Laurel Creek Plaza	Fairfield	111,000	Break ground in Summer 2006	The developer, Lewis Operating Corp, has prepared an EIR for an 111,000-square-foot commercial component of a 2,400 residential unit master planned community. The retail will be neighborhood-serving and will include a supermarket, drug store, gas station, and miscellaneous inline shops.
Wal-Mart Supercenter	Fairfield	46,400	Break ground in Summer 2006	Wal-Mart is preparing an EIR for a proposed 202,000-square-foot Wal-Mart Supercenter, which includes a 15,000-square-foot garden center. The City of Fairfield Planning Department reports that approximately 30,000 square feet will be dedicated to grocery sales. Wal-Mart has stated publicly that it will close the existing 155,600-square-foot Fairfield Wal-Mart store. The square footage indicated is the net incremental square footage of the Wal-Mart Supercenter. Of the net incremental square footage, Sedway Group assumes 30,000 square feet, or 64.6 percent of the net incremental space, are dedicated to grocery sales with the balance comprising general merchandise and other sales.
Secondary Market Area (Solano County)				
Wal-Mart Expansion	Dixon	80,000	Late 2005	Expansion of existing Wal-Mart discount store into Supercenter. The project is currently under construction.
Davis Street Shopping Center	Vacaville	41,845	Late 2005/Early 2006	Phase 2 of a new shopping center. Phase I consisted of a 111,155-square-foot WinCo Foods store. No retail tenants have been identified for Phase 2.
Nut Tree Redevelopment Project	Vacaville	292,000	Break ground in 2006	Master Plan has been approved; includes 267,000 square feet of retail, 25,000 square feet of restaurants, and 34,000 square feet of office space. Retail portion is near receiving approval. Prospective tenants have not been identified. Planning Department predicts construction will occur in 2006.
Orchard Supply Hardware	Vacaville	43,000	2006	A new 43,000-square-foot stand-alone Orchard Supply Hardware store has been approved. The project is currently in the process of obtaining building permits.
Waterfront Redevelopment	Vallejo	500,000	(2) Phased over next 10-15 years	Long-term project in conceptual stages. While 562,000 square feet of commercial space has been approved, there are no specific tenants at this time. Current concept includes 10,000 - 14,000 square feet of restaurants and marine-related retail on the Northern Waterfront, 60,000 - 70,000 square feet of office space, a 200-room hotel, and 175,000 square feet of commercial space on the Southern Waterfront, which could be converted to light industrial depending on market factors. Developer is expected to deliver a revised EIR to the City in summer 2005.
Solano County Fairgrounds	Vallejo	750,000	Phased over next 3-5 years	Mills Corporation is preparing an EIR and the project calls for 1.2 million square feet of commercial space, with at least 750,000 square feet of retail. Focus will be high end, with recreational and entertainment uses included. Project is at least 3-5 years from completion. Approvals will come from Solano County.
Northgate	Vallejo	107,000	2007	Master-planned community on 107 acres with residential, office, and retail space, and a community college. A 52,000-square-foot Nugget grocery store is planned.

Note:
(1) Sedway Group excluded developments with 25,000 square feet or less.
(2) Total reflects the amount of commercial square feet approved. At the time of Sedway Groups research the amount dedicated to retail uses was unknown.

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projects. Sedway Group utilized generic retail categories when provided. However, for the unknown portion of the retail space, Sedway Group assumed the industry accepted standard of $300 sales per square foot. For all other known retailers, Sedway Group relied on Retail MAXIM for sales per square foot estimates. The expected construction start dates for projects in the primary market is Summer 2006. For this analysis, all planned development sales are projected to 2009. Sedway Group has assumed 2009 for analytical purposes because that would be the earliest that all projects, including the Gentry-Suisun Project, could be completed.

Tables 4.10-26 and 4.10-27 identify estimates of sales by retail category for the identified planned retail projects in the primary market area. The sales estimates indicate that the planned primary market area retail projects will have the potential to generate up to $68.0 million in new sales, including $5.4 million in apparel sales, $13.9 million in general merchandise sales, $38.8 million in food stores sales, $3.8 million in eating and drinking places sales, and $6.1 million in "other retail stores" sales.

Of these new sales, $61.2 million are estimated to be generated by primary and secondary market area residents, per the previous market split assumptions (90 percent / 10 percent). The remaining sales are expected to originate from the tertiary market. Sedway Group estimated the maximum impact of the planned retail developments on existing retailers in the primary market area. This approach, presented in Tables 4.10-28 to 4.10-33, considered the following factors:

- New sales by major category;
- Estimated new sales by major category generated by primary and secondary market area residents;
- The primary market area's (cities of Suisun City and Fairfield) new retail sales base after development of Gentry-Suisun Project and the Gilbert Parcel;
- The combined primary and secondary market area' new retail sales base after development of Gentry-Suisun and the Gilbert Parcel;
- The primary market area's share of the combined primary and secondary market area sales after development of Gentry-Suisun and the Gilbert Parcel;
- The share of the planned retail projects' sales, at maximum, to be diverted from existing primary market area (cities of Suisun City and Fairfield) retailers upon stabilization; and
- The minimum new sales achieved by the planned retail projects not diverted away from existing primary market area (cities of Suisun City and Fairfield) retailers.

Table 4.10-26

SALES ESTIMATES FOR MAJOR PLANNED RETAIL DEVELOPMENTS
PRIMARY MARKET AREA
2009 DOLLARS

Location Development Tenant	Average Sales Per Sq. Foot 2003 Dollars [A]	Average Sales Per Sq. Foot 2009 Dollars (1) [B]	Estimated Square Feet [C]	Estimated Store Sales 2009 [D=BxC]
PRIMARY MARKET AREA				
Villages at Fairfield (2)				
Grocery Store	$404 (3)	$474	54,800	$25,999,051
Drug Store	$464 (4)	$544	12,800	$6,967,152
Unknown	$300 (5)	$352	43,400	$15,289,967
Total			111,000	$48,256,170
Wal-Mart Supercenter				
Wal-Mart Supercenter	$362	$425	46,400	$19,725,232
Total Primary Market Area			**157,400**	**$67,981,402**

Notes:
(1) Adjusted for inflation based on the consumer price index for all urban consumers in the San Francisco MSA, as defined by the U.S. Department of Labor, Bureau of Labor Statistics. Inflation for the year 2003-2004 period is 1.2 percent; assumed annual inflation rate of 3.0 percent for projected years.
(2) Specific tenants were not identified. Grocery and drug store sizes are estimated based on the average square footage of representative grocery and drug stores active in the market area. Grocery store chains active in Solano County, Safeway, Albertsons, and Raley's, were considered for the typical grocery store size. Walgreen's and Rite Aid were considered for the typical drug store size.
(3) The average of sales at Safeway and Albertsons, per Retail MAXIM.
(4) The average for sales at national drug store chains, including Rite Aid and Walgreen's.
(5) For unknown retailers, Sedway Group used the retail industry sales standard of $300 per square foot.

Sources: Bureau of Labor Statistics; Retail MAXIM's Perspectives on Retail Real Estate and Finance, July 2004; Crittenden Retail Space Users Directory 2000; and Sedway Group.

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Table 4.10-27

ALLOCATION OF RETAIL SALES: MAJOR PLANNED RETAIL DEVELOPMENTS
PRIMARY MARKET AREA (PMA)
2009 DOLLARS

Location Project/Retailer	2009 Estimated Sales (2)	Retail Sales Category: Apparel	General Merchandise	Food Stores	Eating and Drinking Places	Other Retail Stores
Primary Market Area (PMA)						
Villages at Fairfield						
Grocery Store	$25,999,051	$0	$0	$25,999,051	$0	$0
Drug Store	$6,967,152	$0	$6,967,152	$0	$0	$0
Unknown (3)	$15,289,967	$5,351,489	$0	$0	$3,822,492	$6,115,987
Total	$48,256,170	$5,351,489	$6,967,152	$25,999,051	$3,822,492	$6,115,987
Fairfield Wal-Mart Supercenter (4)	$19,725,232	$0	$6,971,849	$12,753,383	$0	$0
Total Primary Market Area	$67,981,402	$5,351,489	$13,939,001	$38,752,434	$3,822,492	$6,115,987

Notes:
(1) Sedway Group allocated the estimated major planned retail stores' sales to a category based on California Board of Equalization retail sales categories.
(2) From Exhibit 20.
(3) Allocation of the unknown sales estimated by Sedway Group based on the following assumptions: 35 percent to apparel, 25 percent to eating and drinking places, and 40 percent to other retail stores.
(4) Of the net incremental square footage, Sedway Group assumes 30,000 square feet, or 64.6 percent of the total, is dedicated to grocery sales. The balance of sales comprise general merchandise sales.

Source: Sedway Group.

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Table 4.10-28

RETAIL SALES BASE ADJUSTMENT FOR CUMULATIVE SALES IMPACTS
PRIMARY MARKET AREA (PMA) AND COMBINED PRIMARY AND SECONDARY MARKET AREA (P&SMA)
2009 ESTIMATE (IN MILLIONS)

	New Primary Market Area (PMA) Sales Base			New Primary and Secondary Market Areas (P&SMA) Sales			
Type of Retailer	PMA Retail Sales (1) [A]	Minimum New Sales to PMA (2) [B]	New PMA Retail Sales Base [C=A+B]	P&SMA Retail Sales (3) [D]	Minimum New Sales to PMA (2) [E]	New P&SMA Retail Sales Base [F=D+E]	PMA as a Percent of P&SMA [G=C/F]
Apparel Stores	$84.3	$30.6	$114.9	$237.3	$30.6	$267.9	42.9%
General Merchandise	$381.8	$43.7	$425.5	$960.9	$43.7	$1,004.6	42.4%
Food Stores	$327.6	$17.5	$345.1	$979.8	$17.5	$997.3	34.6%
Eating and Drinking Places	$163.6	$10.8	$174.3	$495.4	$10.8	$506.1	34.4%
Home Furnishings and Appliances	$76.3	$38.9	$115.2	$204.3	$38.9	$243.2	47.4%
Building Materials	$125.5	$29.4	$155.0	$487.3	$29.4	$516.7	30.0%
Other Retail Stores	$298.5	$42.5	$341.0	$685.6	$42.5	$728.1	46.8%
Total	$1,457.5	$213.3	$1,670.9	$4,050.6	$213.3	$4,263.9	39.2%

Notes:
(1) Refer to primary market area sales in Exhibit 8.
(2) Minimum new sales resulting from the Suisun Marketplace and Gilbert Parcel project. Refer to Exhibit 12, Column J.
(3) Refer to primary and secondary market areas sales in Exhibit 10.

Source: Sedway Group

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Cumulative Sales Impacts

The cumulative sales impact analysis was conducted for two scenarios in order to analyze the option of one versus two supercenter stores in the primary market area. The first scenario assumed all identified primary market area cumulative projects are completed, i.e., the Villages at Fairfield and the Fairfield Wal-Mart Supercenter. The second scenario assumes only the Villages at Fairfield project is completed and does not include the Fairfield Wal-Mart Supercenter.

