SECTION 3.7
HAZARDS / RISK OF UPSET

This section of the EIR discusses the potential presence of hazardous materials and hazardous conditions within the project area and analyzes the potential risk of these conditions in the context of existing and proposed development and future human activities. Information contained in this section is taken from two separate Phase I Environmental Site Assessments (ESAs), completed in October 2005 by Twining Laboratories, Inc., research conducted by PMC, and correspondence with public agencies.

3.7.1 EXISTING SETTING

The proposed project site consists of four separate parcels, APNs 221-011-017, 221-011-018, 221-011-071, and 221-011-068. Twining Laboratories completed two separate Phase I ESAs upon request of the project applicants. Each Phase I ESA analyzed the subject property for recognized environmental conditions in accordance standard criteria.

Phase I ESAs were not completed for APN 221-011-071 or APN 221-011-018 as part of the project application. These parcels are being reviewed at a programmatic level consistent with the level of detail for a program EIR, and the setting information contained herein is based upon field observations conducted by PMC staff.

The existing setting and impact analysis of this section addresses each parcel separately.

APN 221-011-068 (SCHEID WEST PARCEL)

Observed Site Features

APN 221-011-068 is located west of Camino Real and south of Patricia Lane just south of the City of Greenfield. The site is approximately 47 acres in size, and currently used for of agricultural row crops. The site is located at an elevation of approximately 280 feet above mean sea level and the land surface slopes toward the south. According to the Soil Survey of Monterey County, CA, native soils in the vicinity of the parcel are composed of Arroyo Seco Gravelly Loam (0 to 2 percent slopes).

The project site has been used historically for agricultural purposes as far back as 1937. Unpaved access and ranch roads adjoin the western and southern boundaries of the parcel. El Camino Real adjoins the parcel on the eastern boundary. Adjoining properties to the north had also been used for agriculture since at least 1937, until approximately 1997, when Greenfield High School was constructed. As part of the background research conducted, building permit records from the Monterey County Planning and Building Department were reviewed to document features or structures that could present a potential environmental concern. No building permits associated with the property were found.

Site Reconnaissance

The Phase I ESA included a site reconnaissance of the Scheid West parcel conducted by Twining Laboratories. The site reconnaissance included a site visit to observe and photograph specific indicators of potential environmental concern. Findings of the reconnaissance are described below.

Hazardous Substances and Wastes

Twining Laboratories observed an above ground plastic tank labeled Sulfuric Acid, located on the western portion of the parcel, the exact size of the tank is unknown. The tank is housed in a wooden structure near an electric agricultural pump. The exact use of the pump is unknown.

Agricultural Chemicals

No agricultural chemicals, or areas where agricultural chemicals may have been stored or mixed, were observed at the parcel during the site reconnaissance. However the parcel has been historically used for agricultural purposes, therefore, a likelihood that residual concentrations of previously applied environmentally persistent agricultural chemicals may remain in the soil on the parcel.

Pipelines and Pipes of Unknown Use or Origin

Several PVC pipes were identified on site during the site reconnaissance completed by Twining Laboratories, the origin and use of the pipes was unidentified, however Twining laboratories observed that the pipes were indicative of agricultural use.

Pits, Ponds and Lagoons

No pits, ponds, or lagoons were observed on the parcel during the site reconnaissance, with the exception of a stagnant pool of water on the eastern boundary of the parcel. The source of the minor area of pooling of water was identified as agricultural run-off.

Polychlorinatedbiphenyl (PCB) Containing Equipment

One pole-mounted transformer was identified on the western portion of the parcel. The transformer casings display no evidence of leakage, and no staining or discoloration was observed on the ground surface below the transformer.

Other Physical Evidence of Contamination

An electrical agricultural pump was observed on the western portion of the parcel. Oil staining was observed on the pump itself and below the pump in the soil. A shack used for

agricultural purposes located adjacent and northeast of the pump also contained areas of oil staining, with the staining apparently contained within a few feet of the shack. Hydrocarbon odors were also noted in one of the soil borings drilled in the southeast corner of the project site.

Other Issues Potential Concern

Other than the aforementioned tank labeled for sulphuric acid, there were no indications of above ground storage tanks (ASTs) or underground storage tanks (USTs) on the parcel. No visual indications that parcel contain any septic tanks, water wells or dry wells. No drums or other storage containers were observed, and there was no evidence of solid waste or dumped material. No drains or sumps were identified, and no wastewater appears to be generated on the parcel. The site contains no oil or gas wells, high-tension power lines, wetlands surface waters, or other features of interest.

Records Review and Research

A records review was conducted for the site and surrounding areas to help evaluate recognized environmental conditions in connection with the site and bordering properties. The review included databases available from the Federal, State and local regulatory lists and was performed by Environmental Data Resources (EDR), August 29, 2005.

The results of the records review identified one instance in the vicinity with the potential to pose an environmental concern at the project site. The facility is the Scheid Vineyard Bland Ranch Facility, located at 42595 Espinosa Road. This facility had an on-site AST rupture at a location approximately 3,000 feet south of the parcel, and the contents of the AST were not disclosed in the records review. A "case closure letter" dated February 5, 1997, stated that no further action regarding the site was needed. Due to the information reviewed at the Monterey County Environmental Health Department, the case closure letter, and the distance between the AST and the project, the environmental concern for this off site facility is considered low.

APN 221-011-017 (FRANSCIONI PARCEL)

Observed Site Features

This 171-acre parcel is located east of Patricia Lane and north of Espinosa Road. The Phase I ESA addressed and analyzed 121 of the 171 acres, as 50 acres of the parcel will be placed in a permanent agricultural easement and are not proposed for development. The parcel is located at an elevation of approximately 280 feet above mean sea level and surface slopes toward the south. Patricia Lane adjoins the parcel to the west, and unpaved ranch roads border the property to the north and east.

The northwest portion of the parcel contains a single-story residence and metal shed. A wooden structure is also located in the central portion of the parcel. Electricity is provided to the parcel by PG&E, water is supplied by a domestic well on the parcel, and the residence served by a residential septic tank.

Review of Historical Aerial Photographs

A series of historical aerial photographs were reviewed as part of the ESA, dating back to 1937. The earliest photos identify the farmhouse located on the northwest portion of the parcel, and the adjoining parcels were clearly identified as under agricultural use. . Based on the photos, the use of the property went through little or no alterations until 1976 when a retention basin was observed. From 1976 to present, aerial photographs indicate that the subject parcel and adjoining properties have remained in similar use.

Building Permit History

Monterey County building permit records were reviewed to identify any construction or permit activity. One permit issued in 1998 is on file for the addition of what is described as an Accessory Building.

Site Reconnaissance

The Phase I ESA included a site reconnaissance of the Franscioni parcel. The site reconnaissance included a site walk to observe and photograph specific indicators of environmental concern at this location. Findings of the reconnaissance are described below.

Underground Storage Tanks (USTs) / Aboveground Storage Tanks (ASTs)

Visual indications of USTs such as vent lines or fill ports were not observed on the parcel during the site reconnaissance. However, an approximately 1,500-gallon Diesel Fuel AST, housed on the central portion of the parcel in a wooden shed was observed. Adjoining the eastern side of the wooden shed is an approximately 500-gallon water tank. Twining also observed two propane tanks on the northwest portion of the parcel. One propane tank appears to be in domestic use for the residence, while the other appears to be used for agricultural use. A domestic water pump was also observed near the house.

Septic Tanks, Water Wells and Dry Wells

An agricultural pump and water well were observed on the northwestern portion of the parcel. The well is drilled to a depth of approximately 420 feet. According to the property owner, a single septic tank is located adjacent to the residence.

Potential Polychlorinatedbiphenyl (PCB)-Containing Equipment

One pole-mounted transformer was identified on the parcel, near the southeastern boundary. The transformer casings displayed no evidence of leakage and no staining or discoloration was observed on the ground surface or below the transformer

Oil and Gas Well

One oil well was identified on the southern portion of the parcel. The oil well is not currently in use, and was plugged and abandoned.

Pits, Ponds and Lagoons

A dry retention basin located in the central portion of the property was observed. According to the site operator, the basin was used in the past to hold water for frost protection for the vineyard. The basin is now only used to hold excess water from the fields.

Pipelines and Pipes

Twining observed an agricultural pump located in the northwestern portion of the property. The site operator indicated that the pump is connected to the water pump in the central portion of the parcel near the retention basin. Metal irrigation pipe was present throughout the parcel.

Agricultural Chemicals

A 1,000-gallon chemical tank on a trailer was observed. No other agricultural chemicals or areas where agricultural chemicals may have been stored or mixed were observed. Because the parcel has been in agricultural use for several decades, the possibility exists that residual concentrations of the previously applied environmentally persistent agricultural chemicals may remain in the soil at the parcel.

Power Generators

Twining observed three generators on site. A four horsepower gasoline generator was observed in a shed in the central portion of the parcel, a five horsepower gasoline generator was observed on the trailer holding the 1,000 gallon tank, and a 100 horsepower electrical generator was located near the agricultural pump in the northwestern portion of the parcel.

Soil Mounds

Twining observed 32 soil mounds on the parcel. The mounds traversed the parcel east and west. The mounds were observed to have burnt remnants of trees and debris associated with farm operations and regular site clearing.

Other Issues Potential Concern

No other indicators of hazardous substances or wastes were observed, or evidence of contamination. The site contained no drums or other storage containers, indications of solid waste disposal, or evidence of drains or sumps. No high-tension power lines traversing the site are present, and there are no wetlands or surface waters. Indications of contamination (i.e. stressed vegetation, pavement degradation, etc.) were not observed on the parcel.

APN 221-011-071 (SCHEID EAST PARCEL)

Based upon the site observations conducted by PMC, the parcel is in active agricultural use, similar to surrounding parcels. Potential issues of environmental identified during PMC's onsite visit are discussed below.

Potential Polychlorinatedbiphenyl (PCB)-Containing Equipment

One pole-mounted transformer was identified on the parcel, near the central western boundary. The transformer casings displayed no evidence of leakage and no staining or discoloration was observed on the ground surface or below the transformer.

Pipes and Pipelines

Metal irrigation pipes and attached sprinkler systems were present throughout the parcel.

Water Well and Pump System

PMC observed an agricultural pump system connected to a water well located in the western portion of the property. The pump was housed in a dilapidated shed built from wood and aluminum siding. The agricultural pump system was attached to pipes that were both above and under ground. The system was also attached to an empty 65-gallon plastic tank and adjacent to a 500-gallon AST, the contents unknown. There also was an electrical generator attached to the agricultural pump system.

Agricultural Chemicals

From the nature of the agricultural pump system it is likely that agricultural chemicals may be stored and/or mixed on the property. Because the parcel has been in agricultural use,

the possibility exists that residual concentrations of the previously applied environmentally persistent agricultural chemicals may remain in the soil at the parcel.

Other Issues Potential Concern

The parcel contains several broken metal irrigation pipes located in the northwest corner and middle of the parcel. There is also a mound of stones in the northwest corner of the parcel. A minimal amount of trash is scattered throughout the parcel, a few plastic bags and beverage bottles. A wooden telephone pole with electrical wires running from the pole-mounted transformer is located adjacent to the shed. Attached to the pole were two large electrical fuse boxes, one with an attached meter and the other with on and off switches for a deep well pump and booster line pump.

APN 221-011-018 (L.A. HEARNE COMPANY)

APN 221-011-018 is located at the southwest corner of Espinosa Road and Highway 101. The approximately three-acre parcel currently consists of the L.A. Hearne Company agricultural equipment storage facilities and buildings. The parcel also contains one mobile home and wooden shed located behind the agricultural storage facilities. Potential issues of environmental concern located on the parcel identified during PMC's onsite visit are discussed below.

Issues Potential Concern

The L.A. Hearne facilities consist of two main buildings - one large warehouse and one smaller warehouse - located on the western portion of the parcel. From the site visit conducted by PMC the facilities are used for agricultural equipment storage and feed and grain storage. Empty crates, slats and large wooden boxes surround the two building. On the north side of the large building a potion of the gutter is broken and has partially fallen off, and an empty oil drum and wooden post are used to hold a sign for the truck scale. On the southern side of the there are a few discarded tires and pieces of equipment including what seems to be a type of conveyor belt. A hitching post made from metal pipes is located on the northwestern portion of the parcel.

The mobile home, located in the eastern portion of the parcel, is surrounded by debris and a wooden shed. The debris included pieces of broken wood, a rusted generator, aluminum trashcan, umbrellas, and an oil drum. The wooden shed is east of the home and in a dilapidated condition. The shed appears to contain aluminum siding. Two empty gas cans, one oil drum, rubber hoses, plastic bags surround the shed, and a number of paint cans and paint remover cans were observed.

Underground and Above Ground Storage Tanks

In the southeastern portion of the parcel a three foot high above ground tank labeled blue epoxy lined tank is connected to PVC pipes that appear to be both above and underground covered the use and contents of the tank are unknown. A propane tank, of unknown capacity is located adjacent to the mobile home.

Potential Polychlorinatedbiphenyl (PCB)-Containing Equipment and Electrical Lines

One pole-mounted transformer was identified on the parcel, near the southwestern boundary. The transformer casings displayed no evidence of leakage and no staining or discoloration was observed on the ground surface or below the transformer. Additionally, Electrical lines traverse the eastern portion of the parcel from wooden telephone poles over the mobile home.

Soil and Concrete Mounds

There were five soil and concrete mounds observed on the parcel, and two soil mounds located on the western boundary of the parcel located in front of the smaller agricultural storage facility. There is one small soil and rock mound on the southern portion of the parcel and one soil and rock mound on the northern portion of the parcel. A large concrete mound is located in the middle of the parcel between the agricultural buildings and the mobile home.

3.7.2 REGULATORY SETTING

DEFINITION OF HAZARDOUS MATERIALS

A material is considered hazardous if it appears on a list of hazardous materials prepared by a federal, state, or local agency, or if it has characteristics defined as hazardous by such an agency. A hazardous material is defined in Title 22 of the California Code of Regulations (CCR) as:

> ...a substance or combination of substances which, because of its quantity, concentration, or physical, chemical or infectious characteristics, may either (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported or disposed of or otherwise managed (California Code of Regulations, Title 22, Section 66260.10).

Chemical and physical properties cause a substance to be considered hazardous, including the properties of toxicity, ignitability, corrosivity, and reactivity. These terms are defined in

the CCR, Title 22, Sections 66261.20-66261.24. Factors that influence the health effects of exposure to hazardous material include the dose to which the person is exposed, the frequency of exposure, the exposure pathway, and individual susceptibility.

FEDERAL TOXIC SUBSTANCES CONTROL ACT

Congress enacted the Toxic Substances Control Act (TSCA) in 1976, to become effective January 1, 1977. The act authorizes EPA to secure information on all new and existing chemical substances and to control any of these substances determined to cause an unreasonable risk to public health or the environment. TSCA also includes requirements for the storage, use, and disposal of PCB-containing materials.

CALIFORNIA HEALTH AND SAFETY CODE

Monterey County is currently responsible for implementing Chapter 6.95 of Division 20 of the California Health and Safety Code (Section 25500 et seq.), relating to hazardous materials release response plans and inventory.

CALIFORNIA WATER CODE

California Water Code Section 231 requires the California Department of Water Resources (DWR) to develop well standards to protect California's ground water quality. DWR Bulletin 74-90 (Supplement to Bulletin 74-81), *California Well Standards, Water wells, Monitoring wells, Cathodic protection wells, June 1991*, contains the minimum requirements for constructing, altering, maintaining, and destroying these types of wells. The standards apply to all water well drillers in California and the local agencies that enforce them.

CITY OF GREENFIELD GENERAL PLAN

Chapter Eight, the Health and Safety Element, of the City of Greenfield General Plan identifies goals, objectives and policies that address Site Hazards and Hazardous Materials. The goal of Chapter Eight related to hazards and hazardous materials is to "Provide protection from hazards associated with the use, transport, treatment, and disposal of hazardous substances."

Policy 8.4.1 Identify and address hazardous waste releases from private companies or public agencies.

Policy 8.4.2 Adopt regulations for the storage of hazardous materials and wastes in the City including secondary contaminant and periodic examination for all storage of toxic materials.

Policy 8.4.3 Industrial facilities shall be constructed and operated in accordance with up-to-date safety and environmental protection standards.

Policy 8.4.4 Industries which store and process hazardous materials shall provide a sufficient buffer zone between the installation and the property boundaries to protect public safety, as determined by the City Building official, with recommendations of the Fire Chief and County Health Department.

Policy 8.4.5 New developments shall evaluate the presence or absence of naturally occurring asbestos and mitigate any impacts.

Program 8.4.A
Encourage the State Department of Health Services and the California Highway Patrol to review permits for radioactive materials on a regular basis and to promulgate and enforce public safety standards for the use of these materials, including the placarding of transport vehicles.

Program 8.4.B
Request that State and Federal agencies with responsibilities for regulating the transportation of hazardous materials review regulations and procedures, in cooperation with the City, to determine means of mitigating the public safety hazard in urbanized areas.

Program 8.4.C
Prior to site improvements for properties that are suspected or known to contain hazardous materials and sites that are listed on or identified on any hazardous material/waste database search shall require that the site and surrounding area be reviewed, tested, and remediated for potential hazardous materials in accordance with all local, state, and federal regulations.

MONTEREY COUNTY HAZARDOUS MATERIALS PROGRAM

The Monterey County Health Department Environmental Health Division manages and regulates the storage, use and disposal of hazardous wastes through the Hazardous Materials Program. This Program provides measures for hazardous waste on-site treatment; spill prevention control and countermeasures for aboveground and underground storage tanks, site mitigation and risk management and prevention.

3.7.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and the goals and policies of the City of Greenfield General Plan. For the purposes of this EIR, impacts are considered significant if the following could result from the implementation of the proposed project:

1. Create a significant hazard to the public or environment through the routine transport, use, or disposal of hazardous materials;

2. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment;

3. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school;

4. Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would create a significant hazard to the public or the environment;

5. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area;

6. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area;

7. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan; and/or

8. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands.

METHODOLOGY

Twining Laboratories prepared Phase I ESAs for APNS 221-011-017 and 221-011-068, two of the four subject parcels. The other two parcels (-068 and –071) were observed by PMC and compared to information generated by the background searches. The purpose of the Phase I ESAs was to analyze the environmental conditions of the site that may be indicative

of potential sources of soil or groundwater contamination. The scope of the assessments included:

- A review of current and past uses for the parcels since at least 1937.
- A site reconnaissance to assess evidence of recognized environmental conditions or concerns.
- A review of adjacent properties to assess their potential to adversely impact the site.
- A review of available federal and state Environmental Protection Agency (EPA) lists of known or potential hazardous waste sites or landfills, and sites currently under investigation for environmental violations in the project site area. Using area profile services, Twining cataloged sites in the vicinity that have been identified on regulatory agency lists.
- Contact with relevant municipal, county and state regulators to review readily available records and permits; and
- Preparations of a written report to present findings and conclusions for the EIR.

PROJECT IMPACTS AND MITIGATION MEASURES

Construction-Related Hazards

Impact 3.7-1 Construction-related hazards resulting from existing site conditions are expected during project construction. Site hazards, however, are considered a **less than significant** impact.

Construction-related hazards at agricultural project sites typically include exposure to existing soil contamination, on-site storage tanks (see discussion of **Impact 3.7-3** below), as well as hazards generated during construction activities such as exposure to flammable materials and reactive chemicals, heat stress, hazards from energized electrical equipment, biological hazards, moving equipment, noise, vibration and risks associated with excavation. Construction firms and workers are protected by worker safety regulations of the California Occupational Safety and Health Administration and best management practices would be implemented to ensure safety during all phases of project implementation. Based on the findings of the ESAs conducted for the project, there were no clearly identifiable or acute site hazards that would pose a specific risk to construction workers. The impact from construction-related hazards is therefore considered **less than significant.** No mitigation is required.

Exposure to Residual Pesticides and Hydrocarbons

Impact 3.7-2 Annexation and subsequent development of the project site on lands previously utilized for agricultural production could potentially expose people or property to soil contamination from pesticides and herbicides. This is considered a **potentially significant** impact.

The parcels included in the proposed project area were previously used for agricultural production. It is likely that pesticides and other agricultural chemicals, which are recognized environmental contaminants, have been applied to these parcels for decades and that residual concentrations of these chemicals remain in the soil. According to the Phase I ESA completed for parcel 221-011-017, environmentally persistent agricultural chemicals may also have impacted soils within the retention basin, and Hydrocarbon odors were noted in a soil boring drilled on parcel 221-011-068. Due to the potential residual concentrations of pesticides historically applied to crops on the site, the following measure shall be required:

Mitigation Measure

MM 3.7-2 As part of the application submittal for subsequent site development plans within the project area, each project applicant shall have a qualified professional conduct a Phase II Soil Investigation. (For parcels 221-011-071 and –018, both a Phase I and Phase II will be required). The Phase II ESA shall assess whether soils on the project site were contaminated by storage or use of hazardous chemicals including pesticides.

The Phase II study shall also ensure that the oil well on APN 221-011-017 was capped and abandoned consistent with current requirements Federal, State and local requirements. To the extent that soil contamination is detected during the Phase II Investigation, the applicant shall develop a remediation program to address any identified contamination hazard, if present. The remediation program shall be prepared and submitted as a component of specific development applications. The applicant shall demonstrate compliance with the recommendations and remedial measures as part of final improvement plans.

Implementation of the above mitigation measure will reduce potential impacts associated with residual contaminants to a **less than significant** level by requiring compliance with any remedial measures (performance standards) as warranted and identified within a subsequent Phase II Soil Investigation.

Exposure to Hazardous Substances

Impact 3.7-3 Development of the project site may expose people and/or property to hazardous substances in connection with previous land uses. This is considered a **potentially significant** impact.

APN 221-011-017 (Franscioni Parcel)

The Phase I ESA for APN 221-011-017 revealed the presence of an agricultural well. A water well not properly abandoned could pose an environmental concern by acting as a direct conduit for hazardous contaminants that are dumped or spilled in or near the well to impact the groundwater beneath the project site. This is a **potentially significant** impact

The ESA also recognizes that on properties that have been historically used for agricultural use, such as the project site parcels, subsurface pipelines may exist. It is a possibility that subsurface pipelines that may exist on the project site contain asbestos. This is considered a **potentially significant** impact.

A single story rural residential dwelling and metal shed are located on northwest portion of parcel 221-011-017. The date of construction of the structures could not be identified; therefore there is the possibility for asbestos containing building (ACB) materials within the structure, which is a **potentially significant** impact.

The 32 soil mounds identified on the parcel contained soil and wood remnants and other debris, and appear to be burn piles. The piles of soil may contain potentially hazardous materials and warrant further testing prior to site development.

There is one identified oil well on the parcel. The oil well is not in use and has been plugged and abandoned. According to the State Division of Oil and Gas, although abandoned, site disturbance could cause a potentially significant impact through damage to the decommissioned well.

APN 221-011-068 (Scheid West Parcel)

The Phase I ESA for this parcel indicated that there is an electrical agricultural pump located on the western portion of the parcel. Oil staining was observed on the pump itself and below it in the soil. A shack adjacent to the pump also contained area of oil staining. The presence of oil staining presents a potentially significant impact.

A tank labeled "Sulfuric Acid" is located on the western portion of the project site. The ongoing integrity of the tank in the short term and ultimate removal of the tank in the future is of significant importance.

The ESA also identifies that properties that have been historically used for agricultural use, such as the project site parcels, subsurface pipelines may exist. It is a likely possibility that subsurface pipelines that may exist on the project site contain asbestos. This is considered a potentially significant impact.

The results of the records review for APN 221-011-068 identified one recorded instance of a potential hazard release in the vicinity of the project site, at 42595 Espinosa Road. This facility had an on site AST rupture at a location approximately 3,000 feet south of the project, but the contents of the AST were not disclosed in the records review. A "case closure letter" dated February 5, 1997, stated that no further action in regards to the site was needed. The Phase I ESA for 221-011-068 indicated that due to the information reviewed at Monterey County Environmental Health Department, and the distance of the AST from the project site, the impact is considered to be **less than significant.**

Mitigation Measures

MM 3.7-3 During the project review and analysis process for subsequent site-specific applications, the applicant shall provide evidence that all contaminants and contaminant sources have been addressed in a manner that removes the health hazards from the site in accordance with applicable regulations. Specifically, the applicant shall demonstrate that all issues identified through Phase I and Phase II ESAs have been addressed through implementation of the environmental expert's recommendations. Specific measures shall include, but not be limited to the following:

a. All on-site water wells shall be properly abandoned according to the regulations of the California Department of Water Resources.

b. Any subsurface pipelines encountered during site preparation or construction shall be examined by a qualified professional for the possible presence of asbestos. If the subsurface pipelines contain asbestos, the applicant shall have them removed, transported and disposed of in accordance with the local, county and state regulations.

c. Prior to the issuance of a demolition permit and/or conducting any repair, renovation, or demolition work on any on-site structures, the project applicant shall have a qualified professional conduct an asbestos survey and implement the recommendations of that survey.

d. Any existing septic tank found on the project site shall be abandoned in accordance with California Department of Water Resources guidelines and the County of Monterey requirements.

e. During excavation or throughout any part of the development process the project applicants shall remove and dispose of any additional hazardous materials and/or petroleum products in accordance with local, state and federal guidelines.

f. All areas with stains, leakage or noticeable odors shall be analyzed for subsurface contamination by a qualified professional in accordance with MM 3.7-2.

g. The project applicant for development on APN 221-011-068 shall remove and dispose of the tank labeled "sulfuric acid" and its contents located on the western portion of parcel. The tank shall be removed and disposed of in accordance with local, state and federal regulations. If there is any evidence of leakage or staining around the tank the applicant should have the area analyzed for contamination by a qualified professional consistent with MM 3.7-2.

h. Prior to the reuse of property containing the 32 soil piles found on APN 221-011-017, the project applicant shall have the piles sampled for constituents of concern during the Phase II ESA required by MM3.7-2. If the soil piles are not to be used in the future development of the project site they should be removed in accordance with local, state and federal guidelines.

Implementation of the above mitigation measures, in conjunction with MM 3.7-2, would reduce potential impacts from hazardous substances to a **less than significant** level by requiring that all potential contaminants, contaminant sources and hazardous conditions be tested and remediated prior to site development, in accordance with all federal, state and local regulations.

Wildland Fire

Wildland fire impacts may be considered significant if the project would expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. However, based on observed site conditions and according to the Central Salinas Valley Area Plan, the project site is not located in an area prone to wildland fire or excessive fuel loading and **no impact** is anticipated.

Future On-Site Industrial and Highway Commercial Uses

Impact 3.7-4 Future industrial uses at the project site could result in impacts related to the generation, storage and handling of hazardous chemicals and substances. This is a **potentially significant** impact.

The project proposes approximately 60 acres of heavy industrial use that could utilize hazardous materials in their daily operations. Highway Commercial land uses, such as the truck stop, may also involve the use and transport of hazardous substances. At this stage of planning there are no confirmed tenants identified; however, heavy industrial and highway commercial uses could involve manufacturing, agricultural processing, fabrication and similar processes that use a variety of hazardous materials and chemicals with different levels of hazard related to their use and storage. Workers, visitors or nearby receptors could be exposed to hazardous materials through inhalation, skin contact or cuts if hazardous substances are used in conjunction with on-site heavy industrial and highway commercial uses. Therefore, the following measures shall be implemented:

Mitigation Measures

MM 3.7-4a As part of subsequent project application submittals, specific industrial and highway commercial users and/or tenants shall be identified. As specific industrial and highway commercial users are proposed and become known, the environmental review conducted for use permits and other entitlements shall address the location and potential impact of such use upon surrounding land uses. Heavy industry and highway commercial projects that pose a potential risk to surrounding land uses shall be located through site planning to minimize land use conflicts.

MM 3.7-4b Handling and/or storage of hazardous materials associated with future uses shall take place in accordance with the requirements of the Monterey County Health Department Environmental Health Division and the California Department of Toxic Substances Control.

Implementation of the above mitigation measures will reduce potential impacts from future on-site industrial and highway commercial uses to a **less than significant** level by requiring strict compliance with the most current performance standards and regulations of state, federal and county codes.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Risk of Exposure to Hazardous Materials or Upset Conditions

Impact 3.7-5 The eventual development and buildout of the project area only presents health hazard or upset impacts to the project area and immediate vicinity. Any cumulative impact is considered **less than significant.**

Implementation of the project would result in potential risks associated with exposure to hazardous substances such as pesticides, hydrocarbons and other substances associated with previous land uses. However, Health Hazards/Risk of Upset impacts would be site-specific and are generally not affected by cumulative development in the region. The existence of city-wide conditions of a similar nature will not "combine" with the South End SOI issues to create a larger effect. Any and all hazard impacts and remediation measures are specific to the area they are located. Cumulative effects are therefore less than significant.

REFERENCES/DOCUMENTATION

City of Greenfield. *City of Greenfield General Plan.* October 2005.

County of Monterey. *Monterey County General Plan.* 1982.

County of Monterey. *Central Salinas Valley Area Plan.* 1987.

The Twining Laboratories, Inc. *Phase I Environmental Site Assessment (APN 221-011-017).* October 3, 2005

The Twining Laboratories, Inc. *Phase I Environmental Site Assessment (APN 221-011-068).* October 3, 2005

Coats Consulting and the Law Offices of Aaron P. Johnson. Project information from applicants.

Site Visit. Pacific Municipal Consultants Staff. February 15, 2005.

SECTION 3.8
DRAINAGE AND WATER QUALITY

This portion of the EIR will focus on the increase in runoff from impervious surfaces, proposed retention basins, and surface water quality and water quality protection measures. The analysis identifies existing drainage patterns and estimates storm drainage runoff that would be generated by the conversion of the site from agricultural to urban uses. Information gathered in this section was based upon available City documents, the Central Salinas Valley Area Plan, the Engineering Feasibility Study completed by Creegan and D'Angelo Consulting Civil and Structural Engineers (C+D Engineers), FIRM Flood Hazard Maps, and information provided by the project applicants for the proposed project parcels.

3.8.1 ENVIRONMENTAL SETTING

REGIONAL DRAINAGE PATTERNS

The Salinas Valley is enclosed on the northwest and southeast by the Sierra de Salinas and the Gabilan Mountains. Precipitation drains downward into the Valley from the slopes of the surrounding mountains and from the head of the Valley. The Salinas River, located approximately three miles east of the City of Greenfield, is the main drainage feature of the Valley. The river is approximately 155 miles in length and is the largest submerged river in the United States. The principal tributaries of the Salinas River are the Arroyo Seco, Nacimiento and San Antonio Rivers, which drain the Santa Lucia Mountains, and the San Lorenzo River, which flows from the Gabilan Mountains. Water flows from the Salinas River into the Pacific Ocean via Monterey Bay.

Locally, the Arroyo Seco River drains the eastern face of the Sierra de Salinas Mountains and flows to the Salinas River. The Arroyo Seco River drainage systems have constructed the alluvial fan deposits near the mouths of the streams and tributaries of the river, and are noticeable when observed from the northeastern face of the Gabilan Mountains.

CITY-WIDE DRAINAGE PATTERNS AND FACILITIES

Drainage in the City of Greenfield consists of a network of open channels and swales. There is no subsurface storm drain collection system. Drainage and urban runoff in the City flows generally from west to east, toward the Salinas River. In the urban area, runoff is collected in a number of retention basins that collect and percolate stormwater back into the aquifer.

Highway 101 is below natural grade and separates the east and west sides of town. Drainage flowing from west to east occurs through drainage facilities that are at grade with the freeway, with stormwater flowing under the freeway.

FLOODING POTENTIAL

100-year Flood Plain

The project site is not located within the boundaries of the Salinas River's 100-year flood Zone. According to FEMA's Flood Insurance Rate (FIRM) Maps for the Greenfield area, the boundary of the 100-year flood zone approximately one and a half mile to the east of the project site. (See **Figure 3.8-1** 100-Year Flood Zone.)

Dam Failure Inundation

The failure of either the Nacimiento or San Antonio Dams is considered to be a very low risk hazard. If failure did occur, through either seismic activity or war emergency, the City of Greenfield would be affected to only a small degree under most circumstances, excluding the coincidence of dam failure with a 100-year storm event. This is due mainly to the distance from the reservoirs and the opportunity for the largest volume of water to dissipate on the intervening lands before reaching the City of Greenfield. Travel time of peak flood is estimated to be 14 hours from San Antonio Dam and 15 hours from Nacimiento Reservoir. In the event of dam failure at either the Nacimiento or San Antonio Dams, emergency plans would be implemented by the California Office of Emergency Services (OES) in cooperation with Monterey County OES and the City of Greenfield. Notification times and departure routes would be provided for adequate evacuation.

EXISTING WATER QUALITY

Surface water quality in Greenfield is influenced by both agriculture and urban runoff. Although no specific constituent data is available, urban runoff would be expected to be typical of urban areas, containing contaminants such as hydrocarbons and metals, mostly from motor vehicles. On the edges of town, stormwater would be expected to be more turbid with suspended particulates and agricultural chemicals, primarily from exposed fields and intensive agricultural production which is typical of Salinas Valley communities.

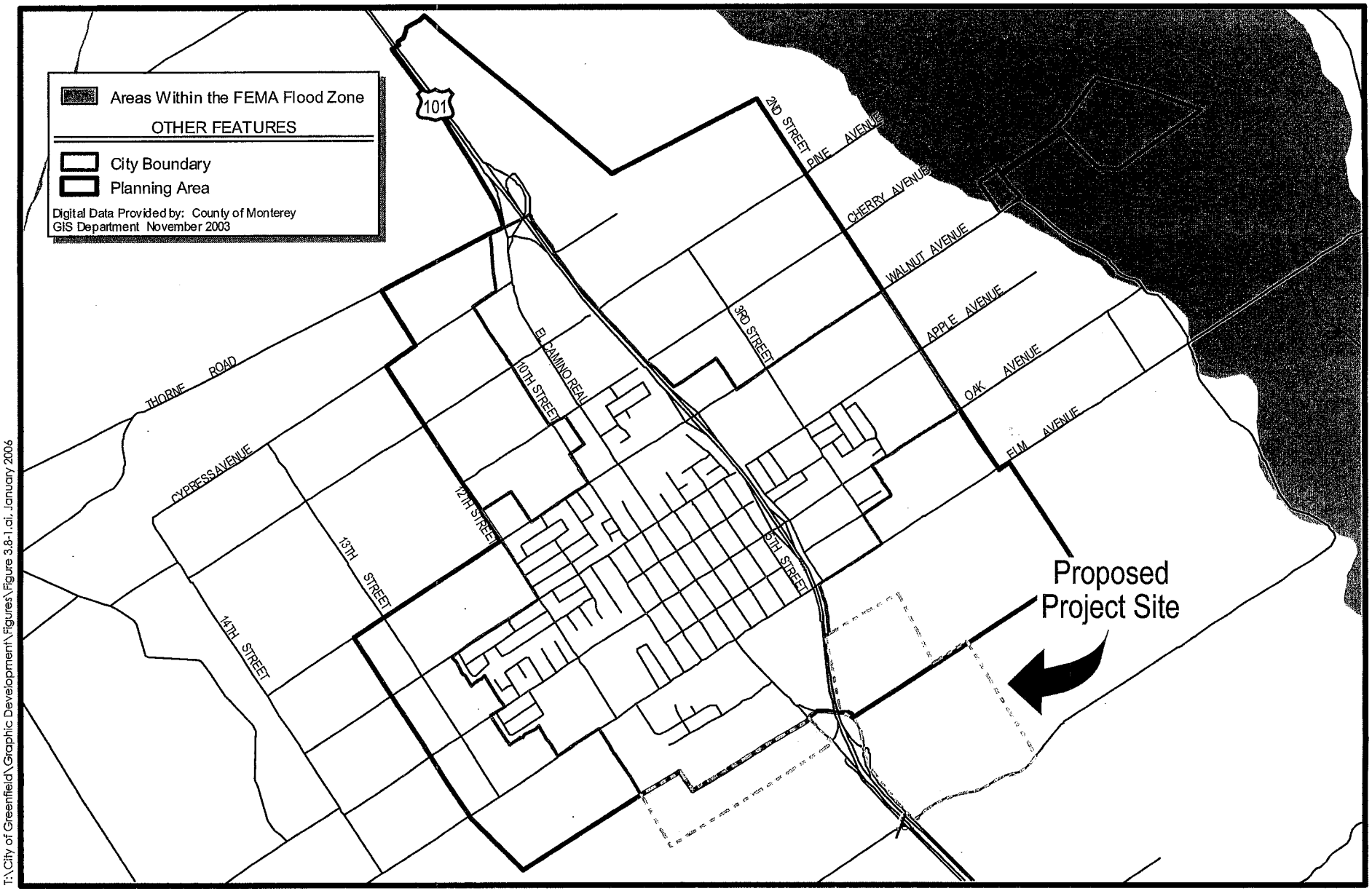

FIGURE 3.8-1
100 YEAR FLOOD PLAIN

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PROJECT SITE SETTING

Local Drainage Patterns and Facilities

APN 221-011-068 (Scheid West Parcel)

Drainage in this area is served by an existing drainage swale beginning at Elm Avenue on the west side of Vista Verde School. The swale flows south to the Scheid West parcel, turns east along the north side of the parcel boundary, and flows to Highway 101. The drain continues under the to an existing retention basin located on the east side of Highway 101.

APN 221-011-017 (Franscioni Parcel) & 221-011-071 (Scheid East Parcel) and APN 221-011-018 (L.A. Hearne Co.)

This general area, east of Highway 101 and south of existing City development patterns, is essentially farmland. All existing drainage is either surface flow toward the Salinas River or collected in swales that run along parcels lines and ranch roads. An earthen basin is located near the center of the Franscioni parcel; however, this basin appears breached, and has obviously been used historically for agriculture-related water collection or irrigation. The basin has no bearing on future planning of the property.

According to the City of Greenfield storm drain master plans, all storm drainage is required to be retained on the project site for and design up to a 100-year flood event. The City of Greenfield requires, where feasible, for multiple parcels and/or projects to share retention basins.

3.8.2 REGULATORY SETTING

NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM MUNICIPAL STORMWATER PERMIT

Pursuant to the 1987 Amendments to the Clean Water Act and 1991 regulations promulgated by the EPA, the SWRCB has adopted the National Pollutant Discharge Elimination System (NPDES) with two general permits for stormwater dischargers. One permit applies to industrial dischargers and the other permit relates to construction activities.

NPDES was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States. 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.

The purpose of the NPDES program is to establish a comprehensive stormwater quality program to manage urban storm water and minimize pollution of the environment to the maximum extent practicable. The NPDES program consists of: 1) characterizing receiving water quality, 2) identifying harmful constituents, 3) targeting potential sources of pollutants, and 4) implementing a Comprehensive Stormwater Management Program (CSWMP).

CENTRAL COAST REGIONAL WATER QUALITY CONTROL BOARD

CCWQCB is the local agency of SWRCB and is responsible for the issuance of NPDES permits under the CWA and on behalf of the SWRCB and the EPA for activities that could cause water quality impacts to surface waters and groundwater, including construction activities. Since development of the project site would result in the disturbance of five or more acres, an NPDES construction activities permit would be required. The permit requires that the following general measures be implemented during construction activity:

- Eliminate or reduce non-storm water discharges to storm water systems and other waters of the U.S.;
- Develop and implement a Stormwater Pollution Prevention Plan (SWPPP); and,
- Perform inspections of storm water control structures and pollution prevention measures.

CITY OF GREENFIELD ORDINANCES

New development projects in Greenfield are required to store and percolate 100 percent of the stormwater runoff from a 100-year storm event. Runoff that exceeds the quantity of a 100-year event is allowed to back into the street to a depth not deeper than the curb, which is approximately eight inches. Projects typically involve the use of retention ponds to store and percolate runoff.

CITY OF GREENFIELD GENERAL PLAN

Goal 4.12: Protect persons and property from the damaging impacts of flooding.

Policy 4.12.3: Where possible, develop new drainage facilities and/or improvements to existing facilities in order to provide additional recreational or environmental benefit; as such, detention basins over 5 acres in size shall be designed for multiple uses such as parks and playing fields when not used for holding water.

Policy 4.12.6: Develop open bypass channels, detention basins, and all drainage facility rights of way as a secondary recreation use for the development and adjacent neighborhood.

Policy 4.12.7: Explore the feasibility of a long-term drainage concept east of Highway 101 that collects drainage within a storm drain system with discharge to the Salinas River, as an alternative to surface basins.

Program 4.12.C
Require development projects with considerable drainage impacts to prepare a detailed drainage study by a registered engineer. The study shall include: detailed hydrologic modeling that considers land use, existing facilities, soil, and topographic data; erosion control and best management practices, descriptions of proposed flood control facilities; compliance with waste discharge requirements; cost estimates and construction schedule; and identification of the entity that is responsible for facility design and construction, Clean Water Program compliance, and facility maintenance.

Program 4.12.D
Drainage detention basins for individual projects will be combined where feasible to avoid the need for numerous smaller basins.

Goal 8.2: Protect public safety and minimize the risk to life and property from flooding.

Policy 8.2.1: New development shall provide site plans that identify all floodplains, flood hazards, and other natural drainages.

Program 8.2.B
Implement a development review process that will ensure any new construction within the 100-year floodplain or possible inundation areas will not compromise the health, safety, and welfare of the community.