Table 4.10-29

CUMULATIVE IMPACTS OF MAJOR RETAIL DEVELOPMENTS
ON PRIMARY MARKET AREA (PMA) RETAILERS
2009 DOLLARS (IN MILLIONS)

	2009 Estimated New Sales (1)	Retail Sales Category				
		Apparel	General Merchandise	Food Stores	Eating and Drinking Places	Other Retail Stores
Total New Sales (2)						
Villages at Fairfield	$48.3	$5.4	$7.0	$26.0	$3.8	$6.1
Fairfield Wal-Mart Supercenter	$19.7	$0.0	$7.0	$12.8	$0.0	$0.0
Total PMA	$68.0	$5.4	$13.9	$38.8	$3.8	$6.1
Portion of New Sales from P&SMA at 90% (3)						
Villages at Fairfield	$43.4	$4.8	$6.3	$23.4	$3.4	$5.5
Fairfield Wal-Mart Supercenter	$17.8	$0.0	$6.3	$11.5	$0.0	$0.0
Total PMA	$61.2	$4.8	$12.5	$34.9	$3.4	$5.5
Sales Generated in PMA						
PMA as a Percent of P&SMA (4)		35.5%	42.4%	34.6%	33.0%	46.8%
Villages at Fairfield	$16.2	$1.7	$2.7	$8.1	$1.1	$2.6
Fairfield Wal-Mart Supercenter	$6.6	$0.0	$2.7	$4.0	$0.0	$0.0
Total PMA	$22.8	$1.7	$5.3	$12.1	$1.1	$2.6
Unabsorbed Leakage						
Unabsorbed PMA Leakage (5)	($9.6)	$0.0	$0.0	$0.0	($9.6)	$0.0
Unabsorbed Secondary Market Area Leakage (6)	($54.3)	$0.0	$0.0	$0.0	$0.0	($54.3)
Max Sales Diverted from PMA Retailers (7)						
Villages at Fairfield	($12.5)	($1.7)	($2.7)	($8.1)	$0.0	$0.0
Fairfield Wal-Mart Supercenter	($6.6)	$0.0	($2.7)	($4.0)	$0.0	$0.0
Total PMA	($19.1)	($1.7)	($5.3)	($12.1)	$0.0	$0.0

Notes:
(1) Reflects the sum of the retail categories.
(2) Refer to Exhibit 21.
(3) Primary and secondary market area estimated at 90 percent of total sales. Refer to Exhibit 11, footnote 2.
(4) Percentage calculated in Exhibit 22 to account for Suisun Marketplace sales in the retail base.
(5) The analysis assumes that any leakage in the primary market area will be absorbed before sales impacts occur. Accounts for primary market area leakage already absorbed by new sales at the Suisun Marketplace in Exhibit 12.
(6) In addition to the absorbed primary market area leakage, the cumulative retail projects will retain some spending that is currently leaked out of the secondary market area. Sedway Group, assumed that up to 33.3 percent of the leakage in the secondary market area could be absorbed by the cumulative projects.
(7) The maximum sales diverted from primary market area retailers is equivalent to the sales generated in the primary market area, less any unabsorbed leakage

Source: Sedway Group

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Table 4.10-30

CUMULATIVE IMPACTS OF MAJOR RETAIL DEVELOPMENTS (1)
MAXIMUM DIVERTED SALES AS A PERCENT
PRIMARY MARKET AREA
ASSUMING SALES ADJUSTMENT FOR SUISUN MARKETPLACE AND GILBERT PARCEL
2009 ESTIMATE (IN MILLIONS)

Retail Category	Maximum Sales Diverted from PMA Retailers (2) [A]	New PMA Retail Sales Base (3) [B]	Additional Diverted Sales as a % of Estimated Sales [C=A/B]
Apparel Stores	($1.7)	$114.9	1.5%
General Merchandise	($5.3)	$425.5	1.2%
Food Stores	($12.1)	$345.1	3.5%
Eating and Drinking Places	$0.0	$174.3	0.0%
Home Furnishings and Appliances	$0.0	$115.2	0.0%
Building Materials	$0.0	$155.0	0.0%
Other Retail Stores	$0.0	$341.0	0.0%
Total	($19.1)	$1,670.9	

Notes:
(1) Includes the Villages at Fairfield and Fairfield Wal-Mart Supercenter.
(2) Refer to Exhibit 23.
(3) Refer to Exhibit 22, column C.

Source: Sedway Group

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Table 4.10-31

CUMULATIVE IMPACTS OF MAJOR RETAIL DEVELOPMENTS
ASSUMING NO FAIRFIELD WAL-MART SUPERCENTER
ON PRIMARY MARKET AREA (PMA) RETAILERS
2009 DOLLARS (IN MILLIONS)

	2009 Estimated New Sales (1)	Retail Sales Category				
		Apparel	General Merchandise	Food Stores	Eating and Drinking Places	Other Retail Stores
Total New Sales (2)						
Villages at Fairfield	$48.3	$5.4	$7.0	$26.0	$3.8	$6.1
Fairfield Wal-Mart Supercenter	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total PMA	$48.3	$5.4	$7.0	$26.0	$3.8	$6.1
Portion of New Sales from P&SMA at 90% (3)						
Villages at Fairfield	$43.4	$4.8	$6.3	$23.4	$3.4	$5.5
Fairfield Wal-Mart Supercenter	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total PMA	$43.4	$4.8	$6.3	$23.4	$3.4	$5.5
Sales Generated in PMA						
PMA as a Percent of P&SMA (4)		35.5%	42.4%	34.6%	33.0%	46.8%
Villages at Fairfield	$16.2	$1.7	$2.7	$8.1	$1.1	$2.6
Fairfield Wal-Mart Supercenter	$0.0	$0.0	$0.0	$0.0	$0.0	$0.0
Total PMA	$16.2	$1.7	$2.7	$8.1	$1.1	$2.6
Unabsorbed Leakage						
Unabsorbed PMA Leakage (5)	($9.6)	$0.0	$0.0	$0.0	($9.6)	$0.0
Unabsorbed Secondary Market Area Leakage (6)		$0.0	$0.0	$0.0	$0.0	($54.3)
Max Sales Diverted from PMA Retailers (7)						
Villages at Fairfield	($12.5)	($1.7)	($2.7)	($8.1)	$0.0	$0.0
Fairfield Wal-Mart Supercenter	$0.0	$0.0	$0.0	$0.0	$0.0	-
Total PMA	($12.5)	($1.7)	($2.7)	($8.1)	$0.0	$0.0

Notes:
(1) Reflects the sum of the retail categories.
(2) Refer to Exhibit 21.
(3) Primary and secondary market area estimated at 90 percent of total sales. Refer to Exhibit 12, footnote 2.
(4) Percentage calculated in Exhibit 22 to account for Suisun Marketplace and Gilbert Parcel sales in the retail base.
(5) The analysis assumes that any leakage in the primary market area will be absorbed before sales impacts occur. Accounts for primary market area leakage already absorbed by new sales at the Suisun Marketplace and Gilbert Parcel in Exhibit 12.
(6) In addition to the absorbed primary market area leakage, the cumulative retail projects will retain some spending that is currently leaked out of the secondary market area. Sedway Group, assumed that up to 33.3 percent of the leakage in the secondary market area could be absorbed by the cumulative projects.
(7) The maximum sales diverted from primary market area retailers is equivalent to the sales generated in the primary market area, less any unabsorbed leakage.

Source; Sedway Group

08-Mar-06

Table 4.10-32

CUMULATIVE IMPACTS OF MAJOR RETAIL DEVELOPMENTS
ASSUMING NO FAIRFIELD WAL-MART SUPERCENTER (1)
MAXIMUM DIVERTED SALES AS A PERCENT
PRIMARY MARKET AREA
ASSUMING SALES ADJUSTMENT FOR SUISUN MARKETPLACE AND GILBERT PARCEL
2009 ESTIMATE (IN MILLIONS)

Type of Retailer	Maximum Sales Diverted from PMA Retailers (2) [A]	New PMA Retail Sales Base (3) [B]	Additional Diverted Sales as a % of Estimated Sales [C=A/B]
Apparel Stores	($1.7)	$114.9	1.5%
General Merchandise	($2.7)	$425.5	0.6%
Food Stores	($8.1)	$345.1	2.3%
Eating and Drinking Places	$0.0	$174.3	0.0%
Home Furnishings and Appliances	$0.0	$115.2	0.0%
Building Materials	$0.0	$155.0	0.0%
Other Retail Stores	$0.0	$341.0	0.0%
Total	($12.5)	$1,670.9	

Notes:
(1) Includes only the Villages at Fairfield.
(2) Refer to Exhibit 25.
(3) Refer to Exhibit 22, Column C.

Source: Sedway Group

08-Mar-06

Table 4.10-33

MAXIMUM DIVERTED SALES IMPACTS
SUISUN MARKETPLACE AND GILBERT PARCEL
CUMULATIVE PRIMARY MARKET AREA PROJECTS
2009 ESTIMATE (IN MILLIONS)

Project Retail Category	Maximum Sales Diversion (1) [A]	Number of Years to Mitigate (2) [B]	Sales Average (2009 Dollars) (3) [C]	Impacted Square Feet (Rounded) [D=A/C]
Suisun Marketplace Only				
Apparel Stores	$14,373,749	10 + Years	$352	40,800
General Merchandise	$24,322,220	5 + Years	$352	69,100
Food Stores	$7,519,112	1 to 2 Years	$352	21,400
Eating and Drinking Places	$0	N/A	$352	0
Home Furnishings and Appliances	$4,065,999	2 to 3 Years	$352	11,600
Building Materials	$8,028,917	4 to 5 Years	$352	22,800
Other Retail Stores	$0	N/A	$352	0
Total	$58,309,996			165,700
Suisun Marketplace and All Primary Market Area Cumulative Projects				
Apparel Stores	$16,084,701	10 + Years	$352	45,700
General Merchandise	$29,635,591	5 + Years	$352	84,200
Food Stores	$19,586,261	3 to 4 Years	$352	55,600
Eating and Drinking Places	$0	N/A	$352	0
Home Furnishings and Appliances	$4,065,999	2 to 3 Years	$352	11,600
Building Materials	$8,028,917	4 to 5 Years	$352	22,800
Other Retail Stores	$0	N/A	$352	0
Total	$77,401,469			219,900
Suisun Marketplace and Cumulative Projects Less Fairfield Wal-Mart Supercenter				
Apparel Stores	$16,084,701	10 + Years	$352	45,700
General Merchandise	$26,978,010	5 + Years	$352	76,700
Food Stores	$15,614,976	3 to 4 Years	$352	44,400
Eating and Drinking Places	$0	N/A	$352	0
Home Furnishings and Appliances	$4,065,999	2 to 3 Years	$352	11,600
Building Materials	$8,028,917	4 to 5 Years	$352	22,800
Other Retail Stores	$0	N/A	$352	0
Total	$70,772,603			201,200

Notes:
(1) Refer to Exhibits 12, 23, and 25.
(2) Estimated based on the cumulative retail demand in Exhibit 15.

(3) The current performance of existing retailers in unknown. In order to estimate the supportable square feet Sedway Group assumed the generally accepted retail standard of $300 per square foot (2005 dollars) and inflated to 2009 dollars at 3.0 percent annually.

Sources: Sedway Group.