3.8.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and standards used by the City of Greenfield. For purposes of this EIR, the hydrology and water quality impacts associated with the proposed project are considered to be significant if the following would result from implementation of the proposed project:

1. Substantially alter the existing drainage pattern of the site 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;

2. Create or contribute runoff water, which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;

3. Place housing within a 100-year flood hazard area as mapped on a federal flood hazard boundary or flood insurance rate map or other flood hazard delineation map;

4. Place within a 100-year flood hazard area structures, which would impede or redirect flood flows;

5. 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; and/or

6. Be subject to inundation by seiche, tsunami, or mudflow.

METHODOLOGY

The following impact evaluation is based on the Engineering Feasibility Study prepared by C+D Engineers, which is contained in the Technical Appendices of this EIR. The Engineering Feasibility Study includes a preliminary discussion of infrastructure and utilities, including drainage facilities, required to serve the proposed project site. The policies and goals of the City of Greenfield were also used together with applicable resource documents to evaluate the potential drainage issues involved with the proposed development.

IMPACTS AND MITIGATION MEASURES

Alteration of Drainage Patterns / Increased Stormwater Runoff

Impact 3.8-1 Development resulting from project approval would alter existing drainage patterns, increase impervious surfaces and increase surface water runoff thus contributing to existing localized drainage, flooding and erosion problems on or off-site. This is a **potentially significant impact**

The proposed project would result in coverage of a significant portion of the project site with impervious surfaces (buildings and parking areas), and would result in a corresponding loss of on-site infiltration. Therefore, the volume and velocity of peak runoff leaving the project site could increase substantially with implementation of the proposed project. Land uses would include a highway commercial center, a residential subdivision and heavy industrial uses. The highway commercial center in particular could include significant areas of paved surfaces, such as a regional truck stop or similar uses.

Based on the preliminary engineering study, the proposed project would require multiple drainage basins to compensate for the large increase in impervious surfaces. Under project conditions, site drainage will be directed to via underground storm drain pipes to two storm water retention basins; one located on the west side of Highway 101 for APN 221-011-068 and one on the east side Highway 101 for APN 221-011-017, 018, 071.

On the west side, the estimated storage volume a basin designed for a 100-year storm event associated with the residential area is 3.0 acre-feet. This volume would require an area of 120 feet by 620 feet including a 10-foot roadway around the basin and a six-foot landscaping be designated on the project site for the drainage basin.

The other drainage basin would be on a portion of the project site located east of Highway 101. According to the information provided in the Engineering Feasibility Report, the basin may be designed as a park facility for 100-year storm water retention. If the basin were to be designed as a park facility, it would be open to the public for recreational use with a separate fenced area for the 25-year storm water retention basin. The 25-year storm water storage volume for the project site east of Highway 101 is 16 acre-feet. A basin with a 5.3-foot depth of water would require approximately 130,000 square feet or three acres of area. The additional volume for the 100-year storm water drainage would be 8.5 acres-feet, and would require a total area of 244 feet by 1,040 feet or approximately 5.8 acres. As stated previously configuration of the storm water drainage basin is flexible, but would most likely be located towards the northeast part of the project site to take advantage of the natural slope of the parcels.

The conversion of the project area from agriculture to urban uses would increase the amount of impervious surface area, such as paving or structural coverage. As a result, additional stormwater runoff from the project site and altered drainage patterns would occur. Grading activities may alter existing drainage patterns and lead to erosion and siltation on or off the project site. The following mitigation measures requiring the implementation of the above mentioned drainage basins would reduce the impact to **less than significant.**

MM 3.8-1a At the time of submittal of subsequent applications to develop the subject properties, the applicant shall provide a detailed drainage concept plan that adequately accommodates increased runoff. On the west side of the highway, basin plans shall be designed handle residential runoff and to avoid adding runoff to State drainage facilities at Highway 101. The City recommends that basin location be placed at the eastern end of the parcel to take advantage of existing slope, and to provide additional separation between residential uses, the Highway and El Camino Real.

The project applicant for any proposed development located on the east side of Highway 101 shall also provide a detailed drainage concept plan which addresses runoff from the 110 acres of proposed highway commercial and 60 acres of proposed industrial uses. The drainage concept plans for all areas shall be designed to contain 100-year storm events on-site and shall include: detailed hydrologic modeling that considers land use, existing facilities, soil, and topographic data; erosion control and best management practices, descriptions of proposed flood control facilities; compliance with waste discharge requirements; phasing and implementation; identification of the entity that is responsible for facility design and construction, Clean Water Program compliance, and facility maintenance. The detailed drainage concept plans shall be subject to review and approval by the Public Works Director and City Engineer.

MM 3.8-1b Where possible the retention basin should be developed to provide additional recreation benefits for the City; as such, retention basins over five acres in size shall be designed for multiple uses such as parks and playing fields when not used for holding water. All tentative maps and drainage improvements shall be subject to approval by the City Engineer and Public Works Director.

MM 3.8-1c In accordance with current State regulations, all future development resulting in grading or excavation, which disturbs five acres or more, shall require coverage under the NPDES General Permit. The discharger shall prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) and shall otherwise comply with all standards and regulations as required by the State Water Resources Control Board.

Flood / Inundation Hazards

Impact 3.8-2 The proposed annexation area is not within the recognized 100-year flood plain. Therefore, the impact is considered **less than significant.**

According to FEMA Flood Insurance Rate Map Community Panel No. 060195 0375 D, the annexation area is not located within a 100-year flood zone. Areas adjacent to the Salinas River, approximately one mile east of the project site are identified as being within the Zone A 100-year flood zone boundary. The area may be affected to a small degree by inundation resulting from the failure of either the Nacimiento or San Antonio Reservoir Dams as identified in the *Greenfield General Plan*; however, according to the *Monterey County Central Salinas Valley Area Plan*, the area is not subject to dam failure inundation. The project area is not located in a coastal area and is therefore not subject to tsunami or seiche and it is relatively flat and is not subject to mudflow. Therefore, floodplain hazards and impacts from potential inundation are **less than significant.** No mitigation is required.

Capacity of Existing / Planned Stormwater Drainage System

The City of Greenfield requires that off-site drainage from development project areas be the same or less after project completion as prior to development activities. The project will be required to mitigate project stormwater generation on-site with the construction of on-site retention basins and other best management practices, in accordance with City standards, and as identified in mitigation measures **MM 3.8-1a** through **MM 3.8-1c.** Potential impacts have therefore been mitigated.

Construction Water Quality

Impact 3.8-3 Slope and soil disturbance associated with site preparation, grading and construction activities resulting from the project, especially during the rainy season, may cause soil erosion and sedimentation or the release of other pollutants into adjacent waterways. This is a **potentially significant** impact.

Eventual construction on the project site would consist of substantial grading and vegetation removal activities, which would increase soil erosion rates on the areas of future proposed development. This results in the exposure of raw soil material to the natural elements (e.g. wind, rain) especially during the rainy season, which usually starts in October and ends in March. During the rainy season, grading operations may impact the surface runoff by increasing the amount of silt and debris carried by the storm water runoff. Areas with uncontrolled concentration flow will experience loss of material within the graded area and it could potentially impact the downstream water quality of area waterways, including the Salinas River and tributaries.

Refueling and the parking of construction equipment and other vehicles onsite during future construction may result in spills of oil, grease, or related pollutants that may discharge into onsite drainages. Improper handling, storage, or disposal of fuels and

materials or improper cleaning of machinery close area tributaries could cause water quality degradation.

Mitigation Measure

MM 3.8-3 All drainage and erosion control plans submitted in compliance with MM 3.8-1a through 3.8-1c shall incorporate temporary measures effective from October 1 through March 31 that ensure eroded or exposed soils are maintained on-site during construction.

Implementation of the above mitigation measure, in conjunction with MM 3.8-1a through MM 3.8-1c, and compliance with all State laws and CEQA for all future projects, would reduce construction water quality impacts to a **less than significant** level by requiring coverage under the NPDES General Permit and drainage and erosion control plans with special measures for activities conducted during the rainy season.

Urban Non-point Source Pollution

Impact 3.8-4 The proposed project would generate urban non-point contaminants, which may be carried in stormwater runoff from paved surfaces to downstream water bodies. This is considered a **potentially significant impact.**

Upon construction of the project buildings, dwelling units, paved parking lots and the landscaping, typical urban runoff contaminants would include: petroleum products, heavy metals, and sediments from vehicles; pesticides, fertilizers and plant debris from landscaped areas; and litter. These pollutants would be flushed by storm runoff into the storm drainage system into retention basins. Most storm water ultimately drains to the east of the City, where it is collected in retention ponds near the sewage plant. City storm water does not drain to the Salinas River.

Implementation of **MM 3.8-1a through 3.8-1c** will mitigate the potential water quality impacts by requiring drainage facilities of adequate size (thus containing flows) and by incorporating erosion control and other permanent best management practices into the project would reduce the impact of non point source pollution to a **less than significant** level.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Surface Runoff and Contamination

Impact 3.8-5 New development, combined with other reasonably foreseeable projects in the City of Greenfield, would contribute to increased surface runoff

and greater runoff contamination in an area that historically was used for agriculture. This cumulative impact is considered **less than significant.**

Full buildout of the project site would contribute to cumulative drainage flows and surface water quality impacts when combined with other growth and development. However, the City of Greenfield requires that all new projects follow the City's retention design criteria, which requires all new developments to design and construct facilities such as stormwater retention basins adequate to limit flow to pre-development levels, and best management practices for control of surface water contaminants. The application of these standards and practices at each development site would result in minimization of the combined impact. Therefore, the cumulative storm water runoff and contamination impact is considered **less than significant.**

REFERENCES/DOCUMENTATION

City of Greenfield. *Greenfield General Plan.* October 2005

City of Greenfield. *General Plan EIR.* October 2005

Creegan + D'Angelo Consulting Civil and Structual Engineers. *Draft Engineering Feasibility Study.* December 9, 2005

Terra Engineering Inc. and Frietas + Freitas. *City of Greenfield Water System Capital Improvement Plan Update.* March 2005.

Coats Consulting, and the Law Offices of Aaron P. Johnson. Project description and plans.

County of Monterey. *Central Salinas Valley Area Plan.* 1987.

Federal Emergency Management Agency. *FIRM Flood Hazard Map, Community Panel No. 060195 0375 D.*

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SECTION 3.9
LAND USE

This section of the EIR describes the existing land uses of the project site, characterizes surrounding uses, and discusses the proposed project within the context of the policies of the City of Greenfield, Monterey County Local Agency Formation Commission, the County of Monterey, and the Association of Monterey Bay Area Governments. Potential impacts focus on consistency with adopted environmental plans and policies, compatibility between future residential, commercial and industrial uses, and the potential to disrupt or divide established neighborhoods.

3.9.1 EXISTING SETTING

REGIONAL SETTING

The City of Greenfield is located along Highway 101 in the heart of the Salinas Valley, approximately midway between King City and the City of Soledad. Thirty-five miles east of the Pacific Ocean, the City lies within the Central Salinas Valley in Monterey County. The region is predominately agricultural in its land use character and industries.

CITY-WIDE SETTING

The City of Greenfield was incorporated in January 1947 with a population of 1,650 residents. Today, the incorporated city has a population of more than 13,300 residents and is planned to grow to over 30,000 people with General Plan Buildout, in approximately 2025. The annual growth rate in recent years has been approximately 6.9 percent, exceptionally high but not uncommon in the fast growing cities of the Salinas Valley. The City's General Plan (2005) states that urban land in Greenfield comprises approximately 788 acres, surrounded primarily by vacant and agricultural uses. Historically, agriculture has been the basic industry of the Salinas Valley and Greenfield lies within an area of high quality agricultural land.

City of Greenfield "Planning Area" and Sphere of Influence Boundary

The City's "Planning Area", as determined by the City of Greenfield General Plan, includes land within the incorporated city limits of Greenfield and unincorporated areas surrounding the City. The Planning Area and proposed Sphere of Influence (SOI) as adopted by the City in 2005 share the same boundary. The Planning Area and SOI are considered to have a direct impact on the City's development and include surrounding lands that are economically and physically related to the City and, in the City's judgment, "bear a significant relationship to the City's planning", in accordance with State law. **Figure 3.9-1** depicts the City of Greenfield Planning Area and SOI as adopted in May 2005. **Figure 3.9-2** illustrates proposed amendments to the General Plan and SOI currently being processed by the City. These city-initiated amendments reflect, but are not part of, the South End SOI project.

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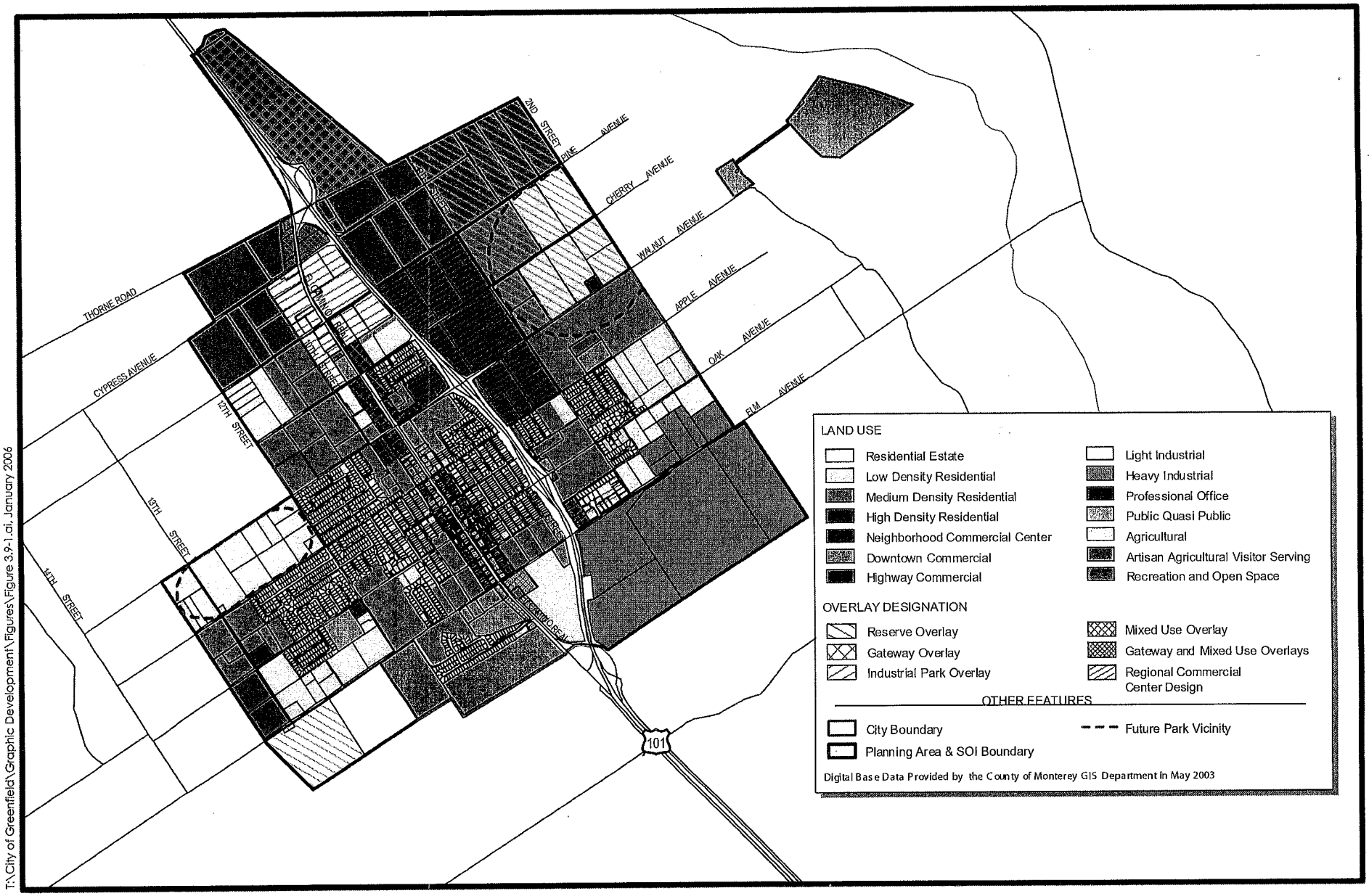

FIGURE 3.9-1
ADOPTED GREENFIELD GENERAL PLAN

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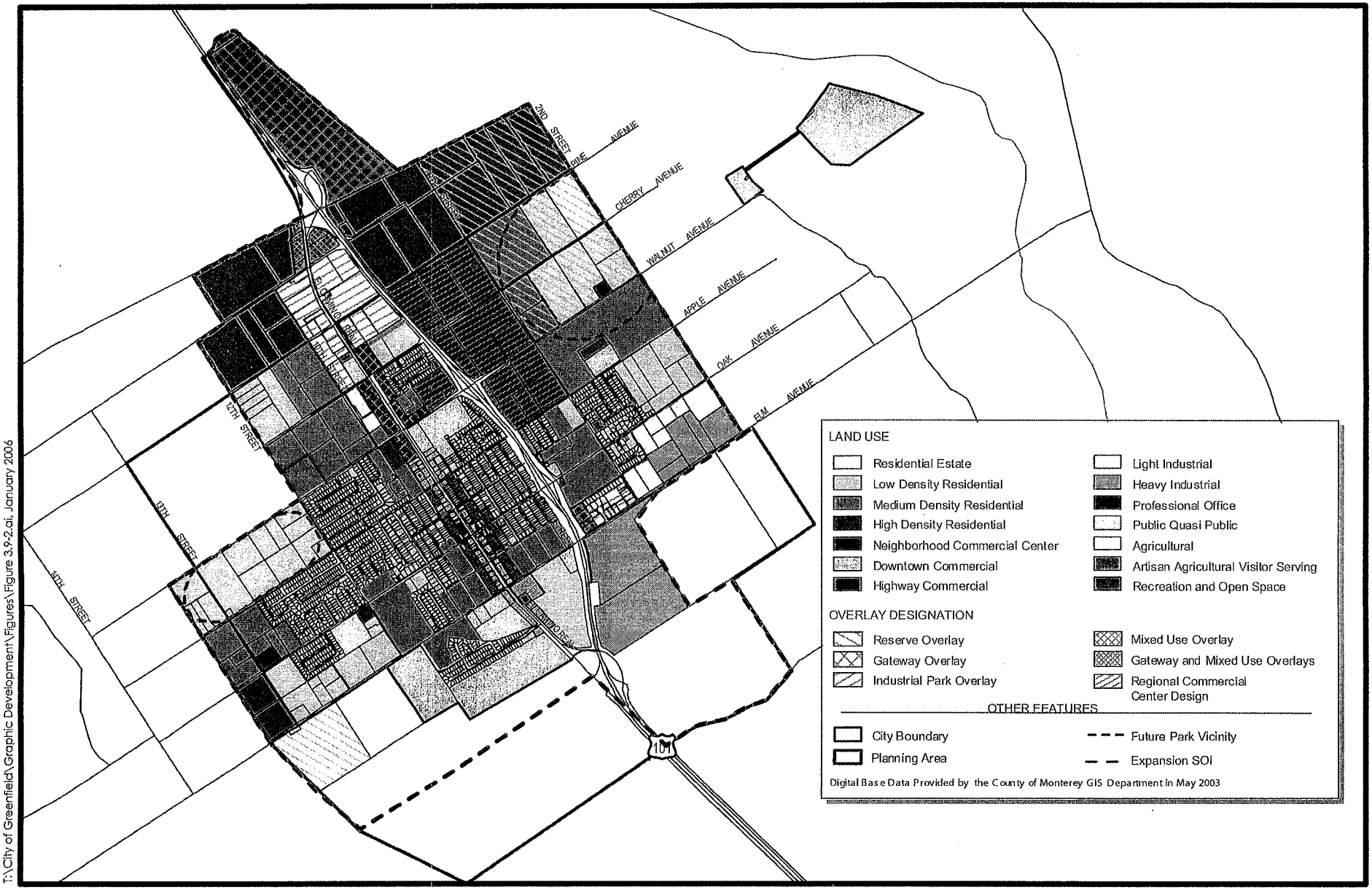

FIGURE 3.9-2

GENERAL PLAN AND SOI BOUNDARIES AS PROPOSED FOR AMENDMENT

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Existing General Plan Designations

The northeastern 46 acres of the project area (within the City's designated Planning Area), are currently designated "Heavy Industrial". The remaining 221 acres of the project site are outside the City of Greenfield Planning Area and are general planned as Agriculture by Monterey County.

General Plan Gateway Overlay

Commercial and visitor serving areas that are located at the northern and southern entrances to the community serve as "gateways" to Greenfield. According to the General Plan, these areas should be aesthetically attractive since they provide an influential visual statement regarding the character of the community. The purpose of the gateway overlay is to require attractive signage, additional landscaping, and greater attention to building design. The entire 267-acre project site would be subject to the City's Gateway overlay.

SITE SETTING AND EXISTING LAND USES

Highway 101 bisects the 267-acre project site. All parcels that comprise the project site are currently used for agriculture production, mainly row crops, with the exception of the three-acre L.A Hearne parcel that is used as an agricultural equipment storage facility. Other improvements are limited to a single-family residence and related metal shed on the east side of the highway, as well as ranch roads and other features that support the agricultural use.

ADJACENT USES

The project site consists of four parcels. Adjacent land uses are described below and are illustrated in **Figure 3.9-3.**

West Side of U.S 101

Land Uses to the North

On the west side of Highway 101, the northern portion of the project site borders Greenfield High School and the Vista Verde Middle School.

Land Uses to the South

Active agricultural fields, including row crops and vineyards, are located south of the project site.

Land Uses to the East

El Camino Real serves as the eastern border of the project site west of U.S. 101. An active fertilizer distribution facility (NH3) is located between the El Camino Real southbound Highway 101 on ramp, directly east of the project site.

Land Uses to the West

Active agricultural uses are located west of the project site including various row crops.

Eastside of U.S. 101

Land Uses to the North

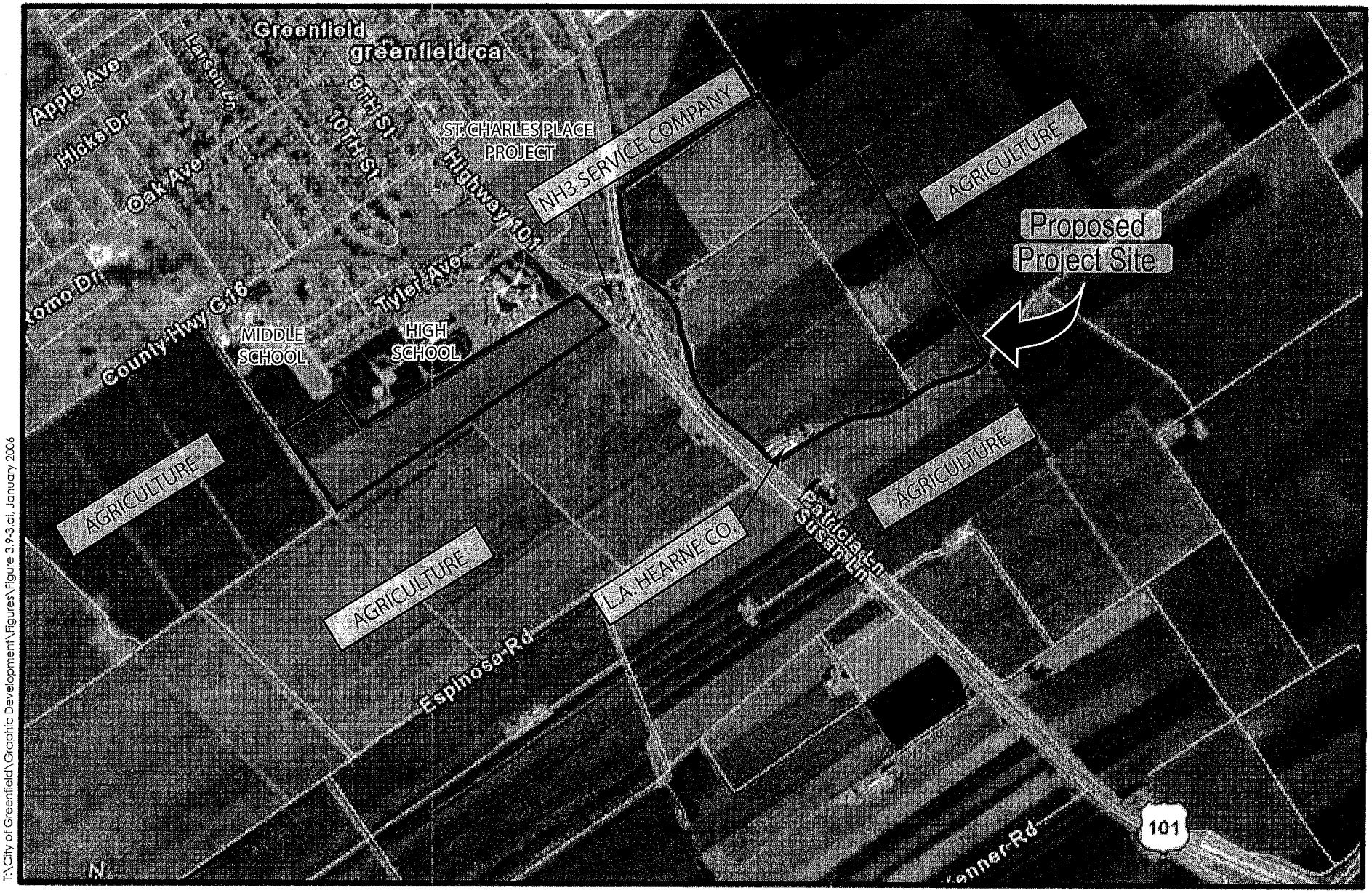
East of Highway 101, lands to the north of the project site support active agricultural. The Creekbridge Homes St. Charles Place mixed use development, currently under construction, is located to the northwest between the highway and El Camino Real.

Land Uses to the South and East

Espinosa Road serves as the southern border of the project site east of Highway 101. South of Espinosa Road is active agricultural, as is land use to the east.

Land Uses to the West

Highway 101 serves as the western border of the project site east of Highway 101.



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NO SCALE

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FIGURE 3.9-3
SURROUNDING LAND USES AERIAL

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3.9.2 REGULATORY SETTING

The purpose of this section is to evaluate the proposed project for land use consistency with relevant adopted plans and policies. These include policies of the City of Greenfield, Local Agency Formation Commission (LAFCO), and Monterey County. Policy consistency is relevant to the EIR process when policies are in place specifically to further an agency's environmental goals.

City of Greenfield General Plan

The majority of the project area is not located in the Planning Area established by the *City of Greenfield General Plan*. However upon inclusion of the project into the City's SOI the project site will need to be consistent with goals, policies and programs contained in the *City of Greenfield General Plan*. Table 3.9-1 summarizes city land use policy as it relates to the project.

TABLE 3.9-1
CITY OF GREENFIELD LAND USE POLICY

Policy No.	Policy Summary	Discussion
Goal 2.1	Ensure that redevelopment and new development is designed, sited, and constructed in a manner that creates a balanced and desirable city, maintains and enhances the character and best qualities of the community, and ensures that Greenfield remains economically viable.	The proposed project will aide the City's goal of promoting a better jobs/housing balance. The project will be subject to the City's Gateway Overlay, requiring the project to meet higher design standards and maintain community character. Highway commercial and industrial uses will enhance the local economy.
Policy 2.1.6	Limit intensive commercial and industrial development to the industrial park on the north side of the City and areas east of Highway 101.	The project area is located east of Highway 101 as envisioned by the General Plan.
Policy 2.1.7	Require agricultural buffers on developments adjacent to agricultural land consistent with the Local Agency Formation Commission's (LAFCO) requirements.	Mitigation is provided in Section 3.2 of the EIR regarding agricultural setbacks. The majority of the project is not sensitive to adjacent agriculture.
Policy 2.1.12	Where differing land uses abut one another, promote land use compatibility with buffering techniques such as landscaping, setbacks, screening and, where necessary, construction of sound walls.	See above.

TABLE 3.9-1
CITY OF GREENFIELD LAND USE POLICY

Policy No.	Policy Summary	Discussion
Policy 2.3.6	Encourage the location of highway commercial uses, such as gas stations, convenience stores, and restaurants, in areas convenient to regional travelers.	The proposed project will include Highway Commercial uses immediately adjacent to the freeway.
Program 2.3D	Apply the Regional Commercial Center Overlay to lands that are annexed for regional Highway Commercial development.	The Regional Commercial Center is located to the north of the project site along 3rd Street. The South End SOI project is not intended to be the City's regional commercial center.
Goal 2.4	Provide land with available infrastructure to attract light and heavy industrial uses suitable to Greenfield to help achieve an appropriate jobs/ housing balance.	The project is proposing Highway commercial and Heavy Industrial development that will help Greenfield achieve a better jobs/housing balance. Infrastructure systems in this southern area will require expansion but are located in an area where extensions are feasible.
Policy 2.4.1	Discourage the premature conversion of industrially designated land to other designations or uses.	The project is proposing a GPA to have a parcel currently designated for Heavy Industrial changed to Highway Commercial use. However, additional industrial lands are also proposed, so there is no "loss" or premature conversion of job-generating acreage.
Policy 2.9.1	Enhance community character by the development of entry signs, landscaping, and other appropriate amenities in the northern and southern Gateway Overlay areas.	The proposed project will act as an entryway into the southern portion of the City of Greenfield. The project will be held to a higher standard of design pursuant to the Gateway overlay.

City of Greenfield Zoning Ordinance

Should the project be approved, the area east of Highway 101 would be pre-zoned for Highway Commercial and Heavy Industrial use. The current City of Greenfield Zoning code does not contain a designation for heavy industrial use; however the City is in the process of updating the code to reflect the uses identified in the 2005 Greenfield General Plan. West of Highway 101 the site be pre-zoned Low Density Residential (R-1). The R-1 low density residential zoning designation permits a maximum of seven dwelling units/acre. The project is evaluated using this maximum density.

LOCAL AGENCY FORMATION COMMISSION

The Monterey County LAFCO is responsible for coordinating logical and timely changes in local governmental boundaries (reorganizations), including annexations, incorporations of new cities and boundary changes.

Standards for the Evaluation

LAFCO has adopted policies to guide the agency in its decision-making process, as identified in the *Standards for the Evaluation of Proposals*. According to this document, the underlying purpose of Monterey County LAFCO is to discourage urban sprawl and encourage the orderly formation and development of local agencies. Table 3.9-2 summarizes relevant LAFCO policies and provides analysis of the proposed project.

TABLE 3.9-2
LAFCO POLICY ANALYSIS

Policy Summary	Discussion
General Policy	
The proposal should be consistent with the appropriate city or county general and specific plans.	The proposed project is consistent with the *City of Greenfield General Plan (2006 amendment), Central Salinas Valley Area Plan and the Monterey County General Plan.*
The proposal shall be consistent with the Sphere of Influence for the affected local agency.	The project seeks to amend the Sphere of Influence concurrently with the City of Greenfield's city-wide SOI amendment to LAFCO.
Proposals involving annexation shall comply with the Urban Service Area and Urban Transition Area designations.	According to LAFCO Resolution No. 92-27, 168 acres of the South End Annexation area is not within either the Urban Service Area or Urban Transition Area. However, an amendment to the SOI is included concurrent with the annexation application, which would include an amendment to the Urban Transition Area.
LAFCO shall not have the power to disapprove an annexation of contiguous territory if it is located within the Urban Service Area, is not prime agricultural land, and is designated for urban growth by the annexing city's general plan.	The proposed South End SOI project site is not currently located within the City of Greenfield Urban Service Area, and approximately 98 percent of the project site is located on prime farmland. The project is subject to review and approval by LAFCO.

Groundwater Standards	
LAFCO will encourage proposals that incorporate water conservation measures.	The South End Project is subject to the City of Greenfield's conversation policies as stated in the General Plan.
LAFCO will encourage proposals that comply with adopted water allocation plans.	There is no adopted water allocation plan in the City of Greenfield. Groundwater resources are of sufficient quantity and quality to serve the project, as well as the City's larger planning area.
LAFCO will encourage proposals in jurisdictions that have achieved water savings or new water sources that will off-set increases in water usage attributable to the project.	The City of Greenfield uses a progressive pricing structure for water to encourage water savings. Historically, water usage for agricultural uses has been less than potable water needs for urban uses.
LAFCO will discourage proposals that contribute to the cumulative adverse impact on the groundwater basin unless it can be found that the proposal promotes the planned and orderly development of the area.	The groundwater conditions in the southern sub-basin of the Salinas Valley aquifer are sufficient in quantity and quality to serve the project. Although the General Plan EIR identifies a potentially significant impact associated with cumulative development within the Salinas Valley, the City's policies support water conservation and other long term measures (such as the Salinas Valley Water Project) to address this issue at a regional level. The proposal contributes to the planned and orderly development of the area by implementing the *City of Greenfield General.* The proposal requests an amendment of the SOI boundary, and GPA to include commercial and industrial uses to create aide the City's effort to create a balance between jobs and housing and to stimulate economic development.
LAFCO will discourage proposals which, when considered individually and after taking into account all mitigation measures to be implemented with the project, still cause an unavoidable significant adverse impact on the groundwater basin.	See above. As discussed in the Hydrology section of the EIR, the project with mitigation measures will not result in a significant and unavoidable adverse impact on the groundwater basin.

MONTEREY COUNTY LAND USE POLICY

The County of Monterey regulates land use in the unincorporated areas adjacent to the City of Greenfield. Relevant policies and programs are contained in the *County of Monterey General Plan* and the *Central Salinas Valley Area Plan.* Upon approval and ultimate annexation the South End SOI project will county planning documents. There are no specific policies in these documents that would present a clear conflict in land use policy with implementation of the project.

3.9.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and other performance standards recognized by the City of Greenfield. For the purposes of this EIR, impacts are considered significant if the following would result from implementation of the proposed project:

1. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance.) adopted for the purpose of avoiding or mitigation an environmental effect;

2. Physically divide an established community;

3. Conflict with any applicable habitat conservation plan or natural community conservation plan; or

4. Involve land uses that are found to be incompatible with surrounding uses, or internally incompatible.

METHODOLOGY

The evaluation of potential land use impacts is based on field reconnaissance and several documents including the City of Greenfield General Plan and Municipal Code, Monterey County General Plan and Central Salinas Valley Land Use Plan, the applicant's project description and application and letters received during the Notice of Preparation review period.

PROJECT IMPACTS AND MITIGATION MEASURES

Conflicts with Goals and Policies Adopted to Avoid or Mitigate Environmental Effects

Impact 3.9-1 Inclusion of the South End SOI project area within the recognized Greenfield General Plan and Sphere of Influence will be consistent with the goals and policies of the City of Greenfield and affected agencies. This is a **less than significant** impact.

The project will result in a logical boundary adjustment (Sphere of Influence Amendment) to accommodate the planned, highway commercial development, heavy industrial development, as well as the 47 acres of low density residential development anticipated on the west side of Highway 101 south of the Greenfield High School. The City has

determined that this area can be incorporated into its urban service boundaries, and that the uses proposed further the economic development and environmental goals of the City.

The City of Greenfield is currently amending its adopted General Plan to remove 172 acres of Heavy Industrial land on the southeast side of the City, and to square off its SOI in the City's southwest corner. By coordinating these adjustments with the South End SOI project, the City is avoiding an area of exceptionally high agricultural value, while maintaining the integrity of the General Plan's land use program and economic development goals. Consistency with city land use policy is demonstrated in Table 3.9-1.

LAFCO has approval authority over the Sphere of Influence amendment and any subsequent or concurrent request for annexation. One of the missions of LAFCO is to discourage urban sprawl, avoid premature conversion of agricultural land, and encourage the orderly formation and development of local agencies. Based upon the analysis of LAFCO policies shown in **Table 3.9-1**, the project is consistent with LAFCO's *Standards for the Evaluation of Proposals*. No mitigation is required.

Conflicts with Applicable Habitat Conservation Plan

There are no habitat conservation plans within or adjacent to the City of Greenfield. Therefore, **no impact** would occur.

Effects Upon an Established Community

Impact 3.9-2 The amendment of the SOI, GPA, annexation and eventual site development will place new urban land uses at the southern edge of existing neighborhoods in Greenfield. This is a **less than significant** impact.

The South End SOI project area is located adjacent to the City's s SOI and incorporated boundary, in an area used almost exclusively for agriculture. There is one residential home located on the project site, with the nearest established neighborhoods represent by St. Charles Place and the neighborhood located north of the high school. Neither of these established neighborhoods or community areas will be divided or disrupted by the project. No mitigation is required.

Conflict with Surrounding Land Uses

Impact 3.9-3 Development of the project area could impact, or be impacted by, adjacent environmental conditions on neighboring properties. This is a **potentially significant** impact.

Land use impacts are primarily a function of the project's compatibility with surrounding adjacent land uses, which in this case are primarily agriculture fields or agricultural

industrial uses. Land use compatibility is measured in terms of specific environmental effects such as noise, air quality (including dust and odor), aesthetics and traffic. To the greatest extent possible, the EIR uses quantifiable data to measure such impacts, which can have an effect upon the "quality of life" in a defined area. For this reason, the land use analysis is supported by other specific discussions within the EIR including Section 3.11, Traffic and Circulation; Section 3.10, Noise; Section 3.3, Air Quality; Section 3.2 Agricultural Resources; and, Section 3.1, Aesthetic and Visual Resources.

The proposed Highway Commercial and Heavy Industrial portions of the project would be compatible with existing agricultural and other industrial uses north of the project site as indicated in the Greenfield General Plan. The compatibility of low-density residential uses, however, is dependent upon ultimate site plan design and incorporation of appropriate separation between new residences and adjacent uses such as active agriculture, El Camino Real, and the high school. Mitigation measures from other sections of the EIR listed above will mitigate land use conflicts to a **less than significant** level.

A secondary land use issue involves the small (3+/- acre) parcel lodged between El Camino Real and Highway 101. This parcel, which is the current location of the NH3 Service Company, is not in the applicant's future development plans. However, the parcel is within the proposed SOI boundary. Future actions to annex property within the project boundaries should also involve annexation of this parcel in order to avoid creation of a land use "island". To ensure this occurs, the following land use mitigation is required.

MM 3.9-3 The application for annexation of the Scheid West parcel shall also include annexation of the "NH3 Service Company" parcel.

Inclusion of this parcel in the future annexation of the project will mitigate the land use impact to a **less than significant** level.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Consistency with Applicable Land Use Plans, Policies, or Regulations

Impact 3.9-4 The proposed project, combined with other foreseeable projects in the City of Greenfield, will contribute to the changing urban landscape in the Greenfield area. This is a **less than significant** impact.

As the City of Greenfield continues to develop according to its General Plan, growth is expected to occur in a planned and organized manner over a period of approximately 20 years. The project as proposed will represent the southern boundary of that plan. The land use impacts identified are mitigated on a project-specific level, and no other land use issues from cumulative development within the City will "combine" with the project to create a new significant impacts.

REFERENCES/DOCUMENTATION

City of Greenfield. *Greenfield General Plan.* October 2005.

City of Greenfield. *General Plan EIR.* October 2005.

County of Monterey. *Monterey County General Plan.* 1982.

County of Monterey. *Central Salinas Valley Area Plan.* 1987.

Monterey County Local Agency Formation Commission. *Standards for the Evaluation of Proposals.* 1994.

City/County Population Estimates, California Department of Finance, January 1, 2005.

Geary Coats (Coats Consulting) and the Law Offices of Aaron P. Johnson. Project information from application material.

SECTION 3.10
NOISE

This section of the EIR discusses the existing noise environment of the area and identifies predicted changes to that environment that may result from the proposed project. The analysis quantifies noise levels caused by project-generated traffic at the nearest sensitive land uses, and compares those levels to City standards. The analysis is based upon the environmental noise analysis conducted by Ambient Air Quality and Noise Consulting, contained within the Technical Appendices.

3.10.1 EXISTING SETTING

BACKGROUND

Acoustic Fundamentals

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound, is mechanical energy transmitted in the form of a wave because of a disturbance or vibration.

Amplitude is the difference between ambient air pressure and the peak pressure of the sound wave. Amplitude is measured in decibels (dB) on a logarithmic scale, e.g. a 65 dB source of sound, such as a truck, when accompanied by another 65 dB source results in sound amplitude of 68 dB, not 130 dB. Amplitude is interpreted by the ear as corresponding to different degrees of loudness.

Frequency is the number of fluctuations of the pressure wave per second. The unit of frequency is the hertz (Hz). One Hz equals one cycle per second. The human ear is not equally sensitive to sound of different frequencies. Sound waves below 16 Hz or above 20,000 Hz cannot be heard at all, and the ear is more sensitive to sound in the higher portion of this range than in the lower. To approximate this sensitivity, environmental sound is usually measured in A-weighted decibels (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations. Noise generated by mobile sources typically attenuates at a rate between 3.0 to 4.5 dBA per doubling of distance. The rate depends on the ground surface and the number or type of objects between the noise source and the receiver. For mobile transportation sources, such as highways, hard and flat surfaces, such as concrete or asphalt, have an attenuation rate of 3.0 dBA per doubling of distance. Soft surfaces, such as uneven or vegetated terrain, have an attenuation rate of about 4.5 dBA per doubling of distance from the source. Noise generated by stationary sources typically attenuates at a rate of approximately 6.0 to 7.5 dBA per doubling of distance from the source.

Sound levels can be reduced by placing barriers between the noise source and the receiver. In general, barriers contribute to decreasing noise levels only when the structure breaks the "line of sight" between the source and the receiver. Buildings, concrete walls, and berms can all act as effective noise barriers. Wooden fences or broad areas of dense foliage can also reduce noise, but are less effective than solid barriers.

Acoustical Terminology

Term	Definition
Acoustics	The science of sound.
Ambient Noise	The distinctive acoustical characteristics of a given space consisting of all noise sources audible at that location. In many cases, the term ambient is used to describe an existing or pre-project condition such as the setting in an environmental noise study.
Attenuation	The reduction of noise.
A-Weighting	A frequency-response adjustment of a sound level meter that conditions the output signal to approximate human response.
Decibel or dB	Fundamental unit of sound, A Bell is defined as the logarithm of the ratio of the sound pressure squared over the reference pressure squared. A Decibel is one-tenth of a Bell.
CNEL	Community Noise Equivalent Level. Defined as the 24-hour average noise level with noise occurring during evening hours (7 - 10 p.m.) weighted by a factor of three and nighttime hours weighted by a factor of 10 prior to averaging.
SNEL	Single Event Noise Level. The SEL describes a receiver's cumulative noise exposure from a single noise event, which is defined as an acoustical event of short duration and involves a change in sound pressure above some referenced value.
Frequency	The measure of the rapidity of alterations of a periodic signal, expressed in cycles per second or hertz.
L_{dn}	Day/Night Average Sound Level. Similar to CNEL but with no evening weighting.
L_{eq}	Equivalent or energy-averaged sound level.
Lmax	The maximum instantaneous noise level during a specific period of time.
Lmin	The minimum instantaneous noise level during a specific period of time.
Loudness	A subjective term for the sensation of the magnitude of sound.
Noise	Unwanted sound
Threshold of Hearing	The lowest sound that can be perceived by the human auditory system, generally considered to be 0 dB for persons with perfect hearing.
Threshold of Pain	Approximately 120 dB above the threshold of hearing.

Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels. When community noise interferes with human activities or contributes to stress, public annoyance with the noise source increases. The acceptability of noise and the threat to public well being are the basis for land use planning policies preventing exposure to excessive community noise levels.

There is no completely satisfactory way to measure the subjective effects of noise or of the corresponding reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and habituation to noise over differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted: the so-called "ambient" environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged. Regarding increases in A-weighted noise levels, knowledge of the following relationships will be helpful in understanding the analysis of noise impacts within this section of the EIR.

Except in carefully controlled laboratory experiments, humans cannot perceive a change of 1 dB. Outside of the laboratory, a 3-dB change is considered a just-perceivable difference. A change in level of at least 5 dB is required before any noticeable change in community response would be expected. An increase of 5 dB is typically considered substantial. A 10-dB change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

NOISE IN THE PROJECT VICINITY

Existing Noise Sensitive Land Uses

Noise-sensitive land uses generally include those uses where exposure to noise would result in adverse effects, as well as uses where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Other noise-sensitive land uses include hospitals, convalescent facilities, parks, hotels, churches, libraries, and other uses where low interior noise levels are essential.

The project site consists of four separate parcels. Three parcels are located east of Highway-101 and one parcel is located west of Highway 101. These parcels consist

primarily of agricultural uses, with the exception of a single rural residential dwelling, and the LA Hearne Company agricultural equipment storage facilities, located east of Highway-101. Noise-sensitive land uses located near the project site consist primarily of rural residential dwellings, the nearest of which is located east of Highway 101, approximately 200 feet south of the project site. Greenfield High School and Vista Verde Middle School, which is also considered a noise-sensitive land use, is located west of Highway 101, adjacent to the northern boundary of the project site.

3.10.2 REGULATORY SETTING

CITY OF GREENFIELD

Within the City of Greenfield, noise is dealt with on a site specific basis and is typically limited by conditions of approval applied to new projects, which may include limitations on construction or operational hours. Within the City of Greenfield construction activities are typically limited to between the hours of 7:00 a.m. and 6:00 p.m., Monday through Friday.

City of Greenfield General Plan

The Noise Element of the City of Greenfield General Plan contains policies designed to accomplish the following goals:

1. Protect the community from the harmful and annoying effects of exposure to excessive noise, and

2. Protect the economic base of the City by preventing the encroachment of noise-sensitive land uses into areas affected by existing noise-producing uses.

The City's General Plan includes maximum allowable exterior and interior noise standards for projects affected by transportation and non-transportation noise sources. Noise compatibility of proposed development is determined in comparison to these standards. The City's applicable noise standards for projects affected by transportation noise sources are presented in **Table 3.10-1**. Noise standards for projects affected by non-transportation noise sources are summarized in **Tables 3.10-2**. The City's land use compatibility noise criteria (in CNEL/L_{dn}) are summarized in **Table 3.10-3**.

TABLE 3.10-1
NOISE STANDARDS FOR NEW USES AFFECTED BY TRANSPORTATION NOISE

New Land Use	Outdoor Activity Area (dBA CNEL/L_{dn})	Interior - Ldn/Peak Hour (dBA L_{eq})[1]
All Residential [2, 3, 4]	60-65	45
Transient Lodging [5]	65	45
Hospitals & Nursing Homes [6]	60	45
Theaters & Auditoriums	—	35
Churches, Meeting Halls, Schools, Libraries	60	40
Office Buildings [7]	65	45
Commercial Buildings [7]	65	50
Playgrounds, Parks, etc.	70	—
Industry [7]	65	50

[1] For traffic noise within the City of Greenfield, Ldn and peak-hour Leq values are estimated to be approximately similar. Interior noise level standards are applied within noise-sensitive areas of the various land uses, with windows and doors in the closed positions.

[2] Outdoor activity areas for single-family residential uses are defined as back yards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.

[3] For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts. Where such areas are not provided, the standards shall be applied at individual patios and balconies of the development.

[4] Where it is not possible to reduce noise in outdoor activity areas to 60 dB Ldn or less using a practical application of the best-available noise reduction measures, an exterior noise level of up to 65 dB Ldn may be allowed provided that available exterior noise level reduction measures have been implemented and interior noise levels are in compliance with this table.

[5] Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas.

[6] Hospitals are often noise generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.

[7] Only the exterior spaces of these uses designated for employee or customer relaxation have any degree of sensitivity to noise.

Source: *City of Greenfield 2005 General Plan Noise Element*

TABLE 3.10-2
NOISE STANDARDS FOR NEW PROJECTS AFFECTED BY OR INCLUDING NON-TRANSPORTATION NOISE

New Land Use	Outdoor Activity Area - L_{eq}		Interior - L_{eq} Day and Night
	Daytime	Nighttime	
All Residential [3,4]	50	45	35
Transient Lodging [5]	55	—	40
Hospitals & Nursing Homes [6]	50	45	35
Theaters & Auditoriums	—	—	35
Churches, Meeting Halls, Schools, Libraries	55	—	40
Office Buildings [7,8]	55	—	45
Commercial Buildings [7.8]	55	—	45
Playgrounds, Parks [8]	65	—	—
Industry [7]	65	65	50

1. Noise Level performance standards for new lands uses affected by or including non-transportation noise sources are indicated using a Hourly L_{eq}, dB noise level descriptor. Daytime activities occur between the hours of 7a.m. to 10 p.m. and nighttime activities occur between 10 p.m. to 7 a.m. The Hourly Leq, dB for the daytime standard is 55 and the nighttime is 45. Noise level standards for specified uses are described in theTable above.
2. Fixed noise sources which are typically of concern include, but are not limited to the following: HVAC Systems, Cooling Towers/Evaporative Condensers, Pump Stations, Lift Stations Emergency Generators, Boilers, Steam Valves, Steam Turbines, Generators, Fans, Air Compressors, Heavy Equipment, Conveyor Systems, Transformers, Pile Drivers, Grinders, Drill Rigs, Gas or Diesel Motors, Welders, Cutting Equipment, Outdoor Speakers, Blowers. The types of uses which may typically produce the noise sources described above include but are not limited to: industrial facilities including pump stations, trucking operations, tire shops, auto maintenance shops, metal fabricating shops, shopping centers, drive-up windows, car washes, loading docks, public works projects, batch plants, bottling and canning plants, recycling centers, electric generating stations, sand and gravel operations, and athletic fields.
3. Outdoor activity areas for single-family residential uses are defined as back yards. For large parcels or residences with no clearly defined outdoor activity area, the standard shall be applicable within a 100-foot radius of the residence.
4. For multi-family residential uses, the exterior noise level standard shall be applied at the common outdoor recreation area, such as at pools, play areas or tennis courts. Where such areas are not provided, the standards shall be applied at individual patios and balconies of the development.
5. Outdoor activity areas of transient lodging facilities include swimming pool and picnic areas, and are not commonly used during nighttime hours.
6. Hospitals are often noise generating uses. The exterior noise level standards for hospitals are applicable only at clearly identified areas designated for outdoor relaxation by either hospital staff or patients.
7. Only the exterior spaces of these uses designated for employee or customer relaxation have any degree of sensitivity to noise.
8. The outdoor activity areas of office, commercial and park uses are not typically utilized during nighttime hours. General: The Table 5 standards shall be reduced by 5 dB for sounds consisting primarily of speech or music, and for recurring impulsive sounds. If the existing ambient noise level exceeds the standards of Table 5, then the noise level standards shall be increased at 5 dB increments to encompass the ambient.

Source: City of Greenfield 2005 General Plan Noise Element

TABLE 3.10-3
CITY OF GREENFIELD
LAND USE NOISE COMPATIBILITY CRITERIA

Land Use Category	Community Noise Exposure (Ldn or CNEL, dBA)			
	Normally Acceptable[1]	Conditionally Acceptable[2]	Normally Unacceptable[3]	Clearly Unacceptable[4]
Residential-Single Family, Duplex, Mobile Home	<60	55–70	70–75	>75
Residential-Multiple Family	<65	60–70	70–75	>75
Transient Lodging, Motel, Hotel	<65	60–70	70–80	>80
School, Library, Church, Hospital, Nursing Home	<70	60–70	70–80	>80
Auditorium, Concert Hall, Amphitheater	—	<70	—	>65
Sports Arenas, Outdoor Spectator Sports	—	<75	—	>70
Playground, Neighborhood Park	<70	—	67.5–75	>72.5
Golf Course, Stable, Water Recreation, Cemetery	<75	—	70–80	>80
Office Building, Commercial and Professional	<70	—	67.5–77.5	>75
Industrial, Manufacturing, Utilities, Agriculture	<75	—	70–80	>75

Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special noise insulation requirements.

Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design.

Normally Unacceptable: New construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

Clearly Unacceptable: New construction or development should not be undertaken.

Source: City of Greenfield 2005 General Plan Noise Element

FEDERAL INTERAGENCY COMMITTEE ON NOISE

The effects of increased traffic noise resulting from a new project at existing off-site and on-site noise-sensitive land uses are often evaluated using standards developed by the Federal Interagency Committee on Noise (FICON). The FICON standards provide thresholds for likely noise impacts based on the difference between anticipated project-related noise level increase and the pre-project ambient noise conditions.

The FICON standards are based upon studies that relate aircraft noise levels to the percentage of persons highly annoyed by the noise. Although the FICON recommendations were developed to assess aircraft noise impacts, they have commonly been applied to all

sources of noise that are described in terms of cumulative noise exposure metrics such as L_{dn}. The FICON standards are shown in **Table 3.10-4.**

TABLE 3.10-4
SIGNIFICANCE OF CHANGES IN CUMULATIVE NOISE EXPOSURE

Ambient Noise Level Without Project (L_{dn} or CNEL)	Significant Impact
<60 dB	+5.0 dB or more
60-65 dB	+3.0 dB or more
>65 dB	+1.5 dB or more

Source: Federal Interagency Committee on Noise (FICON).

3.10.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Generally, a project may have a significant effect on the environment if it will substantially increase the ambient noise levels for adjoining areas or expose people to severe noise levels. In practice, more specific professional standards have been developed, as discussed previously in the Regulatory Setting. These standards state that a noise impact may be considered significant if it would generate noise that would conflict with local planning criteria or ordinances, or substantially increase noise levels at noise-sensitive land uses.

For this EIR, noise impacts associated with the proposed project would be considered significant if the following were to occur:

1. Short-term noise levels from construction activities were to exceed applicable exterior and interior noise standards by the City of Greenfield (Standards identified in **Table 3.10-2**).

2. The proposed project would cause a substantial increase in long-term transportation noise levels that exceed the City's noise-control standards for transportation noise sources (identified in **Table 3.10-1**).

3. Development of the proposed residential, highway commercial and industrial uses would cause long term stationary source noise increases at nearby noise sensitive land uses that would exceed the City's noise control standards for non-transportation noise sources (an increase of 5 dBA in areas where ambient noise levels are less than 60 dBA CNEL/Ldn; an increase of 3 dBA where ambient noise levels range from 60 to 65 dBA CNEL/Ldn; and an increase of 1.5 dBA where ambient noise levels exceed 65 dBA CNEL/Ldn.)

4. Land use compatibility with projected on-site noise levels would result in the development of land uses in areas where existing or projected noise levels would exceed the threshold established by the City of Greenfield (**Table 3.10-4**). (For residential land uses, noise levels in new outdoor residential areas should not exceed 60 dBA L_{dn}/CNEL unless the design includes reasonable mitigation to reduce noise in outdoor activity areas. Exterior noise levels of up to 65 dBA L_{dn}/CNEL may be allowed provided mitigation has been incorporated. For industrial land uses, exterior noise levels should not exceed 75 dBA L_{dn}/CNEL.)

5. The project would contribute significantly to any cumulative noise impact.

METHODOLOGY

Ambient Noise Survey

As part of the Environmental Noise Assessment, Ambient Air Quality and Noise Consultants completed an ambient noise survey on November 22, 2005 to document the existing noise environment at various locations within the project area. Short-term (i.e., 15-minute) noise level measurements were taken along the project boundaries located nearest Highway 101. Measurements were conducted in accordance with the American National Standards Institute (ANSI) acoustical standards using a Larson Davis model 820 sound level meter.

Based on the monitoring conducted, ambient average-hourly noise levels at the boundaries of the project site ranged from approximately 56 dBA L_{eq} at the project boundary located east of Highway 101 to approximately 71 dBA L_{eq} at the project boundary located west of Highway 101. The dominant noise source identified for parcels located east of the highway was vehicular traffic on Highway 101. For the parcel located west of the highway, the dominant noise source noted during the ambient noise survey was the NH_3 Service Company fertilizer dispensing facility, which is located along El Camino Real, east of the proposed residential development.

PROJECT IMPACTS AND MITIGATION MEASURES

Construction Noise

Impact 3.10-1 The proposed project could result in construction-related noise that would exceed applicable City noise standards at nearby noise-sensitive land uses. This impact is considered a **potentially significant** impact.

During the construction phases of the project (e.g. demolition/land clearing, grading and excavation, erection), noise from construction activities would add to the noise environment in the immediate project vicinity. Noise generated by construction

equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical noise levels for individual pieces of construction equipment are summarized in **Table 3.10-5.**

TABLE 3.10-5
TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVELS

Type of Equipment	Noise Level in dBA at 50 feet	
	Without Feasible Noise Control	With Feasible Noise Control[1]
Dozer or Tractor	80	75
Excavator	88	80
Compactor	82	75
Front-end Loader	79	75
Backhoe	85	75
Grader	85	75
Crane	83	75
Generator	78	75
Truck	91	75

[1] Feasible noise control includes the use of intake mufflers, exhaust mufflers, and engine shrouds.
Sources: U.S. Environmental Protection Agency 1971; Federal Transit Administration 1995

Individual equipment noise levels typically range from approximately 75 to 91 dBA at 50 feet. Typical operating cycles may involve two minutes of full power, followed by three or four minutes at lower power settings. Depending on the activities performed and equipment usage requirements, combined average-hourly noise levels at construction sites typically range from approximately 65 to 89 dBA L_{eq} at 50 feet.

Assuming a maximum construction noise level of 89 dBA L_{eq} and an average attenuation rate of 6 dBA per doubling of distance from the source, construction activities located within approximately 1,500 feet of noise-sensitive receptors could reach levels of approximately 60 dBA L_{eq}. Construction activities may result in increased noise levels within nearby classrooms at Greenfield High School, creating the possibility of an annoyance. Permanent classrooms are located approximately 150 feet away from the project site and relocatable classrooms are located approximately 75 feet from the project site. Upon conversation with the Vice Principal Dan Andrus of Greenfield High School by PMC Staff, it was noted that construction activates at the Arroyo Seco Center project adjacent to the northeast of the High School have not been a nuisance to classroom activities. However construction activities at the South End SOI project would be located

at a much closer proximity to classrooms than the Arroyo Seco Center construction activities, which are approximately 450 feet from the nearest classrooms. In addition, activities occurring during the more noise-sensitive nighttime hours may also result in increased levels of annoyance and potential sleep disruption to occupants of nearby residential dwellings. Construction-generated noise is therefore, considered a **potentially significant** short-term noise impact to nearby noise-sensitive land uses.

Mitigation Measure

MM 3.10-1a To reduce the effects of construction noise, the applicant shall require construction contractors to:

1. limit high noise-producing activities to the least noise-sensitive times of day and week (e.g., 7:00 am to 6:00 pm, Monday through Friday);
2. locate construction equipment and equipment staging areas at the furthest distance possible form nearby noise sensitive land uses;
3. properly maintain construction equipment, equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations. Equipment engine shrouds shall be closed during equipment operation; and
4. When not in use, motorized construction equipment shall not be left idling.

MM 3.10-1b During construction activities on APN 221-011-068, located west of Highway 101, the project applicant shall have construction contractors place temporary acoustic barriers (vinyl noise curtains or walls) along the northern boundary sufficient to shield nearby classrooms from noise-generating construction activities.

Implementation of the above mitigation measures limiting noise producing activities and requiring temporary acoustical sound barriers would reduce short-term construction noise impacts to nearby residential land uses and Greenfield High School to a **less than significant** level.

Long Term Increase in Stationary-Source Noise Associated with the Proposed Project

Impact 3.10-2 The proposed project would result in new stationary-source noise, particularly noise from commercial and industrial uses that could exceed applicable City noise standards at nearby noise-sensitive land uses. This is considered a **potentially significant** impact.

The proposed project includes a mixture of land uses, including single family residential, highway commercial, and heavy industrial uses. Residential units are proposed for development on the APN 221-011-068, located west of Highway 101. The commercial and industrial uses are proposed for the parcels (APN 221-011-017, 071) located east of Highway 101. The current LA Hearne agricultural storage facilities (APN 221-011-018) located on the east side of Highway 101 would also be designated as Highway Commercial. The sources and levels of stationary-source noise typically associated with these proposed land uses are discussed below:

Proposed Residential Units

Occupancy of proposed residential dwellings units would expose nearby land uses, including the existing Greenfield High School, Vista Verde Middle School and other proposed residential dwellings, to minor increases in ambient noise levels. Noise typically associated with residential development includes that from air conditioning equipment, voices, and amplified music. Increases in ambient noise levels would primarily occur during the day and evening hours and less frequently at night.

Noise levels generated by stationary sources, primarily residential central air conditioning units, averages approximately 60 dBA L_{eq} at three feet from the source. Assuming a maximum noise level of 60 dBA L_{eq}, predicted stationary source noise levels at the nearest classrooms located at the existing Greenfield High School and Vista Verde Middle School would not exceed the City's daytime exterior or interior noise standards of 55 and 40 dBA L_{eq}, respectively. However, depending on the distance between proposed residential dwellings, noise levels associated with air conditioning units located in side-yard areas could potentially exceed the City's exterior daytime and nighttime noise standards of 50 dBA and 45 dBA, respectively, at neighboring residences. As a result, increased noise levels associated with proposed residential land uses within the new subdivision would be considered **potentially significant.**

Highway Commercial and Heavy Industrial Uses

The proposed project includes plans for the development of commercial and industrial uses on parcels located east of Highway 101. The specific types of uses to be developed have not yet been identified, although the applicant has indicated the potential for a truck stop and Hotel/Motel uses in addition to traditional commercial center uses. Potential sources of noise associated with these types of land uses can vary substantially, depending on the activities conducted. In general, noise associated with commercial uses is typically limited to occasional parking-lot-related noise (e.g., opening and closing of vehicle doors, people talking). Truck stop noise can be expected to include idling diesel engines, air brakes and occasional truck horns. Industrial land uses, however, can generate substantial noise levels, including noise associated with the operation of large stationary sources, as well as

loading dock activities. For example, large vacuum pumps which are typically used for agricultural cooling and packaging operations can generate noise levels of approximately 90 dBA L_{eq} at 50 feet. Noise associated with loading dock activities, including idling trucks, vehicle backup alarms, decompression of trailer truck brakes, forklifts, and other material loading and unloading activities can generate levels of more than 60 dBA L_{eq} at 50 feet.

Surrounding land uses consist primarily of agricultural land and rural residential land uses. The nearest residential land uses are located just east of Highway 101 and include one residential dwelling located on the project site and one residential dwelling located approximately 330 feet south of the project site along Highway 101. The residence located on the proposed project site would be removed as part of the proposed project. Depending on the uses ultimately developed, predicted noise levels at these residences could potentially exceed the City's hourly-average noise standards for residential uses. Though stationary-source noise from proposed land uses at these receptors would likely be partially masked by traffic noise from Highway 101, substantial increases in ambient noise levels, particularly during the quieter nighttime hours could potentially occur. As a result, stationary-source noise levels associated with proposed commercial and industrial land uses would be considered **potentially significant.**

Stationary-source noise levels associated with the proposed land uses would result in noise levels that could exceed City noise standards at nearby residence. In addition, increases in single-event noise levels, such as backup alarms from material delivery trucks at commercial land uses or amplified public address systems associated with recreational facilities, could result in increased levels of disturbance and sleep disruption for occupants of nearby residential dwellings, particularly during the quieter nighttime hours. As a result, exposure to stationary source noise would be considered **potentially significant.**

Mitigation Measure

MM 3.10-2 Prior to approval of subsequent development applications, the project applicant shall have site specific acoustical analyses conducted to determine predicted noise impacts attributable specifically to the proposed project, taking into account site-specific conditions (e.g., site design, location of structures, specific use, building characteristics). The acoustical analysis shall evaluate stationary and mobile source noise attributable to the proposed uses, exposure of noise-sensitive land uses to existing noise sources, and quantify project-related impacts to nearby noise-sensitive land uses, in comparison to adopted City of Greenfield noise standards. Mitigation measures shall be identified to reduce project-related noise impacts at noise-sensitive receptors. Suggested mitigation measures include, but are not limited to, the following:

a. Use of increased noise-attenuation measures in building construction (e.g., dual-pane, sound-rated windows; mechanical air systems; exterior wall insulation, etc.);

b. Locating mechanical equipment (e.g., air conditioning and ventilation systems, pump stations, etc.) within rear-yard areas and/or provide shielding from nearby existing and proposed noise-sensitive land uses;

c. Limit noise-generating operational activities associated with the proposed commercial land uses, including truck deliveries and the loading and unloading of materials to daytime hours;

d. Include noise-reduction features (e.g., sound walls, truck-to-dock seals, increased setback distances/shielding) in the design of loading docks at commercial land uses;

e. Construction of sound walls between noise-generating land uses and neighboring residential development;

f. Limit landscape maintenance activities to the least noise-sensitive daytime hours (e.g., 7 a.m. to 7 p.m.); and

g. Limit the use of amplified sound systems or public address systems associated with commercial or industrial uses to the least noise-sensitive daytime hours (e.g., 7 a.m. to 7 p.m.).

Implementation of the above mitigation measures would reduce stationary source noise levels associated with proposed residential land uses. However, specific commercial and industrial land uses have not yet been identified. The effectiveness and feasibility of MM 3.10-2 incorporated for commercial and industrial uses will be largely dependent on the uses ultimately proposed and site design. All uses, however, are required to meet city standards. As such, this programmatic analysis assumes that noise can be reduced to **less than significant** levels.

Increase in Traffic (Mobile) Noise Levels

Impact 3.10-3 Implementation of the proposed project would not contribute to a substantial increase in ambient noise levels. As a result, an increase in traffic noise from development of the proposed project is considered to be a **less than significant impact.**

The increase in daily traffic volumes resulting from implementation of the proposed project would generate increased noise levels along nearby roadway segments. The Environmental Noise Assessment completed by Ambient indicated that the FHWA roadway noise

prediction model was used to predict traffic noise levels along affected roadway segments. Predicted noise levels were calculated for both intermediate and buildout conditions, with and without implementation of the proposed project, based on traffic volumes obtained from the traffic analysis prepared for this project (Higgins Associates 2005). Predicted traffic noise levels for intermediate and buildout conditions are summarized in **Tables 3.10-6 and 3.10-7**, respectively.

TABLE 3.10-6
PREDICTED TRAFFIC NOISE LEVELS INTERMEDIATE CONDITIONS

Roadway Segment	Predicted Noise Level at 50 ft from Centerline of Near Travel Lane (dBA L_{dn}/CNEL)		
	Without Project	With Project	Increase
El Camino Real, North of Espinosa Road	60.75	62.46	1.71
El Camino Real, South of Espinosa Road	58.36	62.75	4.39
El Camino Real, SB SR-101 Off-Ramp to Susan Lane	57.30	59.87	2.57
US 101, Oak Avenue to Espinosa Road	76.88	77.73	0.85
US 101, South of Espinosa Road	76.82	77.37	0.55

Traffic noise levels were predicted using the FHWA roadway noise prediction model based on traffic information obtained from the traffic analysis prepared for this project. Modeled estimates assume no natural or man-made shielding (e.g., vegetation, berms, walls, buildings).

TABLE 3.10-7
PREDICTED TRAFFIC NOISE LEVELS GENERAL PLAN BUILDOUT CONDITIONS

Roadway Segment	Predicted Noise Level at 50 ft from Centerline of Near Travel Lane (dBA L_{dn}/CNEL)		
	Without Project	With Project	Increase
El Camino Real, North of Espinosa Road	61.82	64.20	2.38
El Camino Real, South of Espinosa Road	61.87	66.23	4.36
El Camino Real, SB SR-101 Off-Ramp to Susan Lane	61.00	63.81	2.81
US 101, Oak Avenue to Espinosa Road	77.74	79.22	1.48
US 101, South of Espinosa Road	77.99	79.09	1.10
3rd Street (Future Extension), North of Espinosa Road	63.02	64.25	1.23
3rd Street (Future Extension), South of Espinosa Road	64.04	67.69	3.65

Traffic noise levels were predicted using the FHWA roadway noise prediction model based on traffic information obtained from the traffic analysis prepared for this project. Modeled estimates assume no natural or man-made shielding (e.g., vegetation, berms, walls, buildings).

Based on the modeling conducted, development of the proposed project under intermediate traffic conditions would not result in a substantial increase in ambient noise levels. However, future buildout of the proposed project would result in a substantial increase in traffic noise levels along portions of El Camino Real and the future planned extension of 3rd Street, south of Espinosa Road. Land uses located adjacent to the future 3rd Street extension would be industrial; therefore, no noise-sensitive land uses are anticipated to be adversely affected associated with increased traffic along this roadway segment. No existing noise-sensitive land uses are located along the portion of El Camino Real, south of Espinosa Road. In addition, assuming a minimum setback distance of 200 feet to the nearest occupied room, predicted traffic noise levels at Greenfield High School would not exceed the City's exterior or interior noise standards of 60 and 40 dBA L_{dn}/L_{eq}, respectively. With buildout of the proposed project, predicted traffic noise would not contribute to a substantial increase in ambient noise levels at existing noise-sensitive land uses that would exceed the City's noise standards. As a result, increases in traffic noise attributable to the proposed project would be considered to have a **less than significant** impact.

Noise Levels at Proposed Noise Sensitive Land Uses

Impact 3.10-4 The proposed project would result in the development of noise-sensitive land uses (residential dwelling units) in an area where predicted noise levels would exceed City of Greenfield noise standards. This is considered a **potentially significant** impact.

Noise levels within the project area are influenced by traffic noise associated with vehicle traffic on area roadways, and industrial activities (i.e., NH_3 Service Company). Occasional agricultural activities on adjacent properties, as well as outdoor recreational activities at the nearby Greenfield High School also contribute to the ambient noise environment. Noise levels typically associated with these sources, and the compatibility of proposed land uses with noise generated by these sources are discussed separately below:

Transportation Noise Sources

In order for Ambient Air and Noise Consultants to determine land use compatibility, predicted traffic noise contours (in dBA L_{dn}/CNEL) for area roadways were modeled for future-plus-project conditions. Traffic noise contours were modeled using the FHWA Traffic Noise Prediction Model (FHWA 1988), based on data obtained from the Traffic Impact Study completed by Higgins Associates prepared for this project. **Table 3.10-9** summarizes predicted noise levels at 50 feet, as well as the distances to the 60, 65, and 70 dBA L_{dn}/CNEL contours for adjacent roadways. The predicted noise contour distances do not take into account shielding or reflection of noise from existing terrain or existing/future structures. Actual noise levels would vary from day to day, depending on factors such as local traffic volumes, shielding from existing structures, variations in attenuation rates resulting from changes in surface parameters, and meteorological conditions.

TABLE 3.10-8
PREDICTED TRAFFIC NOISE CONTOUR DISTANCES
BUILDOUT WITH PROJECT CONDITIONS

Roadway Segment	L_{dn}/CNEL 50 ft from Centerline of Near Travel Lane	Distance from Roadway Centerline (feet) to Predicted Noise Contours (L_{dn}/CNEL)		
		60 dBA	65 dBA	70 dBA
US 101, Oak Avenue to Espinosa Road	79.22	1,252	582	271
US 101, South of Espinosa Road	79.09	1,227	570	265
3rd Street (Future Extension), North of Espinosa Road	64.25	107	NA	NA
3rd Street (Future Extension), South of Espinosa Road	67.69	181	84	NA
El Camino Real, South of Espinosa Road	66.23	145	68	NA
El Camino Real, SB US 101 Off-Ramp to Susan Lane	63.81	100	NA	NA

Traffic noise levels were predicted using the FHWA roadway noise prediction model based on traffic information obtained from the traffic analysis prepared for this project. Modeled estimates assume no natural or man-made shielding (e.g., vegetation, berms, walls, buildings). Refer to Appendix E for modeling input assumptions and output results.
NA = Within Roadway Right-of-way

The City's minimum acceptable exterior noise standard for residential land uses is 60 dBA L_{dn}/CNEL. The City's exterior noise standards for commercial and industrial land uses are 65 and 75 dBA L_{dn}/CNEL, respectively.

As shown in **Table 3.10-8**, freeway traffic from Highway 101 is the predominant transportation noise source in the vicinity of the proposed project. Based on the modeling conducted, the 60 dBA L_{dn}/CNEL contours of Highway 101 (unmitigated) would range from approximately 1,227 feet from the roadway centerline for areas located south of Espinosa Road to approximately 1,252 feet from the roadway centerline for areas located north of Espinosa Road. Residential land uses proposed for development on the parcel located west of Highway 101 would be located within the 60 dBA L_{dn}/CNEL contours of Highway 101, which would extend approximately 880 feet onto the project site. The projected 60 dBA L_{dn}/CNEL contour of El Camino Real would also extend onto this same parcel to a distance approximately 145 feet from the roadway centerline. Residential land uses located inside these projected future noise contours could be exposed to noise levels that exceed the City's exterior noise level standard of 60 dBA L_{dn}/CNEL for new residential development.

The project area proposed for commercial and industrial land uses, which are located east of Highway 101, would also be located within the projected 65 and 70 dBA L_{dn}/CNEL contours of Highway 101. Based on the modeling conducted the projected 70 dBA L_{dn}/CNEL contour of Highway 101 would extend onto the project site to a maximum

distance of approximately 271 feet from the roadway centerline. The 65 dBA L_{dn}/CNEL contour would extend to a maximum distance of approximately 582 feet from the roadway centerline.

Based on the modeling conducted, proposed industrial land uses would not be located within areas projected to exceed the City's noise standard of 75 dBA L_{dn}/CNEL. However, areas proposed for commercial land uses that are located nearest Highway 101 could potentially exceed the City's land use compatibility noise standard of 70 dBA L_{dn}/CNEL. In addition, any commercial land uses that may include exterior spaces for employee or customer relaxation may exceed the City's noise standard of 65 dBA L_{dn}/CNEL for noise-sensitive areas. Commercial land uses may therefore, be located in areas that would exceed the City's noise standards.

Non Transportation Noise Sources

The areas adjacent to the proposed residential uses, located west of Highway 101, include non-transportation noise sources associated with the NH_3 Service Company and Greenfield High School. Noise generated by these uses and potential impacts to the proposed project land uses are identified below.

NH_3 Service Company

The NH_3 Service Company operates a fertilizer dispensing facility, which is located along El Camino Real, east of the proposed residential development. Hours of operation are typically limited to the daytime hours. Based on the noise measurements conducted as part of Environmental Noise Assessment, noise generated by the fertilizer dispensing plant resulted in noise levels of approximately 71 dBA L_{eq} at the eastern boundary of the project site proposed for residential development. Noise generated by this source was not detectable at the project site parcels located east of Highway 101. Average hourly noise levels at residential dwellings planned for construction within the eastern portion of the APN 221-011-068 located west of Highway 101 would exceed the City's daytime noise standard of 50 dBA L_{eq}.

Greenfield High School

Noise typically associated with schools includes the voices of adults and children, group recreation, and the opening and closing of vehicle doors in parking lots. During periods when children, students, and community members are using exterior recreational areas, exterior noise levels can exceed 60 dBA L_{eq} at 50 feet. Noise sources commonly associated with these types of events include elevated voices from crowds and exterior public address systems. Recreational events are typically limited to the daytime hours, but may, on occasion, extend past 10:00 p.m. Recreational facilities at the High School include a

football stadium, track, and various ball fields located adjacent to the northern boundary of the parcel.

Assuming a maximum noise level of 60 dBA L_{eq} at 50 feet, residential land uses located within approximately 160 feet of these uses could be exposed to noise levels in excess of the City's daytime noise standard of 50 dBA L_{eq}. Assuming that recreational activities, such as football games, could extend past 10:00 p.m., predicted noise levels at planned residential dwellings located within approximately 300 feet could also exceed the City's nighttime noise standard of 45 dBA L_{eq}. Proposed residential land uses may therefore, be located in areas that would exceed the City's noise standards for non-transportation noise sources.

Agricultural Activities

Agricultural activities on parcels located adjacent to the project area include the use of various types of heavy equipment. Operation of heavy agricultural equipment typically generates noise levels of up to approximately 75 dBA L_{eq} at 50 feet (EPA 1971). However, agricultural activities (e.g., disking, plowing) are typically sporadic or seasonal and occur over a large area, which results in varying levels of exposure at nearby receptors. Given that activities are typically limited to daytime hours and the mobile nature of agricultural activities, nearby planned residential dwellings are not anticipated to be exposed to noise levels for extended periods of time. As a result, agricultural activities are not anticipated to generate noise levels that would exceed the City's noise standards for residential land uses.

Mitigation Measure

MM 3.10-4 The project applicant for the residential portion of the project site shall include noise barriers to shield the planned residential dwelling units proposed for construction west of Highway 101. The barriers would act to shield proposed uses from transportation and non-transportation noise sources, barriers would likely be required along eastern boundary of the parcel, parallel to El Camino Real, and along the property line adjoining Greenfield High School. In general, a noise barrier constructed of sufficient density (approximately 20 kilograms/square meter minimum) can achieve a five dBA noise level reduction when it is tall enough to break the line-of-sight from the noise source to the receiver. Barriers can achieve an approximate 1.5 dBA additional noise-level reduction for each meter of increased height. Openings in noise walls for connections to adjoining land uses or roadways substantially reduce the effectiveness of barriers. Noise barriers provide no attenuation for receptors that rise above the barrier, such as multi-story residential buildings. The specific noise-reduction features should be implemented in the final site design for the residential portion of the project.

Implementation of the above mitigation measure along with MM 3.10-2 would be effective in reducing interior noise levels of new residential development to **less than significant** levels. In addition site planning opportunities exist at the proposed residential development, to set back the location of the residential uses from Highway 101 by possibly placing the storm water detention basin for the parcel between the Highway and residential uses. As a result, this impact would be considered **less than significant.**

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Cumulative Traffic Noise

Impact 3.10-5 The project will contribute to cumulative traffic on the roadway network, which will not substantially increase noise level over cumulative non-project noise levels. The increase in noise level ranges from 1.1 to 3.65 dB Ldn, as, indicated by **Table 3.10-7.** This is a **less than significant** impact.

As identified in **Impact 3.10-3,** future buildout of the proposed would result in a substantial increase in traffic noise levels along portions of El Camino Real and the future planned extension of 3rd Street, south of Espinosa Road. Land uses located adjacent to the future 3rd Street extension would be industrial; therefore, no noise-sensitive land uses are anticipated to be adversely affected associated with increased traffic along this roadway segment. No existing noise-sensitive land uses are located along the portion of El Camino Real, south of Espinosa Road. In addition, assuming a minimum setback distance of 200 feet to the nearest occupied room, predicted traffic noise levels at Greenfield High School would not exceed the City's exterior or interior noise standards of 60 and 40 dBA L_{dn}/L_{eq}, respectively. With buildout of the proposed project, predicted traffic noise would not contribute to a substantial increase (less than five dBA) in ambient noise levels at existing noise-sensitive land uses that would exceed the City's noise standards. Therefore the increase in noise level is considered to be **a less than significant** cumulative impact.

References/Documentation

City of Greenfield. *Greenfield General Plan.* 2005.

Ambient Air Quality and Noise Consulting. *Environmental Noise Assessment: South End Annexation Project Draft EIR.* December 2005.

California Department of Transportation. *California Airport Land Use Planning Handbook.* January 2002.

City of Greenfield. *City of Greenfield General Plan, Noise Element.* 2005.

M. David Egan, McGraw Hill. *Concepts in Architectural Acoustics.* 1972.

U.S. Department of Housing and Urban Development, Office of Community Planning and Development. *The Noise Guidebook.* 1980.

Higgins Associates. *Franscioni/Scheid Development Traffic Impact Study.* September 28, 2005.

United States Environmental Protection Agency (US EPA). *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.* 1971.

Federal Transit Administration. *Transit Noise and Vibration Impact Assessment.* April 1995.

Andrus, Dan. Vice Principal. Greenfield High School. Personal Communication with William Heppler. February 22, 2006.

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SECTION 3.11
TRAFFIC AND CIRCULATION

This section of the EIR analyzes the traffic generation and circulation issues associated with the proposed project, based on the traffic impact study prepared by Higgins Associates Civil and Traffic Engineers. The analysis is based on issues identified through the Notice of Preparation (NOP) and scoping process and has been prepared in coordination with City staff. The complete Traffic Study is included in the Technical Appendices of this document.

3.11.1 EXISTING SETTING

Existing Setting describes the existing street network relevant to the proposed project and the existing operational traffic conditions.

EXISTING ROADWAY SYSTEM

El Camino Real is a primary access route in the City, running in the north-south direction, and provides access to Highway 101 to the north and south of the City, Greenfield Elementary School, and Greenfield High School. It is currently a two-lane arterial with left and right turn channelization throughout the City. It is planned to be a four-lane facility to the north of Walnut Avenue and south of Elm Avenue under General Plan build out conditions. In the downtown area it would be a two-lane facility with on street parking and low operational speeds. South of the overpass it is a two-lane road to Susan Street and then continues to the Highway 101 On-Ramp as a single lane.

Elm Avenue has an east-west alignment traversing the southerly portion of the City. Elm Avenue provides for one lane of travel in each direction. To the west of town, Elm Avenue becomes Arroyo Seco Road. To the east it links Metz Road.

Collector streets, which include **Apple Avenue, Oak Avenue, Tyler Avenue** and **Third Street** provide access between residential areas and arterial streets. Most of the collector streets are 40 to 44 feet wide and have one lane in each direction, except Apple Avenue where portions of the road are only 30 feet wide. Oak Avenue also provides access to Highway 101.

Walnut Avenue is currently a two-lane collector road running in an east-west direction through the City. This road provides access to Highway 101, Greenfield Elementary School, and Santa Lucia Square. Walnut is also the heavy vehicle route through to Highway 101 on the east side of town.