08-Mar-06

Gentry-Suisun and Gilbert Parcel and all Primary Market Area Cumulative Retail Projects

Tables 4.10-28 to 4.10-33 summarize the maximum diverted sales impacts resulting from development of the Gentry-Suisun and Gilbert Parcel and all primary market area cumulative projects, i.e., both the Villages at Fairfield and the Fairfield Wal-Mart

Supercenter. These results indicate that assuming development of the Gentry-Suisun and the Gilbert Parcel and all cumulative projects, at worst, $77.4 million in sales will comprise sales diverted away from existing primary market area retailers (see Table 4.10-33). The diverted sales impact estimate is $16.1 million on apparel stores, $29.6 million on general merchandise stores, $19.6 million on food stores, $4.1 million on home furnishings and appliances stores, and $8.0 million on building materials stores. Impacts on eating and drinking places and "other retail stores" are not anticipated. The impact to home furnishings and appliances and building materials does not change from the preceding analysis relating to the Gentry-Suisun and the Gilbert Parcel, as new sales are not anticipated for these categories.

- *Apparel*. The estimated $16.1 million in diverted apparel store sales is equivalent to approximately 45,700 square feet of supportable space. The primary market area is projected to require more than ten years to generate this level of additional demand. Thus, it appears approximately 45,700 square feet of apparel store space in the primary market area is at risk of closing.
- *General Merchandise*. The estimated $29.6 million in diverted general merchandise store sales is equivalent to approximately 84,200 square feet of supportable space. The primary market area is projected to require more than five years to generate this level of additional demand. Thus, it appears that a maximum of 84,200 square feet of general merchandise space in the primary market area is at risk of closing.
- *Food Stores*. The estimated $19.6 million in diverted food store sales is equivalent to approximately 55,600 square feet of supportable space. The primary market area is projected to require between three and four years to generate this level of additional demand. Thus, any impacts likely to be experienced by existing primary market area food stores would be mitigated within a relatively short time following the opening of the Gentry-Suisun Project and Gilbert Parcel and all cumulative projects. Existing food stores would not experience any long-term negative economic impacts due to the Gentry-Suisun Project and Gilbert Parcel and cumulative projects.

Gentry-Suisun and Gilbert Parcel and Cumulative Retail Projects Excluding Fairfield Wal-Mart Supercenter

Tables 4.10-32 to 4.10-33 summarize the maximum diverted sales impacts resulting from development of the Gentry-Suisun Project and the Gilbert Parcel and the Villages at Fairfield. Assuming only the Villages at Fairfield project results in lower overall diverted sales impacts, specifically lower diverted sales in the general merchandise and food stores categories. These results indicate that, at worst, $70.8 million in sales will comprise sales diverted away from existing primary market area retailers. The diverted sales impact estimate is $16.1 million on apparel stores, $27.0 million on general merchandise stores, $15.6 million on food stores, $4.1 million on home furnishings and appliances, and $8.0 million on building materials. Impacts on eating and drinking places and "other retail stores" are not anticipated. The impact to home furnishings and appliances and building materials does not change from the

preceding analysis relating to the Gentry-Suisun Project and Gilbert Parcel, as new sales are not anticipated for these categories.

- *Apparel*. The apparel conclusions remain the same as discussed under the all cumulative projects scenario above.
- *General Merchandise*. This scenario results in less diverted sales impact on general merchandise retailers than does the scenario discussed above. The estimated $27.0 million in diverted general merchandise store sales is equivalent to approximately 76,700 square feet of supportable space. The primary market area is projected to require more than five years to generate this level of additional demand. Thus, it appears at worst 76,700 square feet of general merchandise space in the primary market area is at risk of closing.
- *Food Stores*. This scenario results in less diverted sales impact on food stores than does the all cumulative projects scenario discussed above. The estimated $15.6 million in diverted food store sales is equivalent to approximately 44,400 square feet of supportable space. The primary market area is projected to require between three and four years to generate this level of additional demand. Thus, any impacts likely to be experienced by existing primary market area food stores will likely be mitigated within a relatively short time following the opening of the Gentry-Suisun Project and Gilbert Parcel and the Villages at Fairfield. Sedway Group believes that existing food stores will not experience any long-term negative economic impacts due to the Gentry-Suisun Project and Gilbert Parcel and Villages at Fairfield projects.

These cumulative impact figures are conservative and are presented as an analytical benchmark. They are considered conservative for several reasons. Foremost, they assume the maximum diversion away from existing retailers upon stabilization of the Gentry-Suisun Project and Gilbert Parcel, the Villages at Fairfield, and the Fairfield Wal-Mart Supercenter. Thus, they do not take into account any prospective market corrections or enhancements following the introduction of the Gentry-Suisun Project and Gilbert Parcel, Villages at Fairfield and the Fairfield Wal-Mart Supercenter into the marketplace, including competitive retailer repositioning. This analysis is conservative in that it assumes the stores achieve stabilized sales in year one. However, retail stores typically achieve stabilized sales after about two to three years. Therefore, the initial impact is overstated.

Alternatives 1 and 2

Tables 4.10-29 to 4.10-33 summarize the maximum diverted sales impacts resulting from development of Alternatives 1 and 2 of the Gentry-Suisun Project and Gilbert Parcel and all primary market area cumulative projects, i.e., both the Villages at Fairfield and the Fairfield Wal-Mart Supercenter. These results indicate that assuming development of Alternative 1 of the Gentry-Suisun Project and the Gilbert Parcel and all cumulative projects, at worst, $61.4 million in sales will comprise sales diverted away from existing primary market area retailers (see Table 4.10-33). The diverted sales impact estimate is $5.4 million on apparel stores, $28.4 million on general

merchandise stores, $19.2 million on food stores, and $8.4 million on building materials stores. Impacts on eating and drinking places, home furnishings and appliances stores, and "other retail stores" are not anticipated. The diverted sales impacts for Alternative 2 and all cumulative projects are, at worst, $55.3 million, including $7.1 million in apparel stores, $28.9 million in general merchandise stores, and $19.3 million in food stores. Impacts on eating and drinking places, home furnishings and appliances, building materials, or "other retail stores" are not anticipated.

Conclusion

In the cumulative scenario, the proposed project would not result in adverse impacts to retailers because although some stores would be at risk of closing in the short-term, these stores are expected to achieve stabilized sales after approximately two to three years. Because a physical impact to the environment in the form of urban decay would thus not occur, the project would have a ***less-than-significant*** impact to the primary market area.

Mitigation Measure(s)
None required.

Endnotes

[1] Sedway Group, *Gentry-Suisun Mixed Use Project Economic Impact Analysis, Suisun City, California*. February 2006.

[2] City of Suisun City General Plan, Volume 1. 1992.

5. ALTERNATIVES ANALYSIS

5. ALTERNATIVES ANALYSIS

Introduction

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126.6(a) of the CEQA Guidelines, is to "[…] describe a range of reasonable alternatives to the project, or to the location of 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 [...]." Furthermore, Section 15126.6 (f) states that "[…] The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice […]."

The following objectives for the project were provided by the applicant (for purposes of this discussion, the project objectives are broken out into four categories, Land Use Planning, Economic Development, Housing, and Fiscal.)

A. LAND USE PLANNING

1. To implement the City of Suisun City's Comprehensive Annexation Plan (CAP) by annexing an area of land outside the City's limits but within its Sphere of Influence, and which is designated a "Near Term (1-5 years) Annexation" in the June 2005 CAP;

2. To implement the City's General Plan by developing a mixed-use retail and residential project in an integrated fashion consistent with policies in the City's General Plan at a location to which urban services can readily be extended;

3. To create land uses that provide employment opportunities for residents of the City, striving to address the City's existing jobs/housing imbalance;

4. To provide a well-designed retail center with distinctive architecture and quality landscaping appropriate for a major gateway entry to the west side of the City;

5. To set aside, preserve, and protect significant adjacent areas for wetlands and habitat;

6. To provide for the orderly and systematic development of a planned community with a mix of residential and retail uses, supported and enhanced with open space, pedestrian amenities, and regional wildlife habitat; and

7. To provide housing in close proximity to jobs and shopping and with convenient access to regional transportation systems.

B. ECONOMIC DEVELOPMENT

1. To provide a fair return on the costs and investments made in the land and the project by the private development entities;

2. To promote and strengthen the economic vitality of the City through the development of the infill area west of the City center as a multi-tenant, major retail center;

3. To provide retail options for the residents of Suisun City, which they currently do not enjoy;

4. To enhance the City's employment opportunities through the development of a well-designed commercial project within the City;

5. To provide complementary retail shopping services in an integrated center at the intersection of two major arterials, in proximity to existing residential uses and existing and planned major business users;

6. To enhance the City's position to better serve the regional and community retail needs in the larger Solano County community; and

7. To provide a location for major department stores and complementary retail stores that will provide convenience and value for the public.

C. HOUSING

1. To provide a housing units to help the City meet its Regional Housing Needs Allocation administered by the Association of Bay Area Governments;

2. To provide a variety of housing types consistent with Policy 1.A. of the City's General Plan Housing Element;

3. To offer the City the opportunity to create affordable housing opportunities consistent with Policy 1.B. of the City's General Plan Housing Element;

4. To propose residential development in a "village" environment with pedestrian connections and amenities; and

5. To place housing near jobs and transportation facilities.

D. FISCAL

1. To increase the City's employment opportunities with the development of well-designed retail and commercial uses;

2. To strengthen the economic vitality of the City by providing retail opportunities currently non-existing in the City;

3. To support the efforts of the City to revitalize its historic Downtown by providing complementary retail opportunities (i.e., those retail opportunities that are not appropriate in the Downtown);

4. To begin to address the City's existing structural budget deficit of approximately $800,000, which if not corrected will result in the continuation of services reductions and staff layoffs;

5. To generate a level of sales tax revenue that potentially doubles the current level, and that will allow public services to be provided to the current and future residents of the City; and

To generate property tax revenue that will accrue to the various taxing agencies within the project area.

Furthermore, Section 15126.6 (f) states that "[…] The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice […]."

The CEQA Guidelines (§15126.6 (e)(1)) state that a 'no project' alternative should be evaluated along with its impact. Specifically, the Guidelines state:

> The specific alternative of the "no project" shall also be evaluated along with its impact. The purpose of describing and analyzing a no project alternative is to allow decision-makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. The no project alternative analysis is not the baseline for determining whether the proposed project's environmental impacts may be significant, unless it is identical to the existing environmental setting analysis, which does establish that baseline.

In addition, Section 15126.6 (d) of the CEQA Guidelines states that "[…] If an alternative would cause one or more significant effects in addition to those that would be caused by the project as proposed, the significant effects of the alternative shall be discussed, but in less detail than the significant effects of the project as proposed."

Selection of Alternatives

Alternatives that are included and evaluated in this EIR must be potentially feasible alternatives. According to the CEQA Guidelines Section 15126.6(f), "[…] the alternatives shall be limited to ones that would avoid or substantially lessen any of the

significant effects of the project […].” In addition, Section 15126.6(f)(1) states that the feasibility of an alternative may be determined based on a variety of factors including, but not limited to, site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and site accessibility and control.

Although agency staff and consultants should use their best judgment in formulating alternatives they consider to be potentially feasible, the lead agency’s decision-making body (here, the Suisun City Council) is the ultimate arbiter of whether any of the proposed alternatives are in fact feasible or infeasible. (See Pub. Resources Code, § 21081, subd. (a)(3).) In making such determinations, the lead agency may weigh and balance various public policy considerations that are served to varying degrees by the available policy options developed in an EIR. Thus, as was noted in *City of Del Mar v. City of San Diego* (1982) 133 Cal.App.3d 401, 417, “‘feasibility’ under CEQA encompasses ‘desirability’ to the extent that desirability is based on a reasonable balancing of the relevant economic, environmental, social, and technological factors.” Moreover, as the California Supreme Court emphasized in *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 564, 576, “[t]he wisdom of approving . . . any . . . project, a delicate task which requires a balancing of interests, is necessarily left to the sound discretion of . . . officials and their constituents who are responsible for such decisions.”