The existing roadway network is shown in **Figure 3.11-1.**

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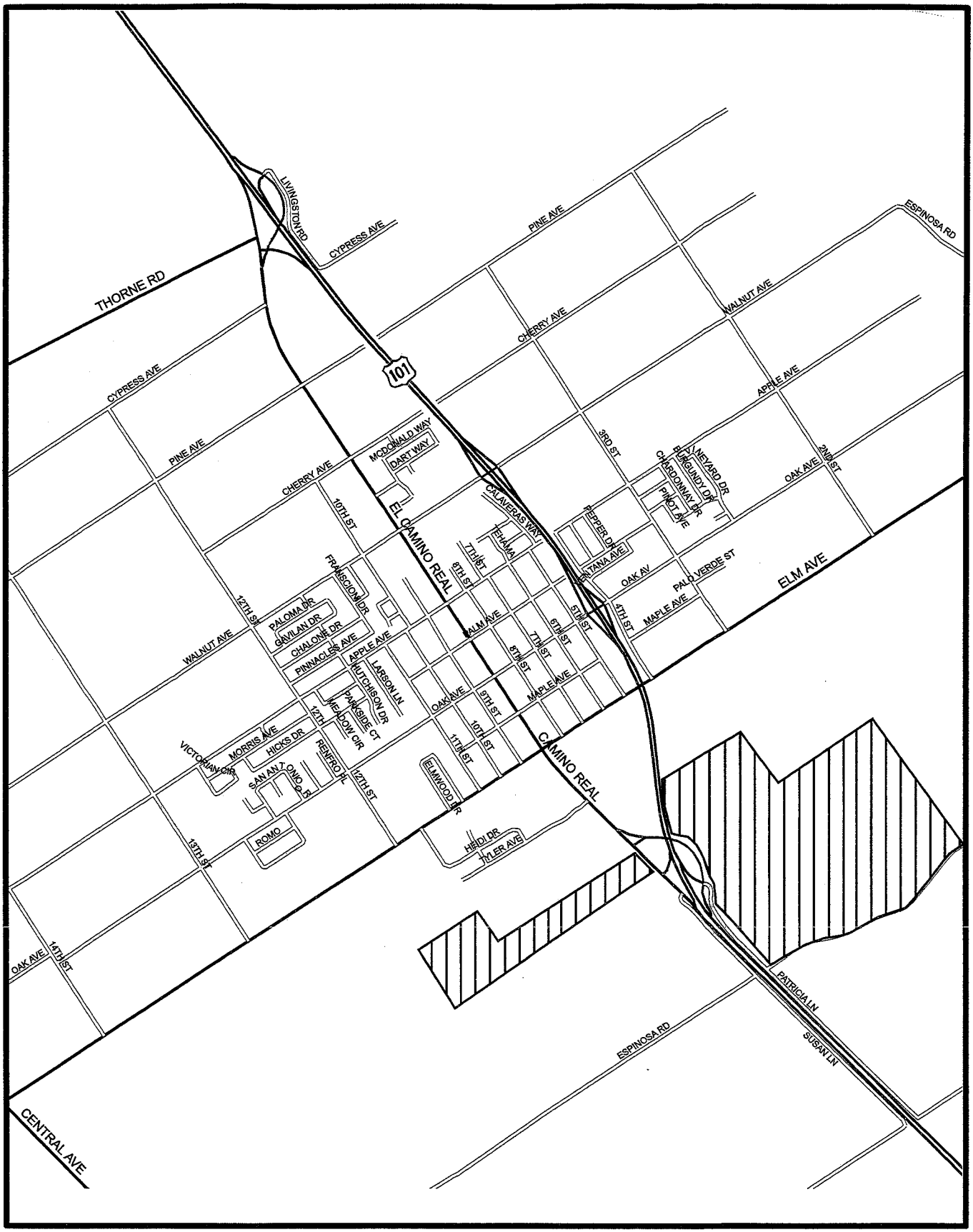

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0.25 0 0.25 Miles

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FIGURE 3.11-1
ROADWAY NETWORK

PMC

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EXISTING TRANSIT NETWORK

Auto Lift

The City currently has a transit system called Auto Lift which operates from 9:30 AM to 4:30 PM Monday through Friday. Riders are required to call within 20 minutes prior to their pick-up time. Auto Lift is a demand responsive transit service provided by the city public works department. It is demand based with no fixed route or scheduled stops. The service area is restricted to two miles outside of the city limits.

Monterey-Salinas Transit

Monterey-Salinas Transit (MST) Routes 23 and 53 currently travels through the City of Greenfield. Route 23 is a bus line that runs between 5:40 AM to 9:50 PM. Route 23 starts at the Northridge Mall in Salinas and loops around at King City. It includes stops in Chualar, Gonzales, Soledad, and Greenfield. Route 53 is an express bus line that runs twice a day, during the AM and PM peak hours only. In the morning, Route 53 begins at the Mee Memorial Hospital in King City at 5:45 AM and ends at The Lodge in Pebble Beach at approximately 7:45 AM. In the evening, Route 53 begins at The Lodge in Pebble Beach at 4:35 PM and ends at Mee Memorial Hospital in King City at approximately 6:55 PM. It includes stops in Pacific Grove, Monterey, Del Rey Oaks, Chualar, Gonzales, Soledad, and Greenfield.

Bicycle Facilities

The City of Greenfield has included a Bike Plan in the General Plan. The City adopted the Caltrans description for bicycle facilities within the City. Types of bikeways are described by Caltrans in the *Highway Design Manual* as follows:

- *Class I Bikeway* - Referred to as a "bike path" or "multi-use trail". Provides for bicycle travel on a paved ROW completely separated from any street or highway.
- *Class II Bikeway* - Referred to as a "bike lane". Provides striped lane for one-way travel on a street or highway.
- *Class III Bikeway* – Referred to as a "bike route". Provides for shared use with pedestrians or motor vehicle traffic and is identified only by signing.

Within the project vicinity, El Camino Real is a Class III bike facility from Tyler Street to Elm Street and a Class II bike facility from Tyler Street south to the High School entrance. The City of Greenfield has a high level of non-motorized (pedestrian and bicycle) transport.

EXISTING TRAFFIC DATA

The 2005 General Plan, the most current comprehensive study of city-wide traffic conditions, analyzes only PM peak hour traffic analysis. On a daily basis, however, many residents commute north and south from Greenfield on Highway 101. Thus trips leave the area in the morning and return to the City in the afternoon, resulting in different travel patterns between the morning and afternoon peak periods.

To account for these differences and to provide a more detailed assessment specific to the South End SOI project, the traffic Study prepared an AM and PM analysis to accurately incorporate characteristics of both peak hours. As such, AM and PM peak period manual traffic counts were conducted at the project intersections over the last few months for other projects in the City. Where no data was available, counts were conducted by Higgins and Associates between August 10th –16th, 2005. These volumes were balanced to represent more accurate turning movements and the AM peak hour volumes were adjusted to include school traffic.

Existing traffic conditions are presented below. Since traffic conditions are typically expressed in terms of "Levels of Service", or LOS, this tool for describing traffic is also explained.

Existing Level of Service Conditions

Level of Service (LOS) ratings are qualitative descriptions of intersection operations and are reported using an "A" through "F" letter rating system to describe travel delay and congestion. The varying levels of service are described below in **Tables 3.11-1 and 3.11-2.** The LOS methodology is described in detail in the Traffic Study included in the Technical Appendices of this document.

TABLE 3.11-1
LEVEL OF SERVICE DESCRIPTION

LOS	Description
A	Represents free flow. Individual users are virtually unaffected by the presence of others in the traffic stream.
B	Stable flow, but the presence of other users in the traffic stream begins to be noticeable.
C	Stable flow, but marks the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream.
D	Represents high density, but stable flow.
E	Represents operating conditions at or near the capacity level.
F	Represents forced or breakdown flow.

Source: Highway Capacity Manual, Special Report 209, Transportation Research Board, 1985.

TABLE 3.11-2
LEVEL OF SERVICE CRITERIA

Signalized Intersections		Unsignalized Intersections	
Level of Service	Control Delay (seconds/vehicle)	Level of Service	Control Delay (seconds/vehicle)
A	Less than 10	A	0 – 10
B	› 10 – 20	B	› 10 – 15
C	› 20 – 35	C	› 15 – 25
D	› 35 – 55	D	› 25 – 35
E	› 55 – 80	E	› 35 – 50
F	› 80	F	› 50

Study Intersection Operations

The following intersections, represented in Table 3.11-3, were selected for analysis in consultation with City of Greenfield staff.

TABLE 3.11-3
INTERSECTIONS ANALYZED UNDER EXISTING CONDITIONS

STATE FACILITIES (CALTRANS)
1. Hwy 101 NB Off Ramp – Espinosa Overpass and Hwy 101 NB On Ramp – Patricia Lane
2. El Camino Real (south) and Hwy 101 SB Off-Ramp
3. El Camino Real – Hwy 101 SB On Ramp and Susan Lane
4. Hwy 101 SB Ramps and Oak Avenue
5. Hwy 101 NB Ramps and Oak Avenue
6. Hwy 101 SB Ramps and Walnut Avenue
7. Hwy 101 NB Ramps and Walnut Avenue
CITY STREETS (GREENFIELD)
8. El Camino Real and Tyler Avenue
9. El Camino Real and Elm Avenue
10. El Camino Real and Oak Avenue
11. El Camino Real and Apple Avenue
12. El Camino Real and Walnut Avenue
13. 3rd Street and Elm Avenue
14. Patricia Lane and Espinosa Road

Table 3.11-4 provides a detailed description of the average delays and LOS for study intersections during the AM and PM peak hours under the Existing Conditions. All the

intersections operate at LOS A or B. The Traffic Impact Study contains the level of service calculation sheets for the existing operational LOS analysis at the study intersections within the technical appendices of this EIR.

Table 3.11-4 represents the "master" intersection analysis table, presenting the results of all analysis scenarios. The reader is advised to refer back to this table for all scenarios.

TABLE 3.11-4
INTERSECTION LEVEL OF SERVICE SUMMARY

	N-S Street	E-W Street	Existing Lane Configuration	Existing Intersection Control	Short Term Project Lane Configuration	Short Term Project Intersection Control	GPBO Lane Configuration	GPBO Intersection Control	Existing LOS Standard	Existing Conditions AM Peak Hr Delay (sec)	Existing Conditions AM Peak Hr LOS	Existing Conditions PM Peak Hr Delay (sec)	Existing Conditions PM Peak Hr LOS	Short-Term Project Conditions AM Peak Hr Delay (sec)	Short-Term Project Conditions AM Peak Hr LOS	Short-Term Project Conditions PM Peak Hr Delay (sec)	Short-Term Project Conditions PM Peak Hr LOS	General Plan Conditions AM Peak Hr Delay (sec)	General Plan Conditions AM Peak Hr LOS	General Plan Conditions PM Peak Hr Delay (sec)	General Plan Conditions PM Peak Hr LOS
1 (21)	Patricia Lane	Espinosa Road	NB 1-T/R SB 1-L/T WB 1-L/R	1-Way Stop WB Worst Approach	Same as Existing		NB 1-T, 1-T/R SB 1-L, 2-T WB 2-L, 1-R	Signal	C (E)	3.5 8.5	A A	3.9 8.3	A A	15.3	C	18.2	C	70.0 *6.0*	F *A*	107.6 *12.6*	F *B*
2	Espinosa Overpass Hwy 101 NB Off-Ramp	Patricia Lane/Hwy 101 NB On Ramp	NB 1-L/T/R SB 1-L, 1-R WB 1-T/R	2-Way-Stop SB/WB Worst Approach	NB 1-L/T/R SB 1-L, 1-R WB 1-T, 1-R	Signal	Interchange removed under this scenario		C (E) *Mitigated*	9.5 10.5	A B	9.6 12.4	A B	28.1 65.0 *17.1*	D F *B*	* * *30.9*	F F *C*	*See Intersection #2A*			
2A (20)	(Future) Hwy 101 NB Ramps	Espinosa Road	Intersection does not exist under this scenario		Intersection does not exist under this scenario		NB 1-L, 1-L/T, 1-T/R, 1-R EB 1-L, 2-T WB 2-T, 2-R	Signal	C									*21.0*	*C*	*19.1*	*B*
3	El Camino Real/ Hwy 101 SB On-Ramp	Susan Lane	SB 1-T/R EB 1-L/R	1-Way Stop EB Worst Approach	Same as Existing		Interchange removed under this scenario		C (E) *Mitigated*	2.6 9.9	A A	1.2 9.3	A A	1.5 13.4	A B	0.5 12.4	A B	*See Note 7*			
4	El Camino Real	Hwy 101 SB Off Ramp	NB 1-T SB 1-T WB 1-L/R	1-Way Stop WB Worst Approach	Same as Existing		Interchange removed under this scenario		C (E) *Mitigated*	2.0 8.9	A A	2.7 8.7	A A	2.7 9.6	A A	5.4 11.7	A B	*See Intersection #4A*			
4A (19)	(Future) Hwy 101 SB Ramps	Espinosa Road	Intersection does not exist under this scenario		Intersection does not exist under this scenario		SB 1-L, 1-L/T, 1-R EB 1-T, 1-R WB 2-T, 1-R	Signal	C									*14.6*	*B*	*15.5*	*B*
5	El Camino Real	Espinosa Overpass High School Dwy	NB 1-L, 1-T/R SB 1-L, 1-T, 1-T/R EB 1-L, 1-T/R WB 1-L/T, 1-R	2-Way Stop EW Worst Approach	NB 1-L, 1-T, 1-R SB 1-L, 1-T, 1-T/R EB 1-L, 1-T/R WB 1-L/T, 1-R	Signal	NB 1-L, 1-T, 1-R SB 1-L, 2-T, 1-R EB 1-L/T, 1-R WB 1-L/T, 1-R	Signal	C (E) *Mitigated*	8.7 19.6	A C	4.6 13.7	A B	60.5 241.3 *11.0*	F F *B*	174.3 * *15.6*	F F *B*	* * *21.6*	F F *C*	* * *8.3*	F F *A*
6	El Camino Real	Tyler Avenue	NB 1-L, 1-T/R SB 1-L, 1-T/R EB 1-L/R	1-Way Stop EB Worst Approach	Same as Existing		NB 1-L, 1-T/R SB 1-L, 1-T/R EB 1-L/R WB 1-L/T/R	Signal	C (E) *Mitigated*	3.0 13.9	A B	2.9 14.7	A B	6.8 36.2	A E	6.1 46.9	A E	19.7 128.1 *10.4*	C F *B*	21.4 243.8 *8.0*	C F *A*
7	El Camino Real	Elm Avenue	NB 1-L/T, 1-R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	4-Way Stop	Same as Existing		NB 1-L, 1-T, 1-R SB 1-L/, 1-T/R EB 1-L/, 1-T/R WB 1-L/, 1-T/R	Signal	D *Mitigated*	9.8	A	10.0	A	15.3	C	18.2	C	70.0 *17.8*	F *B*	107.6 *19.1*	F *B*
8	El Camino Real	Oak Avenue	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	4-Way Stop	Same as Existing		NB 1-L, 1-T/R SB 1-L, 1-T/R EB 1-L/T/R WB 1-L/T/R	Signal	D *Mitigated*	9.6	A	11.8	B	12.3	B	24.2	C	54.1 *17.2*	F *B*	238.8 *22.1*	F *C*
9	El Camino Real	Apple Avenue	NB 1-L/T/R SB 1-L, 1-T/R EB 1-L/T/R WB 1-L/T/R	4-Way Stop	Same as Existing		NB 1-L, 1-T/R SB 1-L, 1-T/R EB 1-L/T/R WB 1-L/T/R	Signal	D *Mitigated*	8.3	A	13.1	B	8.6	A	15.2	C	11.1 *19.2*	B *B*	88.9 *23.7*	F *C*
10	El Camino Real	Walnut Avenue	NB 1-L, 1-T/R SB 1-L, 1-T/R EB 1-L/T/R WB 1-L, 1-T/R	4-Way Stop	Same as Existing		NB 1-L, 1-T, 1-R SB 2-L, 1-T, 1-R EB 1-L, 1-T/R WB 1-L, 1-T, 1-R	Signal	D *Mitigated*	8.9	A	12.0	B	9.4	A	13.6	B	158.9 *27.2*	F *C*	* *34.8*	F *C*
11	Hwy 101 SB Ramps	Walnut Avenue	SB 1-L/T, 1-R EB 1-T, 1-R WB 1-L/T	1-Way Stop SB Worst Approach	Same as Existing		SB 2-L, 1-L/T, 1-R EB 2-T, 1-R WB 2-L, 1-T	Signal	C (E) *Mitigated*	2.2 10.3	A B	3.7 10.3	A B	3.5 11.9	A B	5.6 13.5	A B	* * *15.1*	F F *B*	* * *26.6*	F F *C*
12	Hwy 101 NB Ramps	Walnut Avenue	NB 1-L/T, 1-R EB 1-L/T WB 1-T/R	1-Way Stop NB Worst Approach	Same as Existing		NB 1-L/T, 1-R EB 2-L, 3-T WB 3-T, 2-R	Signal	C (E) *Mitigated*	6.8 13.8	A B	5.1 13.4	A B	5.7 19.8	A C	5.7 25.9	A D	* * *28.2*	F F *C*	* * *29.3*	F F *C*
13	Hwy 101 SB Ramps	Oak Avenue	SB 1-L/T, 1-R EB 1-T/R WB 1-L/T	1-Way Stop SB Worst Approach	Same as Existing		SB 1-L/T, 1-R EB 1-T/R WB 2-L, 1-T	Signal	C (E) *Mitigated*	2.7 10.8	A B	4.9 12.7	A B	3.4 12.4	A B	6.6 16.4	A C	15.6 54.1 *20.6*	C F *C*	21.8 57.6 *34.3*	C F *C*
14	Hwy 101 NB Ramps	Oak Avenue	NB 1-L, 1-T/R EB 2-L, 1-T WB 1-T/R	1-Way Stop NB Worst Approach	Same as Existing		NB 1-L/T, 1-R EB 1-L/T WB 1-T/R	Signal	C (E) *Mitigated*	3.8 12.5	A B	3.1 13.6	A B	5.1 16.2	A C	4.4 17.6	A C	12.3 69.1 *19.9*	B F *B*	49.3 196.4 *24.0*	E F *C*
15	3rd Street	Elm Avenue	SB 1-L/R EB -L/T WB 1-T/R	2-Way Stop NS Worst Approach	Same as Existing		NB 1-L, 1-T/R SB 1-L, 1-T/R EB 1-L, 1-T/R WB 1-L, 1-T/R	Signal	D (E) *Mitigated*	2.1 8.7	A A	2.6 8.8	A A	6.7 11.0	A B	6.5 11.4	A B	19.5 31.1 *14.9*	C D *B*	* * *16.4*	F F B
16	Elm Circle/ New Road	Elm Avenue	SB 1-L/R EB 1-L/T WB 1-T/R	1-Way Stop SB Worst Approach	Same as Existing		SB 1-L/R EB 1-L/T WB 1-T/R	1-Way Stop SB Worst Approach	C (E)	N/A		N/A		N/A		N/A		*0.6* *12.1*	*A* *B*	*1.1* *16.8*	*A* *C*
18	El Camino Real	Espinosa Road	Intersection does not exist under this scenario		Intersection does not exist under this scenario		SB 1-L, 1-L/T/R EB 1-L/T/R WB 1-T, 2-R	Signal	C (E)	N/A		N/A		N/A		N/A		*1.2*	*A*	*5.2*	*A*

Notes:

1. L, T, R = Left, Through, Right
2. NB, SB, EB, WB = Northbound, Southbound, Eastbound, Westbound
3. Level of Service (LOS) and control delay are shown for both overall intersection and worst approach when intersection is controlled by one/two way stop control
4. Level of Service (LOS) and control delay is for overall average of all approaches when intersection control is by all-way stop or traffic signals
5. * = Delay exceeds 300 seconds (5 minutes)
6. NA = Intersection not studied under this scenario
7. New southern interchange to be constructed under full project buildout as GPBO project mitigation. Southern ramps at Patricia and El Camino Real to be relocated to Espinosa Road. El Camino Real/Susan Lane intersection to be removed

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Existing Roadway Segment Operation

Roadway segment analysis included El Camino Real between Susan Road/Highway 101 Southbound On-Ramp and Walnut Avenue, as well as the major side streets on El Camino Real. Highway 101 segments were also evaluated with and without the project for planning purposes. All roadway segments studied currently operate at acceptable levels of service. Acceptable LOS is C or better, except for El Camino Real thorough downtown, where acceptable LOS is D.

3.11.2 REGULATORY SETTING

CITY OF GREENFIELD CODES AND ORDINANCES

Construction, maintenance and use of the City roadway system is enabled and regulated by the City of Greenfield Municipal Code and General Plan.

CITY OF GREENFIELD GENERAL PLAN CIRCULATION ELEMENT

Upon annexation of the proposed project the project site will be located in the established city limits of the City of Greenfield and subject to the goal and policies of the Greenfield General Plan. The following Goals and Policies of the General Plan Circulation Element are relevant in guiding consideration of this project:

Goal 3.1: Provide a safe, efficient, and balanced transportation system that accommodates the circulation of vehicles, bicycles, and pedestrians.

Policy 3.1.2: Develop and maintain convenient linkages for both vehicular and non-vehicular transportation modes between Greenfield and the surrounding region.

Goal 3.2: Ensure that future road development and maintenance of existing roads provides safe pedestrian and vehicle access and movement along City streets.

Policy 3.2.1: Ensure that the City's roadway facilities are maintained with a focus on aesthetics and functionality.

Policy 3.2.2: New development shall include construction or in-lieu fees of new roadways or roadway improvements prior to or concurrent with new development and as deemed appropriate by the City.

Policy 3.2.3: Strive to maintain Level of Service C as the minimum acceptable service standard for intersections and roadways during peak periods and accept an LOS D only when unavoidable and at identified locations.

Policy 3.6.3: Coordinate with Monterey County in planning and design of roadway facilities that link Greenfield with the region.

Goal 3.7: Coordinate land use and transportation planning with other public and private agencies to ensure the most efficient and usable circulation program possible.

Policy 3.7.3: Ensure that the density and pattern of future land uses (both public and private) encourage transit usage, walking, and bicycling.

Policy 3.7.4: New development shall provide sufficient parking, while considering the effect of parking supply on the use of alternate modes of transportation.

Policy 3.7.5: Minimize potential circulation conflicts between new and existing roadways.

MONTEREY COUNTY PUBLIC WORKS DEPARTMENT

The intersection operation LOS standard utilized by Monterey County is "C". Based on the County's *Criteria for Significant Impacts at Intersections* (County Public Works Department report first adopted in 1980 and revised in 1996), a significant impact will occur if an intersection operating at LOS "A", "B" or "C" degrades to "D", "E" or "F." For intersections already operating at unacceptable levels of "D" and "E", a significant impact will occur if a project adds 0.010 or more to the critical movements volume to capacity ratio. If the intersections are already operating at LOS "F", any increase (one vehicle) in critical movements is considered significant.

If the project is approved, the roadway network will be subject to City of Greenfield standards. County standards are listed for the purpose of assessing consistency with the adjacent jurisdiction.

TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Regional Transportation Plan

As the Regional Transportation Planning Agency, the Transportation Agency for Monterey County (TAMC) is responsible for developing a plan that reflects the needs, concerns, and actions of all the agencies involved in the region and of the public. In consultation with its Technical and Citizens Advisory Committees, TAMC staff prepares and updates the Regional Transportation Plan (RTP). The latest Monterey County Regional Transportation Plan (RTP) was adopted in May of 2005. The purpose of the RTP is to provide policy guidance, plans, and programs for the next twenty years to attain a balanced, comprehensive, multimodal transportation system. The RTP proposes solutions, considers

all modes of travel, and identifies anticipated funding for projects and programs. The RTP addresses special factors affecting the transportation system, such as air quality, land use, special transportation needs and multimodal integration.

Monterey County Congestion Management Program

The primary objective of the Congestion Management Program (CMP) is to reduce traffic congestion and improve mobility for persons and freight. The policies and objectives of the CMP are intended to insure that traffic circulation improves, or is at least maintained, as population increases in Monterey County. The CMP encourages each city and the County to address the regional transportation issues related to land use decisions with the goal to mitigate the traffic impacts associated with proposed development. For the CMP to be a success, the cities and the County must work together to find cooperative solutions to multi-jurisdictional transportation problems. In addition, the CMP must be consistent with the Regional Transportation Plan and its goals.

3.11.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and accepted City of Greenfield standards. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

1. Increase traffic and degrade the level of service of roadways or intersections below LOS "C", except in specific locations of higher urban density, where the standard shall be "D";
2. Exacerbate existing traffic conditions that are currently experiencing an unacceptable LOS;
3. Cause the need for traffic control changes (all-way-stop) or a signal at an unsignalized location;
4. Result in insufficient parking capacity onsite or offsite as calculated by City standards;
5. Result in roadway design inconsistent with engineering or safety standards or cause unsafe conditions for pedestrians or bicyclists;
6. Adversely impact existing transit systems;
7. Cause the need for previously unforeseen improvements and therefore require an update to the City's traffic impact fee program; or
8. Result in a disruption of the operations of existing uses, such as schools.

PROJECT DEVELOPMENT AND TRAFFIC ANALYSIS ASSUMPTIONS

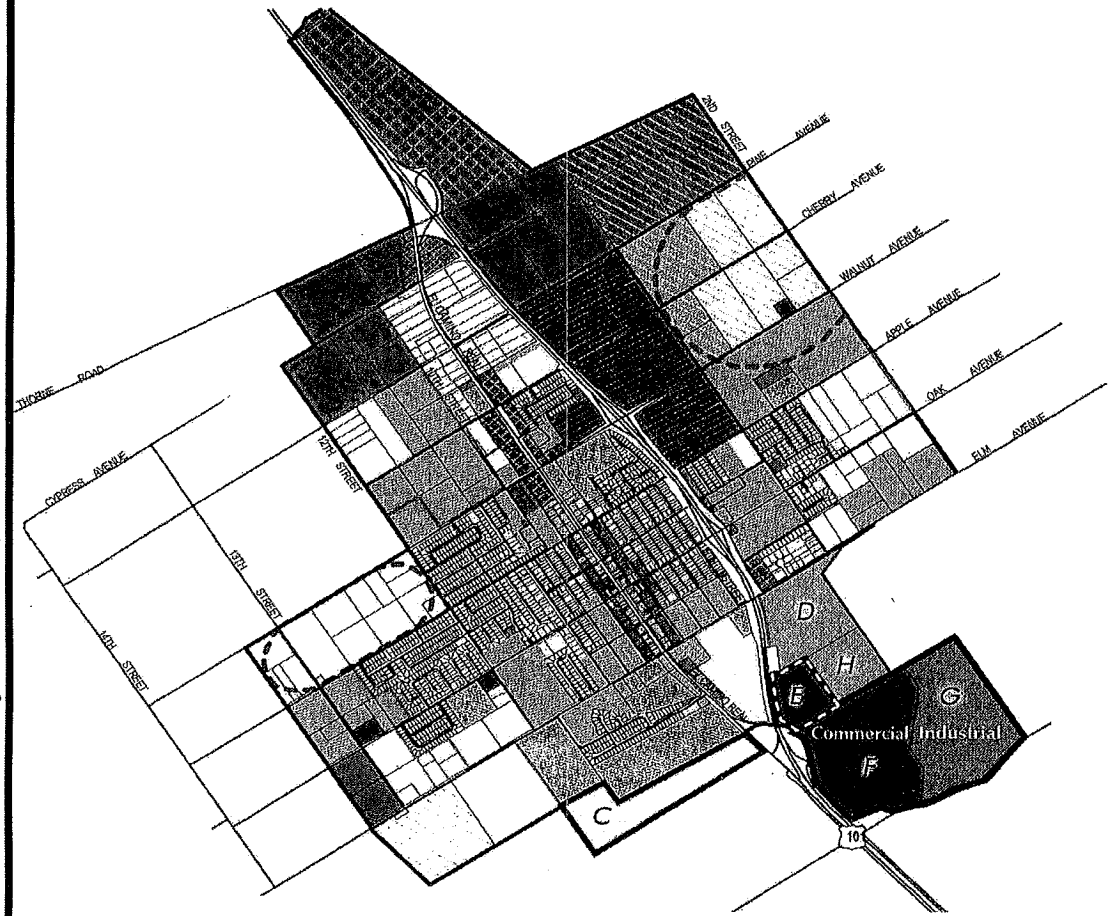
Project Overview

The project applicant is proposing to expand the City of Greenfield's Sphere of Influence (SOI) to the south. The South End SOI project would include the addition of residential, commercial and industrial land into the SOI, as well as a change in existing land use from Heavy Industrial to Highway Commercial. The project would include the addition of Low Density residential on the west side of Highway 101, and Highway Commercial and Heavy Industrial uses on the east side of the highway. Primary access would be from Highway 101, El Camino Real and the proposed southward extension of 3rd Street.

The proposed amendment to the SOI will result in the following land use additions and changes to the City of Greenfield if the project is approved. Higgins Associated identified the land areas as a series of "blocks", as described below and illustrated in **Figure 3.11-2.**

- Block C (47.6 acres) - Low Density Residential added to SOI.
- Block D (45.31 acres) – Heavy Industrial in existing General Plan remains unchanged.
- Block E and F (88 acres) – Highway Commercial (25 acres truck stop; 2 acres hotel/motel; 10 acres mini storage; 51 acres general highway commercial). Twenty-two (22) of these acres previously designated "heavy industrial" in the General Plan.
- Block G (60 acres) – Heavy Industrial being added to SOI.
- Block H (23.9 acres) – Heavy Industrial in General Plan remains unchanged.

Additional details regarding the buildout assumptions are included in the Project Description, Chapter 2.0.



Legend

C = 47.6 Acres (293 Units - Low Density)

D = 45.31 Acres (Heavy Industrial)

E and F = 88 Acres (Highway Commercial)
- *25 Acres (Truck Stop)*
- *2 Acres (Hotel/Motel - 50 Rooms)*
- *10 Acres (Mini Storage)*
- *51 Acres (Highway Commercial)*

G = 60 Acres (Heavy Industrial)

H = 23.9 Acres (Heavy Industrial)

LAND USE

- Residential Estate
- Low Density Residential
- Medium Density Residential
- High Density Residential
- Neighborhood Commercial Center
- Downtown Commercial
- Highway Commercial
- Light Industrial
- Heavy Industrial
- Professional Office
- Public Quasi Public
- Agricultural
- Artisan Agricultural Visitor Serving
- Recreation and Open Space

OVERLAY DESIGNATION

- Reserve Overlay
- Gateway Overlay
- Industrial Park Overlay
- Mixed Use Overlay
- Gateway and Mixed Use Overlays
- Regional Commercial Center Design

OTHER FEATURES

- City Boundary
- Planning Area
- Future Park Vicinity
- Proposed Southern Addition

Digital Base Data Provided by the County of Monterey GIS Department in May 2003

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FIGURE 3.11-2
LAND USES AND ACREAGE ASSUMPTIONS

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Analysis Scenarios

The impact analysis is based on the Traffic Impact Study prepared by Higgins Associates, which evaluated AM and PM peak hour traffic operations for the following traffic scenarios:

- Existing Conditions
- Existing Plus Background Conditions (where "background" is represented by projects that are approved but not constructed, or under construction)
- Existing Plus Background Conditions Plus Short Term Development (where "Short Term" development is represented by the applicant's Interim Phase); and
- General Plan Buildout Conditions (which assumes full buildout of all General Plan and Project land uses).

For analysis purposes, the "Short Term Development" or "Interim Phase" development scenario assumes that the residential and highway commercial uses would develop first, and heavy industrial uses to the east would develop over a longer period of time (see Chapter 2.0, Project Description). This assumption is merely an estimate used to calculate interim project trip generation to identify key infrastructure needs. As described in the Project Description, any land use or parcel can develop under the interim scenario.

Additional detail regarding land use and development assumptions for each scenario are contained within the Traffic Impact Analysis found in the Technical Appendices to this EIR.

Analysis Methodology

Peak Hour Signal Warrants

Peak Hour Signal Warrants were analyzed for all unsignalized intersections based on the methodologies described in the Manual on Uniform Traffic Control Devices (MUTCD, 2000) and the MUTCD Caltrans 2003 supplement. The decision to install a traffic signal is not based purely on the warrants alone; but also on the engineering judgment exercised on a case-by-case basis.

Traffic Analysis Zones (TAZ's)

A Traffic Analysis Zone (TAZ) map was created for the City's General Plan. The City was divided into planning areas based on land use type, roads and other characteristics in order to determine trip generation for each zone. The addition of the project results in the addition of new TAZ's and a dividing the existing TAZ 42 into more zones. TAZ 43 and TAZ 44 make up the project site.

Trip Generation and Distribution

The TIS completed by Higgins Associated indicates that project traffic was calculated using rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual, 7th* Edition, 2003 and field surveys for the truck stop. The project-generated trips for all scenarios were assigned over the traffic network.

Traffic Operation Evaluation Methodologies

Roadway segments were analyzed by making use of level of service (LOS) analysis, based on either peak our or daily volumes for different roadway classes. Quantitative LOS analyses were performed for study intersections and highway segments, based on the 2000 Highway Capacity Manual (HCM) methodologies. Intersection operations were evaluated using the TRAFFIX 7.7 analysis software program.

Truck Stop Surveys for Comparative Purposes

No ITE data is available specifically for truck stop uses. To accurately estimate vehicle trips associated with this anticipated use, two truck stop locations were surveyed to estimate the number of trips generated. The facilities surveyed were the Garlic Farm truck stop in Gilroy, and a truck stop at Santa Nella at Interstate 5 and Highway 33. All volumes and truck counts used for analysis purposes are contained in the Technical Appendices to this EIR.

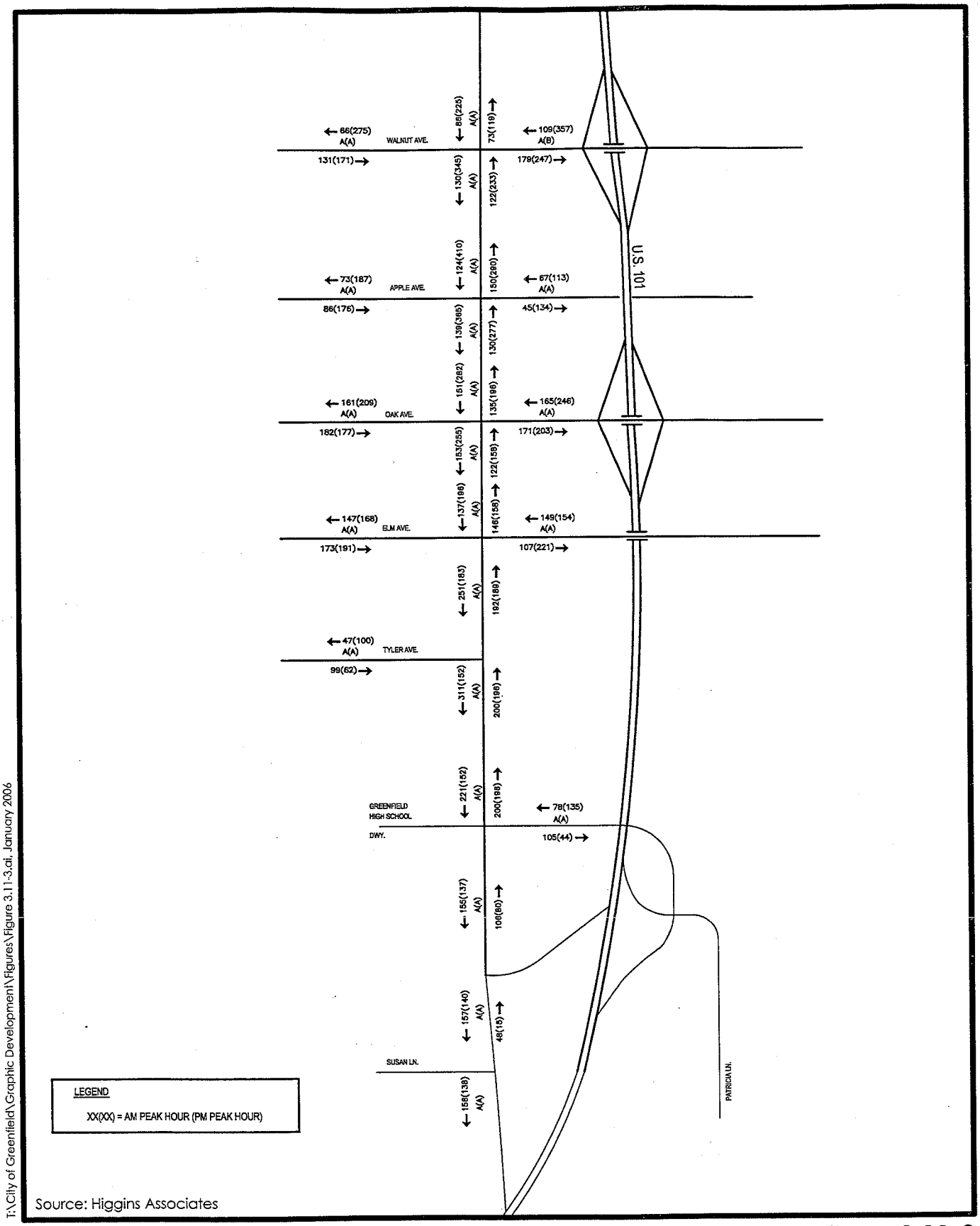
Additional information regarding the study's specific analysis methods is contained within the Technical Appendices to this EIR.

IMPACT ANALYSIS RESULTS

Existing and Existing Plus Background Traffic Conditions

The traffic impact analysis prepared by Higgins Associates concludes that all study intersections and roadway segments under existing conditions operate at acceptable levels of service (LOS A or B), and therefore there are no existing problem areas that require mitigation.

Based on building permit data collected from the City, Higgins estimated the buildout potential of approved by not yet constructed projects. The analysis concludes that these "background" projects will not significantly impact any of the study intersections or roadway segments. In addition, these projects have mitigated their own impacts within the roadway system and/or development impact fees have been collected. Please see the Traffic Impact Study within the Technical Appendices of this EIR for more detail regarding the Existing and Existing Plus Background analysis scenarios. Existing conditions levels of service and segment volumes are illustrated in **Figure 3.11-3.**



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Source: Higgins Associates

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FIGURE 3.11-3
EXISTING CONDITIONS SEGMENT VOLUMES AND LEVELS OF SERVICE

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Background Plus Interim Project Traffic Conditions

Under the Background Plus Interim Project traffic scenario, the interim (Phase I) project assumptions are expected to generate 15,606 daily trips with 626 trips in the morning peak hour (288 in, 338 out) and 1,537 trips in the evening peak hour (789 in, 748 out). The interim project generated trips and trip distribution are described in detail within the Traffic Impact Analysis in the Technical Appendices, and illustrated in **Figure 3.11-4**. Impacts associated with additional vehicle trips are listed below.

El Camino Real/Espinosa Overpass/High School Driveway

Impact 3.11-1 In the interim development scenario, the one-way stop intersection of El Camino Real/Espinosa Overpass/High School Driveway will operate at an overall LOS F during both the AM and PM peak hour. This is a **significant** impact of the project.

MM 3.11-1 The project is responsible for widening and other improvements at the two-way stop controlled intersection at the El Camino Real/Espinosa Overpass/High School Driveway. The intersection shall be widened to include a northbound right turn lane and signalization. With these improvements, the intersection will operate at LOS B. All improvements are the responsibility of the project, and shall be complete prior to first occupancy.

Highway 101 NB Ramps/Patricia Lane/El Camino Real (south) Intersection

Impact 3.11-2 In the interim development scenario, the Highway 101 NB ramps/Patricia Lane/El Camino Real (south) two-way stop controlled intersection would operate at overall LOS D during the AM peak hour, and LOS F during the PM peak hour. The intersection would operate at LOS F on the worst approach during both the AM and PM peak hour. This is a significant impact of the project.

MM 3.11-2 The project is responsible for widening and other improvements at the intersection of El Camino Real (south/Highway 101 NB Ramps/Patricia Lane. Required improvements include a separate westbound right turn lane and signalization. The Highway 101 NB on- and off- ramp shall be lengthened via auxiliary lanes to accommodate the increase in traffic volumes and to bring the ramps to Caltrans standards. With these improvements the intersection will operate at LOS B in the AM peak hour and LOS C in the PM peak hour. All improvements are the responsibility of the project, and shall be complete prior to first occupancy.

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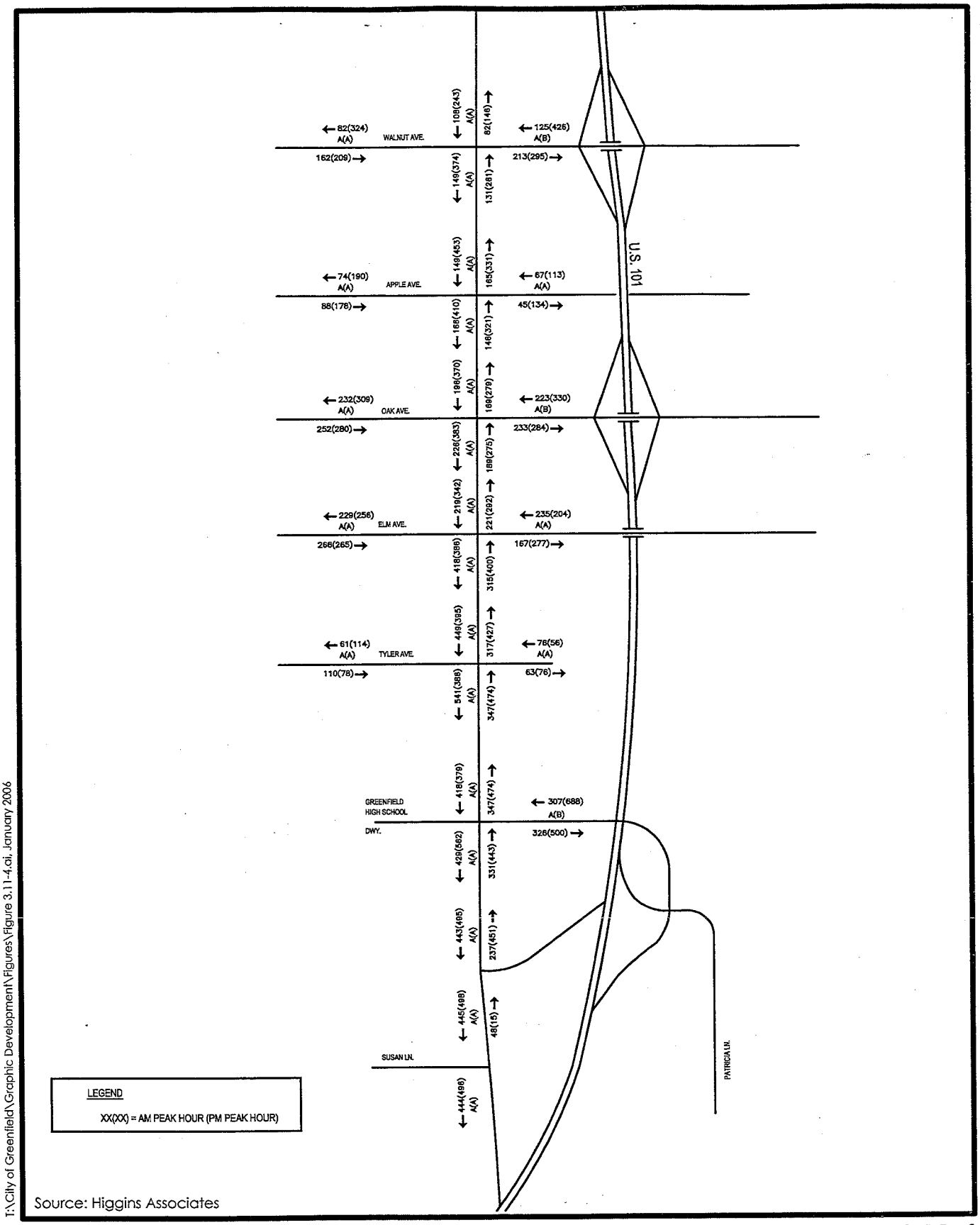

Source: Higgins Associates

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FIGURE 3.11-4

INTERIM CONDITIONS SEGMENT VOLUMES AND LEVELS OF SERVICE

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Table 3.11-4 summarizes the average delays and LOS for all study intersections. The Interim Project volumes were added to the Existing and Background volumes to obtain the above results for these intersections. The intersections both operate at LOS F on the worst approach during both the AM and PM peak hour. With an LOS standard of C, the mitigation is required. Background Plus Interim

With regard to roadway segments, all segments are expected to operate at LOS C or better (Figure 3.11-4). Impacts to roadway segments are less than significant.

Implementation of the mitigation measures will reduce Impact 3.11-1 and 3.11-2 to a **less than significant** level by implementing specific improvements to improve intersection operations.

Highway 101 Analysis

Impact 3.11-3 In the interim development scenario, the project will add traffic volumes to Highway 101 north and south. This is a **less than significant** impact.

The project is estimated to generate approximately 15,606 daily trips for Background Conditions. It is expected that 40% of the trips will travel northbound and 30% southbound on Highway 101, from the Espinosa interchange.

Recently proposed developments in King City revealed some increased traffic forecasts on Highway 101 for Background conditions and these traffic numbers were used to calculate the corresponding levels of service for Highway 101 north and south of Greenfield. The most recent volumes are only estimates based on pending studies and have not been approved by any regional agency. The current Caltrans acceptable LOS is C. Table 3.11-5 summarizes Highway 101 levels of service.

TABLE 3.11-5
HIGHWAY 101 LEVELS OF SERVICE

Roadway Segment			Existing Lanes	Background Daily Volume	LOS w Existing Lanes	Short Term Project Daily Volume	Background Plus Project Daily Volume	LOS w Existing Lanes	Improved Lanes Required
Highway 101	north of	Thorne Road	4F	48,600	C	6,242	54,842	C	None
Highway 101	between	Thorne Road & Walnut Avenue	4F	40,000	C	6,242	46,242	C	None
Highway 101	between	Walnut Avenue & Oak Avenue	4F	35,000	B	6,242	41,242	C	None
Highway 101	between	Oak Avenue & Espinosa Road Overpass	4F	32,000	B	6,242	38,242	C	None
Highway 101	south of	Espinosa Road Overpass	4E	31,500	C	4,682	36,182	C	None

Notes:
4E = 4 Lane Expressway
4F = 4 Lane Freeway

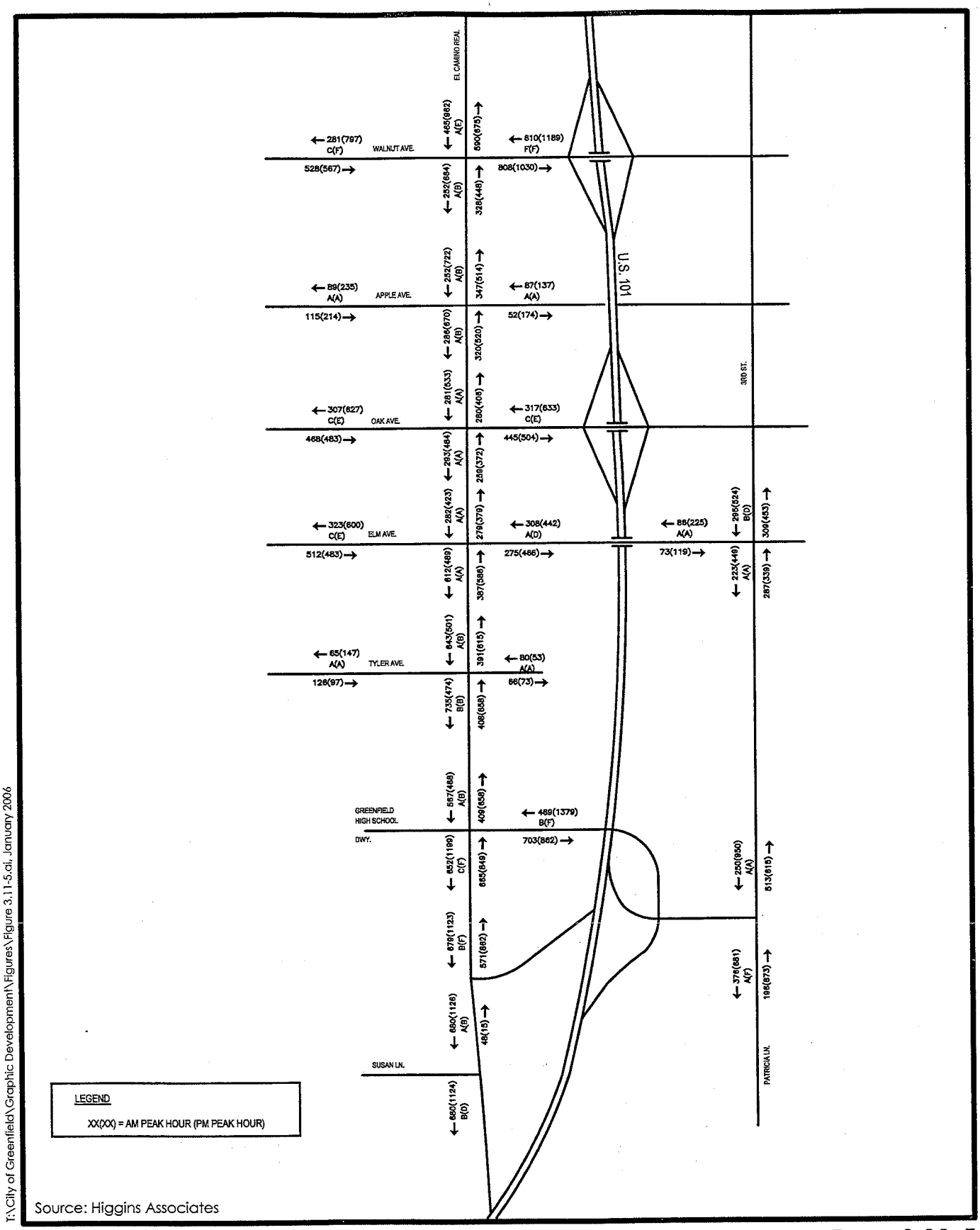
The analysis indicates that with the addition of the interim project trips, no widening of Highway 101 is required with or without the interim project development.

No mitigation is required in this scenario.

General Plan Buildout Plus Project Buildout Traffic Conditions

Traffic from buildout of the General Plan Plus Project was calculated using rates from the Institute of Transportation Engineers' (ITE) *Trip Generation Manual*, 7th Edition, 2003 and conducting surveys at truck stop facilities. The project is expected to generate 31,997 daily trips with 1,177 trips in the morning peak hour (685 in, 492 out) and 3,223 trips in the evening peak hour (1,492 in, 1,731 out). All details regarding traffic generation and distribution for this scenario are contained within the Traffic Impact Analysis within the Technical Appendices to this EIR, and illustrated in **Figure 3.11-5.**

The following impacts and mitigation measures are directly related to the General Plan Buildout Plus Project scenario.



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Source: Higgins Associates

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FIGURE 3.11-5

GPBO CONDITIONS SEGMENT VOLUMES AND LEVELS OF SERVICE

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Intersection Levels of Service

Impact 3.11-4 Full buildout of all phases of the project as proposed, together buildout of the Greenfield General Plan land uses, will cause several study intersections to operate below LOS C or D during the AM and/or PM peak hour. This cumulative buildout condition triggers the need for significant improvements to the City's roadway network, including a new freeway interchange at Highway 101 and Espinosa Road. The project's contribution to these impacts and required improvements is **significant.**

With the addition of the project, the existing Patricia Lane /El Camino Real (South) Overpass will not be able to provide adequate capacity. The limited land availability on the west side of the interchange and the close spacing of the interchange ramps to the main line, limits improvement opportunities that would meet Caltrans standards without acquiring several developed properties in the vicinity of the interchange, which may not be feasible. The existing bridge would also have to be widened or reconstructed.

For these reasons, it is recommended that a new interchange be constructed further south and that the existing over crossing at Patricia Lane be retained to provide additional access across the freeway, but that the ramps (access to and from the freeway) be eliminated. Thus the existing Espinosa Overpass would provide access between the east and west sides of the City. The new interchange would be located further south along Highway 101 at Espinosa Road.

Retaining the existing over crossing will reduce capacity requirements at the new interchange. It should be noted that land will be required on both sides of Highway 101 to accommodate service roads and the new interchange at the proposed location. All intersection LOS results are presented in **Table 3.11-4.** Specifically, the following intersection impacts and conditions would occur under the General Plan Buildout Plus Project scenario:

- The one-way stop intersection of Patricia Lane / Espinosa Road would operate at an overall LOS F during both the AM and PM peak hours, thus with an LOS standard of C mitigation is required.
- The two-way stop intersection of Espinosa Overpass / Hwy. 101 NB Off-Ramp / Patricia Lane / Hwy. 101 NB On-Ramp will not exist in this scenario. The new Espinosa Interchange will be constructed.
- The one-way stop intersection of El Camino Real / Hwy 101 SB On-Ramp / Susan Lane will not exist in this scenario. The new Espinosa Interchange will be constructed.

- The one-way stop intersection of El Camino Real / Hwy 101 SB Off-Ramp will not exist in this scenario. The new Espinosa Interchange will be constructed.
- The two-way stop intersection of El Camino Real / Espinosa Overpass – High School Driveway would operate at overall LOS F during both the AM and the PM peak hour and on the worst approach during the AM peak hour and LOS F during the PM peak hour, thus with an LOS standard of C mitigation is required.
- The one-way stop intersection of El Camino Real / Tyler Avenue would operate at overall LOS C during both the AM and LOS F during the PM peak hour and on the worst approach at LOS F during the AM peak hour and LOS F during the PM peak hour, thus with an overall LOS standard of C and a worst approach LOS of E, mitigation is required.
- The four-way stop intersection of El Camino Real / Elm Avenue would operate at overall LOS F during both the AM and the PM peak hour, thus with an LOS standard of C mitigation is required.
- The all-way stop intersection of El Camino Real / Oak Avenue would operate at LOS F during the AM peak hour and LOS F during the PM peak hour, thus with an LOS standard of D mitigation is required.
- The all-way stop intersection of El Camino Real / Apple Avenue would operate at LOS B during the AM peak hour and LOS F during the PM peak hour, thus with an LOS standard of D mitigation is required.
- The all-way stop intersection of El Camino Real / Walnut Avenue would operate at LOS F during the AM peak hour and LOS F during the PM peak hour, thus with an LOS standard of D mitigation is required.
- The one-way stop intersection of Hwy. 101 SB Ramps / Walnut Avenue would operate at overall LOS F during both the AM and the PM peak hour and on the worst approach at LOS F during the AM peak hour and LOS B during the PM peak hour, thus with an LOS standard of C mitigation is required.
- The one-way stop intersection of Hwy 101 NB Ramps / Walnut Avenue would operate at overall LOS F during both the AM and the PM peak hour and on the worst approach at LOS F during the AM peak hour and LOS F during the PM peak hour, thus with an LOS standard of C and worst approach standard of E, mitigation is required.
- The one-way stop intersection of Hwy 101 SB Ramps / Oak Avenue would operate at overall LOS C during both the AM and LOS C in the PM peak hour and on the worst approach at LOS F during the AM peak hour and LOS E during the PM peak hour, thus with an overall LOS standard of C and worst approach standard of E, mitigation is required.

- The one-way stop intersection of Hwy 101 NB Ramps / Oak Avenue would operate at overall LOS B during both the AM and LOS D in the PM peak hour and on the worst approach at LOS F during the AM peak hour and LOS F during the PM peak hour, thus with an LOS standard of C and worst approach standard of E, mitigation is required.
- The one-way stop intersection of 3rd Street / Elm Avenue would operate at overall LOS C during both the AM and LOS F in the PM peak hour and on the worst approach at LOS E during the AM peak hour and LOS F during the PM peak hour, thus with an LOS standard of D and worst approach standard of E, mitigation is required.

All trip generation values for all scenarios are contained in the Traffic Impact Analysis within the Technical Appendices to this EIR.

MM 3.11-4a The project shall be responsible for providing a new interchange at Highway 101 and Espinosa Road, including all related ramp improvements, lane configurations and necessary right of way acquisition as specified in the Traffic Impact Analysis (Higgins Associates, February 2006). The interchange shall be required at such time as traffic trips associated with project development warrant the improvement. As the interchange is not warranted without the project, the project shall fund the cost of the interchange up front until such time as reimbursement agreements, bonds, fees or other shared funding options are put in place by the City of Greenfield.

MM 3.11-4b The project shall be responsible for fair share contribution toward a series of planned intersection improvements as identified within the Greenfield General Plan Circulation Element. Fifteen intersections, as identified in the Traffic Impact analysis (Higgins Associates, February 2006) are significantly affected by project buildout. The project shall contribute fair share funding toward these intersection improvements through payment of traffic impact fees prior to issuance of building permits. If the project triggers these improvements, the project may also be required to provide up front funding until such time as reimbursement agreements, bonds, fees or other shared funding options are put in place by the City.

The above mitigation measures will mitigate intersections under the General Plan plus project buildout scenario to a **less than significant** impact by providing capacity through a new interchange, and by assessing project impact fees toward previously planned improvements. All intersection improvements for all scenarios are summarized in **Table 3.11-6** below.

TABLE 3.11-6
INTERSECTION MITIGATION REQUIREMENTS, ALL ANALYSIS SCENARIOS

	N-S Street	E-W Street	Existing Lane Configuration	Existing Intersection Control	Existing Conditions	Background Plus Project Conditions	General Plan Conditions
1	Patricia Lane	Espinosa Road	NB 1-T/R SB 1-L/T WB 1-L/R	1-way stop WB Worst Approach	None Required	None Required	Intersection to be realigned /reconfigured to NB 1-T, 1-T/R; SB 1-L, 2-T; WB 2-L, 1-R
2	Espinosa Overpass/Hwy 101 NB Off Ramp	Patricia Lane/Hwy 101 NB On Ramp	NB 1-L/T/R SB 1-L, 1-R WB 1-T/R	2-way stop SB/WB Worst Approach	None Required	Signalize Add WBR	NB Highway 101 Ramps to be removed. New Southern interchange to be constructed at Espinosa Road
2A	Hwy 101 NB Ramps	Espinosa Road	No intersection		None Required	None Required	New Interchange Terminal
3	El Camino Real/Hwy 101 SB On Ramp	Susan Lane	SB 1-T/R EB 1-L/R	1-way stop EB Worst Approach	None Required	None Required	Intersection to be removed. Susan Lane to connect to Espinosa Rd
4	El Camino Real	Hwy 101 SB Off Ramp	No intersection		None Required	None Required	NB Highway 101 Ramps to be removed. New southern interchange to be constructed at Espinosa Road
4A	Hwy 101 SB Ramps	Espinosa Road	NB 1-L/T/R SB 1-L, 1-R WB 1-T/R	2-way stop SB/WB Worst Approach	None Required	None Required	New interchange terminal
5	El Camino Real	Espinosa Overpass High School Dwy	NB 1-L, 1-T/R SB 1-L, 1-T EB 1-L, 1-T/R WB 1-L/T, 1-R	2-way stop EW Worst Approach	None Required	Signalize Add NBR	Add 2nd SBT. Restripe EB to 1-L/T, 1-R
6	El Camino Real	Tyler Avenue	NB 1-L, 1-T/R SB 1-L, 1-T, 1-T/R EB 1-L/R	1-way stop EB Worst Approach	None Required	None Required	Signalize
7	El Camino Real	Elm Avenue	NB 1-L/T, 1-R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	4-way stop	None Required	None Required	Signalize Add NBL, SBL, EBL, and WBL
8	El Camino Real	Oak Avenue	NB 1-L/T/R SB 1-L/T/R EB 1-L/T/R WB 1-L/T/R	4-way stop	None Required	None Required	Signalize Add NBL and SBL
9	El Camino Real	Apple Avenue	NB 1-L/T/R SB 1-L, 1-T/R EB 1-L/T/R WB 1-L/T/R	4-way stop	None Required	None Required	Signalize Add NBL
10	El Camino Real	Walnut Avenue	NB 1-L, 1-T/R SB 1-L, 1-T/R EB 1-L/T/R WB 1-L, 1-T/R	4-way stop	None Required	None Required	Signalize Add NBR, 2nd SBL, SBR, EBL, and WBR
11	Hwy 101 SB Ramps	Walnut Avenue	SB 1-L/T, 1-R EB 1-T, 1-R WB 1-L/T	1-way stop SB Worst Approach	None Required	None Required	Signalize Add 2-SBL, SBR, 2nd EBT, 2-WBL
12	Hwy 101 NB Ramps	Walnut Avenue	NB 1-L/T, 1-R EB 1-L/T WB 1-T/R	1-way stop NB Worst Approach	None Required	None Required	Signalize. Reconstruct NBR to a free right. Add 2-EBL, 2-EBT, 2-WBT and 2-WB free rights
13	Hwy 101 SB Ramps	Oak Avenue	SB 1-L/T, 1-R EB 1-T/R WB 1-L/T	1-way stop SB Worst Approach	None Required	None Required	Signalize Add 2-WBL
14	Hwy 101 NB Ramps	Oak Avenue	NB 1-L/T, 1-R EB 1-L/T WB 1-T/R	1-way stop NB Worst Approach	None Required	None Required	Signalize Add 2-EBL
15	3rd Street	Elm Avenue	SB 1-L/R EB 1-L/T WB 1-T/R	2-way stop NS Worst Approach	None Required	None Required	Signalize Add NB leg, SBL, EBL and WBL
16	Elm Circle New Road	Elm Avenue	SB 1-L/R EB 1-L/T WB 1-T/R	1-way stop SB Worst Approach	None Required	None Required	None Required

Roadway Segment Levels of Service

Impact 3.11-5 Full buildout of all phases of the project as proposed, together buildout of the Greenfield General Plan land uses, will cause several roadway segments to operate at LOS E or F. As the City's standard for segment operation is LOS C (and in some cases D), this is a **significant** impact.

MM 3.11-5 The project shall be responsible for fair share contribution toward a series of planned roadway segment improvements as identified within the Greenfield General Plan Circulation Element. Roadway segments, as identified in the Traffic Impact analysis (Higgins Associates, February 2006) are significantly affected by project buildout. The project shall contribute fair share funding toward these segment improvements through payment of traffic impact fees prior to issuance of building permits. If the project triggers these improvements, the project may also be required to provide up front funding until such time as reimbursement agreements, bonds, fees or other shared funding options are put in place by the City.

The above measure will mitigate the impact by requiring the project to contribute proportionate fees toward previously planned roadway improvements.

Roadway Network Expansion

Impact 3.11-6 Implementation of the project will require modifications to the Greenfield's roadway network at the south end of City. Expansion of the City's planned roadway network to accommodate land uses within the Sphere of Influence Amendment is a **significant** impact of project buildout.

The addition of the residential uses on the west side of town and the commercial and industrial uses on the east side requires that the arterial road network be expanded. Third Street will extend southwards from Elm Street to Espinosa Road. Current volumes indicate that a three-lane facility is required just south of Elm Street and a four-lane facility from the freeway to north of Espinosa Road. Based on ultimate site plan proposals, these lane configurations may change. The addition of the residential uses on the southwest side of town will require the extension of 13th Street southwards to the end of the Sphere of Influence line. Thirteenth Street would then extend eastwards along the southern boundary of the Sphere of Influence up to El Camino Real. This new street would provide access to both the Residential Estate and Low Density Residential uses. The end result would be a "loop" configuration around the south end of the City. The mitigated General Plan Buildout Plus Project conditions (segment volumes and levels of service) are illustrated in **Figure 3.11-6.**

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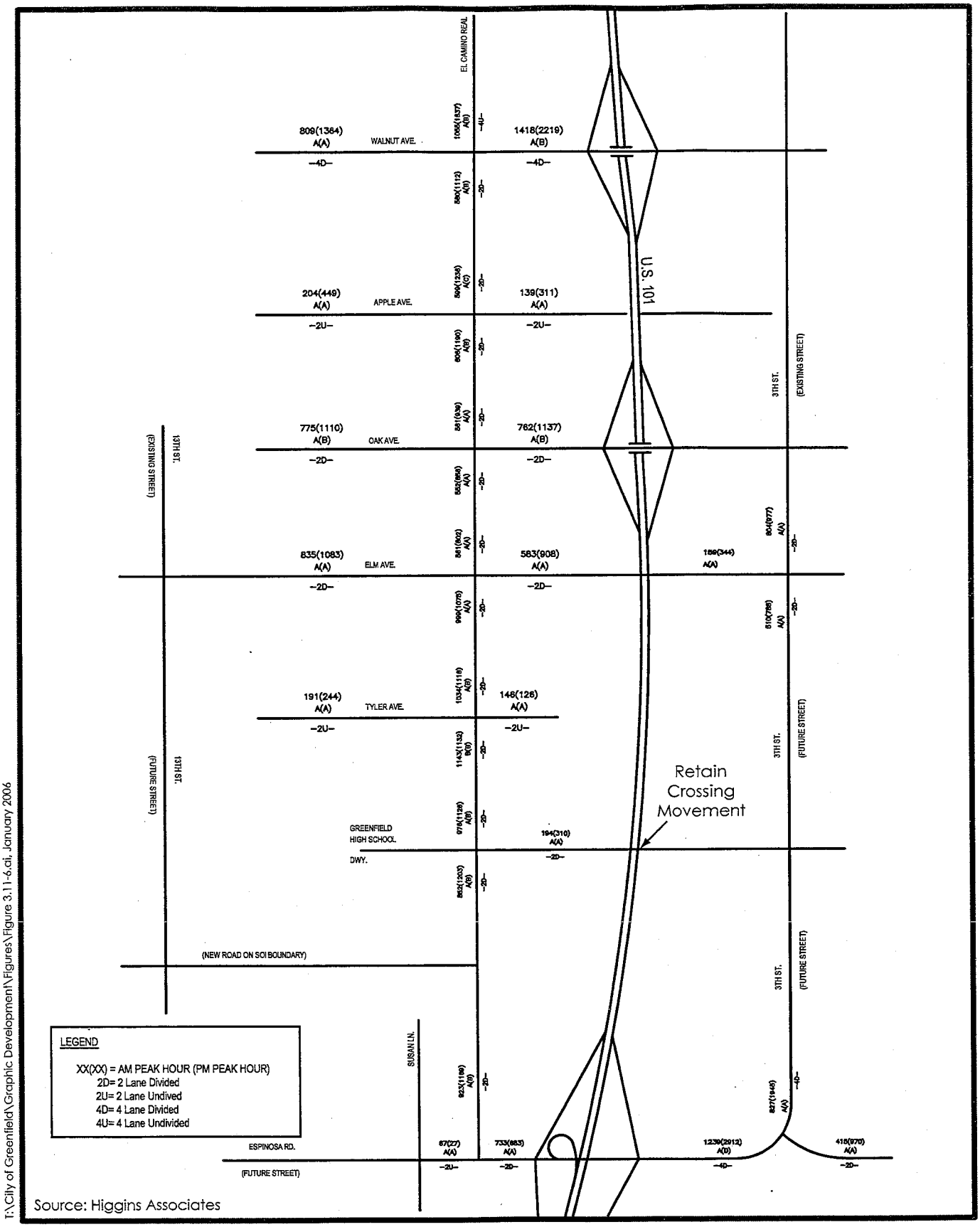

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Source: Higgins Associates

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FIGURE 3.11-6

MITIGATED GPBO CONDITIONS SEGMENT VOLUMES AND LEVELS OF SERVICE

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As a secondary effect of the project, the City of Greenfield's traffic impact fee program and General Plan circulation element will require updates to reflect the expanded roadway network.

MM 3.11-6a Detailed site planning within the South End SOI area shall accommodate plans for the expanded roadway network and "loop" connection system. Circulation planning shall be conducted in consultation with the Director of Public Works at the time of application submittal, and shall be consistent with the Circulation Element. Any project requiring the expanded roadways will be required to dedicate right of way and construct roads to City standards.

MM 3.11-6b Prior to the City's application to LAFCO to amend the SOI, the project applicant shall contribute a share of the costs associated with updating the General Plan Circulation Element, as the update is required as a direct result of the project. Appropriate share will be determined by the City of Greenfield.

MM 3.11-6c Immediately upon approval of the project by the City of Greenfield, the applicant shall fund the full cost of updating the City's traffic impact fee program, as the update is required as a direct result of the project.

The above measures will mitigate the impact of expanding the roadway network to a less than significant level by requiring planning in consultation with the City and requiring applicant contribution toward the direct costs associated with amending the City's plans and fee programs.

General Plan Buildout Plus Project Traffic Conditions – Highway 101 Traffic Volumes

Impact 3.11-7 With full General Plan buildout plus Project traffic, additional widening on Highway 101 to six lanes would be required. This is a **significant** impact.

The project is estimated to generate approximately 32,000 daily trips. It is expected that 40 percent of the trips will travel northbound and 30 percent southbound on Highway 101, from the new Espinosa Road interchange.

Recent proposed developments in King City revealed some increased traffic forecasts on Highway 101 and these traffic numbers were used to calculate the corresponding levels of service for Highway 101 north and south of Greenfield. There is an increase in Highway 101 volumes, especially south of Greenfield based on the proposed King City Developments, which also impacts Highway 101 through the City. The most recent

volumes are only estimates and have not been approved by any regional agency. The current Caltrans acceptable LOS is C.

Table 3.11-7 below indicates that with the project volumes added to Highway 101, additional widening to six lanes would be required through the City between the Walnut Avenue interchange and the Thorne Road interchange based on volume thresholds. Increased volumes between Walnut Avenue and Oak Avenue and the short distance between these interchanges may also require widening to six lanes based on adverse operational conditions. This is an impact attributable to the project. The need for additional lanes north of Thorne Road would be required with or without the project based upon projected cumulative volumes for Highway 101.

The new Espinosa Road interchange would be located approximately one mile south of the Oak Avenue interchange, no highway widening between Oak Avenue and the interchange would be required. South of the Espinosa interchange, the freeway would be upgraded from a four lane expressway to a four lane freeway. This is not a project impact, since the freeway would operate at LOS D without the project and would have to be upgraded.

TABLE 3.11-7
GENERAL PLAN BUILDOUT PLUS PROJECT TRAFFIC CONDITIONS
HIGHWAY 101 TRAFFIC VOLUMES

Roadway Segment			Existing Lanes	GPBO Daily Volume	LOS w Existing Lanes	Project Daily Volume	GPBO Plus Project Daily Volume	LOS w Existing Lanes	Improved Lanes Required	LOS w Improvement
Highway 101	north of	Thorne Road	4F	61,500	D	15,775	77,275	F	6F	C
Highway 101	between	Thorne Road & Walnut Avenue	4F	50,600	C	15,775	66,375	E	6F	C
Highway 101	between	Walnut Avenue & Oak Avenue	4F	40,200	B	15,775	55,975	C	None Required	NA
Highway 101	between	Oak Avenue & Espinosa Road Overpass	4F	39,000	B	15,775	54,775	C	None Required	NA
Highway 101	south of	Espinosa Road Overpass	4E	41,300	D	11,830	53,130	F	4F	C

Notes:
4E = 4 Lane Expressway
4F = 4 Lane Freeway
6F = 6 Lane Freeway

There is currently no fee collection mechanism in place by the City, TAMC or Caltrans for the funding of Highway 101 widening projects within or outside the City. Widening of the highway would be considered a major capital project, and no calculations have been made regarding the cost of such improvements. As such, project mitigation for widening the freeway through the City (or contributing towards a regional widening project north of the City) is considered infeasible until such time that the City establishes an impact fee specifically to be used toward freeway mainline widening. Until such a fee is in place, the

project impact on the freeway between Thorne Road and Oak Avenue, as well a project contribution to cumulative freeway impacts north of Thorne Road, is considered **significant and unavoidable.**

Parking Capacity

Impact 3.11-8 Buildout of the proposed project will result in a need for on-site parking facilities. This is a **less than significant** impact.

The proposed project will be required to provide sufficient on-site parking supply meeting the City's requirements for each of the proposed uses. At the time of project application with the City of Greenfield the project will be required to comply with the most current Greenfield Zoning Ordinance. No mitigation is required at this time.

Pedestrian and Bicycle Facilities

Impact 3.11-9 The proposed project will result in the construction of residential development in a largely rural setting lacking adequate pedestrian facilities and bicycle facilities and lanes. This is a **potentially significant** impact.

The proposed South End SOI project will be required to include pedestrian and bicycle facilities as part of the proposed development as identified in the Greenfield General Plan. Currently within the project vicinity, El Camino Real is a Class III bike facility from Tyler Street to Elm Street and a Class II bike facility from Tyler Street south to the High School entrance. Bike lanes are provided on both sides of El Camino Real between Walnut and Elm Avenues. The project site currently does not have existing bicycle or pedestrian facilities. The remaining sections of El Camino Real are designated as Bike Routes in the General Plan. However, no signing or striping is provided. Future bikeway and pedestrian improvements should follow the goals of the General Plan and be reviewed by city staff.

MM 3.11-9a The project applicant(s) shall design and construct adequate bicycle facilities including lanes, routes, or paths in compliance with the Greenfield General Plan and current Zoning Ordinance. The design and location of bicycle facilities will be demonstrated as part of future application submittals and subject to review by the City of Greenfield.

MM 3.11-9b Applicants shall construct sidewalks along project frontages, entrances, Espinosa Road and along the interior street of the proposed residential development as required by City standards. Project and subdivision design shall emphasize pedestrian connectivity between land uses by utilizing trails and pathways in project design.

Implementation of MM 3.11-9a and –9b would reduce the impact by providing pedestrian and bicycle connectivity as a part of more detailed project design.

Transit System

Impact 3.11-10 The future construction of residential dwelling units and of highway commercial uses will result in a greater demand for area transit services. This is considered a **less than significant** impact.

Presently, the Auto Lift automobile transit system operates in the City of Greenfield. It has no fixed routes and is a demand-response system. The Monterey-Salinas Transit (MST) currently travels through the City of Greenfield. Future residential, industrial and highway commercial on the project site is expected to result in slight increases in demand, but is not expected to require physical expansion of any transit systems. Therefore, the impact to area transit systems is considered **less than significant.** No mitigation is required.

Secondary Effects from Project Improvements

Impact 3.11-11 Buildout of the project, including all required roadway improvements and roadway system expansions, will result in secondary environmental effects through the construction of those improvements. These environmental effects are a **potentially significant** consequence of the project.

CEQA requires that an EIR consider the secondary or indirect effects of a project. Based upon the needed improvements identified in the Traffic Impact Analysis, most notably the possible need for a new interchange and roadway network extensions in the south end of the City, the project will have secondary effects that could be significant. Those physical improvements will require construction, grading, and land acquisition, and could result in secondary biological, cultural, air quality geotechnical or other impacts upon the environment.

MM 3.11-11 As more detailed planning involving specific physical infrastructure improvements are made available, such improvements shall undergo additional CEQA review either as stand alone projects or as components of specific development projects. All mitigation as required by that review shall be imposed upon the construction and implementation of needed infrastructure improvements.

The above programmatic mitigation is intended to disclose that future infrastructure improvements required by the South End SOI project may result in secondary effects, and that those effects must also be addressed through the planning and environmental review process. This EIR acknowledges that the extent of such secondary impacts cannot be

known at this time. However, based on the physical conditions and setting of the project area, it is anticipated that all such impacts could be mitigated to a **less than significant** level.

REFERENCES/DOCUMENTATION

City of Greenfield. *Greenfield General Plan and General Plan EIR.* October 2005

City of Greenfield. *Zoning Code.* 1981 as updated.

Higgins Associates. *Traffic Impact Study for Franscioni/Scheid Development, City of Greenfield, CA.* February, 2006.

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SECTION 3.12
PUBLIC SERVICES AND UTILITIES

This section of the EIR addresses existing infrastructure and utilities in Greenfield serving the project site, discusses the proposed project relative to the City of Greenfield General Plan and evaluates the potential impacts to these services and systems. Potential impacts focus on increased potable water demand, expansion of wastewater collection and treatment systems, solid waste and hazardous waste collection, demands on school district facilities, law enforcement and fire services, the need for additional parks and recreation opportunities and additional basic utilities. (See **Section 3.8**, Drainage and Water Quality, for a discussion of stormwater infrastructure impacts). This analysis is based on the Greenfield General Plan and Zoning Code, City Water and Wastewater Capital Improvement Plans, information provided by the City Engineer, Public Works Director and other department staff, previous environmental documents, including the *2005 Greenfield General Plan EIR*, as well as various technical reports.

3.12.1 EXISTING SETTING

POTABLE WATER SUPPLY

The City of Greenfield Public Works Department is responsible for water supply and delivery in the City of Greenfield. The City currently utilizes local groundwater as its sole source of water supply. The current total potable water demand in Greenfield is 4.7 acre-feet per day, or 1,716 acre-feet annually (AFA). The City currently has capacity to serve 18.34 acre-feet per day, which equates to a total annual capacity of 6,694 AFA.

Groundwater Yield and Municipal Wells

The groundwater basin underlying Greenfield is the Upper Salinas Valley Sub-basin in the Salinas Valley. The sub-basin is a distinct groundwater unit within the Salinas Valley Aquifer. The basin is linear in shape and runs under the Valley from San Ardo to Monterey Bay. The primary water-bearing formations are unconsolidated, and semi-consolidated deposits that make up the alluvium, Aromas sand, and the Pleistocene and Pliocene Paso Robles Formation. These layers are several thousand feet thick in the center of the Valley.

The Salinas Valley Groundwater Basin is currently experiencing overdraft conditions. Seawater intrusion is the most immediate concern from overdraft, with certain aquifers in the lower end of the Basin experiencing degradation. In the Upper Salinas Valley Sub-basin no problems are present; the closest known point of saltwater intrusion is 35 miles from the City. The Upper Salinas Valley sub-basin has extremely deep and productive alluvium. Wells within the sub-basin can yield up to 4,000 gallons per minute.

The City currently operates three groundwater wells. The wells pump directly into the one million-gallon Oak Avenue reservoir, located at the intersection of 13th Street and Oak Avenue, and meet system demands by pumping as needed and continually filling the

reservoir. These wells operate at a level sufficient to meet peak demands and fire flows by maintaining system pressures and a relatively constant water level in the reservoir. Well No. 1 is the primary water supply for the City of Greenfield. Well No. 2 has been capped off due to nitrates. Well No. 3 has also been concrete filled and abandoned. Well No. 4 is no longer in service, but the pump at the facility remains intact. Well No. 5, located at 13th Street and Oak Avenue, alternates in use with Well No.1 unless simultaneous use is necessary. Well No. 6 is located adjacent to Well No. 1 and is intended to alternate with Well No. 1. Due to the close proximity of Wells 1 and 6, the concurrent operation of these sources results in a drawdown effect. There is sufficient distance between wells 1 and 5, and wells 5 and 6, to ensure that they do not adversely influence each other while pumping simultaneously. As a result, Well No. 5 is continuously in operation. A new well, Well 7, is planned in conjunction with addition of a new 1.5 million-gallon storage reservoir at such time that it is needed in the future (this reservoir is currently approved and will soon be under construction). This reservoir will simplify the system's operation and provide for increased system reliability.

The City routinely tests its wells to ensure that the groundwater pumped meets EPA and DOHS drinking water standards. The water quality of the primary wells is good and currently meets all regulatory standards. The City is not currently experiencing nitrate problems with its active wells. A complete listing of the mineral (organic and inorganic) constituents of the City's groundwater can be found in the City's annual Water Quality Report.

TABLE 3.12-1
EXISTING WATER SUPPLY

Well (1)	Location	Depth (feet)	Capacity (gpm)	Seal Depth (feet) (3)
1	14th St & Cherry Ave.	883	1,400	330
5	13th St. & Oak Ave.	860	900 (2)	600
6	14th St. & Cherry Ave.	880	1,550	280

Notes: (1) Wells 2, 3 and 4 have been abandoned, or are presently not in use; (2) Well # 5 was extensively rehabilitated in 2004, but production problems have continued. The well is being evaluated and tested at this time; (3) The well screens or louvers extend from the bottom of the seal to 20 feet above the bottom of each well in most cases.

Booster Pumping Stations

A booster pump station located adjacent to the 1.0 MG storage tank at 13th Street and Oak Avenue provides water pressure for the City of Greenfield. The pump station contains four pumps that operate on a variable speed principle, using variable frequency drive motors (VFD), which vary the amount of water pumped in accordance with the pressure and demand. Table 3.12-2 describes the existing booster pump station.

TABLE 3.12-2
EXISTING WATER LINES

Diameter (inches)	Total Length (feet)
4"	11,590
6"	29,940
8"	19,610
10"	1,390
12"	21,955
16"	5,860
Total	90,345 feet (17.11 miles)

Source: Greenfield Water System Capital Improvement Plan Update 2005

Pressure Zone

The City's existing distribution system is served by one pressure zone. Since there are no significant changes in elevation throughout Greenfield, this pressure zone serves all of the existing developed areas in the City.

Transmission and Distribution

The City's existing transmission and distribution water pipe lines vary in diameter from four to 16 inches. The distribution system consists of over 17 miles of transmission and distribution mains made of cast iron, asbestos cement, plastic (C-900), and in a few instances, steel.

Pump Stations and Delivery System

The City of Greenfield's water system maintains its pressure with variable frequency drive pumps. The variable frequency drive pumps respond automatically to the system demand by drawing water from the city's storage tank, the Oak Avenue Reservoir. A 1,500-gallon surge tank serves as a surge protector for the system. As the one million-gallon tank is drawn down, the pumps respond to refill the tank. The well pump operating capacities and the well locations are summarized in **Table 3.12-3.**

TABLE 3.12-3
EXISTING WELLS/PUMP STATIONS

Well No.	Description/Status	Location	Operating Capacity
1	Well No. 1	14th St. and Cherry Ave. between Walnut Ave. and Cherry Ave.	1,800 gpm
2	Not in use (1); with pump still installed	Under water tank-Oak Avenue between 11th Ave. and 12th St.	Not in Use
3	Abandoned and removed	137 Seventh St. between Oak Ave. and Maple Ave.	Not in Use
4	Not in use (1); with pump still installed	Well under elevated tank-Oak Ave. between 11th St. and 12th St.	Not in Use
5	Well No. 5 and Booster Pump Station	13th St. and Oak Ave.	900 gpm
6	Well No. 6.	14th St. between Walnut Ave. and Cherry Ave.	1,800 gpm

Project Site

There is currently no potable water service to the project site. However, west of Highway 101 there is an existing 12-inch main in El Camino Real that would be extended about 1,000 feet from its present terminus at Greenfield High School to the entrance of the project site. The General slope of the existing project site is to the south. The proposed project would be graded to slope from the southwest to the northeast.

WASTEWATER AND SEWER SERVICE

The City of Greenfield wastewater system includes approximately 110,000 feet of gravity sewer, ranging in diameter from six to 24 inches and two large 0.4 mgd and four small sewage pump stations. The wastewater system has been extended over time as the City of Greenfield has expanded. Located in alleys and easements of the original downtown area, the sanitary sewer is predominately six inches in diameter. Newer pipes in residential areas to the west of the downtown area tend to be eight inch diameter polyvinyl chloride (PVC) pipe and are generally aligned in street rights-of-way. There is a network of trunk sewers, 12 inches in diameter or larger, with a 24-inch diameter interceptor, that generally flow from west to east and discharge into the Greenfield Wastewater Treatment Plant, located at the eastern end of Walnut Avenue.

Over the period of 1987 and 2005, the following major capital improvements to the wastewater collection and treatment system were completed:

- El Camino Real/ Cypress Interceptor - a 12 inch line from Pine avenue to Cypress, to a new lift station along Cypress Avenue; a 12 inch line along Cypress to Livingston

Road to the future Yanks Air Museum; a 12 inch line along Cypress then north from Cypress to Thorne Road was completed in 2004;

- A 0.4 MGD lift station on Cypress Avenue, completed in 2004;
- Third Street/Cherry Avenue/ El Camino Real Interceptor – a 24-inch line from Third/Walnut to Cherry, to El Camino Real; and an 18-inch line in El Camino Real to Pine Avenue;
- Apple Avenue/ Walnut Avenue Interceptor - including a 12 inch line for a 0.4 MGD lift station on El Camino Real near Tyler Street to Elm Avenue, to Fifth Street, to Apple Avenue; a 21 inch line on Apple Avenue from Highway 101 to Third Street, to Walnut Avenue; and a 24-inch line in Walnut Avenue from Third Street to the WWTP;
- A second Primary Clarifier at the WWTP;
- A 0.4 MGD lift station on El Camino Real near Tyler Street with 6-inch force main to 400 feet south of Elm Avenue;
- Replacement of the existing communator at the wastewater treatment plant with two larger more efficient sewage grinders;
- Pond and Spray Field Capacity – Pond acreage is 10.5 acres in five ponds. 10 acres of spray fields were expanded to 25 acres with the purchase of an additional 15 acres and subsequent spray fields;
- The aerobic digester was modified with replacement of the mixer with a diffused aeration system; and
- The first step in the expansion of the Greenfield WWTP as indicated in the engineering reports required in the Waste Discharge Requirements Order R3-2002-0062.
- Installation of a 1.0 MG clarifier, adequate disposal (spray fields) and installation of a digester.