Alternatives Considered But Dismissed in this EIR

Consistent with CEQA, primary consideration was given to alternatives that could reduce significant impacts, while still meeting most of the project objectives. Those alternatives that would have impacts identical to or more severe than the proposed project, and/or that would not meet any or most of the project objectives were rejected from further consideration. One alternative was considered but dismissed for the Suisun-Gentry project.

Off-Site Alternative

Sites within the City of Suisun, which would be large enough to accommodate the proposed project, are not available. One site that contains 30 acres is located at the intersection of SR 12 and Marina. This site has an application for development already pending, and is too small to accommodate the proposed development.

Two potential alternative annexation locations exist. One is located at Railroad Avenue/Blossom Avenue; however, this property is residentially zoned, only contains 26 acres and currently has an application pending. The second potential annexation site is 20 acres and is located between the Lambrecht Sports Complex and the City’s eastern boundary on the north side of Peterson Road. The northern portion of this property contains a safety zone restriction area from Travis Air Force Base. Because of size and safety restrictions, the second potential annexation site is not adequate for the proposed development.

Alternative site locations may be available outside of the City's Sphere of Influence; however, development of these sites would not meet the project objectives, which include fiscal benefits that would assist the City, which has recently experienced severe budget constraints, in its efforts to attain a stable and viable fiscal condition. Therefore, off-site alternatives are dismissed from further consideration.

Alternatives Considered in this EIR

The Draft EIR includes an equal-level analysis of two alternatives along with the Base Project condition (See Chapter 3, *Project Description*, for a more detailed discussion). The components of Alternatives 1 and 2 are summarized below. Refer to each technical chapter for information regarding each Alternative's potential environmental impacts.

Alternative 1

Planning Area 1 is intended primarily for the development of a major retail center and an approximately 120-unit high-density residential component (duet homes) to meet the retail, commercial, and residential needs of residents of Suisun City and the region. Planning Area 1 would have a mix of retail tenants, which may include small shops, general merchandise stores, "big box" establishments such as a supercenter and/or a home improvement center, and service providers.

Planning Area 2 is intended for the development of approximately 196 units of medium- to high-density residential units which would include town homes and duet units. Current development plans for this Planning Area include two- and three-story single family attached and/or detached for sale housing.

Planning Area 3 is intended for the development of approximately 84 medium- to high-density residential units which would include town homes.

Alternative 2

Planning Area 1 is intended for the development of approximately 42.04 acres of retail and commercial space as well as the development of an approximately 147-unit residential component (duet homes) and approximately a 103-unit single-family lot component to meet the retail, commercial, and residential needs of residents of Suisun City and the region. Planning Area 1 would have a mix of retail tenants, which may include small shops, general merchandise stores, a "big box" establishment such as a supercenter and/or a home improvement center, and service providers. In addition, Alternative 2 would add a residential development component as well.

Planning Area 2 is intended for the development of approximately 196 units of medium- to high-density residential units which would include town homes and duet units. Current development plans for this Planning Area include two- and three-story single family attached and/or detached for sale housing.

Planning Area 3 is intended for the development of approximately 84 medium- to high-density residential units which would include town homes. Current plans for this area are similar to those for Planning Area 2.

It should be noted that Planning Area 4 would remain as an open space / wetland preserve for both Alternatives 1 and 2. Planning Area 5 would also possibly be utilized as a wetland preservation site.

No Project Alternative

CEQA requires the evaluation of the comparative impacts of the "No Project" alternative (CEQA Guidelines Section 15126.6 (e)). Analysis of the No Project Alternative "shall discuss . . . existing conditions . . . as well as what would be reasonably expected to occur in the foreseeable future if the project were not approved, based on current plans and consistent with available infrastructure and community services." (*Id.*, subd. (e)(2).) "If the project is other than a land use or regulatory plan, for example a development project on identifiable property, the "no project" alternative is the circumstance under which the project does not proceed. Here the discussion would compare the environmental effects of the property remaining in its existing state against environmental effects which would occur if the project is approved. If disapproval of the project under consideration would result in predictable actions by others, such as the proposal of some other project, this "no project" consequence should be discussed. In certain instances, the no project alternative means "no build" wherein the existing environmental setting is maintained. However, where failure to proceed with the project will not result in preservation of existing environmental conditions, the analysis should identify the practical result of the project's non-approval and not create and analyze a set of artificial assumptions that would be required to preserve the existing physical environment." (*Id.*, subd. (e)(3)(B).)

Here, the City has concluded that a "no development" alternative is the appropriate "no project" alternative in light of the nature of the approvals and entitlements sought by the project as proposed. These include a proposed annexation, which cannot be taken for granted under a "no project" scenario reflecting "current plans." Therefore, under the No Project Alternative, the project site would remain agricultural land and wetlands. Furthermore, because the project site would not be developed, the site would not to be annexed to the City of Suisun.

Environmental Effects

Land Use/Agricultural Resources

The No Project Alternative would result in the project site remaining in agricultural production. Like the proposed project, this alternative would result in a conflict with the existing General Plan designation for the project area. The City of Suisun General Plan currently designates the site as 10 acres of General Commercial and 162 acres of Limited Industrial/Business Park. Additionally, this Alternative would result in the site not being annexed to the City and would therefore remain under the jurisdiction of the Solano

County General Plan, which designates the project site as Agriculture. Because development would not occur with this Alternative, impacts related to light and glare would not occur, particularly those associated with the Suisun Marsh to the south. Additionally, the No Project Alternative would not require an amendment to the General Plan as would the proposed project. Overall, this Alternative would have fewer total impacts in regards to land use than the proposed project.

In regards to agricultural resources, the No Project Alternative would not result in the conversion of agricultural land. Although, the Draft EIR determined that the proposed project's impacts to agricultural resources would be considered less-than-significant due to poor on-site soils, the No Project Alternative would further reduce impacts by not resulting in the conversion of any farmland.

Aesthetics

The Draft EIR identified significant and unavoidable project-level and cumulative aesthetics impacts as a result of project implementation for Impacts 4.2-1, 4.2-2 and 4.2-4 respectively. The No Project Alternative would not result in the development of the project site. Therefore, the site would remain agricultural and open views would be preserved on the project site, resulting in no impact. The No Project Alternative would have fewer aesthetic impacts than the proposed project.

Air Quality

The project site is currently vacant land used with some grazing on-site. The No Project Alternative would not result in any additional on-site air pollutants or any increase in traffic-related air pollution and would therefore have no impact to air quality. The proposed project, as noted in the EIR, would have a significant and unavoidable cumulative impact in regard to air quality. Therefore, the No Project Alternative would have fewer impacts related to air quality than the proposed project.

Noise

The project site is currently vacant land used for grazing. A railroad line exists on the project traveling from the west and veering to the northeast. The development of the proposed project would result in an increase in construction-related and operational noise on the project site as a result of the addition of commercial, residential and light industrial land uses. For the proposed project, future residences would be subject to potentially significant exterior noise levels as a result of project traffic. In addition, proposed project construction activities would cause potentially significant short-term noise impacts. Additionally, the proposed project would introduce new sensitive receptors near the existing railroad tracks. Conversely, the No Project Alternative would not result in increased traffic, the placement of sensitive receptors in close proximity to existing railroad lines, or any changes in on-site construction or operational noise generation and, therefore, would have no significant impacts. Implementation of the No Project Alternative would result in fewer noise impacts than would the proposed project.

Traffic and Circulation

The No Project/No Build Alternative would not result in the construction of any residential, commercial, or light industrial uses on the Gentry-Suisun Project site and would consequently not generate additional trips to the existing local roadway traffic volumes and have no impact to traffic and circulation. Conversely, the proposed project would have several potentially significant impacts to intersections that could be reduced to a less-than-significant level through mitigation; and several significant and unavoidable traffic impacts to nearby study intersections. Therefore, the No Project Alternative would not cause a traffic increase in the surrounding area and would have fewer impacts related to traffic and circulation than the proposed project.

Biological Resources

The No Project Alternative would not result in development of the project site with residential, commercial, and light industrial uses. Additionally, much of the proposed project area is identified as wetlands and has the potential to support a number of special-status plant and animal specifies. Therefore, unlike the proposed project, because the No Project Alternative would not result in new development on the site, the Alternative would have no impact on the existing biological resources (e.g., wetlands, burrowing owl, Swainson hawk, etc., See Section 4.6), and would thus have fewer biological impacts than the proposed project.

Hydrology and Water Quality

The No Project Alternative would not result in construction, which could change the existing drainage pattern for the project area and would have no impact to the project site. The No Project Alternative would not generate urban runoff that would affect water quality in the area. The No Project Alterative would not result in the need for the additional treatment of stormwater runoff, and would not place structures and residents in the 100-year floodplain. However, the proposed project would urbanize the project area, altering existing drainage patterns through the increase of impervious surfaces, as well as contributing to the degradation of stormwater quality through urban pollutants and add residential, commercial and business park land uses into a 100-year floodplain area. Therefore, when compared to the proposed project, the No Project Alternative would result in decreased impacts on hydrology and water quality.

Public Services and Utilities

The No Project Alternative would not result in the introduction of new residents and new businesses to the City of Suisun. Therefore, unlike the proposed project, the No Project Alternative would not create an increased need for public services and utilities, such as law enforcement, fire protection, the public school system, parks and recreation facilities, wastewater treatment and disposal, and water supply and delivery and would have no

new impacts in regard to public services and utilities. The No Project Alternative would have fewer impacts to public services when compared to the proposed project.

Energy

The No Project Alternative would not result in the introduction of any new energy consumption in the project area and would have no impacts. Therefore, although the EIR determined that the proposed project would not have significant impacts to energy resources, this Alternative would eliminate any impacts to these resources.

Socio-economic

Unlike the proposed project, which would increase residential, commercial, and light industrial activity within the City of Suisun, the No Project Alternative would not create an increase or decrease in market leakage or absorption for the City of Suisun, nor would it create more employment opportunities or residential units within the City. Therefore, this Alternative would have a decreased impact related to socio-economic conditions.

Buildout Pursuant to Existing City Designations

The Suisun City General Plan designations for the project site include 10 acres of General Commercial and 162 acres of Limited Industrial/Business Park. Based upon an estimated floor area ratio (FAR) of 0.3 for the General Commercial and 0.4 for the Limited Industrial/Business Park, the Alternative would contain 130,680 square feet of commercial area and 2.8 million square feet of business park uses. The FAR assumed (0.4) for the Limited Industrial/Business Park portion of the site is consistent with the FAR specified in the Suisun City General Plan for the Limited Industrial/Business Park land use designation. The Suisun City General Plan states that the average FAR for General Commercial uses is 0.35 FAR. Though the FAR used for this analysis is slightly less at 0.3, an FAR of 0.3 is consistent with what is allowed in the General Plan for the General Commercial designation. Under the Buildout Pursuant to Existing City Designations Alternative, the entire 171.50-acre annexation area would be developed, compared to the proposed project which would result in the development of Planning Areas 1 through 3, which consists of approximately 87.82 acres. As with the project as proposed, annexation to the City is a necessary aspect of this alternative. (See Figure 4.1-1 for land use diagram).

Environmental Effects

Land Use/Agricultural Resources

The Buildout Pursuant to Existing City Designations Alternative would result in the development of the entire project area in accordance with the General Plan. The development would include 162 acres of Limited Industrial/Business Park uses as well as 10 acres of General Commercial. Unlike the proposed project, which would require a General Plan Amendment, this Alternative would be consistent with the General Plan,

particularly, Policy 20. Policy 20 states that the project site should be built for business park land uses. (The Alternative does require annexation into the City, however.) In addition, this Alternative would not include a mix of residential and commercial uses as would the proposed project; therefore, incompatibility impacts associated with noise and light and glare would not result. However, light and glare impacts on the Suisun Marsh could still result under this Alternative as the business park and commercial uses would introduce a substantial amount of new lighting sources, resulting in a potentially significant impact. Overall, the land use impacts would be expected to be reduced for the Buildout Pursuant to Existing City Designations Alternative.

In regards to agricultural resources, the Buildout Pursuant to Existing City Designations Alternative would result in the conversion of more agricultural land than the proposed project (approximately 85 more acres). However, none of the farmland that would be converted under the proposed project or this Alternative would be considered prime farmland, farmland of statewide importance, or unique farmland. However, as this Alternative would still result in a greater loss of agricultural land, impacts would be increased as compared to the proposed project.

Aesthetics

The Buildout Pursuant to Existing City Designations Alternative would include the development of the entire 171.50-acre annexation area. This includes the area designated for the proposed project as Planning Area 4, which would be preserved as an open space and wetland reserve. Therefore, because this Alternative would develop the entire project area and would not include any open space reserve, the Alternative would result in a significant and unavoidable impact to the wetlands on the project site, including Planning Area 4. Because this Alternative would develop more vacant area than the proposed project, it would result in increased impacts to aesthetics.

Air Quality

The Buildout Pursuant to Existing City Designations Alternative would develop the entire 171.50-acre annexation area. As noted below in the Traffic and Circulation Discussion, the scale of this buildout would result in a net increase in total daily trips of approximately 9,000 trips per day, or a 30 percent increase, when compared to the proposed project. The EIR notes that the proposed project would be expected to exceed project-level and cumulative air quality standards, resulting in a significant and unavoidable impact. The buildout of this Alternative would further increase vehicle emissions associated with the project area by approximately 30 percent more than the proposed project. Because of the increased number of trips generated by the Alternative, air quality impacts would be increased compared to the proposed project.

Noise

The No Project/Buildout Pursuant to Existing City Designations would develop the all four sites of the proposed project Area. As noted below in the Traffic and Circulation

Discussion, the scale of this buildout would result in a net increase in total daily trips of approximately 9,000 trips per day. This would result in an increase in total traffic noise generation when compared to the proposed project. However, the buildout of this Alternative would be consistent with the General Plan land use designations. Additionally, there are no existing sensitive receptors in the project area, and this Alternative would not include the introduction of residential sensitive receptors in close proximity to the existing railroad lines in the project area. Though traffic-related noise impacts would increase, this Alternative would not place sensitive receptors in close proximity to new and existing noise generators, and would therefore have fewer impacts related to noise than the proposed project.

Traffic and Circulation

In addition to developing the area designated by the proposed project as Planning Areas 1 through 3, the Buildout Pursuant to Existing City Designations Alternative would include the development of Planning Area 4, which the proposed project designates as open space. According to Table 4.5-5A from the Traffic and Circulation Chapter of this EIR, the trip generation rates for the 15,683 square feet of Light Industrial/Business Park land uses in the proposed project would result in 173 estimated total daily trips. Based upon this ratio of 1 trip per 90.6 square feet of business park, this Alternative, which would include an estimated 2.8 million square feet of business park uses, would result in over 30,000 total daily trips. As Table 4.5-5A shows, the proposed project is estimated to generate a total of 21,691 daily trips for all on-site land uses. This would be a total increase of approximately 30 percent more trips generated by this Alternative when compared to the proposed project. Therefore, the buildout of this Alternative would result in substantially more total daily trips than the proposed project and have a greater impact on local traffic and circulation.

Biological Resources

The Buildout Pursuant to Existing City Designations Alternative would result in the development of the entire 171.50-acre annexation area for Commercial and Limited Industrial/Business Park uses. The proposed project would result in the development of approximately 88 acres of land, which includes 35.7 acre of wetlands. The additional acreage included in this Alternative contains wetland areas that would be converted if the Alternative was approved and constructed, resulting in a significant and unavoidable impact. Therefore, because the Alternative would result in the conversion of additional wetland acreage, the Alternative would have increased impacts to biological resources.

Hydrology and Water Quality

The Buildout Pursuant to Existing City Designations Alternative would result in the development of the entire 171.50-acre annexation area. This Alternative would result in the creation of more impervious surfaces than the proposed project. The addition of impervious surfaces would impact drainage patterns and stormwater runoff quality. This Alternative would have a significant impact to hydrology and water quality. Because this

Alternative would develop a larger total area, the impacts related to hydrology and water quality would be expected to be greater than those associated with the proposed project.

Public Services and Utilities

The Buildout Pursuant to Existing City Designations Alternative would necessitate the extension of public services infrastructure (i.e., water and wastewater) to the 171.50-acre annexation area, whereas, the proposed project would necessitate the extension of public services to an 87.82-acre area (Planning Areas 1 through 3). These services would include the onsite sewer network, which, for the proposed project would include an estimated 6,000 feet of on-site piping. Additionally, increased infrastructure for water lines would also be required, the Public Services chapter of this Draft EIR estimates that the proposed project would require 14,000 feet of pipe for water access lines, and an additional 6,000 feet of pipe to supply connections to the development. This Alternative would nearly double the total area of the proposed project and would require substantially more infrastructure to support sewage and water systems to the entire development.

The buildout of the project area pursuant to existing City land use designations would include light industrial/business park uses totaling approximately 2.8 million square feet. However, the proposed project would include 359 residential units in addition to 719,839 square feet of commercial development. These residential land uses would be expected to be notably more intense in regard to water and wastewater demands than the light industrial/business park land uses proposed for this Alternative.

Demand for police and fire services could also be greater for the proposed project than the Buildout Pursuant to Existing City Designations Alternative, as the commercial and residential uses associated with the proposed project could be expected to generate more incidents requiring these services. The City of Suisun maintains a ratio of one officer for every 1,000 residents. The Buildout Pursuant to Existing City Designations Alternative would not increase the total residents in the City, and, by policy, would not require the addition of any uniformed officers. Additionally, the Buildout Pursuant to Existing City Designations Alternative would be required to pay Public Facilities Fees to the City in accordance with City Council Resolution No. 94-6, which specifies that office developments contribute $234 per 1,000 square feet of development. Under this fee structure, this alternative would contribute approximately $655,000 to the City's public facilities program, which would be expected offset the needs for additional police and fire infrastructure, reducing the impact to a less-than-significant level.

Because the Buildout Pursuant to Existing City Designations Alternative would not include residential development, other public services, such as libraries and public schools, would not be impacted by the development of the alternative, whereas the development of the proposed project would result in the addition of over 1,000 new residents to the City of Suisun. As a result, the impacts associated with public facilities for this alternative would be significantly less than those associated with the proposed project.

Therefore, though the development of the Alternative would include a larger total area, the total needs associated with public services to the project area would be expected to be similar, if not slightly decreased under this Alternative.

Energy

The Buildout Pursuant to Existing City Designations Alternative would include the development of approximately 130,680 sq. ft. of commercial and 2.8 million sq. ft. of business park land uses in the proposed project area. This would be a large increase over the total scope of the proposed project, which would include approximately 740,000 sq. ft. of commercial and light industrial development and 359 residential units. Energy uses associated with Light Industrial/Business Parks, which include HVAC units, lighting, and general energy consumption associated with office operations, such as computers, would result in an increased total energy demand when compared to the proposed project.

Socio-economic

The Buildout Pursuant to Existing City Designations Alternative would include 130,680 sq. ft. of commercial development compared to the 719,839 sq. ft. of commercial development associated with the proposed project. As a result of the markedly decreased commercial square footage, the Alternative would result in fewer impacts to existing businesses by not diverting as many sales when compared to the proposed project. Additionally, the Light Industrial/Business Park uses associated with the Alternative would increase the local employment base and help stimulate economic growth in the area. Therefore, because the Alternative would stimulate employment and be less likely to impact existing businesses in the City of Suisun, the Alternative would be expected to have fewer impacts than the proposed project.

Resource Avoidance Alternative

The Resource Avoidance Alternative would result in a reduced level of development on the project site. More specifically, this Alternative is designed to avoid the wetland habitats located on the 172-acre annexation site. As illustrated in Figure 5-1, the buildout under this Alternative would be limited to non-wetland areas on Planning Area 1, Planning Area 2, and Planning Area 3. The total development area consists of 49.61 acres. As indicated in Figure 5-1, a 25-foot buffer would be located around the development area, in order to decrease edge effects associated with the placement of commercial and residential uses in the immediate vicinity of sensitive wetland habitats. For the sake of analysis, this discussion assumes that the buildout of the Alternative would include a land use ratio similar to that of the proposed project (commercial and residential land uses with a small portion of industrial/business park development.)

Environmental Effects

Land Use/Agricultural Resources

The Resource Avoidance Alternative would result in buildout similar to the proposed project, and would require several portions of the proposed project area (P1, P2 and P3 in Figure 5-1) to be re-designated from Light Industrial/Business Park uses to Commercial and Residential and annex the entire proposed project area into the City of Suisun, resulting in a potentially significant impact. Additionally, under this Alternative a approximately 130 acres of the project site that is currently designated by the General Plan to be Light Industrial/Business Park, would remain vacant, open space, and only 50 acres of the project area would be developed. This would conflict with the current General Plan designation for the area, which designates the entire project area for development, and would result in a potentially significant impact in regard to current land use designations (see Figure 4.1-1 which illustrates the current General Plan land use designations).

Therefore, because this Alternative would be inconsistent with General Plan Land uses and would require the re-designation of land uses on the project site, the Resource Avoidance Alternative would be expected to result in a significant and unavoidable impact. Because the proposed project would require similar re-designations, the proposed project and this alternative would have similar impacts in regard to land use.

In regards to agricultural resources, the Resource Avoidance Alternative would result in the conversion of less agricultural land than the proposed project (approximately 37 fewer acres). Although the on-site soils are not considered prime farmland, this Alternative would still result in a decreased loss of agricultural land.

Aesthetics

The Resource Avoidance Alternative would decrease the total developed area of the proposed project and avoid development on any areas identified as wetlands, resulting in the development of approximately 50 total acres (see Figure 5-1.) Despite this decrease, similar to the proposed project, the Resource Avoidance Alternative would cause a significant impact in regard to changing the visual character of the site. However, the proposed project would develop 87.82 total acres and would therefore develop approximately 37 more acres of open space than the Resource Avoidance Alternative. As a result, the Alternative would have fewer impacts in regard to aesthetics on and surrounding the project area.

Air Quality

The Resource Avoidance Alternative would the development of approximately 50 acres and would result in fewer residential units, commercial and industrial developments than the proposed project, which would occupy approximately 88 acres. The Transportation and Circulation chapter of this Draft EIR found that the proposed project would be

expected to produce an estimated 21,691 vehicle trips per day. Using these base projections, the Resource Avoidance Alternative would be expected to produce approximately 12,147 total trips per day. Table 5-1 shows the estimated regional emissions for the proposed project in pounds per day.