Wastewater Treatment Plant

The current capacity of the City of Greenfield Wastewater Treatment Plant (WWTP) is 1.0 million gallons per day. The WWTP has reached and exceeded 90 percent of its capacity. The plant provides treatment and disposal of sanitary wastewater contributed by the residents of the City. The City of Greenfield wastewater treatment and disposal is

accomplished in accordance with the Waste Discharge Requirements Order No. R3-2002–0062, that has been established by the California Regional Water Quality Control Board, Central Coast Region. The order allows the capacity of the facility to be increased upon submittal by the City approval by the California Regional Water Quality Control Board of documentation that sufficient improvements have been made to the facility.

With the existing facility operating at almost 90 percent of capacity, the City of Greenfield is in the process of implementing the 2005 Wastewater Treatment Plant Expansion, which would result in a doubling of capacity from 1.0 million gallons a day (MGD) to 2.0 MGD. The City has chosen to break the project into three phases for purposes of financing. Phase 1 of the capacity expansion project consisted of general maintenance activities and minor alterations of existing infrastructure to achieve greater efficiencies of operation. Phase 2, currently being completed, involves the relocation of fencing and site grading to level and raise approximately 0.17 acres of land adjacent to existing treatment tanks, the removal of an existing oxidator/clarifier; and the construction of a 300 square foot sludge pump building and miscellaneous appurtenances. Phase 3 will complete the expansion with the construction of a digester.

Specific functions and design criteria for the WWTP can be found in the City's Wastewater System Capital Improvement Plan Update.

Waste Discharge Requirements

Waste Discharge Permit No. 89-18

The Central Coast Regional Water Quality Control Board approved Waste Discharge Permit No. 89-18 in February 1989. The permit sets forth the average monthly treatment volume of one million gallons per day (1.0 MGD) and the constituents in the discharge effluent. The permit also limits the locations for disposal of the treated effluent in the ponds and irrigation areas presently used by the City. Monitoring and reporting requirements are also described in the permit.

Operation of the Wastewater Treatment Plant and disposal facilities is currently at 90 percent capacity within the requirements of the Waste Discharge Permit. The Wastewater Treatment Plant currently has an average daily flow of approximately 0.867 MGD.

As per recommendations made within the Wastewater Capital Improvement Plan, Greenfield applied for a new Waste Discharge Permit. In May of 2002, CCRWQCB issued the City a permit to increase waste discharge to 1.5 MGD. This request was authorized on the contingency that the City makes the following modifications to its Wastewater System: installation of a 1.0 MG clarifier, adequate disposal (spray fields) and installation of a digester. Construction of these improvements is currently under way. In fall of 2005 another expansion to the Wastewater Treatment Plant was issued to increase the discharge

to 2.0 MGD. The 2005 wastewater treatment expansion project is currently under construction.

Project Site

There are currently no wastewater collection or treatment facilities serving the project site. The proposed sanitary sewer system will be designed to accommodate the project site on both sides of Highway 101. The General slope of the existing project site is to the south. The proposed project would be graded to slope from the southwest to the northeast.

LAW ENFORCEMENT SERVICES

The City of Greenfield Police Department (GPD) is located near the corner of Oak Avenue and El Camino Real. The Police Department staff currently consists of 21 members; there are 17 sworn officers (one who is a School Resource Officer), the Police Chief, a Community Service Officer who serves as a Code Enforcement Officer and Animal Control Officer, and two administrative assistants. The GPD owns 11 marked patrol cars, one marked transport van, and one marked van for volunteers, two unmarked cars and two motorcycles. Currently the Greenfield police department patrols the City limits and up to one mile outside the current City limits.

Monterey County Communications provides police, fire, and medical dispatch for nearly all cities and unincorporated areas of the county. This includes answering all emergency and non-emergency calls. The Communication Center in Salinas dispatches Greenfield Police Officers to service calls that are within the City of Greenfield limits or to calls outside of the city, at the request of the Monterey County Sheriff's Office. The City of Greenfield Police Department participates in a Mutual Aid Agreement with County of Monterey Sheriff's Department, which is responsible for patrolling areas around the Greenfield City limits. This program provides for the sharing of resources to respond to significant public safety events.

In The City's fiscal year 2004 (July 1, 2004 to July 1, 2005), the Greenfield Police Department responded to 9,384 Priority I and Priority II calls for service. Priority I calls correspond to either crime in progress or life threatening emergencies. Priority II calls are non-emergencies, but with a potential for danger or disturbance. Additionally, the police responded to 1,997 Priority III calls (routine calls with no immediate danger) and conducted 3,298 Priority IV (lower priority or self-initiated calls). Lastly, 469 "E" calls (medical emergencies and fire calls) were run.

The Police Department does not currently have a means of accurately measuring response time, but it is believed that the present level of service is adequate.

According to the California Department of Finance, the 2005 population of Greenfield was 13,316. There are approximately 1.27 officers per each 1,000 residents. The City's goal is to maintain at least 1.25 officers per 1,000 residents given the present community circumstances.

FIRE SERVICES

Existing fire protection services within the City and in the outlying rural areas are currently provided by the Greenfield Fire Protection District (GFPD), which serves a population of approximately 18,000 residents. The District currently has one station, which is located near the corner of Oak Avenue and Fourth Street. The District is currently an independent district, governed by a five-member board of directors. The district covers approximately 36 square miles. This district includes the entire City of Greenfield and extends south, approximately 1 mile south of Underwood Road, east to the Salinas River, west to the Arroyo Seco River, and north to Hudson Road, which is approximately halfway between Greenfield and Soledad.

The Greenfield Fire Protection District provides service to structural, wildland, vehicle, and miscellaneous exterior fires; vehicle accidents involving disentanglement and extrication; medical emergencies upon request by American Medical Response or the police department; and hazardous materials incidents. In addition, the GFPD conducts inspections of buildings and properties to insure fire safety; reviews new construction plans for fire code compliance; fire arson investigation; develops and delivers fire safety and burn prevention programs to school children, senior citizens, community groups, businesses and industry. The Greenfield Fire Protection District currently has two full time engineers and 14 volunteers. The district has five fire engines and one patrol car, as well as the chief vehicle.

The Greenfield Fire Protection District has a mutual aid agreement for emergency response from area fire departments and, when necessary, receives assistance from the Monterey county Fire Department, the California Department of Forestry and Fire Protection, and other community fire departments within the Salinas Valley, including Gonzales and Arroyo Seco.

The National Insurance Underwriters Association, Insurance Services Office (ISO) annually evaluates the ability of fire departments to protect commercial property within their jurisdictions. The ISO uses a "1 through 10" rating scale with "1" representing the best and "10" representing an unprotected area with poor service. In the 2002 annual evaluation, the last evaluation completed for the district, the Greenfield Volunteer Fire Department received a rating of "5" on the ISO scale. The Greenfield Fire Protection District plans to increase this rating with planned improvements. This past year the GFPD made the transition from a volunteer fire protection district to a fully staffed professional fire

protection district. The GFPD is anticipating a an National Insurance Underwriters Association, Insurance Services Office evaluation in 2006.

ELECTRIC, NATURAL GAS, TELEPHONE AND CABLE SERVICES

Pacific Gas and Electric (PG&E) provides electricity and natural gas, SBC provides telecommunications services and Charter Communications provides cable television infrastructure and service in the City of Greenfield. Electrical, natural gas and telephone distribution lines would need to be extended and/or improved to PG&E and SBC standards to serve future growth.

PUBLIC SCHOOLS

The project site would be within the jurisdictions of the Greenfield Union Elementary School District and the King City Joint Union High School District. The Greenfield Union Elementary School District spans the entire City of Greenfield and contains three elementary schools and one middle school. School district boundaries include the entire City limits and extend to include the surrounding rural areas as far west as Arroyo Seco. Table 3.12-4 identifies location and the enrollment levels of the schools in the Greenfield Union Elementary School District.

TABLE 3.12-4
GREENFIELD UNION ELEMENTARY SCHOOL DISTRICT ENROLLMENT

School	Type	Location	Enrollment
Vista Verde	Middle (6-9)	1199 Elm Avenue	749
Oak Avenue Elem.	Elementary (K-5)	1239 Oak Avenue	709
Greenfield Elem.	Elementary (2-6)	493 El Camino Real	609
Greenfield Primary	Elementary (K-3)	801 Walnut Avenue	409
Elementary District Total			2,476

Source: City of Greenfield General Plan 2005

Each of the elementary schools was constructed to house 600 students and Vista Verde middle school was constructed to house approximately 825 students. Each elementary school is close to capacity and currently uses overflow space to accommodate enrollment. Vista Verde Middle School can accommodate an additional 75 students by utilizing overflow space and portable classrooms.

According to the Greenfield Elementary School District School Facilities Needs Analysis, the number of students expected to be generated on a per-unit basis for single-family and multi-family units is 0.558 Kindergarten through 6th grade students and 0.176 7th and 8th grade students, for a total of 0.764 elementary and middle school students per household.

The elementary and middle schools in Greenfield are currently close to capacity. School facility expansions will be required to absorb all of the projected growth. The School District has submitted plans for a new 10-acre elementary school to be located in the vicinity of 2nd Street and Apple Avenue. The planned school would support approximately 600 students.

The King City Joint Union High School District (KCJHSD) includes four high schools, two which are within the Greenfield City limits. These two high schools are primarily attended by Greenfield residents. Table 3.12-5 identifies location and the enrollment levels of the high schools in the Greenfield within the KCJHSD.

TABLE 3.12-5
GREENFIELD HIGH SCHOOL ENROLLMENT

School	Type	Location	Enrollment
Greenfield High School	High School (9-12)	2025 El Camino Real	943
Ventana Continuation	Continuation High School (9-12)	2015 El Camino Real	49
High School District Enrollment Total (excluding King City Schools)			992

Source: City of Greenfield General Plan

The other two KCJHSD high schools are located in King City, and very few, if any, Greenfield residents attend these schools. The Greenfield High School serves the agricultural and residential areas of Greenfield, Arroyo Seco and other surrounding rural areas. Ventana High School, a continuation high school, also serves Greenfield and the proximate rural area, but provides an alternative traditional high school education. The school serves those students who are not able to function satisfactorily in a traditional comprehensive high school.

Greenfield High School opened in 1999 and currently enrolls 943 students, houses 29 classrooms, and is considered "at capacity." During the 2002-03 school year, each of these classrooms, as well as four additional portable classrooms were necessary to accommodate enrollment. Eleven additional classrooms were incorporated as part of the school design to allow the campus to accommodate up to 1,200 students. Currently, district staff is developing a Facilities Master Plan for Greenfield High School in order to ensure that it will be able to accommodate the City's anticipated growth.

Ventana High School has an enrollment of 59 students and has three classrooms The District Parenting and Pregnant Teen Program and Special Education for Independent Study are located at this site as well.

The King City Joint Union High School District estimates that each new dwelling unit will generate 0.12 students for grades 9-12.

SOLID WASTE SERVICES

The Salinas Valley Solid Waste Authority (SVSWA), is responsible for ensuring secure long-term solid waste disposal service to Greenfield and other Salinas Valley communities. SVSWA is a joint powers agency made up of the following local governments: unincorporated East Monterey County, and the cities of Gonzales, Greenfield, King City, Salinas, and Soledad. The Authority currently owns four landfills and oversees the contract operation of these facilities. The Authority is also responsible for overseeing future landfill siting or expansion to meet the area's long-term solid waste disposal needs.

Currently, Tri-Cities Disposal and Recycling, Inc. is responsible for the collection of solid waste in Greenfield. Tri-Cities Disposal is a franchise of the Monterey City Disposal Service, formed by a joint-member agreement Greenfield, Gonzales, and Soledad. Tri-Cities Disposal provides collection and processing services for residential waste including refuse, source-separated recyclables and yard waste; commercial waste including refuse, recyclables and drop box-roll-off containers; and city waste from city and public facilities.

The solid waste collected by Tri-County Disposal Service is hauled Johnson Canyon Landfill, located in Gonzales, where it is processed and stored. Salinas Valley Solid Waste Authority operates this privately owned 163-acre facility. In June 1999, the landfill was estimated to have a remaining refuse capacity of 2.9 million cubic yards. Additionally, it was projected that if current rate of service were to be maintained, that this facility would provide disposal capacity through the year 2042.

PARKS AND RECREATION

Park and recreation facilities are provided by the City of Greenfield Public Works Department, which is responsible for acquiring and developing future parks, open space areas, and trails within the Greenfield area. There are seven neighborhood parks and one regional park in the park system occupying a total of approximately 27.01 acres. City standards specify a minimum of 3.9 acres of parkland and open space per each one thousand residents, which includes parks, greenbelt, and outdoor recreational facilities.

The Greenfield General Plan indicates that the total park and open space acreage in Greenfield is 39.96 acres, far below the required area. The General Plan indicates the City clearly needs more parkland development. With the pattern of development and rate of population growth the City should not only acquire neighborhood park sites, but also seek towards the acquisition of large-scale community park sites. Existing recreation facilities suggest a strong need for more open green spaces in Greenfield. Recreational resources have been in very short supply in the City of Greenfield. An inventory of existing

recreation facilities indicates a strong need for more green spaces and physical recreation facilities in Greenfield.

The nearest park's and recreation facilities within the vicinity of the vicinity of the project site include, Tyler Park, a 0.038-acre neighborhood park located at Tyler Street and El Camino, approximately one quarter mile north of the project, the park includes open space and play structure, site; and the approximately 19 acre Patriot Park, which serves as the City's only community park, and is located at 13th and Elm Streets, approximately one mile northwest of the project site. The park includes a skate park, community/daycare center, play structure, sand box, open space, soccer fields, restrooms, baseball/softball fields, amphitheater, and off-street parking facilities.

3.12.2 REGULATORY SETTING

CITY OF GREENFIELD CODES AND ORDINANCES

Construction and maintenance of public services and utilities in the City of Greenfield is enabled and regulated by the Greenfield Municipal Code and General Plan.

CITY OF GREENFIELD GENERAL PLAN

Upon approval of the South End project the site will be located within the planning area established by the *City of Greenfield General Plan*, therefore needs top be consistent with the goals and policies contained in the *City of Greenfield General Plan* and the *General Plan EIR*. The following goals and policies are relevant in guiding consideration of this project:

Policy 7.2.2: Develop and maintain a park system that provides the minimum of 3.9 acres of parkland per 1,000 residents.

Policy 7.2.7: Locate neighborhood parks no more than ¼ mile walking distance for most residents. Attempt to avoid major street crossing for most residents to access a neighborhood park.

Policy 7.2.9: Encourage developers to dedicate land as opposed to paying in-lieu park fees.

Policy 7.2.10: Maintain and improve existing parks and develop new neighborhood and community parks in new residential neighborhoods as growth occurs.

Policy 7.2.12 Consider multiple uses for open space land (i.e. land use buffer zones and green-ways for trails and linear parks, flood control basins for basin and park joint use, and school sites for neighborhood/community park joint use).

Policy 7.2.19 New development shall dedicate parkland and/or pay in lieu fees, as well as impact fees sufficient to meet the added demand for park facilities. Buffer zones and drainage areas that are also used for recreation uses shall not count towards a development's required park dedication, but can count toward open space requirements.

Policy 7.2.20 Subdivisions with 50 or more residential units shall be required to incorporate improved parkland with the subdivision.

Program 7.2.A
Apply the following guidelines to achieve a ratio of 3.9 acres of park per 1,000 residents projected to reside in Greenfield:

i. Provide a minimum of 2 acres of community parks, 1.5 acres of neighborhood parks, and 0.4 acre of open space and greenbelt per 1,000 residents.

ii. Include portions of developer dedicated community accessible school sites as contributing to park obligations, if appropriate, and based on the location and availability to the community.

iii. Include privately owned and maintained areas such as community accessible mini-parks, neighborhood greens or recreation centers as contributing to park obligations, if appropriate, based on location, purpose, nature of such areas, and the level of public access.

iv. The developer shall dedicate and improve parks in residential developments, subject to City approval. All projects with 50 or more units shall include improved parkland within project boundaries.

Policy 4.4.2 New development shall pay its fair share of costs for new fire protection facilities and services.

Program 4.4.D
The fire protection district shall be forwarded all plans for review that involves development projects and submit conditions of approval for consideration to determine whether: 1) there is adequate water supply for fire fighting; 2) road widths, road grades, and turnaround radii are adequate for emergency equipment; and 3) structures are built to the standards of the California Building Code, the Uniform Fire Code, other State regulations, and local ordinances regarding the use of fire-retardant materials and detection, warning, and extinguishment devices.

Policy 4.5.6: Impact fees shall be calculated to ensure that each dwelling unit, business, and vacant parcel pays a fair share of the cost of police services.

Policy 4.6.2: Require new residential development, General Plan Amendments, or rezoning to residential use to mitigate impacts on public school facilities, unless the City Council makes a finding of overriding considerations.

Policy 4.9.1: Promote the reduction of the amount of waste disposed of in landfills by: 1) reducing the amount of solid waste generated within the city (waste reduction); 2) reusing as much of the solid waste as possible (recycling); 3) utilizing the energy and nutrient value of the solid waste (waste to energy and composting); and 4) properly disposing of the remaining solid waste (landfill disposal).

Policy 4.9.5: Encourage solid waste resource recovery (including recycling, composting, and waste to energy) so as to extend the life of sanitary landfills, reduce the environmental impact of solid waste disposal, and to make use of a valuable resource, provided that specific resource recovery programs are economically and environmentally feasible.

Policy 4.10.1: Manage future development so that facilities are available for proper water supply.

Policy 4.10.3: New development shall pay the costs related to the need for increased water system capacity.

Program 4.10.A
Prior to project approval, new development shall demonstrate that adequate water quantity and quality can be provided. The City shall determine whether 1) capacity exists within the water system if a development project is built within a set period of time, or 2) capacity shall be provided by a funded program or other mechanism. This finding will be based on information furnished or made available to the City from consultations with the Public Works Department, the applicant, or other sources.

Policy 4.11.1: Coordinate future development with the capacity of the Greenfield Wastewater Treatment Plant to ensure facilities are available for proper wastewater disposal.

Program 4.11.A
New development shall pay its fair share of the cost of on- and off-site sewer infrastructure. This shall include installation of necessary public facilities, payment of impact fees, and participation in a Capital Improvement Program.

SENATE BILLS 610 AND 221

Senate Bills 610 (Chapter 643, Statutes of 2001) and Senate Bill 221 (Chapter 642, Statutes of 2001) amended state law, effective January 1, 2002, in order to improve the link between information on water supply availability and certain land use decisions made by

cities and counties. Senate Bill 610 and Senate Bill 221 are companion measures, which seek to promote more collaborative planning between local water suppliers and cities and counties. Both statutes require detailed information regarding water availability to be provided to the city and county decision-makers prior to approval of specified large development projects and that the information is included in the administrative record that serves as the evidentiary basis for an approval action by the city or county on such projects.

Both measures recognize local control and decision-making regarding the availability of water for projects and the approval of projects. Under Senate Bill 610, water assessments must be furnished to local governments for inclusion in any environmental documentation for certain projects (as defined in Water Code 10912 [a]) subject to the California Environmental Quality Act. Under Senate Bill 221, approval by a city or county of certain residential subdivisions requires an affirmative written verification of sufficient water supply.

If coordinated and comprehensive water supply planning is underway at the time that the Senate Bill 610-water assessment is prepared, compliance with Senate Bill 221 will be greatly facilitated. Senate Bill 221 is intended as a 'fail safe' mechanism to ensure that collaboration on finding the needed water supplies to serve a new large subdivision before construction begins.

Not every project that is subject to the requirements of SB 610 would also require the mandatory water verification of Senate Bill 221 (e.g. if there is no subdivision map approval). Conversely, not every project that is subject to the requirements of Senate Bill 221 would also require the environmental document to contain Senate Bill 610 water supply assessments. Projects approved before January 1, 2002 were not subject to the requirements of Senate Bill 610 or Senate Bill 221; however, some projects may have been subject to the requirement to prepare a water supply assessment as set forth in Senate Bill 901 of 1995 (Chapter 881, Statues of 1995) (California Department of Water Resources 2003).

SCHOOL IMPACT FEES

State Education Code

Section 17620 of the State Education Code authorizes the governing board of any school district to levy a special fee, charge, dedication, or other requirement against any construction within the boundaries of the school district, for the purpose of funding the construction or reconstruction of school facilities, subject to the limitations set forth in Chapter 4.9 of Division 1 of Title 7 of the Government Code. The special fee, charge, dedication or other requirement may be applied to construction as follows:

- New commercial and industrial construction. The chargeable covered and enclosed space of commercial or industrial construction shall not be deemed to include the square footage of any structure existing on the site of that construction as of the date the first building permit is issued for any portion of that construction.

- New residential construction.

- To other residential improvements, additions or modifications in excess of 500 square feet, or to the location, installation or occupancy of manufactured or mobile homes.

CALIFORNIA INTEGRATED WASTE MANAGEMENT ACT

To minimize the amount of solid waste that must be disposed of by transformation and land disposal, the State Legislature passed the California Integrated Waste Management Act of 1989 (AB 939), effective January 1990. According to AB 939, all cities and counties are required to divert 25 percent of all solid waste from landfill facilities by January 1, 1995 and 50 percent by January 1, 2000.

The Act further requires every city and county to prepare two documents to demonstrate how the mandated rates of diversion will be achieved. The first document is the Source Reduction and Recycling (SRR) Element describing the chief source of the jurisdiction's waste, the existing diversion programs, and the current rates of waste diversion and new or expanded diversion programs intended to implement the Act's mandate. The second document is the Household Hazardous Waste (HHW) Element, which describes what each jurisdiction must do to ensure that household hazardous wastes are not mixed with regular non-hazardous solid waste and deposited at a landfill.

3.12.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and previous standards used by the City. For the purposes of this EIR, impacts are considered significant if the following could result from implementation of the proposed project:

1. Exceed wastewater treatment capacity requirements of the Regional Water Quality Control Board.

2. Require substantial expansion or alteration of the City's wastewater treatment or collection facilities;

3. Result in a substantial increase in wastewater flows over current conditions and capacities;

4. A substantial increase in demand for an adequate water supply over the existing condition;

5. Create a demand for solid waste services and generate solid waste in an amount greater than the ability of landfill facilities to accommodate such waste;

6. Adversely impact or cause the need for a new or physically altered government facility, the construction of which could cause significant physical or environmental impacts, in order to maintain acceptable law enforcement or fire service levels;

7. An inability to provide an adequate water supply, including facilities for treatment, storage and distribution;

8. Substantial increases in demand necessitating new or extended electric, natural gas, telephone or cable services in excess of the ability to provide service, in a manner that would create physical environmental effects;

9. Result in additional students in numbers great enough to create physical overcrowding or other physical strain on existing school facilities;

10. Increases demand for park and recreational services such that substantial physical deterioration of the park or facility would occur or be accelerated; and/or

11. Contributes significantly to any cumulative public service or utility impact.

METHODOLOGY

The analysis of potential public service and utility impacts is based upon review of the City of Greenfield *Wastewater and Water System Capital Improvement Plan Updates,* information updates supplied by City service providers and other technical documents and environmental impact reports, and the Engineering Feasibility Study completed for the project site by C & D Engineers. Additional analysis is based upon letters received from Responsible Agencies during the Notice of Preparation review period.

PROJECT IMPACTS AND MITIGATION MEASURES

Potable Water Demand

Impact 3.12-1 The project would increase demand for water resources an average of 418,104 gallons per day (gpd), or 468.33 acre-feet annually (AFA). This impact is considered **less than significant.**

The proposed project is an amendment to the City's SOI and the ultimate annexation of 267 acres of land into the City of Greenfield for residential, highway commercial, and heavy industrial development. Approximately 293 dwelling units single family units, 60 acres of heavy industrial uses and 107 acres of highway commercial will be constructed with full build-out of the project. The proposed project will also include approximately 50 acres designated for an agricultural easement, located on the eastern portion of APN 221-011-017.

Assuming a potable water demand of 3,332 gpd/acre for single-family residential uses, 1,000 gpd/acre for highway commercial uses, and 2,500 gpd/acre for heavy industrial, the project is expected to generate a need for 418,104 gpd, which is the equivalent of 468.33 AFA. The current total potable water demand in Greenfield is approximately 4.96 acre-feet per day or 1,811 AFA. The annual project demand would be approximately 22 percent of the overall current annual demand in Greenfield and would increase the citywide usage to approximately 2,179 AFA. The City of Greenfield has the capacity to serve 17.8 acre-feet per day, which equates to a total annual capacity of 6,500 AFA. Existing wells and storage reservoirs will not be impacted.

In addition, according to the *California Water Plan Update Draft (2005)*, an average acre of irrigated agricultural use land consumes 1.9 AFA per acre, the equivalent of 507 AFA for the entire 267-acre site. This is more than the expected water usage upon full build-out of the project site. Existing agricultural uses do not use the City's municipal water infrastructure; however groundwater is drawn for irrigation purposes through private on-site wells, from the same sub-basin of the aquifer.

Based on the City's existing municipal supplies and reduction in agricultural uses, impacts to groundwater resources or the existing supply associated with the full build-out of the South End SOI project site is expected to be **less than significant.** No mitigation is required.

Potable Water Delivery

Impact 3.12-2 The project would require extension of the existing potable water delivery system to provide water to the project site. This is a **potentially significant** impact.

There are currently no water supply lines serving the proposed project area. The City maintains an existing 12-inch potable water line in El Camino Real that currently terminates at the Greenfield High School. For the residential portion of the project, the 12-inch line would be extended about 1,000 feet from its present terminus to the entrance of the proposed subdivision. A looped eight inch main would be needed to serve the project. Fire hydrants would be spaced as approved by the Fire District at about 400 –500 foot spacing.

As currently planned the 12-inch water line would be extended from the proposed residential subdivison east under Highway 101 along selected streets to Elm Avenue where it will connect to a 12-inch water main that is part of the City's master water plan.

The water line installation across Highway 101 right of way would need to be installed by directional drilling. The Elm Avenue 12-inch main is included in the City's impact fee program. The location and design details of the off site connection would be determined at the time of project development. The construction of all improvements may have temporary construction related impacts.

The onsite improvements generally include a system of looped eight-inch pipelines with fire hydrants and service laterals.

Mitigation Measure

MM 3.12-2 Prior to approval of the first subsequent tentative or subdivision map associated with project development, the applicant shall provide water system infrastructure plans for the entire project area to the City of Greenfield for review an approval. Water system plans shall provide detail regarding location, connections, pressure and the phased extension of the water system. All water system plans shall be developed in coordination with the City. The applicant will be responsible for construction of system extension, and/ or payment of impact fees as determined by the City to fund the extension.

Construction of these improvements would result in typical construction impacts as part of the development of the proposed project. Those impacts would be resolved through mitigation of other construction impacts and will be subject to compliance with City regulations.

Implementation of the above mitigation measure would reduce potable water delivery impacts to a **less than significant** level, by requiring water system infrastructure plans for the entire project area in coordination with the City.

Wastewater Collection and Treatment

Impact 3.12-3 The project would require extension of the existing wastewater system and result in additional demands upon the existing treatment plant. This is considered a **potentially significant** impact.

The proposed project would include the future development of approximately 267 acres of land to include up to 329 residential units, 60 Acres of heavy industrial uses, 107 acre of highway commercial development, and the existing 3.0 acre LA Hearne Company Parcel, which will be designated as a Highway Commercial use, but will not be physically altered as part of this project. **Table 3.12-6** shows the wastewater generation rates established by the City of Greenfield's *Wastewater System Capital Improvement Plan Update* (2004) for the proposed use and the projected wastewater generation for the proposed project.

TABLE 3.12-6
WASTEWATER GENERATION RATES

Land Use	Rate	Units/Acres	Project Generation**
Residential	400 GPD*/dwelling unit	329	131,600 GPD
Highway Commercial	1,000 GPD/acre	110	110,000 GPD
Heavy Industrial	1000 GPD/acre	60	60,000
		Total	301,600 GPD (0.301 MGD***)

* GPD: Gallons per day. ** At buildout. ***MGD: Million gallons per day.

The City of Greenfield expanded its treatment facility in 2003 to accommodate projected increases in permitted treatment quantity. According to the *Greenfield Wastewater System Capital Improvement Plan Update* (2004), the existing average treatment volume of the current wastewater system is 0.867 million gallons per day (MGD).

According to the *City of Greenfield Wastewater System Capital Improvement Plan Update* (2005), the maximum average treatment volume allowed under Waste Discharge Order No. R3-2002-0062 is 1.0 MGD; in addition, a spray irrigation system with an estimated capacity of 1.0 MGD has recently been added to the disposal facilities. According to the City, 1.8 MGD is available per a permit issued by the RWQCB. Improvements to upgrade the plan are currently underway and are anticipated for completion by January 2007. In addition, the City stated that it is planning on increasing treatment capacity to 3.0 MGD in the future.

Development of the proposed project would increase the City's wastewater flows from 0.867 MGD to 1.168 MGD, resulting in an excess permitted capacity of 0.301 MGD. On an individual project basis the project site would not exceed or significantly impact the

City's Wastewater Treatment Plant. With the 1.8 MGD available, per a permit issued by the RWQCB, the projected flows from the project would be within permitted limits. Therefore, the project is considered to be **less than significant.**

Collection System

The City maintains an existing 10-inch sewer line in El Camino Real that connects to a 12-inch line in Elm Avenue and terminates at the Greenfield High School. The City also maintains an eight-inch line in Elm Avenue that runs from Fourth Street to Second Street. There are currently no wastewater collection lines within or servicing the project area. In order to adequately service the project site, the existing lines will need to be extended to the project site.

West of Highway 101 the waste water system would be designed for gravity flow toward El Camino Real where a pump station would be located. If gravity flow were no possible, the pump station would be located within the project, with a force main that would extend to the existing pump station at the intersection of el Camino Real and Tyler Avenue. From the entrance to the proposed subdivision the force main would be extended about 1,300 feet along El Camino Real to the existing pump station at Tyler Avenue.

According to the City of Greenfield Public Works director the existing Tyler Avenue pump station may require new impellers for the pumps and/or an upgrading of the electrical system to increase the capacity of the pump station.

East of Highway 101, the general slope of the project is from the southwest to the northeast. The sanitary sewer will follow the slope of the project grading. A pump station will be required onsite or offsite along Elm Avenue probably near the Second Street intersection. The force main from the pump station would extend to the intersection of Second Street and Apple Avenue where it would connect to an existing 12-inch sanitary sewer line. As the proposed project will include a mixture of industrial and highway commercial uses, the industrial wastewater discharges may be required to provide onsite pretreatment depending upon the type of industrial wastewater produced.

The lack of existing wastewater lines to serve buildout of the proposed project area is considered a **potentially significant** impact, requiring the following measure:

Mitigation Measure

MM 3.12-3 The applicant for the first development proposed within the annexation area shall be required to design and construct wastewater collection system improvements to adequately serve the entire annexation area, in accordance with City specifications for such improvements. These improvements shall be shown on all subdivision maps and development

plans for the annexation area and shall be submitted to the City Engineer for review and approval.

Construction of these improvements would result in typical construction impacts as part of the development of the proposed project. Those impacts would be resolved through mitigation of other construction impacts and will be subject to compliance with City regulations.

Implementation of the above mitigation measure would reduce impacts to the wastewater collection system to a **less than significant** level by requiring the design and construction of all improvements, prior to issuance of building permits, necessary to service the entire annexation area.

Law Enforcement Services

Impact 3.12-4 The conversion of the project site from agricultural to urban use will generate additional demand for law enforcement services. This is considered a **less than significant** impact.

The proposed project site lies within the jurisdiction of the Greenfield Police Department. The police station is located at the intersection of El Camino Real and Oak Avenue, approximately 3/4 mile from the project area. The proposed project is anticipated to generate up to 329 dwelling units (assuming maximum allowable density). Assuming a population generation rate of approximately 4.0 persons per household (*Greenfield General Plan* 2005), full build out of the residential component of the proposed project would generate approximately 1,316 people. This increase will place additional demand on the City's Police Department for services, as the number of service calls would increase. Types of crime anticipated include domestic disturbances and residential and automobile burglaries, based upon the number and type of calls logged in residential areas. To maintain the a level of service of 1.25 officers per 1,000 residents, the City would need to one more officer to accommodate the projected population increase. In addition to the population increase, extra demand may be placed on the City's Police Department with project buildout of the highway commercial and heavy industrial development uses.

The cost of providing police services to the project area is funded through the City's General Fund, which relies on property taxes, sales taxes, and other annual revenues. Development of the project would require the payment of fair share financing as described in the City of Greenfield General Plan to offset additional police protection services that will be needed. The project Applicant's would be required to pay a Police Impact Fee to assist in covering the costs of additional police coverage. Payment of this fee would ensure that police services are maintained at an acceptable level. Therefore the impact of the annexation area on police services is considered **less than significant**

Fire Services

Impact 3.12-5 The conversion of the project site from agricultural to urban residential use will generate additional demand for fire services. This is considered a **lees than significant** impact.

The proposed project is located adjacent to existing developments serviced by the Greenfield Fire Protection District and is anticipated to generate up to 329 new dwelling units and accommodate approximately 1,316 new residents upon full build-out. The nearest fire station is located at the intersection of Oak Avenue and Fourth Street, approximately 3/4 mile from the project area. Emergency response to the project site is dependent upon adequate emergency access and water flows for fire protection services. The fire station has direct access to the project area via El Camino Real and Highway 101. The City of Greenfield General Plan indicates that buildout of the Planning Area would warrant the development of a Greenfield Fire Protection District Master Plan that includes a Capital Improvement Plan to document future fire needs in the City and identify sufficient revenues to implement improvements. Upon annexation of the proposed project site will be included into the City of Greenfield planning Area. Project developers would be required to extend water mains into the project area and pay fire impact fees charged by the Greenfield Fire Protection District.

Also, all development in the project area would be required to implement current fire safety codes in compliance with the California Building Code, Uniform Fire Code and obtain approval from the City of Greenfield for design features such as project access and turning radii, road grades and road widths adequate for emergency equipment access. Therefore these impacts are **less than significant.**

Electric, Natural Gas, Telephone and Cable Services

Impact 3.12-6 The project would increase the demand for electric, natural gas, telephone and cable services. This impact is considered **potentially significant.**

As a practice, Pacific Gas & Electric and SBC review development applications to identify the necessary utility easements for the adequate provision of service. Future development of the project site will require the extension of services to the project site. There is an existing overhead telephone line along El Camino Real. Utilities for the proposed subdivision will probably be extended from the present terminus along the Greenfield High School frontage. East of Highway 101 the only overhead utilities are along Elm Avenue. These include a PG&E 60 kW electrical line along the south side of Elm Avenue, which will require location in conjunction with the widening of Elm Avenue. This will be relocated as an overhead facility the same as the recent relocation along Second Street between Walnut and Oak Avenues. All other new electric, telephone and cable television

lines, along with the natural gas distribution system will be installed underground in joint utility trenches.

Mitigation Measure

MM 3.12-6 Prior to Final Map approval, the project applicant shall obtain and submit a "will-serve" letter from PG&E.

Implementation of the above mitigation measure will reduce potentially significant impacts related to utility service to a **less than significant** level by requiring review and approval of development plans and issuance of a "will-serve" letter from PG&E.

Schools

Impact 3.12-7 Development of the project would increase the demand for primary and secondary educational services within Greenfield. This is considered a **less than significant** impact.

The annexation area would be within the jurisdiction of the Greenfield Union Elementary School District and the King City Joint Union High School District. According to student generation rate per residential unit found in the City of Greenfield General Plan, the proposed project is anticipated to generate approximately 184 elementary school students (assuming 0.558 students/unit), 58 middle school students (assuming .176 students/unit) and 39 high school students (assuming 0.12 students/unit) upon build-out, totaling 281 students, which would create additional demand for school services.

State law prohibits a local agency from either denying approval of a land use project because of inadequate school facilities or imposing school impact measures other than designated fees. The City of Greenfield General Plan has indicated that in order to support the buildout of the General Plan area, three new Elementary Schools and one Middle School would need to be developed. In addition, the existing Greenfield High School would need to be expanded. Upon annexation the proposed project site will be included into the City of Greenfield Planning Area and be subject to local taxes.

All development within the proposed project would be subject to a School Impact Fee as calculated by the Districts, per statute, and due prior to issuance of occupancy permits. The School Impact Fees from the project site would contribute to development, expansion and modifications to existing and proposed public school facilities. Therefore, this is a **less than significant** impact.

Solid Waste Services

Impact 3.12-8 The proposed project would eventually generate approximately 3,680 pounds/day of solid waste. This is considered a **less than significant** impact.

The Johnson Canyon Landfill, a privately owned facility covering 163 acres operated by Salinas Valley Solid Waste Authority, serves Greenfield. According to City engineering staff, the landfill facility had a remaining refuse capacity of 2.9 million tons as of June 1999 and is expected to provide capacity to the Salinas Valley through 2042. Assuming solid waste generation factors of 8 pounds per residential unit/day and five pounds per 1,000 square feet/day for commercial and six pounds per 1,000 square feet/day industrial uses, the project would generate approximately 12,073 pounds/day of solid waste, which is the equivalent of 2,200 tons/year. The maximum project solid waste generation (2,200 tons/year), extrapolated over the remaining life of the landfill, would use less than five percent of the remaining landfill capacity. The City of Greenfield also has a successful recycling program in place to reduce the volume of refuse deposited in the landfill. Therefore, this impact is considered **less than significant.**

Parks and Recreation

Impact 3.12-9 Development of the project would generate up to 1,316 new residents, increasing the need or demand for new parks and recreational activities. This is a **potentially significant** impact.

Development of the proposed annexation area will generate up to 329 dwelling units and 1,316 new residents in the City of Greenfield. This increase is expected to generate demand for additional park space. Assuming a park standard of 3.39 acres per each one thousand residents, the project will generate a demand for approximately 4.46 acres of new parkland.

The 2005 General Plan determined that there was a lack of adequate parkland space within Greenfield and that the needs of the City were not being met at that time. According to the 2005 General Plan, recreational resources have also been in short at the time of the assessment. The City of Greenfield currently has seven neighborhood parks and one regional park within its limits. Although the applicant would not be responsible for mitigating existing parkland deficiencies as identified in previously adopted documents, the applicant will be required to contribute fees and parkland through the following mitigation measure:

Mitigation Measure

MM 3.12-9 In accordance with Policy 7.7.2 of the Greenfield General Plan, the project Applicants' within the proposed annexation area shall cumulatively dedicate at least 4.46 acres for improved parks and recreation purposes, and shall contribute fees in-lieu of dedicated open space, in an amount determined as appropriate by the City.

Implementation of the above mitigation measure would reduce park and recreation impacts to a **less than significant** level by requiring adequate park and recreation facilities to serve the anticipated community at full buildout.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Groundwater Usage and Distribution

Impact 3.12-10 The cumulative increase in potable water demand, from groundwater sources, for all reasonably foreseeable projects is considered a **less than significant** impact.

Implementation of the proposed project, in combination with future area growth within the City of Greenfield Planning Area would increase the cumulative demand for water supply. The City of Greenfield General Plan (2005) indicated that buildout of the General Plan Area would result in an increase in annual water demand by 3,714 AFA, from 1,811 AFA to 5,525 AFA. The proposed project will increase potable water demand by approximately 468 AFA. Buildout of the General Plan Area plus the proposed project would result in a total potable water demand for the City of Greenfield of approximately 5,993 AFA. The General Plan also indicated that the City has the capacity to serve approximately 6,500 AFA with expansion of the system. Project Applicants would also be required to mitigate cumulative water system impacts through contribution of applicable impact fees. With this available supply, and the applicable impact fees, the increase in potable water demand will be **less than significant.**

Wastewater Treatment Facility

Impact 3.12-11 The cumulative increase in demand for wastewater treatment services would be 287,200 (gpd). This impact is considered **less than significant.**

With regard to cumulative impacts to the wastewater system, implementation of the proposed project in combination with future area growth and recently approved projects would increase the cumulative demand for wastewater treatment services and facilities beyond wastewater discharge permitted capacity. The City's *Wastewater System Capital Improvement Plan Update* (2004) indicates that future growth (buildout of the City of

Greenfield planning area) would result in Greenfield's wastewater capacity rising from about 0.9 MGD to 3.3 MGD. This increase would require wastewater treatment plant expansion to serve a capacity of approximately 3.5 MGD. Upon annexation of the proposed project site, the project will be included as part of the future growth area of the City and therefore would contribute to the increase in volume and usage of the wastewater treatment plant. Project Applicants would be required to mitigate cumulative water system impacts through contribution of applicable sewer impact fees. Individual developments within the annexation area would also be responsible for installing wastewater infrastructure to serve specific properties. Payment of applicable City fees for the wastewater system expansion as well as installation of adequate sewer lines would result in a **less than significant** impact.

REFERENCES/DOCUMENTATION

City of Greenfield. *City of Greenfield General Plan.* October 2005.