Table 5-1
Project Regional Emissions in Pounds Per Day

	ROG	NO_x	PM_{10}
proposed project	166.7	164.8	143.1
BAAQMD Threshold of Significance	**80.0**	**80.0**	**80.0**

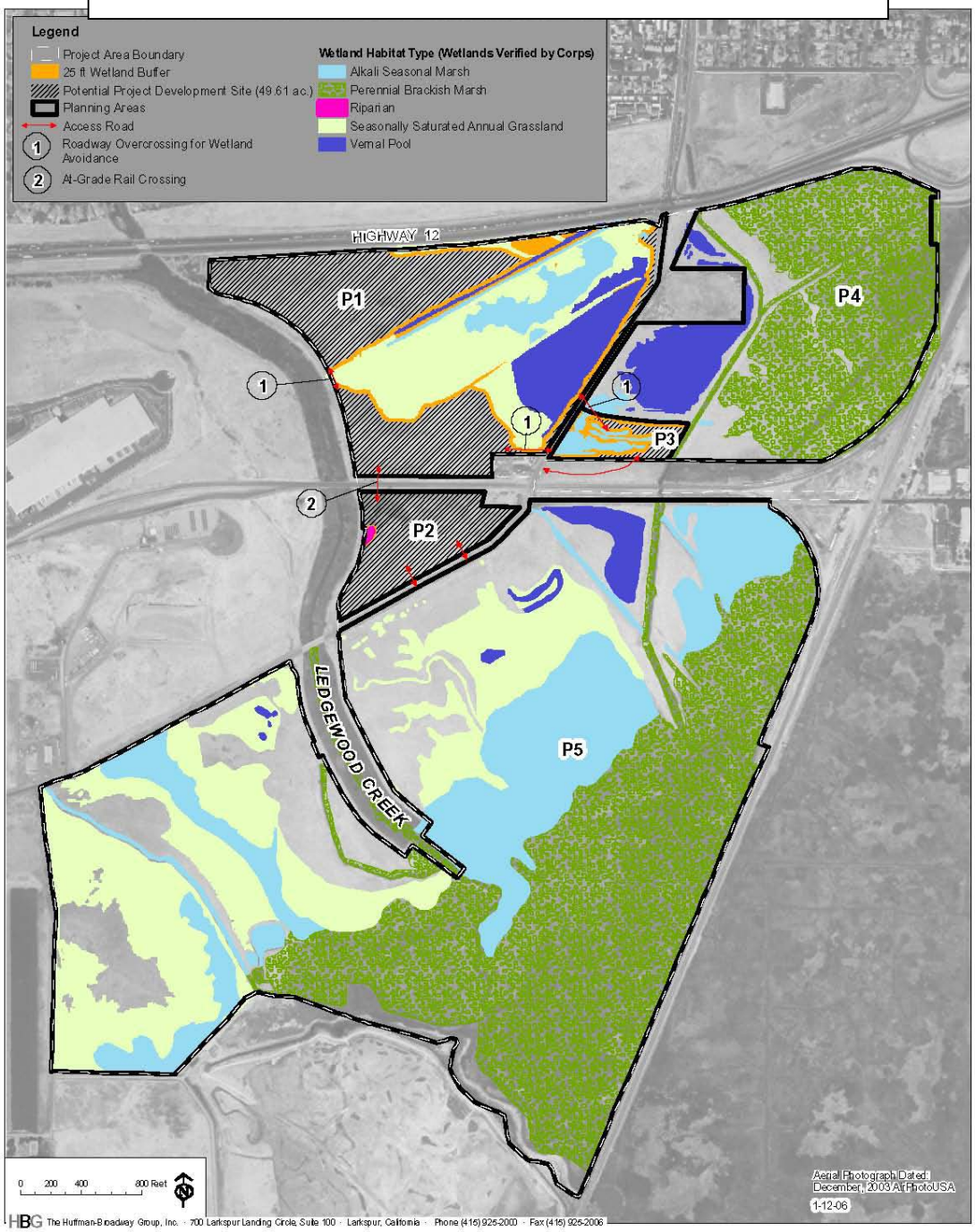
Source: Don Ballanti, 2005.

Because of the reduced size of the Resource Avoidance Alternative, the alternative would be expected to result in an estimated 56 percent decrease in total vehicle-based and operational emissions when compared to the proposed project. As a result, the Resource Avoidance Alternative would decrease the ROG and NO_x emissions to approximately 92 pounds per day, and decrease PM_{10} to approximately 82 pounds per day. Though these emissions would remain above the BAAQMD thresholds of significance and therefore be a potentially significant impact, the implementation of the Resource Avoidance Alternative would result in a substantial decrease in total emissions when compared to the proposed project.

Noise

The Resource Avoidance Alternative would result in fewer residential units, commercial and industrial developments than the proposed project. The alternative would result in fewer total trips generated and fewer sensitive receptors introduced to the project site, and a decrease in total noise generation at sensitive receptors when compared to the proposed project. Therefore, though the Alternative would introduce new sensitive receptors to the area and have a potentially significant impact in regard to noise levels, there would be fewer noise related impacts associated with the Resource Avoidance Alternative than the proposed project due to the decreased scale of the Alternative.

Figure 5-1
Resource Avoidance Alternative Diagram



Attachment A. CEQA Analysis, Total Avoidance of Wetlands, Gentry-Suisun Project, Suisun City, CA

Traffic and Circulation

The Resource Avoidance Alternative would result in fewer residential units, commercial, and industrial developments than the proposed project. The Transportation and Circulation chapter of this Draft EIR found that the proposed project would be expected to produce an estimated 21,691 vehicle trips per day. Using these base projections, the Resource Avoidance Alternative would be expected to produce approximately 12,147 total trips per day. This would result in a substantial decrease in total trip generation. However, this Alternative would still be expected to result in significant traffic impacts. Overall, due to the decrease in the total development area associated with the Resource Avoidance Alternative, the Alternative would be expected to have fewer impacts associated with traffic and circulation when compared to the proposed project.

Biological Resources

The Resource Avoidance Alternative would avoid development of wetland areas, decreasing the total development area by over 35 acres. The conservation of existing wetland areas associated with the Resource Avoidance Alternative, which could support special status plants and wildlife, would be expected to have a less-than-significant impact to biological resources. Therefore, because the proposed project would result in the development of a large portion of wetland area, this Alternative would have far fewer impacts than the proposed project in relation to biological resources.

Table 5-2
Resource Avoidance Alternative, Gentry-Suisun Project

Potential Project Development Sites With total Wetlands Avoidance	Access Routing Possibilities	Access Limitations If Total Avoidance of Wetland Impacts	Other Significant Constraints On Development
PA1-A (south portion of PA1)	Access from: • Pennsylvania north of auto wrecking yard and railroad. • Access from Cordelia Highway via P2 and an at grade rail crossing. • Access with clear span bridge over creek from the west	1. Total Avoidance of Wetlands 2. Wetlands could be clear spanned or abutment / pier supported (minimum 2 feet high). 3. Minimum 25 foot (average) buffer adjacent to all wetlands.	Still have to provide mitigation for Swainson's hawk and indirect impacts to Vernal pool habitat, but all mitigation can be done on Barnfield and Tooby properties. Conservation easement and funding endowment for in perpetuity long-term management/protection will be required. Would still have to mitigate for impacts to Contra Costa Goldfields Critical Habitat Unit 10G and initiate consultation with the USFWS through a Section 10 process. Infrastructure costs for drainage, water, sewer and other utilities remains roughly constant while the effective net usable project size is diminished to less than one-half. Irregular configuration of the parcel and the limited

Table 5-2
Resource Avoidance Alternative, Gentry-Suisun Project

Potential Project Development Sites With total Wetlands Avoidance	Access Routing Possibilities	Access Limitations If Total Avoidance of Wetland Impacts	Other Significant Constraints On Development
			access may not be considered commercially viable
PA1-B (northwest portion of PA1)	Access from: • Pennsylvania north of auto wrecking yard and railroad. • Access from Cordelia Highway via PA1-A and an at grade rail crossing and a low over crossing (minimum 2 feet high) over wetlands • Access from HY 12 • Access with clear span bridge over creek from the west	1. Total Avoidance of Wetlands 2. Wetlands could be clear spanned or abutment / pier supported (minimum 2 feet high). 3. Minimum 25 foot (average) buffer adjacent to all wetlands except vernal pool habitat.	Still have to provide mitigation for Swainson's Hawk and indirect impacts to Vernal pool habitat, but all mitigation can be done on Barnfield and Tooby properties. Conservation easement and funding endowment for in perpetuity long-term management/protection will be required. Would still have to mitigate for impacts to Contra Costa Goldfields Critical Habitat Unit 10G and initiate consultation with the USFWS through a Section 10 process. Infrastructure costs for drainage, water, sewer and other utilities remains roughly constant while the effective net usable project size is diminished to less than one-half Access from SR 12 to PA1-B is not feasible. The irregular configuration of the parcel and the limited access is not commercially viable.
PA2	Access from: • Cordelia Highway	1. Total Avoidance of Wetlands 2. Minimum 25 foot (average) buffer adjacent to all wetlands.	Still have to provide mitigation for Swainson's hawk and indirect impacts to Vernal pool habitat, but all mitigation can be done on Barnfield and Tooby properties. Conservation easement and funding endowment for in perpetuity long-term management/protection will be required. Would still have to mitigate for impacts to Contra Costa Goldfields Critical Habitat Unit 10G and initiate consultation with the USFWS through a Section 10 process. Infrastructure costs for drainage, water, sewer and other utilities remains roughly constant while the effective net usable overall project size is diminished to less than one-half. Loss of existing low elevation riparian area as a drainage sump will necessitate costly replacement with an alternate facility and concommitent loss of

Table 5-2
Resource Avoidance Alternative, Gentry-Suisun Project

Potential Project Development Sites With total Wetlands Avoidance	Access Routing Possibilities	Access Limitations If Total Avoidance of Wetland Impacts	Other Significant Constraints On Development
			developable land area.
PA3	Access from: • Pennsylvania Avenue entering the property from the northwest over crossing wetlands at narrows point, • via city property to the south.	1. Total Avoidance of Wetlands 2. Wetlands could be clear spanned or abutment / pier supported (minimum 2 feet high. 3. Minimum 25 foot (average) buffer adjacent to all wetlands except vernal pool habitat.	Still have to provide mitigation for Swainson's hawk and indirect impacts to Vernal pool habitat, but all mitigation can be done on Barnfield and Tooby properties. Conservation easement and funding endowment for in perpetuity long-term management/protection will be required. Would still have to mitigate for impacts to Contra Costa Goldfields Critical Habitat Unit 10G and initiate consultation with the USFWS through a Section 10 process. Infrastructure costs for drainage, water, sewer and other utilities remains roughly constant while the effective net usable project size is diminished to less than one-half The irregular configuration of the parcel and the limited access makes development not viable.

Hydrology and Water Quality

The Resource Avoidance Alternative would result in the creation fewer impervious surfaces and a fewer impacts to existing drainage patterns in the project area. Additionally, seasonal marshes and vernal pools, as identified in Figure 5-1, would not be impacted, as the Alternative would avoid development in wetland areas there. The Resource Avoidance Alternative would decrease the total area developed by approximately 37 acres, the impacts associated with hydrology and water quality for this alternative would be expected to be less-than-significant. Therefore, the Alternative would have fewer impacts to hydrology and water quality when compared to the proposed project.

Public Services and Utilities

The Resource Avoidance Alternative would result in a decrease in the scale of the proposed project, reducing the total number of residential units from 359 to approximately 200, as well as a decrease in commercial uses from 719,839 sq. ft. to 403,110 sq. ft. and light industrial land uses from 15,682 to 8,782 sq. ft. Accordingly, this alternative would decrease the need for water and wastewater infrastructure by

approximately 56 percent, as well as decrease the impacts relating to public schools, libraries and fire protection.

Additionally, the Resource Avoidance Alternative would add approximately 640 new residents to the City of Suisun (200 residential units x 3.2 estimated residents per household, as per General Plan standards). The proposed project would be expected to result in an increase in 1,264 residents (395 residential units x 3.2 estimated residents per household, as per General Plan standards). The Suisun Police Department maintains a ration of one officer per every 1,000 residents, given this standard, the Resource Avoidance Alternative would have a smaller impact in regard to the need for increased police services in the City of Suisun.

The Resource Avoidance Alternative would be expected to have a less-than-significant impact in regard to public services and utilities. Therefore, the Resource Avoidance Alternative would result in a decreased need for public services and utilities on the project site when compared to the proposed project.

Energy

The Resource Avoidance Alternative would avoid development on wetland sites within the project area. As a result, the Alternative would result in a decrease in the scale of the proposed project, reducing the total number of residential units from 359 to approximately 200, as well as a decrease in commercial uses from 719,839 sq. ft. to 403,110 sq. ft. and light industrial land uses from 15,682 to 8,782 sq. ft. Therefore, because the Alternative would result in a smaller-scale buildout, the operational and construction related energy needs associated with the site would e expected to be fewer than the proposed project.

Socio-economic

The Resource Avoidance Alternative would result in a decrease in the scale of the proposed project, creating fewer commercial, industrial and residential sites than the proposed project. As a result, the Alternative would introduce fewer new sources of commercial competition, which could in turn create an increase in urban decay. Additionally, this Alternative would decrease the number of new residents introduced to the site, which would decrease any impacts associated with the current employment base in and surrounding the City of Suisun. Therefore, impacts related to the Resource Avoidance Alternative would be fewer than the proposed project.

Environmentally Superior Alternative

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. Section 15126(d)(2) of the CEQA Guidelines requires that an environmentally superior alternative be designated and states that "if the environmentally superior alternative is the 'no project' alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives."

Generally, the environmentally superior alternative is the one that would result in the fewest unmitigable impacts or less environmental impact overall.

The CEQA Guidelines (Section 15126.6(e)(2)) further state that if the environmentally superior alternative is the "No Project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. For the Suisun-Gentry Project, aside from the No Project Alternative, the Resource Avoidance Alternative would be considered the environmentally superior alternative. Although the Resource Avoidance Alternative would not achieve all of the applicant's project objectives (in particular, Objectives C-1, D-1 and D-5 listed at the beginning of the Alternatives section), the Resource Avoidance Alternative would result in fewer environmental impacts than the proposed project while still providing some commercial, residential and industrial land uses consistent with the goals of the applicant.

The Resource Avoidance Alternative would avoid construction on parts of the project area identified as wetland resources. This would reduce the total development area to areas P1, P2 and P3 in Figure 5-1. As a result, the Resource Avoidance Alternative would not result in significant and unavoidable impacts related to the loss of wetland habitat that has the potential to support special-status species plants and animals. However, this Alternative would require the applicant to greatly reduce the scale of the proposed project to levels that may not allow for all of the project objectives to be adequately met.

In addition, the Resource Avoidance Alternative would not place as many sensitive receptors in close proximity with existing railroad lines as well as decreasing the total number of vehicle trips generated by the project. As a result impacts related to traffic, air quality and noise would all be decreased by this Alternative.

Because the Resource Avoidance Alternative would result in the construction of fewer residential, commercial and business land uses than the proposed project, this Alterative would also have create fewer impervious surfaces, require fewer public services, utilities and energy and have fewer impacts related to the socio-economic climate of the City of Suisun.

6. STATUTORILY REQUIRED SECTIONS

6. STATUTORILY REQUIRED SECTIONS

6.1 Growth-Inducing Impacts

CEQA Guidelines section 15126.2, subdivision (d), sets forth principles governing the assessment of possible "Growth-Inducing Impacts." It provides that EIRs should "[d]iscuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a waste water treatment plant might, for example, allow for more construction in service areas). Increases in the population may tax existing community service facilities, requiring construction of new facilities that could cause significant environmental effects." EIRs should "[a]lso discuss the characteristic of some projects which may encourage and facilitate other activities that could significantly affect the environment, either individually or cumulatively. It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The proposed Gentry-Suisun project is growth-inducing in the limited sense that it would result in the development of a mixed-use project on approximately 87.82 acres of vacant land, and would result in the annexation of a larger 171.50-acre area into the City of Suisun City. The project site, however, has long been planned for General Commercial and Limited Industrial/Business Park development in the City of Suisun General Plan. Moreover, land to the south (Planning Area 5) and east (Planning Area 4) of the mixed-use project site are planned for wetland/open space preservation, and land to the north, across State Route 12, is already developed for residential uses. This planning background and physical context limit the extent to which the project may be considered to induce new growth beyond its own boundaries. Rather, the project may fairly be said to implement existing planning commitments already embodied in the City's General Plan. This view is reinforced by the fact that the utilities that would be constructed to serve the proposed project would not be extended west of the project site, across Ledgewood Creek. In short, construction of the proposed project would not result in increased pressure to develop areas not previously anticipated for build-out.

6.2 Cumulative Impacts

Background

CEQA Guidelines Section 15130 requires that an EIR discuss the cumulative and long-term effects of the proposed project that adversely affect the environment. "Cumulative impacts" are defined as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts." (CEQA

Guidelines, § 15355; see also Pub. Resources Code, § 21083, subd. (b).) Stated another way, "a cumulative impact consists of an impact which is created as a result of the combination of the project evaluated in the EIR together with other projects causing related impacts." (CEQA Guidelines, § 15130, subd. (a)(1).)

"[I]ndividual effects may be changes resulting from a single project or a number of separate projects." (CEQA Guidelines, § 15355, subd. (a).) "The cumulative impact from several projects is the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." (CEQA Guidelines, § 15355, subd. (b).)

The need for cumulative impact assessment reflects the fact that, although a project may cause an "individually limited" or "individually minor" incremental impact that, by itself, is not significant, the increment may be "cumulatively considerable," and thus significant, when viewed together with environmental changes anticipated from past, present, and probable future projects. (CEQA Guidelines, §§ 15064, subd. (h)(1), 15065, subd. (c), 15355, subd. (b).) This formulation indicates that particular impacts may be less-than-significant on a project-specific basis but significant on a cumulative basis, because their small incremental contribution, viewed against the larger backdrop, is cumulatively considerable.

The lead agency should define the relevant geographic area of inquiry for each impact category (id., § 15130, subd. (b)(3)), and should then identify the universe of "past, present, and probable future projects producing related or cumulative impacts" relevant to the various categories, either through the preparation of a "list" of such projects or through the use of "a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact" (id., subd. (b)(1)).

The possibility exists that the "cumulative impact" of multiple projects will be significant, but that the incremental contribution to that impact from a particular project (e.g., Base Project) may not itself be "cumulatively considerable." Thus, CEQA Guidelines section 15064, subdivision (h)(5), states that "[t]he mere existence of significant cumulative impacts caused by other projects alone shall not constitute substantial evidence that the proposed project's incremental effects are cumulatively considerable." Therefore, it is not necessarily true that, even where cumulative impacts are significant, any level of incremental contribution must be deemed cumulatively considerable.

Gentry Cumulative Setting

The geographic scope of the area for the Gentry-Suisun Draft EIR cumulative analyses includes the City of Suisun City and the City of Fairfield. These boundaries have been

chosen because the impacts of the project would not only occur within the boundaries of Suisun City, but would extend into the neighboring jurisdiction of the City of Fairfield. As a result, the traffic model for this Draft EIR, which assumes buildout of the Suisun City General Plan, was updated to include reasonably foreseeable projects both within the City of Suisun City and the City of Fairfield. The list of projects accounted for in the technical analyses of this Draft EIR as determined in consultation with City are listed below. It should be noted that the below list is based upon the data available at the time of preparing the technical analyses for the project.

Fairfield Projects

- Super Wal-Mart
  This project involves the removal of an existing commercial center and replacement by a Super Wal-Mart facility. The existing 188,000 SF shopping facility will be replaced by a 187,000 SF Super Wal-Mart.

- Park Crossing Apartments
  This project is currently being developed and is anticipated to contain 200 apartment homes on the former County Hospital Site near Beck Avenue and Texas Street.

- Allan Witt Park Project
  This project involves a public/private partnership to redevelop the Allan Witt Park and adjacent City and County-owned land. Proposed development for this site would include 698 residential units and 55,000 SF of various types of non-residential space including commercial and a potential neighborhood center.

- Proposed Expansion of the Solano Mall
  Several expansions have been proposed for the Solano Mall. The proposal at the time of the preparation of the technical studies for the Gentry-Suisun EIR involved expanding the facility by approximately 71,000 square feet.

- Proposed Mission Solano Homeless Shelter
  At the time of preparation of the technical studies for the proposed project, the City of Fairfield was working with several non-profit groups to construct a homeless shelter near the intersection of Cordelia Road and Beck Avenue. Project size data was not available at the time. However, it is unlikely that this type of use would generate significant traffic volumes, especially during peak hours of travel.

Suisun City Projects

- Marina at SR 12
  This project includes 145 dwelling units, 5 acres of commercial, and 5.9 acres of business commercial.

- McCoy Creek Drive at Grizzly Island Road
  This development is described as having 19 dwelling units, 15 live/work units, and 13,000 square feet of commercial space (including the live/work space).

- Main Street West
  This project is anticipated to include 9 acres of mixed-use development including both commercial and residential components, with an equal division between the two. For purposes of the technical analyses of this Draft EIR, the project is anticipated to contain 90 dwelling units (20 DU's per acre over 4.5 acres) and 80 employees (2 per 1 KSF over 4.5 acres at 0.2 FAR).

- Hidden Creek Apartments
  This project is anticipated to contain 108 DU's and would be located north of Railroad Avenue, west of Sunset.

- Bancor/Passport Homes
  This project is anticipated to contain 70 DU's and would be located north of Railroad Avenue, west of Sunset.

- Lighthouse Landing
  This project is anticipated to contain 75 DU's and would be located on Railroad Avenue, west of Blossom Avenue.

Below is a list of all the chapters of the Draft EIR containing Cumulative Impact sections and an associated summary of each chapter's cumulative impacts and mitigation measures.

Land Use / Agricultural Resources

Cumulative impacts regarding land use are discussed in Impact 4.1-5. The proposed Gentry-Suisun project, along with all known projects in the City of Suisun City and Solano County would result in a significant change in land uses in the region. The project site is designated for development in the Suisun City General Plan and the project involves a request to pre-zone the project site to various urban zoning districts with a PUD overlay. Given the land use controls, General Plan goals and policies, and development standards presently in use within Suisun City, the project-level land use impacts have been minimized to a level that is considered to be less-than-significant as has the incremental contribution of the proposed project. Therefore, though a

cumulatively significant impact would result of the buildout of the City of Suisun and surrounding areas, the proposed project's contribution to the cumulative impact was not found to be cumulatively considerable.