City of Greenfield. *City of Greenfield Zoning Ordinance.* 1981 as updated.

City of Greenfield. Wa*stewater System Capital Improvement Plan Update.* 2004.

City of Greenfield. *Water System Capital Improvement Plan Update.* 2004.

County of Monterey. *Monterey County General Plan.* 1982.

County of Monterey. *Central Salinas Valley Area Plan.* 1987.

Monterey County Water Resources Agency. *Salinas Valley Water Project Draft Environmental Impact Report / Environmental Impact Statement.* June 2001.

Creegan and D'Angello Consulting Civil and Structural Engineers. *Draft Engineering Feasibility Study.* December 9, 2005.

CA State Education Code. http://www.leginfo.ca.gov/calaw.html. December 2005

CA Integrated Waste Management Board. *Estimated Solid Waste Generation Rates.* http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/. February 2006

City of Greenfield. *Water System Expansion Initial Study / Mitigated Negative Declaration.* 2005.

City of Greenfield. *Wastewater System Expansion Initial Study / Mitigated Negative Declaration.* 2005.

Black, Art. Carmel Fire Protection Associates. City of Greenfield Fire Protection District. Personal Communication with William Heppler, PMC. February 22, 2006.

Grebmeier, Joe. Police Chief. City of Greenfield Police Department. Personal Communication with William Heppler, PMC. February 21, 2006.

Gunn, Dianna. Monterey County Emergency Communications. Personal Communication with William Heppler, PMC. February 23, 2006.

4.0 ALTERNATIVES TO THE PROJECT

4.1 GENERAL CEQA REQUIREMENTS

CEQA requires that a reasonable range of alternatives to the proposed project be described and considered within an EIR. The alternatives considered should represent scenarios that could feasibly attain most of the basic objectives of the project, but will avoid or substantially lessen any of the significant environmental effects. The purpose of this process is to provide decision makers and the public with a discussion of viable development options, and to document that other options to the proposal were considered within the application process (CEQA Guidelines, §15126.6).

CEQA requires that the lead agency adopt mitigation measures or alternatives, where feasible, to substantially lessen or avoid significant environmental impacts that would otherwise occur. Where a lead agency has determined that, even after the adoption of all feasible mitigation measures, a project as proposed will still cause significant environmental effects that cannot be substantially lessened or avoided, the agency, prior to approving the project as mitigated, must first determine whether, with respect to such impacts, there remain any project alternatives that are both environmentally superior and feasible within the meaning of CEQA.

CEQA provides the following guidelines for discussing project alternatives:

1. An EIR need not consider every conceivable alternative to a project. Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation (§15126.6(a)).

2. An EIR is not required to consider alternatives which are infeasible (§15126.6(a)).

3. The discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project (§15126.6(b)).

4. The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects (§15126.6(c)).

5. The EIR should briefly describe the rationale for selecting the alternatives to be discussed (§15126.6(c)).

6. The EIR shall include sufficient information about each alternative to allow meaningful evaluation, analysis and comparison with the proposed project (§15126.6(d)).

4.2 RELATIONSHIP TO PROJECT OBJECTIVES

The following is a summary of the primary objectives of the South End SOI Project, as stated by the project applicant and the City of Greenfield. The objectives provide an important benchmark in conducting the comparative alternatives analysis and the feasibility of each. As discussed previously, an alternative is only meaningful for consideration if it can meet the basic objectives of the project as proposed. Project objectives include the following:

- Annexation into the City of Greenfield, SOI Amendment, General Plan Amendment and pre-zoning of approximately 267 acres, as envisioned by the City of Greenfield General Plan and in accordance with LAFCO policies;
- Establish job-generating land uses in the southern portion of the City while avoiding areas of highest quality farmland;
- To establish the land use, environmental and processing framework for the planned development of residential uses, highway commercial uses and heavy industrial uses;
- To create a single-family residential neighborhood that would buffer the existing schools in the southern portion of the City from agricultural uses.
- To create a well designed, functional, revenue generating highway commercial travel center with a range of traveler-serving uses; and
- To promote a better jobs / housing balance within the City of Greenfield and Monterey County;

In addition, it is the objective of the City of Greenfield to facilitate planned development and community growth in accordance with the following:

- Contribute to the enhancement of the southern gateway entrance into the City of Greenfield;
- Enhance the character of the southern portion of the City by providing a transition between the surrounding fields and vineyards and the City;
- To plan for future urban growth in a manner consistent with the existing and updated General Plan and Zoning Code; and
- To be compatible with surrounding land uses.

4.3 PROJECT ALTERNATIVES

As identified within various sections of this EIR, the project would result in significant environmental impacts. However, the majority of impacts identified can be mitigated to a less than significant level with the adoption of mitigation measures as specified within this DEIR. Notwithstanding, this alternatives discussion briefly identifies and examines a range of alternatives as developed with City staff:

- Alternative 1 – "No Project" Alternative (No Development)
- Alternative 2 – "No Residential Development" Alternative
- Alternative 3 – "Original SOI Alternative"

Environmental impacts associated with each of the three alternatives are compared with impacts resulting from the proposed project. The impact level of the alternative as compared to the project (less, similar or greater) is noted in parentheses at the beginning of each comparison. **Table 4-1** at the conclusion of the Section provides a summary. This Section also includes identification of the "environmentally superior" alternative.

ALTERNATIVES ANALYSIS

ALTERNATIVE 1 – "NO PROJECT" (NO DEVELOPMENT)

CEQA Guidelines Section 15126.6(e)(3) requires that a "No Project" alternative be evaluated as part of an EIR, proceeding along one of two lines: the project site remaining in its existing undeveloped state; or development of the project site under existing underlying land use designations. The "No Development" Alternative in this case considers the comparative environmental effects of not approving the proposed project (and all related boundary adjustments), with the site remaining in its current agricultural state. All underlying land uses are agriculture and under County jurisdiction; as such, the project site would not be eligible for any significant development in the foreseeable future.

Comparative Analysis

3.1 Aesthetics and Visual Resources (less): No potential impacts to visual resources would occur, and views of distant mountain ranges would be preserved if the project site were to remain predominately in agricultural production. The existing rural character would continue unchanged under a no development scenario; however, the site is not located in a visually sensitive area, nor is it subject to policies designed to protect scenic resources. Overall, the visual and aesthetic impacts associated with the project would not occur.

3.2 Agricultural Resources (less): Continuing the present use of the site would eliminate the need for the SOI amendment, GPA and annexation. The "No Development" alternative

would also avoid the significant and unavoidable loss of Prime Farmland. Impacts resulting from the proximity of residential development and agricultural uses would not occur under this alternative. The Williamson Act Exchange Agreement would not be required, and all land currently under Williamson Act would remain in place.

3.3 Air Quality (less): The potentially significant short-term air quality impacts that would result from construction allowed by the project, including dust, mud and debris generated by construction activity, exposed or disturbed soil surfaces and stockpiles of materials, would not occur under this alternative. Impacts from planned industrial uses would not occur. The "No Development" alternative would also eliminate the significant and unavoidable impact of long-term regional emissions from the project, and potential toxic air contaminants. The continual use of tilling, discing and other use of agricultural equipment as part of the cultivation of crops results in the generation of fine particulate matter and reduced air quality in the project vicinity. However, compared to the significant effects of the project, the No Development alternative would result in a lesser degree of impact.

3.4 Biological Resources (less): Potentially significant impacts to various special status wildlife species would be less under this scenario, as the site would not be subject to site disturbance or construction/demolition activities. Although all biological impacts have been reduced to a less than significant level through the application of mitigation measures, under the "No Project" alternative, no potential impacts would occur and no mitigation would be required.

3.5 Cultural Resources (less): The potentially significant impacts to pre-historic, historic, or archaeological resources resulting from eventual site construction would not occur under this alternative, on-site conditions would remain unchanged.

3.6 Geology, Soils & Geologic Hazards (less): The potentially significant impacts relating to ground shaking, earthquake-induced settlement or adverse soil characteristics would not result with implementation of this alternative. Exposure of persons to seismic events would not occur under this alternative.

3.7 Hazards / Risk of Upset (similar): The project site has a history of agricultural use and warrants additional soil testing for possible contaminants. Continuing use of the site as undeveloped agricultural land would prevent the public or new urban uses from being introduced to site hazards. This alternative would also avoid or exposure to new hazardous materials from future commercial or heavy industrial uses. However, this alternative would also remove the incentive to prepare the site for urban use. Considering there have been no acute hazards recognized thus far, impacts with or without the project would be similar.

3.8 Drainage and Water Quality (less): The potential for increase in surface water runoff due to impervious surfaces would not occur under this scenario. The generation urban non-point contaminants would also not occur under the "No Development" scenario.

3.9 Land Use (less): Continuing the current use of the site would eliminate the need for the SOI amendment, General Plan Amendment and annexation. The "No Development" alternative would also eliminate the conflicts of the proposed land uses due the proximity of residential, development to existing agriculture that would not occur under this alternative nor would impacts result from land use compatibility issues internal to the project, proximity of industrial and commercial uses to residential uses.

3.10 Noise (less): The potentially significant short-term impact of noise generated by eventual construction activities and the ongoing impacts of noise generated by residential traffic, the planned highway commercial and heavy industrial uses would not occur under this alternative. The "No Development" alternative would also eliminate the potentially significant exterior noise impact on the proposed residential dwelling units.

3.11 Traffic and Circulation (less): The potentially significant impacts of increased traffic within the vicinity of the project would not occur under this alternative. The "No Development" alternative would eliminate the increase in deterioration in existing delays and levels of service of existing intersections from the proposed project. No new interchange would be needed in the General Plan Buildout scenario.

3.12 Public Services and Utilities (less): Neither project-specific groundwater impacts nor the project's contribution to cumulative groundwater impacts would occur with a "No Development" alternative. This alternative would eliminate the projects increased demand on the City's water supply. The potential impacts to water and sewer services, solid waste collection, law enforcement and fire services, available park space, schools and utilities would not occur under a "No Development" alternative as there would be no increased demand for these services.

ALTERNATIVE 2 – NO RESIDENTIAL DEVELOPMENT

This alternative assumes a reduction in the overall size of the proposed project by eliminating the 47 acres (329 units) of low density residential on the west side of the highway (Scheid West parcel). The Sphere of Influence line west of Highway 101 would remain unchanged as shown in the City's adopted General Plan. Like the proposed project, as mitigated, this alternative assumes buildout of the Highway Commercial and Heavy Industrial portion of the project in phases. The intent of this alternative is to reduce significant impacts associated with the project by removing potentially sensitive receptors (new residences).

Comparative Analysis

3.1 Aesthetics and Visual Resources (similar): Potentially significant impacts associated with aesthetics and visual character, and excess light and glare may be reduced under this alternative, but only marginally. The major visual features of the project are associated with the highway commercial development, which will remain unchanged by this alternative..

3.2 Agricultural resources (less): Compared to the proposed project, this alternative would convert 46 fewer acres of land that is currently in active agriculture.

3.3 Air Quality (less): Most of the potentially significant short-term air quality impacts that would result from the construction of the project would still occur under this alternative, as the majority of the project would still be constructed. However, the alternative would result in fewer vehicle trips (from elimination of over 300 homes), and therefore would have fewer vehicle emissions overall. The elimination of housing also limits the exposure of new development from adjacent sources of pollutants.

3.4 Biology (less): Potentially significant impacts to potential wildlife species and habitats would still exist under this alternative and the same mitigation strategies would apply; but the overall area of potential impact would be reduced by 46 acres.

3.5 Cultural Resources (similar): No significant impacts to historic, cultural or archaeological resources are expected to occur under this alternative or the project, other than the unlikely, but possible, discovery of buried resources during construction. Based on the site conditions and the archaeological findings, the impact potential with or without this 46 acres is essentially the same.

3.6 Geology, Soils & Geologic Hazards (less): Decreased building area under this alternative would reduce the potentially significant impacts from exposure of people to seismic hazards, due to the elimination of the residential dwelling units from the project.

3.7 Hazards / Risk of Upset (similar): While a reduced number of people would occupy the site under this alternative, the existing identified hazards would pose risks similar to the proposed project. Similar mitigation measures would be necessary to remediate the project site if warranted. Elimination of the residential component of the project would leave the site in agricultural use.

3.8 Drainage and Water Quality (less): While similar mitigation measures will be required, the elimination of the proposed residential development from the proposed development will decrease the total amount of impervious surfaces, lessening the impact on the entire project site.

3.9 Land Use (similar): The primary issue related to land use is the project's consistency with City planning documents and LAFCO policy. This alternative, although it eliminates 46 acres of development area, would face the same essential issues of general plan consistency, land use, agricultural land conversion and provision of services. Impacts would essentially be the same as the project.

3.10 Noise (less): Potentially significant impacts associated with implementation of the project would be reduced under this alternative. Similar mitigation measures would be required to reduce construction-related impacts, however impacts would be reduced the removal of new sensitive receptors (residences). Mitigation to shield new residences would not be required under this alternative as the primary impact of the project would be avoided.

3.11 Traffic and Circulation (less): The elimination of the residential land uses would reduce the traffic improvements needed west of Highway 101 along El Camino Real, and reduce the total number of trips generated by the project. However, major improvements (such as the new interchange at Espinosa) would still be triggered at General Plan buildout.

3.12 Public Services and Utilities (less): In terms of the environmental impacts, this alternative would result in a reduction in development density (elimination of low density residential units) and would decrease the demand for law enforcement and fire protection services, solid waste collection, water and sewer service.

ALTERNATIVE 3 – "ORIGINAL SOI" ALTERNATIVE

Alternative 3 assumes that the Highway Commercial and Heavy Industrial components of the South End SOI project on the east side of Highway 101 would be relocated to the industrial area of the City's General Plan planning area in the southeast section of the City. The residential component (and amended SOI on the west side of Highway 101) would remain as proposed. The purpose of this alternative is to fit the proposed uses into the City's General Plan planning area as adopted in May 2005, without amending the SOI to the south along the freeway.

Comparative Analysis

3.1 Aesthetics and Visual Resources (less): Potentially significant impacts associated with aesthetics and visual character and excess light and glare would be slightly reduced in this scenario since the area of development (and potential visual effect) would be located further from the freeway (a primary viewing area). New development would not be stretched southward along the freeway.

3.2 Agricultural resources (greater): One of the City's goals in processing a General Plan amendment for the southeast corner of the Planning Area is to remove this area of very

high agricultural value from the City's planning area. As such, Alternative 3 would result in greater impacts to a high-value agricultural resource.

3.3 Air Quality (similar): Buildout of the project in this alternative location would not significantly effect the type or quantity of emissions from the proposed land uses. Impacts would therefore be similar.

3.4 Biology (similar): Alternative 3 would result in urbanization of approximately the same amount of land area as compared to the project. This alternative would not avoid any specific or unique biological resources. Impacts would therefore be similar.

3.5 Cultural Resources (similar): No significant impacts to historic, cultural or archaeological resources are expected to occur under this alternative or the project, other than the unlikely, but possible, discovery of buried resources during construction. Based on the site conditions and the archaeological findings, the impact potential of building the project at this alternative location would be similar.

3.6 Geology, Soils & Geologic Hazards (similar): Soil types vary between locations in and around Greenfield; however, the relocation of the project to the City's "adopted" plan area would not significantly affect the project or exposure to geologic or soil-related hazards.

3.7 Hazards / Risk of Upset (similar): The site conditions in the southeast corner of the City's "adopted" plan area are similar to site conditions. Although a Phase I has not been conducted in this alternative area, its historic use as agriculture would be expected to yield similar conditions and therefore similar impacts to future development.

3.8 Drainage and Water Quality (similar): Considering that the same amount of land area would be developed under this alternative, upon similar topographic conditions, it can be expected that similar drainage improvements and basins would be required to control project runoff.

3.9 Land Use (greater): The primary issue related to land use is the project's consistency with City planning documents and LAFCO policy. This alternative would place the majority of new development on an area identified by LAFCO as extremely high quality farmland. As such, the impact relative to LAFCO policy would be greater.

3.10 Noise (similar): Relocating the project to the "adopted" southeast corner of the City would not reduce traffic trips or noise sources. Noise impacts relative the residential area would be identical to the project, and noise sources created by the Highway Commercial and Industrial acreage in the relocated project area would be very similar.

3.11 Traffic and Circulation (greater): Assuming the ultimate development of land uses under Alternative 3 as compared to the project, it is assumed that total trip generation

would be the same. The trip distribution on the roadway network, however, would be significantly different.

If the project land uses were developed in the southeast corner of the adopted General Plan, a significant portion of the vehicle trips from the project would be expected to make their way to the freeway via Oak Avenue, resulting in significant, unanticipated traffic impacts to the City's roadway network and intersections. Highway 101 interchange improvements would also be required at the south end of the project. Although a new interchange at Espinosa Road would probably not be necessary with the project located further north, that major improvement would serve to spread the distribution of traffic to a larger area. Without that improvement at buildout, the overall effect and impact to the City's roadway system would be expected to be more severe under Alternative 3.

3.12 Public Services and Utilities (less): The project as proposed is located in an area that results in engineering challenges to public service systems; particularly sewer extension. Although these challenges can be overcome through engineering and design, the project location under Alternative 3 would place the developed area closer to existing service connections and closer to the wastewater treatment plant.

4.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines Section 15126.6(e)(2) requires that the environmentally superior alternative be identified. If the environmentally superior alternative is the "No Project" Alternative, the EIR shall also identify an environmentally superior alternative among other alternatives. In this case, Alternative 1, "No Project-No Development," represents the environmentally superior alternative because, as determined from the above analysis, most impacts would be reduced relative to the proposed project. From the remaining options, Alternative 2, the "No Residential Development" alternative would be the environmentally superior alternative and would result in greater reductions in number and degree of environmental impacts as compared to the proposed project and other alternatives. This is due primarily to the fact that residential uses result in the introduction of more "sensitive receptors" to impacts. In addition, Alternative 2 reduces the total acreage to be developed and thus has an overall reduction in the degree of impact in most impact categories.

The viability of such an alternative is uncertain. The proposal is sponsored by two primary landowners, one of which holds the property proposed for residential development. It is unknown to the City at this time if the SOI amendment as proposed requires the residential component to be viable. If the residential component were removed, the City's plans for making a logical SOI adjustment on the west side of the City would be compromised. A summary matrix below as **Table 4-1**, which compares each alternative with the proposed project.

TABLE 4-1
COMPARISON OF PROJECT ALTERNATIVES TO THE PROPOSED PROJECT

Environmental Category	Alt. 1 "No Project, No Development"	Alt. 2 "No Residential"	Alt. 3 "Original SOI Location"
Aesthetics and Visual Resources	Less	Similar	Less
Agricultural Resources	Less	Less	Greater
Air Quality	Less	Less	Similar
Biological Resources	Less	Less	Similar
Cultural Resources	Less	Similar	Similar
Geology, Soils and Geological hazards	Less	Less	Similar
Hazards / Risk of Upset	Similar	Similar	Similar
Drainage and Water Quality	Less	Less	Similar
Land Use	Less	Similar	Greater
Noise	Less	Less	Similar
Traffic and Circulation	Less	Less	Greater
Public Services and Utilities	Less	Less	Less
Consistency with Project Objectives	Less consistent	Less consistent	Less consistent

Greater = Impacts of greater number or degree would occur, as compared to the proposed project.
Less = Impacts of fewer number or lesser degree would occur, as compared to the proposed project.
Similar = Impacts similar in number or degree would occur, as compared to the proposed project. .
Consistent = Alternative would be consistent with stated Project Objectives.
Less Consistent = Alternative would be less consistent with stated Project Objectives.

5.0 Cumulative Impacts Summary

This section of the EIR identifies the cumulative impacts associated with the South End SOI project as statutorily required by CEQA. The following discussion considers the impacts of the relevant environmental areas, where significant cumulative effects have been identified. This information is summarized from the various analyses from **Section 3.0** of this EIR.

5.1 ANALYSIS REQUIREMENT

CEQA GUIDELINES

CEQA requires that an EIR contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130, "an EIR shall discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable." "Cumulatively considerable" means that the incremental effects of an individual project are considerable when viewed in relation with the effects of past projects, the effects of other current projects, and the effects of probable future projects. As defined in CEQA Guidelines Section 15355, cumulative impacts refer to two or more individual effects which, when considered together, are substantial or which compound or increase other environmental impacts. A cumulative impact occurs from:

> *...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 future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.*

In addition, Section 15130(b) identifies that the following three elements are necessary for an adequate cumulative analysis:

1. Either:

   (A) A list of past, present, and probably future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency, or

   (B) 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. Any such planning document shall be referenced and made available to the public at a location specified by the lead agency;

2. A summary of the expected environmental effects to be produced by those projects with specific reference to additional information stating where that information is available, and

3. A reasonable analysis of the cumulative impacts of the relevant projects. An EIR shall examine reasonable, feasible options for mitigating or avoiding the project's contribution to any significant cumulative effects.

Where a lead agency is examining a project with an incremental effect that is not "cumulatively considerable," a lead agency need not consider that effect significant, but shall briefly describe its basis for concluding that the incremental effect is not cumulatively considerable. CEQA Guidelines Section 15130(a) also states the following with regard to cumulative impacts that are not significant:

- An EIR is not required to discuss impacts that do not result in part from the project evaluated in the EIR (Section 15130(a)(1)).

- When the combined cumulative impact associated with the project's incremental effect and the effects of other projects is not significant, the EIR shall briefly indicate why the cumulative impact is not significant and is not discussed in further detail in the EIR (Section 15130(a)(2)).

- An EIR may determine that a project's contribution to a significant cumulative impact will be rendered less than cumulatively considerable and thus is not significant. A project's contribution is less than cumulatively considerable if the project is required to implement or fund its fair share of mitigation measure or measures designed to alleviate the cumulative impact (Section 15130(a)(3)).

CEQA Guidelines (Section 15130(b)(1)) requires the use of one method of cumulative analysis from two choices offered: a list of known past, present and probable future projects in the area or a summary of projections contained in adopted municipal plans and planning documents. For the purposes of cumulative impact analysis for this EIR, the list method is used. Relative to this method, CEQA Guidelines state the following:

1. When utilizing a list...factors to consider when determining whether to include a related project should include the nature of each environmental resource being examined, the location of the project and its type. Location may be important, for example, when water quality impacts are at issue since projects outside the watershed would probably not contribute to a cumulative effect. Project type may be important, for example, when the impact is specialized, such as a particular air pollutant or mode of traffic.

2. Lead agencies should define the geographic scope of the area affected by the cumulative effect and provide a reasonable explanation for the geographic limitation used (§§15130(b)(1)(A)1., 2., 3).

5.2 CUMULATIVE IMPACT ANALYSIS AND ASSUMPTIONS

Based on existing site conditions and site-specific impacts, an assessment of the project's contribution to cumulative impacts was discussed for each of the topic areas addressed in **Section 3.0, Environmental Setting, Impacts and Mitigation Measures.** Impacts associated with cumulative development were analyzed based on the project's effects, combined a summary of projections in the adopted City of Greenfield General Plan. According to the General Plan, full build-out would involve urban development of approximately 2,400 acres with multiple land uses, supporting a "worst case" buildout population of up to 36,000 people by the year 2025.

AESTHETICS AND VISUAL RESOURCES

Cumulative Impact to Scenic Resources and Visual Character

Impact 3.1-5 Project buildout will incrementally add to ongoing changes to Greenfield's aesthetic and visual character. This is **a significant and unavoidable cumulative impact.**

This impact was previously identified in the City of Greenfield's General Plan EIR. That document found that despite policies to improve design standards and quality of the built environment, changes resulting from the General Plan will result in an unavoidable change to the existing aesthetics and agricultural character of the City. The South End SOI EIR, as an extension of the City's planning area and sphere of influence, will also contribute incrementally to this change on a city-wide basis. Consistent with the findings of the General Plan EIR, the Conservation, Recreation and Open Space Element and related polices and programs address visual resources and urban design. Despite these regulations, the amount of change, pace of change will be significantly altered by General Plan buildout. As a large project being added to the ultimate General Plan boundary, the South End SOI project is considered a significant contributor to that city-wide impact.

Agricultural Resources

Cumulative Loss of Farmland

Impact 3.2-4 The proposed project would convert approximately 214 acres of agricultural land to urban uses. This loss would contribute to the cumulative loss of farmland in the region. This considered a **significant and unavoidable cumulative impact.**

Growth and development within the region will lead to the irreversible conversion of important farmland, on a scale of thousands of acres. Greenfield's General Plan will

contribute to the cumulative conversion of farmland when analyzed as a regional issue. The County of Monterey has experienced an 18 percent decrease (271,320 acres) in the amount of `Prime Farmland´ between 1997 and 2002 from the conversion of farmland to urban uses. The proposed project would contribute to the on-going conversion of prime agricultural land in Monterey County to urbanized uses by converting approximately 214 acres of agricultural land to commercial uses. The proposed project would therefore contribute to the cumulative conversion of farmland to urban uses and would result in a **significant and unavoidable** impact for which there is no feasible mitigation measure to reduce the impact to a less than significant level.

AIR QUALITY

Impact 3.3-7 New development, combined with other reasonably foreseeable projects in the City, would contribute to increased air quality emissions in the air basin. This cumulative impact is **significant and unavoidable.**

The project's contribution to a significant cumulative air quality impact would be significant and unavoidable. The Association of Monterey Bay Area Governments (AMBAG) made findings of project consistency with the regional air quality management. MBUAPCD CEQA Guidelines provide that a consistency analysis and determination serve as an assessment of the cumulative impacts of a project on regional air quality. AMBAG has determined that the proposed project is consistent with the AQMP. However, as identified in Impact 3.3-3 operational/regional emissions from buildout of the proposed project would result in a significant and unavoidable impact. In addition, the City of Greenfield General Plan EIR identified that regional emissions for the Planning Area were significant and unavoidable. The project site is currently located outside of the City of Greenfield limits; addition of the proposed project site would cause the regional emissions for the City to remain significant and unavoidable. Therefore the cumulative impact of the project is considered to be **significant and unavoidable.**

BIOLOGICAL RESOURCES

Impact 3.4-3 Development of the project location, in addition to anticipated cumulative development in the project vicinity, would result in disturbance to special status species and sensitive habitats throughout the region. These impacts would be considered **cumulative and potentially significant.**

As presented in the impact discussion above, implementation of the proposed project would result in a loss of habitat and contribute to biological resource impacts, including disturbance of special status species. Anticipated development and urban expansion of the area is expected to further contribute to these impacts and is considered potentially cumulative significant for impact to biological resources. City-wide impacts of General Plan

buildout have been analyzed in the City's General Plan EIR. Findings regarding city-wide impacts have been made and adopted by the City of Greenfield, recognizing long term changes within the City.

Implementation of measures MM 3.4-1 and MM 3.4-2 would reduce the project's overall contribution to cumulative biological resource impacts to a **less than significant** level. As mitigated, and based on the limited biological resources and habitat values at the site, the project's contribution is not cumulatively considerable. The project addresses site-specific biological resources consistent with the implementation measures set forth in the General Plan.

TRAFFIC AND CIRCULATION

General Plan Buildout Plus Project Buildout Traffic Conditions

Intersection Levels of Service

Impact 3.11-4 Full buildout of all phases of the project as proposed, together buildout of the Greenfield General Plan land uses, will cause several study intersections to operate below LOS C or D during the AM and/or PM peak hour. This cumulative buildout condition triggers the need for significant improvements to the City's roadway network, including a new freeway interchange at Highway 101 and Espinosa Road. The project's contribution to these impacts and required improvements is **significant.**

With the addition of the project, the existing Patricia Lane /El Camino Real (South) Overpass will not be able to provide adequate capacity. The limited land availability on the west side of the interchange and the close spacing of the interchange ramps to the main line, limits improvement opportunities that would meet Caltrans standards without acquiring several developed properties in the vicinity of the interchange, which may not be feasible. The existing bridge would also have to be widened or reconstructed.

The entire impact discussion is contained in Section 3.11. Based on these cumulative (project plus General Plan Buildout) impacts, the following mitigation measures were identified:

MM 3.11-4a The project shall be responsible for providing a new interchange at Highway 101 and Espinosa Road, including all related ramp improvements, lane configurations and necessary right of way acquisition as specified in the Traffic Impact Analysis (Higgins Associates, February 2006). The interchange shall be required at such time as traffic trips associated with project development warrant the improvement. As the interchange is not warranted without the project, the project shall fund

the cost of the interchange up front until such time as reimbursement agreements, bonds, fees or other shared funding options are put in place by the City of Greenfield.

MM 3.11-4b The project shall be responsible for fair share contribution toward a series of planned intersection improvements as identified within the Greenfield General Plan Circulation Element. Fifteen intersections, as identified in the Traffic Impact analysis (Higgins Associates, February 2006) are significantly affected by project buildout. The project shall contribute fair share funding toward these intersection improvements through payment of traffic impact fees prior to issuance of building permits. If the project triggers these improvements, the project may also be required to provide up front funding until such time as reimbursement agreements, bonds, fees or other shared funding options are put in place by the City.

Roadway Segment Levels of Service

Impact 3.11-5 Full buildout of all phases of the project as proposed, together buildout of the Greenfield General Plan land uses, will cause several roadway segments to operate at LOS E or F. As the City's standard for segment operation is LOS C (and in some cases D), this is a **significant** impact.

MM 3.11-5 The project shall be responsible for fair share contribution toward a series of planned roadway segment improvements as identified within the Greenfield General Plan Circulation Element. Roadway segments, as identified in the Traffic Impact analysis (Higgins Associates, February 2006) are significantly affected by project buildout. The project shall contribute fair share funding toward these segment improvements through payment of traffic impact fees prior to issuance of building permits. If the project triggers these improvements, the project may also be required to provide up front funding until such time as reimbursement agreements, bonds, fees or other shared funding options are put in place by the City.

Roadway Network Expansion

Impact 3.11-6 Implementation of the project will require modifications to the Greenfield's roadway network at the south end of City. Expansion of the City's planned roadway network to accommodate land uses within the Sphere of Influence Amendment is a **significant** impact of project buildout.

Influence line. Thirteenth Street would then extend eastwards along the southern boundary of the Sphere of Influence up to El Camino Real. This new street would provide access to both the Residential Estate and Low Density Residential uses. The end result would be a "loop" configuration around the south end of the City. The mitigated General Plan Buildout Plus Project conditions (segment volumes and levels of service) are illustrated in **Figure 3.11-6.**

As a secondary effect of the project, the City of Greenfield's traffic impact fee program and General Plan circulation element will require updates to reflect the expanded roadway network.

MM 3.11-6a Detailed site planning within the South End SOI area shall accommodate plans for the expanded roadway network and "loop" connection system. Circulation planning shall be conducted in consultation with the Director of Public Works at the time of application submittal, and shall be consistent with the Circulation Element. Any project requiring the expanded roadways will be required to dedicate right of way and construct roads to City standards.

MM 3.11-6b Prior to the City's application to LAFCO to amend the SOI, the project applicant shall contribute a share of the costs associated with updating the General Plan Circulation Element, as the update is required as a direct result of the project. Appropriate share will be determined by the City of Greenfield.

MM 3.11-6c Immediately upon approval of the project by the City of Greenfield, the applicant shall fund the full cost of updating the City's traffic impact fee program, as the update is required as a direct result of the project.

General Plan Buildout Plus Project Traffic Conditions – Highway 101 Traffic Volumes

Impact 3.11-7 With full General Plan buildout plus Project traffic, additional widening on Highway 101 to six lanes would be required. This is a **significant impact.**

The project is estimated to generate approximately 32,000 daily trips. It is expected that 40 percent of the trips will travel northbound and 30 percent southbound on Highway 101, from the new Espinosa Road interchange.

Recent proposed developments in King City revealed some increased traffic forecasts on Highway 101 and these traffic numbers were used to calculate the corresponding levels of service for Highway 101 north and south of Greenfield. There is an increase in Highway 101 volumes, especially south of Greenfield based on the proposed King City

Developments, which also impacts Highway 101 through the City. The most recent volumes are only estimates and have not been approved by any regional agency. The current Caltrans acceptable LOS is C.

With the project volumes added to Highway 101 at General Plan buildout, additional widening to six lanes would be required through the City between the Walnut Avenue interchange and the Thorne Road interchange based on volume thresholds. Increased volumes between Walnut Avenue and Oak Avenue and the short distance between these interchanges may also require widening to six lanes based on adverse operational conditions. This is an impact attributable to the project. The need for additional lanes north of Thorne Road would be required with or without the project based upon projected cumulative volumes for Highway 101.

The new Espinosa Road interchange would be located approximately one mile south of the Oak Avenue interchange, no highway widening between Oak Avenue and the interchange would be required. South of the Espinosa interchange, the freeway would be upgraded from a four lane expressway to a four lane freeway. This is not a project impact, since the freeway would operate at LOS D without the project and would have to be upgraded.

There is currently no fee collection mechanism in place by the City, TAMC or Caltrans for the funding of Highway 101 widening projects within or outside the City. Widening of the highway would be considered a major capital project, and no calculations have been made regarding the cost of such improvements. As such, project mitigation for widening the freeway through the City (or contributing towards a regional widening project north of the City) is considered infeasible until such time that the City establishes an impact fee specifically to be used toward freeway mainline widening. Until such a fee is in place, the project impact on the freeway between Thorne Road and Oak Avenue, as well a project contribution to cumulative freeway impacts north of Thorne Road, is considered **significant and unavoidable.**

6.0 Other Sections Required by CEQA

This section discusses the long-term implications of the project as required by CEQA. The topics discussed include significant irreversible environmental changes/irretrievable commitment of resources, growth-inducing impacts and significant and unavoidable environmental effects.

6.1 IRREVERSIBLE ENVIRONMENTAL CHANGES

CEQA REQUIREMENT

Public Resources Code Section 21100(b)(2)(B) requires an Environmental Impact Report to include a detailed statement setting forth any significant effects on the environment that would be irreversible if a project is implemented. Examples of irreversible environmental changes, as set forth in CEQA Guidelines Section 15126.2(c), include the following:

- The project would involve a large commitment of nonrenewable resources such that removal or nonuse thereafter is unlikely;
- The primary and secondary impacts of a project would generally commit future generations to similar uses (e.g. a highway providing access to a previously inaccessible 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 the wasteful use of energy).

A proposed project would result in significant irreversible effects if it is determined that key resources would be degraded or destroyed to the extent that there is little possibility of restoring them. Irreversible environmental changes should be evaluated to assure that such current consumption is justified (CEQA Guidelines Section 15126.2(c)).

ANALYSIS

The proposed South End project would result in increased intensity of development, with the conversion of currently agricultural land to residential, highway commercial, and industrial uses. A variety of nonrenewable and limited resources would be irretrievably committed for project construction and maintenance, including, but not limited to, oil, natural gas, gasoline, lumber, sand and gravel, asphalt, steel, water, land, energy, construction materials and human resources. In addition, the project would result in an increase in demand on public services and utilities. Many of the mitigations in this EIR require the expenditure of nonrenewable resources in addition to those described above; however, when compared with long-term impacts of not completing the mitigations, it is

generally assumed that more significant impacts would occur if the mitigations were not implemented. For this reason, and for the reasons described in the sections above, it is clear that the mitigations have less of an impact than those impacts they are meant to address.

An increase in the intensity of land uses on the site would result in an increase in regional electric energy consumption to satisfy additional electricity demands from the project. These energy resource demands relate to initial project construction, transport of people and goods, and lighting, heating and cooling of buildings. The construction of all buildings onsite would be required to meet standards set by the California Building Code for energy efficiency. It is also anticipated that the project area would likely reduce its energy use in the future as technological improvements for energy efficient design get implemented..

Development of the site to support urban uses may be regarded as a permanent and irreversible change. Parts of the site were historically used for farm labor housing and are currently vacant agricultural lands. Site development would essentially eliminate future agricultural activities on the site except for agricultural processing activities that may fit the Heavy Industrial zoning designation on the east side of Highway 101. Grading, utility extensions, drainage improvements, new and improved roadways and construction of buildings would permanently alter the character of the site to one that is urbanized. The project would generally commit future generations to similar urban uses on the site.

6.2 GROWTH INDUCING IMPACTS

CEQA REQUIREMENT

Public Resources Code Section 21100(a)(5) requires that the growth-inducing impacts of a project be addressed in the EIR. A project may be growth-inducing if it directly or indirectly fosters economic or population growth or additional housing, removes obstacles to growth, taxes community services facilities or encourages or facilitates other activities that cause significant environmental effects (CEQA Guidelines Section 15126.2(d)). Direct growth-inducing impacts result when the development associated with a project directly induces population growth or the construction of additional developments within the same geographic area. These impacts may impose burdens on a community or encourage new local development, thereby triggering subsequent growth-related impacts.

The analysis of potential growth-inducing impacts includes a determination of whether a project would remove physical obstacles to population growth. This often occurs with the extension of infrastructure facilities that can provide services to new development. Indirect growth-inducing impacts result from projects that serve as catalysts for future unrelated development in an area. Development of public institutions, such as colleges, and the

introduction of employment opportunities within the same geographic area are examples of projects that may result in direct growth-inducing impacts.

CEQA provides no criteria for determining if induced growth is detrimental or beneficial. Induced growth is considered a significant impact only if it directly or indirectly affects the ability of agencies to provide needed public services, or if it can be demonstrated that the potential growth could significantly affect the environment in some other way.

ANALYSIS

Extension of Utility Systems

Impact 6.0-1 Extension of potable water delivery and wastewater collection systems to serve the project site may directly or indirectly create additional pressure to develop lands adjacent to these service lines. This is considered a **less than significant** growth-inducing impact.

The project area is adjacent to the southern boundary of the Greenfield Sphere of Influence. The project site is also adjacent to developed and developing areas within the City, which have existing water and wastewater services. The proposed project would extend these services throughout the project site. The water and wastewater services would not be permitted by the City to extend beyond the project boundary into the surrounding parcels not located within the City limits. The proposal is consistent with AMBAG estimates and will help provide a jobs and housing balance within the City of Greenfield. For those reasons noted above, implementation of the proposed project is considered to have a **less than significant** growth inducing impact on the surrounding area.

Annexation of Future Residential Areas

Impact 6.0-2 Implementation of the South End Annexation will yield approximately 329 new residential units and 1,316 residents. This is a **less than significant** growth-inducing impact.

According to *2004 Regional Population and Employment Forecast for Monterey, San Benito and Santa Cruz Counties* (AMBAG 2004), the City of Greenfield had a projected population of 15,097 by 2005 and 24,512 by 2020. According to the California Department of Finance, Greenfield had a population of 13,136 on January 1, 2005 – almost 2,000 fewer people than projected by AMBAG in 2004. The addition of 1,316 additional people due to the housing proposed on the project site would increase the City's total population to 14,452 from the January 1, 2005 total. Although there is some housing currently under construction within the City that will result in additional housing supply in the near term, it is not anticipated that the total population of the City would exceed

AMBAG estimates. Therefore, the proposed project would result in a **less than significant** impact to population growth in the area.

Development of Commercial and Heavy Industrial Land Uses

Impact 6.0-3 The development of a Highway Commercial and Heavy Industrial uses on the project site may introduce employment opportunities and directly or indirectly create additional pressure to develop lands adjacent to the project site. This is considered a **less than significant** impact.

The proposed development of approximately 170 acres of Highway Commercial and Heavy Industrial uses would introduce new employment opportunities into the City. It is anticipated that any employment opportunities created by the development will be offset by the increased number of housing units built within the City in the last few years and the included housing units that would be built as part of the project. Areas north of the project site are located within the designated Greenfield Planning Area and have already been developed or are designated for urban uses including schools, industrial, and commercial. The City of Greenfield is in the process of updating its General Plan to include the area west of the project in its Sphere of Influence for housing and areas south of the Scheid West portion of the project and east of the Scheid East portion of the project are being proposed as a Future Planning Area. These areas are primarily used for agricultural purposes and with exception of lands west of the Scheid West portion of the project area, would remain outside the amended Sphere of Influence. Any future development into these areas would require City and LAFCO approval. Therefore, the employment opportunities created by the construction of the proposed Highway Commercial and Heavy Industrial uses is not anticipated to create additional pressure to develop lands adjacent to the project, as such this impact is **less than significant.**

6.3 SIGNIFICANT AND UNAVOIDABLE ENVIRONMENTAL EFFECTS

Public Resources Code Section 21100(b)(2)(A) requires an EIR to include a detailed statement setting forth any significant effects on the environment that cannot be avoided if a project is implemented. CEQA Guidelines Section 15126.2(b) states that such impacts include those, which can be mitigated but not reduced to a level of insignificance. In addition, Section 15093(a) of the CEQA Guidelines allows the decision-making agency to determine if the benefits of a proposed project outweigh the unavoidable adverse environmental impacts of implementing the project. The City of Greenfield can approve a project with unavoidable adverse impacts if it prepares a "Statement of Overriding Considerations" setting forth the specific reasons for making such a judgment. Based upon the environmental analysis provided in **Section 3.0**, the proposed project would result in the following significant and unavoidable environmental effects:

AESTHETICS AND VISUAL RESOURCES

Cumulative Impact to Scenic Resources and Visual Character

Impact 3.1-5 Project buildout will incrementally add to ongoing changes to Greenfield's aesthetic and visual character. This is **a significant and unavoidable** cumulative impact.

This impact was previously identified in the City of Greenfield's General Plan EIR. That document found that despite policies to improve design standards and quality of the built environment, changes resulting from the General Plan will result in an unavoidable change to the existing aesthetics and agricultural character of the City. The South End SOI EIR, as an extension of the City's planning area and sphere of influence, will also contribute incrementally to this change on a city-wide basis. Consistent with the findings of the General Plan EIR, the Conservation, Recreation and Open Space Element and related polices and programs address visual resources and urban design. Despite these regulations, the amount of change, pace of change will be significantly altered by General Plan buildout. As a large project being added to the ultimate General Plan boundary, the South End SOI project is considered a significant contributor to that city-wide impact.