The project, in conjunction with the cumulative buildout of future projects in the City of Suisun and Solano County would contribute to a significant impact in regard to the loss of agricultural land as a result of development. The cumulative development of the City of Suisun as well as other projects within the region, would contribute to a cumulative loss of Prime Farmland, Farmland of Statewide Importance or Unique Farmland. However, because the proposed project site was not found to include Prime Farmland, Farmland of Statewide Importance or Unique Farmland, the proposed project's contribution to the cumulative loss of farmland would not be cumulatively considerable. Therefore, the proposed project is expected to have a less-than-significant cumulative impact.

Aesthetics

Cumulative impacts regarding aesthetics are discussed in Impact 4.2-4. Implementation of the Base Project, Alternative 1, or Alternative 2 would contribute to the cumulative change in visual character of the Solano County region from open and natural to urban. Due to the location of the project site within an undeveloped area, the larger cumulative context of the visual impact of the project and alternatives could be considered as within the City as a whole. The properties in the immediate vicinity of the project site are currently undeveloped, although the sites to the east and west are anticipated for development under the *Suisun General Plan* and *Fairfield General Plan.*

Although the site has been designated General Commercial, Limited Industrial / Business Park in the Suisun General Plan and adjacent undeveloped properties to the west have also been designated for development, any development proposed on the site would contribute to the alteration of the cumulative regional visual character and would result in a significant and unavoidable cumulative impact. The Draft EIR found that the proposed project's contribution to this cumulative impact would be considerable. Therefore, the proposed project would have a significant and unavoidable cumulative impact on the visual character of the region.

Air Quality

Cumulative impacts regarding air quality are discussed in Impact 4.3.7. Because the Base Project and both alternatives include the construction of a mixed-use site on three planning areas totaling approximately 87.82 acres, the project would contribute to the decline of the region's air quality. According to BAAQMD significance criteria, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact.

The Base Project and both alternatives were found to have less-than-significant local impacts on carbon monoxide concentrations when combined with the effects of

cumulative traffic increases. However, the Base Project and both alternatives were found to individually have a significant impact on regional air quality and thus would also have a potentially significant cumulative impact on regional air quality. Implementation of the suggested mitigation measures would reduce impacts; however, this impact would remain significant and unavoidable.

Noise

Cumulative impacts regarding noise are discussed in Impact 4.4-6. The proposed project would contribute to cumulative traffic on the local roadway network. This traffic would in turn contribute to a cumulative increase in traffic noise levels. However, project-related noise levels relative to the Cumulative (2015) No Project noise levels would register as a barely noticeable increase in most areas. Main Street, south of Cordelia Road is the only roadway segment that might experience a noticeable change in the community related to noise. Even if the project were to increase traffic on this street, absolute noise levels are predicted to be well below the City of Suisun exterior noise level standard of 65 dB Ldn. Therefore, cumulative increases in traffic noise levels would be considered less-than-significant.

Traffic and Circulation

The traffic study found that under the cumulative plus project condition the proposed project would be expected to have a potentially significant impact at 22 of the 23 study intersections. Suggested mitigation measures included in the chapter would mitigate the impacts at 10 of these intersections to less-than-significant levels; impacts to the remaining 13 intersections would remain significant and unavoidable under the cumulative plus project condition.

Biological Resources

Cumulative impacts regarding biological resources are discussed in Impact 4.6-18. The proposed project is one of many projects proposed in the project site vicinity. A large number of transportation, commercial, residential, and industrial projects are proposed and underway for the Fairfield/Suisun City area. Recently completed projects within Fairfield and Suisun City have reduced the area's usefulness as a wildlife corridor and future projects would further reduce this function. Areas of existing habitat in lands designated for development by the Solano County HCP, the Solano County General Plan, and the Suisun City General Plan would be reduced in the immediate future. The cumulative impact of these current and future projects was found to have a cumulatively significant impact on biological resources in the region.

In addition, the project's incremental contribution to cumulative biological impacts would be cumulatively considerable. All project-level impacts, except one (impacts to alkali milk-vetch), would be reduced to a less-than-significant level with implementation of applicable mitigation measures. However, because the project would contribute to

cumulative biological impacts, which could not be fully mitigated, a significant impact would occur.

Hydrology and Water Quality

Cumulative impacts regarding hydrology and water quality are discussed in Impacts 4.7-4 and 4.7-5. Implementation of the Base Project, Alternative 1, and Alternative 2 would contribute to the cumulative increase of urban pollutant loading, which would adversely affect water quality. The proposed mixed-use project would create impervious surfaces where none currently exist. These impervious surfaces could increase the rate and amount of runoff, thereby potentially adversely affecting existing surface water quality through increased erosion and sedimentation. In addition, the impervious surfaces would increase the stormwater drainage downstream of the project site. However, the mitigation measures included in this EIR would reduce the project's contribution to these cumulative impacts to a less-than-significant level.

Public Services and Utilities

Cumulative impacts regarding public services and utilities are discussed in Impact 4.8-9. Implementation of the Base Project, Alternative 1, and Alternative 2 would contribute toward an increased demand for public services and facilities in the City of Suisun City. Development of the project site with urban uses would exceed the demand for public services and facilities anticipated in the General Plan, as the project involves annexation. However, as demonstrated in this Draft EIR, with the incorporation of mitigation measures, impacts to public services and facilities as a result of the proposed project would be less-than-significant. Therefore, the project's cumulative contribution to the City's public service and facility needs would also be less-than-significant.

Energy

Cumulative impacts regarding energy are discussed in Impacts 4.9-1, 4.9-2 and 4.9-3. Implementation of the Base Project, Alternative 1, and Alternative 2 would result in increased electricity and natural gas consumption, but not to a level that would be considered substantial in relation to regional or statewide energy supplies. The project, as well as other future development projects, would be required to construct the necessary energy facilities needed to serve the project. Furthermore, the project would be subject to the minimum energy conservation requirements of Title 24 of the California Code of Regulation. Therefore, the project's cumulative contribution to energy usage in the area would be less-than-significant.

Socio-economic

Cumulative impacts regarding socio-economic effects are discussed in Impacts 4.10-1 and 4.10-2. In the cumulative scenario, the proposed project would not result in adverse impacts to retailers because although some stores would be at risk of closing in the short-term, these stores are expected to achieve stabilized sales after approximately two to three

years. Because a physical impact to the environment in the form of urban decay would thus not occur, the project would have a less-than-significant impact to the primary market area.

6.3 Significant Irreversible Environmental Changes

The State CEQA Guidelines mandate that an EIR address any significant irreversible environmental changes, which would be involved if the proposed project is implemented (CEQA Guidelines, § 15126.2[c]). An impact would fall into this category if:

- The project would involve a large commitment of nonrenewable resources;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g. a highway provides access to a previously remote area);
- The project involves uses in which irreversible damage could result from any potential environmental accidents associated with the project; or
- The phasing of the proposed consumption of resources is not justified (e.g., the project involves a wasteful use of energy).

The proposed project would likely result in or contribute to the following irreversible environmental changes:

- Conversion of existing to suburban land uses, precluding alternate land uses in the future;
- Increased background air emissions;
- Increased ambient noise;
- Conversion of habitat;
- Commitment of municipal services to new development;
- Degradation of water quality from urban development; and
- Possible demand for and use of goods, services, and resources for this project to the exclusion of projects in other locations.

6.4 Significant Unavoidable Impacts

According to CEQA Guidelines, a Draft EIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented.[1] Such impacts would be considered unavoidable when it has been determined that either no mitigation, or only partial mitigation such that the impact is not reduced to a level that is less than significant, is feasible. This section identifies significant impacts that could not be eliminated or reduced to a less-than-significant level by mitigations imposed by the City. The final determination of the significance of impacts and of the feasibility of mitigation measures would be made by the City Council as part of its action, if any, approving the project or one of the alternatives.

Implementation of the proposed Gentry-Suisun Project would result in the following project-level significant and unavoidable impacts:

- Impacts related to scenic vistas and visual resources;
- Impacts related to existing visual character or quality of the site and its surroundings;
- Impacts to the Texas Street/I-80 WB Ramp Intersection under Existing Plus Base Project, Existing Plus Alternative 1, and Existing Plus Alternative 2 conditions;
- Impacts to the Texas Street/Beck Street Intersection under Existing Plus Base Project, Existing Plus Alternative 1, and Existing Plus Alternative 2 conditions;
- Impacts to the Texas Street/Pennsylvania Avenue Intersection under Existing Plus Base Project, Existing Plus Alternative 1, and Existing Plus Alternative 2 conditions;
- Impacts to the SR 12/Beck Avenue Intersection under Existing Plus Base Project, Existing Plus Alternative 1, and Existing Plus Alternative 2 conditions;
- Impacts to the SR 12/Pennsylvania Avenue Intersection under Existing Plus Base Project, Existing Plus Alternative 1, and Existing Plus Alternative 2 conditions;
- Impacts to the SR 12/Sunset Avenue Intersection under Existing Plus Base Project, Existing Plus Alternative 1, and Existing Plus Alternative 2 conditions;
- Impacts to the Cordelia Road/Pennsylvania Avenue intersection under Existing Plus Base Project, Existing Plus Alternative 1, and Existing Plus Alternative 2 conditions; and
- Impacts to Alkali Milk-Vetch.

Implementation of the proposed Gentry-Suisun Project would result in the following cumulative significant and unavoidable impacts:

- Long-term impacts to the visual character of the region from the proposed project in combination with existing and future developments in the Suisun area;
- Cumulative regional air quality impacts;
- Cumulative impacts to the Texas Street/I-80 WB Ramp intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the Texas Street/I-80 EB Ramp intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the Texas Street/Beck Avenue intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the Texas Street/Pennsylvania Avenue intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the Texas Street/Jackson Street intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the Texas Street/Webster Street intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the Woolner Avenue/Beck Avenue intersection for the Base Project, Alternative 1, and Alternative 2 conditions;

- Cumulative impacts to the SR 12/Beck Avenue intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the SR 12/Pennsylvania Avenue intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the SR 12/Marina Blvd intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the SR 12/Sunset Avenue intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the Cordelia Road/Beck Avenue intersection for the Base Project, Alternative 1, and Alternative 2 conditions;
- Cumulative impacts to the Lotz Way/Civic Center Boulevard intersection for the Base Project, Alternative 1, and Alternative 2 conditions; and
- Cumulative impacts to biological resources.

Endnotes

[1] CEQA Guidelines §15126.2[b].

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Raney Planning & Management, Inc.

C. Timothy Raney, AICP	President
Cindy Gnos, AICP	Vice President
Nick Pappani	Assistant Division Manager
Jessica Hankins	Senior Associate
Sam Coulson	Associate
Antonio Garza	Associate
Rod Stinson	Associate
Leslie Gross	Associate

City of Suisun City
Ben Hulse, Contract Project Consultant

Project Engineer
Tad Tobitt, Senior Vice President, Cregan and DeAngelo

Air Quality Analysis
Don Ballanti

Noise Analysis
J.C. Brennan and Associates, Inc.

Traffic Analysis
Fehr & Peers, Inc

Biological Analysis
Huffman-Broadway Group
Foothill Associates

Hydrological Analysis
Creegan & D'Angelo

Socio-economic Analysis
Sedway Group

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APPENDIX A

APPENDIX B

APPENDIX C

APPENDIX D

APPENDIX E

APPENDIX F

APPENDIX G

APPENDIX H

APPENDIX I