AGRICULTURAL RESOURCES

Conversion of Prime Farmland

Impact 3.2-1 The South End project will result in the eventual conversion of approximately 217 acres of Prime Farmland to urban uses. This impact is a **significant and unavoidable** impact of the proposal.

With prime farmland surrounding the existing City of Greenfield, the City recognizes that any growth beyond the existing City limits will result in significant impacts relative to conversion. However, the City has attempted to minimize those impacts through the efficiency of the land use pattern proposed, as well as the Goals, Policies and Programs of the Land Use and Conservation, Recreation and Open Space Elements that promote the long-term viability of agricultural within and adjacent to the City. The South End SOI project adds additional farmland acreage to the City that will be converted. There are, however, other mitigating circumstances specific to this project such as the Williamson Act Exchange Program and the pending General Plan Amendment outlined in Section 3.2. Regardless of these mitigating circumstances, the City acknowledges that the project area itself would result in the physical conversion of prime farmland, and that such conversion would be an unavoidable environmental consequence. Although the City has incorporated a series of planning measures into the General Plan itself that recognize agriculture as an important resource, this impact is considered a **significant and unavoidable** consequence of the project.

Cumulative Loss of Farmland

Impact 3.2-4 The proposed project would convert approximately 214 acres of agricultural land to urban uses. This loss would contribute to the cumulative loss of farmland in the region. This considered a **significant and unavoidable** cumulative impact.

Growth and development within the region will lead to the irreversible conversion of important farmland, on a scale of thousands of acres. Greenfield's General Plan will contribute to the cumulative conversion of farmland when analyzed as a regional issue. The County of Monterey has experienced an 18 percent decrease (271,320 acres) in the amount of `Prime Farmland´ between 1997 and 2002 from the conversion of farmland to urban uses. The proposed project would contribute to the on-going conversion of prime agricultural land in Monterey County to urbanized uses by converting approximately 214 acres of agricultural land to commercial uses. The proposed project would therefore contribute to the cumulative conversion of farmland to urban uses and would result in a **significant and unavoidable** impact for which there is no feasible mitigation measure to reduce the impact to a less than significant level.

AIR QUALITY

Operational Emissions

Impact 3.3-3 Operational emissions associated with buildout of the proposed Residential, Commercial and Industrial uses would result in emissions of criteria air pollutants. Project-generated emissions would exceed MBUAPCD's significance thresholds. This is considered a **significant and unavoidable** impact.

Regional area and mobile source emissions associated with the proposed land uses were estimated using the ARB-approved URBEMIS2002 (version 8.7) computer program, which is designed to model emissions for land use development projects. The vehicle trip characteristics for the North Central Coast Air Basin, as identified in the MBUAPCD's *CEQA Air Quality Guidelines*, were included in the model. Vehicle trip generation rates for proposed land uses were based on data obtained from the transportation analysis prepared for this project (Higgins Associates 2005). In accordance with MBUAPCD recommendations, long-term operational emissions attributable to the proposed project were quantified assuming full buildout for both summer and winter conditions. To ensure a conservative analysis, project-generated emissions were estimated based on year 2010 emission factors.

Based on the modeling conducted, predicted long-term direct and indirect operational emissions of ROG, NO_x, and PM_{10} would exceed MBUAPCD significance thresholds.

Long-term operational emissions of CO and SO_x from direct sources were not estimated to exceed MBUAPCD significance thresholds. However, the URBEMIS2002 model does not take into account onsite mobile source emissions that sometime occur associated with some commercial or industrial land uses that involve use of large numbers of onsite mobile equipment (e.g., distribution facilities, agricultural packaging facilities, truck stops). As a result, should proposed development include uses that involve the substantial use of onsite mobile equipment, long-term direct emissions of CO associated with proposed commercial and industrial land uses may exceed MBUAPCD significance thresholds. Because project-generated emissions would exceed MBUAPCD significance thresholds, this impact would be considered **significant.**

Implementation of **MM 3.3-3** and incorporation of specific measures into project design would reduce long-term operational emissions, but not necessarily to less-than-significant levels. Measures that promote use of alternative means of transportation or carpooling would typically reduce mobile-source emissions by less than approximately two percent (MBUAPCD 2004). Project-generated emissions of ROG, NO_x, and PM_{10} would still be anticipated to exceed MBUAPCD's recommended significant thresholds. No additional mitigation measures were identified that would reduce emissions to below MBUAPCD's significance thresholds. As a result, increases in long-term regional emissions attributable to the proposed project would be considered **significant and unavoidable.**

Cumulative Regional Impacts

Impact 3.3-7 New development, combined with other reasonably foreseeable projects in the City, would contribute to increased air quality emissions in the air basin. This cumulative impact is **significant and unavoidable.**

The project's contribution to a significant cumulative air quality impact would be significant and unavoidable. The Association of Monterey Bay Area Governments (AMBAG) made findings of project consistency with the regional air quality management. MBUAPCD CEQA Guidelines provide that a consistency analysis and determination serve as an assessment of the cumulative impacts of a project on regional air quality. AMBAG has determined that the proposed project is consistent with the AQMP. However, as identified in Impact 3.3-3 operational/regional emissions from buildout of the proposed project would result in a significant and unavoidable impact. In addition, the City of Greenfield General Plan EIR identified that regional emissions for the Planning Area were significant and unavoidable. The project site is currently located outside of the City of Greenfield limits; addition of the proposed project site would cause the regional emissions for the City to remain significant and unavoidable. Therefore the cumulative impact of the project is considered to be **significant and unavoidable.**

TRAFFIC AND CIRCULATION

General Plan Buildout Plus Project Buildout Traffic Conditions

Impact 3.11-7 With full General Plan buildout plus Project traffic, additional widening on Highway 101 to six lanes would be required. This is a **significant** impact.

The project is estimated to generate approximately 32,000 daily trips. It is expected that 40 percent of the trips will travel northbound and 30 percent southbound on Highway 101, from the new Espinosa Road interchange.

Recent proposed developments in King City revealed some increased traffic forecasts on Highway 101 and these traffic numbers were used to calculate the corresponding levels of service for Highway 101 north and south of Greenfield. There is an increase in Highway 101 volumes, especially south of Greenfield based on the proposed King City Developments, which also impacts Highway 101 through the City. The most recent volumes are only estimates and have not been approved by any regional agency. The current Caltrans acceptable LOS is C.

Due to project volumes added to Highway 101, additional widening to six lanes would be required through the City between the Walnut Avenue interchange and the Thorne Road interchange based on volume thresholds. Increased volumes between Walnut Avenue and Oak Avenue and the short distance between these interchanges may also require widening to six lanes based on adverse operational conditions. This is an impact attributable to the project. The need for additional lanes north of Thorne Road would be required with or without the project based upon projected cumulative volumes for Highway 101.

The new Espinosa Road interchange would be located approximately one mile south of the Oak Avenue interchange, no highway widening between Oak Avenue and the interchange would be required. South of the Espinosa interchange, the freeway would be upgraded from a four lane expressway to a four lane freeway. This is not a project impact, since the freeway would operate at LOS D without the project and would have to be upgraded.

There is currently no fee collection mechanism in place by the City, TAMC or Caltrans for the funding of Highway 101 widening projects within or outside the City. Widening of the highway would be considered a major capital project, and no calculations have been made regarding the cost of such improvements. As such, project mitigation for widening the freeway through the City (or contributing towards a regional widening project north of the City) is considered infeasible until such time that the City establishes an impact fee specifically to be used toward freeway mainline widening. Until such a fee is in place, the project impact on the freeway between Thorne Road and Oak Avenue, as well a project

contribution to cumulative freeway impacts north of Thorne Road, is considered **significant and unavoidable.**

6.4 EFFECTS FOUND NOT TO BE SIGNIFICANT

A significant effect on the environment is generally defined as a substantial or potentially substantial adverse change in the physical environment (CEQA Guidelines Section 15358). The term "environment", as used in this definition, means the physical conditions that exist within the area that will be affected by a proposed project including land, air, water, minerals, flora, fauna, ambient noise and objects of historic or aesthetic significance. The area involved shall be the area in which significant effects would occur either directly or indirectly as a result of the project. The "environment" includes both natural and man-made conditions (CEQA Guidelines Section 15360).

Detailed analyses and discussion of environmental topics found to be significant is provided within **Section 3.0** of this EIR. Listed below are those environmental issues found to have no impact as a result of the project. This determination is based on the scope of prior environmental documentation for this site, standards of significance contained within the CEQA Guidelines and the Notice of Preparation process for the project. The completed NOP and responses from the public and affected agencies and organizations are included in **Appendix A.**

AESTHETICS AND VISUAL RESOURCES

Individual Scenic or Visual Resources

Development of the project area will not result in the removal of scenic resources. The project site is primarily undeveloped farmland and has been in agricultural use for at least the past 50 years. There are no significant trees or rock outcroppings on the proposed project site. There is one residence and one metal shed located on the proposed site, however PMC's cultural resource staff have indicated that the residence would not meet the eligibility criteria for the California Register of Historical Resources. The rural residence is not historically significant. Therefore, there is **no impact** to significant, individual scenic resources.

GEOLOGY, GEOLOGICAL HAZARDS

Unique Geologic Features/Landform Alteration

Landform alteration impacts that may result from ultimate development on the project site include land clearing for the construction of roads, infrastructure, building pads, parking areas, and other permanent improvements. These improvements require portions of the site

to be graded and compacted with earth moving equipment. However, the site, located on the floor of the Salinas Valley, is flat and nearly level. There are no distinct topographic surfaces or geologic features (such as hills, slopes, or rock outcroppings) on the site or in the immediate vicinity that would be altered as a result of this project. There are man made agricultural plateaus located along Elm Avenue between Highway 101 and Third Street. These sloped plateaus are between the existing agricultural uses and roads, which are located at a higher elevation than the agricultural uses. The man made plateaus will pose no risk to, and are not part of the proposed project site. Therefore, the project will not result in the destruction or alteration of unique geologic features or extensive landform alteration and **no impact** is expected. No mitigation is required.

Ground Rupture

There are no faults mapped across the project site, and the potential for surface fault rupture to impact the proposed development is considered very low. Based upon U.S. Geological Survey maps and information provided by the County of Monterey, the nearest fault line is determined to be the Reliez/Rinconada Fault system approximately five miles to the west. Therefore, completion of the proposed project would not expose people or property to ground rupture and **no impact** is expected. No mitigation is required.

HEALTH HAZARDS / RISK OF UPSET

Wildland Fire

Wildland fire impacts may be considered significant if the project would expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands. However, based on observed site conditions and according to the Central Salinas Valley Area Plan, the project site is not located in an area prone to wildland fire or excessive fuel loading and **no impact** is anticipated.

LAND USE

Conflicts with Applicable Habitat Conservation Plan

There are no habitat conservation plans within or adjacent to the City of Greenfield. Therefore, **no impact** would occur.

7.0 Report Preparers and References

7.1 PREPARERS OF THE ENVIRONMENTAL IMPACT REPORT

CITY OF GREENFIELD STAFF

- Anna Vega, City Manager
- John Alves, Deputy City Manager/Public Works Director
- Mark McClain, Building Official/Planning Manager
- April Wooden, Community Development Director
- Mike Ranker, Contract City Engineer

PACIFIC MUNICIPAL CONSULTANTS

- Tad Stearn, Principal
- Michael McCormick, Associate Planner/Project Manager
- William Heppler, Assistant Planner
- John Nadolski, Cultural Resources Specialist
- Jessica Nadolski, Biologist
- Roxanne Perry, Graphic Designer

HIGGINS AND ASSOCIATES, TRAFFIC ENGINEERS – TRAFFIC IMPACT ANALYSIS

- Keith Higgins, Principal
- Frederik Venter, PE., Senior Associate

AMBIENT AIR QUALITY AND NOISE CONSULTING – AIR AND NOISE STUDIES

- Kurt Legleiter, Air Quality & Noise Specialist

CREEGAN + D' ANGELO CONSULTING CIVIL AND STRUCTURAL ENGINEERS – ENGINEERING FEASIBILITY STUDY

- Stanley Kulakow, PE., Vice President/Principal Engineer

THE TWINING LABORATORIES, INC. – PHASE I ESA (221-001-017 AND 221-001-068)

- Max Miljevich, EIT, Environmental Assessor and Philip M. Maquez, Supervisor Phase I ESA's

THE TWINING LABORATORIES, INC. – GEOTECHNICAL FEASIBILITY INVESTIGATION

- Allen H. Harker, PG. – Geotechnical Engineering Division

7.2 REFERENCES/DOCUMENTATION

Alden, P. et.al. National Audubon Society Field Guide to California. Chanticleer Press, Inc. New York, CA. 1998.

AMBAG. Todd Muck. Consistency Request and Response. January 4, 2006

Ambient Air Quality and Noise Consulting. *Air Quality Assessment for the South End Annexation Project.* City of Greenfield. December 2005.

Ambient Air Quality and Noise Consulting. *Environmental Noise Assessment: South End Annexation Project Draft EIR.* December 2005.

Andrus, Dan. Vice Principal. Greenfield High School. Personal Communication with William Heppler. February 22, 2006.

Archaeology of the South Coast Ranges of California. Contributions of the University of California Archaeological Research Facility 34:1-235.

Beck, Warren and Ynez D. Haase. 1974 *Historical Atlas of California.* University of Oklahoma Press, Norman, Oklahoma.

Black, Art. Carmel Fire Protection Associates. City of Greenfield Fire Protection District. Personal Communication with William Heppler, PMC. February 22, 2006.

Breschini, G. S. *Models of Population Movements in Central California Prehistory.* Coyote Press, Salinas. 1983.

Breschini, G. S. and T. Haversat. Baseline Archaeological Studies at Rancho San Carlos, Carmel Valley, Monterey County, California. *Archives of California Prehistory* 36. Coyote Press, Salinas. 1992.

Breschini, Gary S., Trudy Haversat, and R. P. Hampson. A Cultural Resources Overview of the Coast and Coast-Valley Study Areas. Report prepared for the Bureau of Land Management. Archaeological Consulting, Salinas, California. 1983.

Broadbent, S.M. 1951 Field Notes from Site CA-Mnt-101. University of California Archaeological Survey Manuscripts 125.1951b Field Notes from Mnt-107, Berwick Park, Pacific Grove. Manuscript on file at the Pacific Grove Museum, Pacific Grove, California.

California Agricultural Statistics Service. 2002 *Census of Agriculture County Profile, 2002.*

California Department of Conservation. *Farmland of Local Importance Definitions.* 2004.

California Department Of Conservation, Division of Land Resource Protection. *A Guide to Farmland Mapping and Monitoring Program.* 2004

California Department Of Conservation, Division of Land Resource Protection. *California Farmland Conversion Report.* 2000-2002

California Agricultural Statistics Service. *Summary Of Agricultural Commissioners' Reports.* 2002.

California Air Resources Board (ARB). http://www.arb.ca.gov. 2005.

California Air Resources Board (ARB). 2005b. Community Health Air Pollution Information System. http://www.arb.ca.gov/gismo/chapis_v01_6_1_04/chapis_v02.asp

California Air Resources Board (ARB). 2000a. Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles (2000)

California Air Resources Board (ARB). 2000b. Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines (2000).

California Air Resources Board (ARB). *Air Quality and Land Use Handbook: A Community Health Perspective.* 2005.

California Department of Transportation (Caltrans). *Transportation Project-Level Carbon Monoxide Protocol.* December 1997.

California Department of Transportation. *California Airport Land Use Planning Handbook.* January 2002.

California Scenic Highway System (from webpage at http://www.dot.ca.gov/hq/LandArch/Scenic) California Office of State Landscape Architecture. 2005.

California Department of Water Resources. California Water Plan Update 2005. July 2005.

California State Education Code. http://www.leginfo.ca.gov/calaw.html. December 2005.

California Department of Fish and Game (DFG). California Interagency Wildlife Task Group. CWHR version 8.0 personal computer program. Sacramento, CA. 2002.

California Native Plant Society (CNPS). Inventory of Rare and Endangered Plants. Online Inventory-6th Edition. Sacramento, CA. 2005.

California Integrated Waste Management Board. *Estimated Solid Waste Generation Rates.* http://www.ciwmb.ca.gov/WasteChar/WasteGenRates/. February 2006

Cartier, R. 1993 *The Saunders Site: MNT-391. A Littoral Site of the Early Period.* Scotts Valley Historical Society, Scotts Valley, California.

City of Greenfield. *Greenfield General Plan.* October 2005.

City of Greenfield. *General Plan EIR.* October 2005.

City of Greenfield. *General Plan, Noise Element.* October 2005.

City of Greenfield. *City of Greenfield Zoning Ordinance.* 1981 as updated.

City of Greenfield. Wa*stewater System Capital Improvement Plan Update.* December 2004.

City of Greenfield. *Water System Capital Improvement Plan Update.* December *2004.*

City of Greenfield. *Wastewater System Expansion Initial Study / Mitigated Negative Declaration.* 2005.

City of Greenfield. *Water System Expansion Initial Study / Mitigated Negative Declaration.* 2005.

City/County Population Estimates, California Department of Finance, January 1, 2005.

Coats Consulting, and the Law Offices of Aaron P. Johnson. Project description, information and plans.

County of Monterey. *Central Salinas Valley Area Plan.* 1987.

County of Monterey. *Monterey County General Plan.* 1982.

Creegan + D'Angelo Consulting Civil and Structural Engineers. Draft Engineering Feasibility Study. December 9, 2005.

DFG. California Natural Diversity Database. CNDDB RareFind version 3.0.3 personal computer program. Sacramento, CA. 2003.

DFG. Wildlife and Habitat Data Analysis Branch. Wildlife Habitats by County. On-line Inventory. Sacramento, CA. 2004.

Dietz, S. A. Archaeological Reconnaissance for Pacific Bell Projects NE1841T and NE1843T Located from Olmsted Road to Torero Drive on Highway 68 and from Jackson Street to Del Monte Avenue and Castroville to Boronda Road on Highway 183, Monterey County, California. Report on file Northwest Information Center, Sonoma State University, Rohnert Park, California. 1985.

Dietz, S. A. and T. L. Jackson. 1981 Report of Archaeological Investigations at Nineteen Archaeological Sites for the Stage I Pacific Grove Monterey Consolidation Project of the Regional Sewage System. Prepared for Engineering-Science, Inc.

Dietz, S. A., W. Hildebrandt, and T. L. Jones. Archaeological Investigations at Elkhorn Slough: CA-MNT-229, a Middle Period Site on the Central California Coast. *Papers in Northern California Anthropology.* Northern California Archaeology Group. Berkeley. 1988.

eNature®. Field Guides Online for the California Central Coast Range, Including Monterey County. www.enature.com. 2005.

Ericksen, Lance. Engineering Division. MBUAPCD Personal Communication With William Heppler, PMC. January 19, 2006.

Federal Emergency Management Agency. *FIRM Flood Hazard Map, Community Panel No. 060195 0375 D.*

Federal Transit Administration. *Transit Noise and Vibration Impact Assessment.* April 1995.

Fritz, J. and C. Smith. Archaeological Overview of Pinnacles National Monument, San Benito County, California. Report prepared for the National Park Service, Tucson, Arizona. 1978.

Grebmeier, Joe. Police Chief. City of Greenfield Police Department. Personal Communication with William Heppler, PMC. February 21, 2006.

Gunn, Dianna. Monterey County Emergency Communications. Personal Communication with William Heppler, PMC. February 23, 2006.

Hester, Thomas R. Salinan. In *California*, edited by R.F. Heizer, pp. 500-504. Handbook of North American Indians Vol. 8, W.C. Strurtevant, general editor. Smithsonian Institute, Washington, D.C. 1978.

Hickman, J., ed. The Jepson manual: Higher Plants of California. University of California Press. Berkeley, CA. 1993.

Higgins Associates. *Traffic Impact Study for Franscioni/Scheid Development, City of Greenfield, CA.* September 28, 2005.

Hildebrandt, W.R. and P. Mikkelsen. Archaeological Test Excavations at Fourteen Sites Along Highways 101 and 152, Santa Clara and San Benito Counties, California, Volume 1. Submitted to Caltrans District 4, Contract No. 0E633-EP. Report S-15442. Report on file Northwest Information Center, Sonoma State University, Rohnert Park, California. 1993.

Hoover, M. B., H. E. Rensch, E. G. Rensch, and W. N. Abeloe. 1990 *Historic Spots in California.* Stanford University Press, Stanford, California.

Jones, T. L. 1993 Big Sur: A Keystone In Central California Culture History. *Pacific Coast Archaeological Society Quarterly* 10:163-186.

Jones, T. L. and M. Hylkema 1988,Two Proposed Projectile Point Types for the Monterey Bay Area: the A□o Nuevo Long-stemmed and the Rossi Square-stemmed. *Journal of California and Great Basin Archaeology* 10:163-186.

Jones, T. L. and D.A. Jones Elkhorn Slough Revisited: Reassessing the Chronology of CA-MNT-229. *Journal of California and Great Basin Anthropology* 14:159-179. 1992.

Jones, T. L., T. Van Bueren, S. Grantham, J. Huddleson, and T. Fung. Phase II Archaeological Investigations for the Castroville Bypass Project, Monterey County, California. Report on file California Department of Transportation, District 5, San Luis Obispo. 1992.

Jones, T. L., T. M. Van Bueren, S. Grantham, J. Huddleson, and T. W. Fung. 1996 Archaeological Test Excavations for the State Highway 1 Widening Project Near Castroville, Monterey, California. Report submitted to Caltrans District 5, San Luis Obispo, California.

M. David Egan, McGraw Hill. *Concepts in Architectural Acoustics.* 1972.

Monterey Bay Unified Air Pollution Control District (MBUAPCD). *CEQA Air Quality Guidelines.* June 2004.

Monterey Bay Unified Air Pollution Control District (MBUAPCD). Permit to Operate 8729B and 4089A.

Monterey Bay Unified Air Pollution Control District (MBUAPCD). url: http://www.mbuapcd.org. 2005.

Monterey County Local Agency Formation Commission. *Standards for the Evaluation of Proposals.* 1994.

Monterey County Water Resources Agency. *Salinas Valley Water Project Draft Environmental Impact Report / Environmental Impact Statement.* June 2001.

Olsen, W.H., L.A. Payen, and J.L. Beck. *An Archaeological Survey of Pinnacles National Monument, San Benito County, California.* Report prepared for the National Park Service, San Francisco, California. 1966.

Patch, D. and T. L. Jones. Paleoenvironmental Change at Elkhorn Slough: Implications for Human Adaptive Strategies. *Journal of California and Great Basin Anthropology* 6(1):19-43. 1984.

Pacific Municipal Consultants (PMC), Cultural Resources Specialist. Cultural and Paleontological Resources Section for the South End EIR. January 2006.

Pacific Municipal Consultants (PMC), *Greenfield South End EIR Biology Report.* January 2006.

Pilling, A. R. Archaeological Survey of Northern Monterey Bay County. *University of California Archaeological Survey Manuscripts* 106. 1948.

Pohorecky, Z.S. *Archaeology of the South Coast Ranges of California.* Unpublished Ph.D. Dissertation, Department of Anthropology, University of California, Berkeley. 1964.

Searson, Cindy. Air Quality Specialist. MBUAPCD. Personal Communication with Kurt Legleiter, AMBIENT Air Quality & Noise Consulting. January 17, 2006.

Site Visit. Pacific Municipal Consultants. October 18, 2005.

Site Visit. Pacific Municipal Consultants Staff. February 15, 2005.

Stokes, D. W. and L. Q. Stokes. *Field Guide to Birds: Western Region.* Little, Brown and Company, Boston, MA. 1996.

Terra Engineering Inc. and Frietas + Freitas. *City of Greenfield Water System Capital Improvement Plan Update.* March 2005.

Terra Engineering Inc. and Frietas + Freitas. *City of Greenfield Wastewater System Capital Improvement Plan Update.* March 2005.

The Twining Laboratories, Inc. *Geotechnical Feasibility Investigation Report.* October 21, 2005.

The Twining Laboratories, Inc. *Phase I Environmental Site Assessment* (APN 221-011-017). October 3, 2005.

The Twining Laboratories, Inc. *Phase I Environmental Site Assessment* (APN 221-011-068). October 3, 2005.

The Rumsen of Monterey: an Ethnography from Historical Sources. *University of California Archaeological Research Facility Contributions* 14. 1972.

United States Department of Agriculture, Soil Conservation Service. *Soil Survey of Monterey County, California.* September 1978.

United States Department of Housing and Urban Development, Office of Community Planning and Development. *The Noise Guidebook.* 1980.

United States Environmental Protection Agency (US EPA). *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances.* 1971.

United States Environmental Protection Agency (USEPA) url: http://www.epa.gov/ebtpages/airairquality.html. 2005.

U.S. Fish and Wildlife Service (USFWS). *Federal Endangered and Threatened Species that May Be Affected by Projects in Monterey County.* Ventura, CA. 2005.

U.S. Fish and Wildlife Service (USFWS). *Standardized Recommendations for the Protection of the San Joaquin Kit Fox Prior To Or During Ground Disturbance.* Sacramento Fish and Wildlife Office. June 1999.

USFWS. Online Species Account: San Joaquin Kit Fox (*Vulpes macrotis mutica*). Sacramento, CA. 2005.

U.S. Census Bureau. 2000 Census Data.

Williamson Act Maps. Monterey County Planning Department.

APPENDIX A

Notice of Preparation and Response Letters

NOTICE OF PREPARATION

To: Interested Parties and Responsible Agencies

Subject: Notice of Preparation of a Draft Environmental Impact Report (EIR)

Lead Agency:

City of Greenfield
45 El Camino Real
Greenfield, CA 93927

Contact: Mark McClain,
Building Official/Planning Manager
Phone: (831) 674-5591
Fax: (831) 674-3149

Consulting Firm:

Pacific Municipal Consultants
585 Cannery Row, Suite 304
Monterey, CA 93940

Contact: Michael McCormick
Phone: (831) 644-9174
Fax: (831) 644-7696

Project Title: South End Sphere Of Influence and General Plan Amendment Project

Project Applicant: TMV Lands and Scheid Vineyards

Notice is hereby given that the City of Greenfield will be the Lead Agency and will prepare a Draft Environmental Impact Report (Draft EIR) for the project identified below. We are interested to know your views regarding the scope and content of the environmental information germane to your agency's statutory responsibilities in connection with the proposed project.

The project description, location, and the probable environmental effects are contained in the attached materials. Due to the time limits mandated by State law, your response must be sent no later than *30 days after receipt of this notice.*

Please send your response(s) to Michael McCormick, at the address shown above.

Date: 12/02/2005

Signature:
Michael McCormick, Contract Planner for
Mark McClain, Building and Planning Manager

NOTICE OF PREPARATION PROJECT DATA

Project Title: South End SOI and GPA Project

Project Applicant: TMV Lands and Scheid Vineyards

Project Location: The project area is located on the City's southern edge, immediately south of the incorporated boundary of Greenfield. U.S. Highway 101 bisects the project site. On the east side of U.S. Highway 101 the site is bounded by agricultural uses to the north and east, Espinoza Road to the south, and the Highway and Heavy industrial uses to the west. On the west side of the U.S. Highway 101 the project site is bounded by Greenfield High School and Vista Verde school to the north and agricultural uses to the south and west.

Project Description

The proposed South End project consists of a Sphere of Influence Amendment, General Plan Amendment, Annexation to the City of Greenfield, and prezoning designation for each of three parcels totaling approximately 214 acres and located south of the City of Greenfield city limits. The proposal includes a phased approach to developing the site with highway commercial, heavy industrial, and low density residential uses. At buildout, the site is proposed a total of approximately 293 low density residential units on the property to the west of Highway 101 and approximately 217,800 square feet of Highway Commercial uses east of Highway 101.

Potential Areas of Concern

The EIR for this project is anticipated to thoroughly examine the following probable environmental effects of the project. The level of analysis for these subject areas may be refined or additional subject areas may be analyzed based on responses to this Notice of Preparation and/or refinements to the project that may occur subsequent to the publication of this NOP.

1. Aesthetics and Visual Resources
2. Agricultural Resources
3. Air Quality
4. Biological Resources
5. Cultural Resources
6. Geology and Geologic Hazards
7. Hazards / Risk of Upset
8. Drainage and Surface Hydrology
9. Land Use
10. Noise
11. Traffic and Circulation
12. Groundwater Hydrology and Water Resources
13. Public Services and Utilities

The EIR will also examine project alternatives that could feasibly obtain the primary objectives of the project and reduce one or more environmental impacts.

Initial Assumptions for each area of analysis are provided below:

Aesthetics and Visual Resources
The potential change in character as measured against the existing setting and visual conditions of the project area is discussed. Project visibility, scale, additional light and glare, and community character are considered relative to the existing character of the area. The compliance of the proposed project to the City of Greenfield Gateway Overlay is also addressed.

Agricultural Resources
The agricultural resources subsection of the EIR analyzes the conversion of agricultural land at the project site and the potential conversion of surrounding agricultural properties with implementation of the proposed project. The analysis will contain a full disclosure of the proposed Williamson Act easement exchange. The impact evaluation will identify potential safety hazards associated with new development adjacent to farmland as well as the value of the agricultural resources at the project site.

Air Quality
This subsection addresses the requirements of the Monterey Bay Unified Air Pollution Control District and analyzes local and regional air quality impacts associated with project implementation including long-term operational emissions from mobile and stationary sources.

Biological Resources
Potential impacts upon biological resources in the affected area are analyzed in this subsection of the EIR based on a site reconnaissance of the project site by Pacific Municipal Consultants. This sub-section discusses the potential degradation or elimination of important species, and the impacts on listed, proposed, and candidate threatened and endangered species.

Cultural Resources
This subsection analyzes the presence or absence of potentially significant archaeological and historic resources at the project site. The results of a records search at the Northwest Information Center at Sonoma State University, Rohnert Park; a sacred lands search conducted by the Native American Heritage Commission; consultation with Native Americans and other interested parties; as well as field surveys by Pacific Municipal Consultants cultural resource staff are presented within this subsection. The project site contains three single-family homes and associated outbuildings that are more than 45-years old.

Geology and Geologic Hazards
This subsection examines potential geologic and seismic hazards, as well as any engineering constraints and general soil suitability for the land uses proposed by the project applicant, including heavy industrial, residential and highway commercial uses. The analysis includes engineering recommendations for any geologic hazards or soil constraints identified.

Hazards / Risk of Upset
Potential presence of residual or stored agricultural pesticides and leaking underground storage tanks on the project site are examined. The potential risk of these conditions in proximity to existing and proposed development and human activities is evaluated. The subsection also presents a full discussion of potential human exposure to hazardous materials and conditions in the event of an accident, explosion or other upset conditions.

Drainage and Surface Hydrology
The impacts of the proposed project on hydrology, storm drainage and water quality are discussed. The analysis identifies existing drainage patterns and estimates storm drainage runoff that would be generated by the conversion of the site from agricultural to urban uses.

Land Use
The project's relationship to relevant regional and local plans, including the City of Greenfield General Plan, Zoning Ordinance and other local planning documents, is discussed. The analysis focuses on project consistency with adopted plans and policies and those that are being explored as the City prepares to update the General Plan. This subsection also provides a thorough discussion of LAFCO policies and state law governing boundary adjustments.

Noise
Compatibility between the existing noise environment and anticipated noise levels generated by the project and cumulative noise from area roadways upon completion of the project are examined.

Public Services and Facilities
For informational purposes, this EIR section will identify the availability of existing public facilities, and calculate demands generated by the project for additional facilities (schools, parks, police and fire service, government services, etc.), based upon generation rates used by the service providers. However, consistent with CEQA requirements, significant environmental impacts are not anticipated to occur unless the project will trigger the construction of new or expanded services, (such as a new fire station), which in turn would have environmental consequences.

Traffic and Circulation
This subsection examines potential impacts on the area roadway network, including roadway segments and intersections. Existing roadway conditions, existing conditions plus the project conditions, and cumulative conditions, based on cumulative projects planned for future development, are evaluated.

Groundwater Hydrology and Water Resources
This subsection addresses the additional water demands generated by project buildout. Historic and projected water demand information, as available will be reviewed.

Public Services and Utilities
This subsection addresses the availability of existing public facilities, calculates demand generated by the proposed project for additional facilities such as schools, parks, police and fire services. It also provides a general assessment of additional system requirements and physical improvements needed to serve the build-out demands of the proposed project.

The provision of potable water resources, wastewater treatment and disposal, natural gas and electric service and solid waste impacts are addressed in this subsection of the EIR. Impacts are assessed based upon increased demands on these systems and service availability.

STATE OF CALIFORNIA

Governor's Office of Planning and Research

State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

Notice of Preparation

December 8, 2005

CITY OF GREEN

DEC 1 6 2005

RECEIV...

To: Reviewing Agencies

Re: South End Sphere of Influence and General Plan Amendment Project
SCH# 2005121035

Attached for your review and comment is the Notice of Preparation (NOP) for the South End Sphere of Influence and General Plan Amendment Project draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Mark McClain
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Project Analyst, State Clearinghouse

Attachments
cc: Lead Agency

NOP Distribution List

County: Monterey

SCH# 2005061041

Resources Agency

- [ ] Resources Agency
  Nadell Gayou
- [ ] Dept. of Boating & Waterways
  David Johnson
- [ ] California Coastal Commission
  Elizabeth A. Fuchs
- [ ] Colorado River Board
  Gerald R. Zimmerman
- [ ] Dept. of Conservation
  Roseanne Taylor
- [ ] California Energy Commission
  Roger Johnson
- [ ] Dept. of Forestry & Fire Protection
  Allen Robertson
- [ ] Office of Historic Preservation
  Wayne Donaldson
- [ ] Dept of Parks & Recreation
  Environmental Stewardship Section
- [ ] Reclamation Board
  DeeDee Jones
- [ ] S.F. Bay Conservation & Dev't. Comm.
  Steve McAdam
- [ ] Dept. of Water Resources
  Resources Agency
  Nadell Gayou
- [ ] _____
  Conservancy

Fish and Game

- [ ] Depart. of Fish & Game
  Scott Flint
  Environmental Services Division
- [ ] Fish & Game Region 1
  Donald Koch
- [ ] Fish & Game Region 2
  Banky Curtis
- [ ] Fish & Game Region 3
  Robert Floerke
- [ ] Fish & Game Region 4
  Mike Mulligan
- [ ] Fish & Game Region 5
  Don Chadwick
  Habitat Conservation Program
- [ ] Fish & Game Region 6
  Gabrina Gatchel
  Habitat Conservation Program
- [ ] Fish & Game Region 6 I/M
  Tammy Allen
  Inyo/Mono, Habitat Conservation Program
- [ ] Dept. of Fish & Game M
  George Isaac
  Marine Region

Other Departments

- [ ] Food & Agriculture
  Steve Shaffer
  Dept. of Food and Agriculture
- [ ] Depart. of General Services
  Public School Construction
- [ ] Dept. of General Services
  Robert Sleppy
  Environmental Services Section
- [ ] Dept. of Health Services
  Veronica Rameriz
  Dept. of Health/Drinking Water

Independent Commissions,Boards

- [ ] Delta Protection Commission
  Debby Eddy
- [ ] Office of Emergency Services
  Dennis Castrillo
- [ ] Governor's Office of Planning & Research
  State Clearinghouse
- [ ] Native American Heritage Comm.
  Debbie Treadway
- [ ] Public Utilities Commission
  Ken Lewis
- [ ] State Lands Commission
  Jean Sarino
- [ ] Tahoe Regional Planning Agency (TRPA)
  Cherry Jacques

Business, Trans & Housing

- [ ] Caltrans - Division of Aeronautics
  Sandy Hesnard
- [ ] Caltrans - Planning
  Terri Pencovic
- [ ] California Highway Patrol
  John Olejnik
  Office of Special Projects
- [ ] Housing & Community Development
  Lisa Nichols
  Housing Policy Division

Dept. of Transportation

- [ ] Caltrans, District 1
  Rex Jackman
- [ ] Caltrans, District 2
  Marcelino Gonzalez
- [ ] Caltrans, District 3
  Katherine Eastham
- [ ] Caltrans, District 4
  Tim Sable
- [ ] Caltrans, District 5
  David Murray
- [ ] Caltrans, District 6
  Marc Birnbaum
- [ ] Caltrans, District 7
  Cheryl J. Powell
- [ ] Caltrans, District 8
  Dan Kopulsky
- [ ] Caltrans, District 9
  Gayle Rosander
- [ ] Caltrans, District 10
  Tom Dumas
- [ ] Caltrans, District 11
  Mario Orso
- [ ] Caltrans, District 12
  Bob Joseph

Cal EPA

Air Resources Board

- [ ] Airport Projects
  Jim Lerner
- [ ] Transportation Projects
  Kurt Karperos
- [ ] Industrial Projects
  Mike Tollstrup

- [ ] California Integrated Waste Management Board
  Sue O'Leary
- [ ] State Water Resources Control Board
  Jim Hockenberry
  Division of Financial Assistance
- [ ] State Water Resources Control Board
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [ ] State Water Resources Control Board
  Steven Herrera
  Division of Water Rights
- [ ] Dept. of Toxic Substances Control
  CEQA Tracking Center
- [ ] Department of Pesticide Regulation

Regional Water Quality Control Board (RWQCB)

- [ ] RWQCB 1
  Cathleen Hudson
  North Coast Region (1)
- [ ] RWQCB 2
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] RWQCB 3
  Central Coast Region (3)
- [ ] RWQCB 4
  Jonathan Bishop
  Los Angeles Region (4)
- [ ] RWQCB 5S
  Central Valley Region (5)
  - [ ] RWQCB 5F
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] RWQCB 5R
    Central Valley Region (5)
    Redding Branch Office
- [ ] RWQCB 6
  Lahontan Region (6)
  - [ ] RWQCB 6V
    Lahontan Region (6)
    Victorville Branch Office
- [ ] RWQCB 7
  Colorado River Basin Region (7)
- [ ] RWQCB 8
  Santa Ana Region (8)
- [ ] RWQCB 9
  San Diego Region (9)

- [ ] Other _____

Last Updated on 08/10/05

CAPSTAN EQUITY PARTNERS, LLC

30 RAGSDALE DRIVE, SUITE 200
MONTEREY, CALIFORNIA 93940

(831) 655-3841
FAX (831) 655-3829

December 31, 2005

Mr. Mark McClain
Building and Planning Manager
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

Dear Mr. McClain:

Thank you for your Notice of Preparation Project Data for the TMV Lands and Scheid Vineyards project in Greenfield.

My family owns and farms property to the south and east of the proposed project and we have the following concerns:

1. I believe that at least the TMV Lands property is subject to an evergreen 20 year "Williamson Act Contract" with the county which restricts development on such properties. How does the county and city plan to adhere to the land use intent of this contract or otherwise "get around it"?

2. We are also concerned about the negative impact of development on traffic, congestion, surface runoff both during and after construction, police and fire protection and the impact of housing and commercial developments so close to farming activities.

Thank you for your consideration and we look forward to your response to these concerns.

Sincerely,

Randall C. Pura
Managing Director

DEPARTMENT OF CONSERVATION

DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS 18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEB SITE conservation.ca.gov

January 5, 2006

Mr. Mark McClain, Planning Manager
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

Subject: South End Sphere of Influence and General Plan Amendment Project Notice of Preparation (NOP) for a Draft Environmental Impact Report (DEIR) - SCH# 2005121035, Monterey County

Dear Mr. McClain:

The Department of Conservation's (Department) Division of Land Resource Protection (Division) has reviewed the NOP for the referenced project. The Division monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations with respect to the project's impacts on agricultural land and resources.

Project Description

The project is a proposed Sphere of Influence Amendment, General Plan Amendment, annexation to the City of Greenfield (City) and pre-zoning of three parcels totaling 214 acres and located south of the City east and west of Highway 101 in Monterey County. The property is proposed for development to residential and commercial uses. The property is surrounded by agricultural uses. According to the NOP, the proponents plan to propose a Williamson Act Easement Exchange in the DEIR.

Agricultural Setting of the Project

The DEIR should describe the project setting in terms of the actual and potential agricultural productivity of the land. The Division's Important Farmland Map (IFM) for Monterey County should be utilized to identify agricultural land within the project site and in the surrounding area that may be impacted. Acreages for each land use designation should be identified for both areas. Likewise, the County's Williamson Act Map should be utilized to identify potentially impacted contract, Farmland Security Zone

also be used to rate the relative value of alternative project sites. The LESA Model is recommended by CEQA and is available from the Division at the contact listed below.

Williamson Act Lands

The Department recommends that the following information be included in the DEIR regarding Williamson Act land impacted by the project.

As a general rule, land can be withdrawn from Williamson Act contract only through the nine-year nonrenewal process. Immediate termination via cancellation is reserved for "extraordinary", unforeseen situations (See Sierra Club v. City of Hayward (1981) 28 Cal.3d 840, 852-855)). Furthermore, it has been held that "cancellation is inconsistent with the purposes of the (Williamson) act if the objectives to be served by cancellation should have been predicted and served by nonrenewal at an earlier time, or if such objectives can be served by nonrenewal now" (Sierra Club v. City of Hayward).

- If cancellation is proposed, notification must be submitted to the Department when the County or City accepts the application as complete (Government Code §51284.1). The board or council must consider the Department's comments prior to approving a tentative cancellation. Required findings must be made by the board or council in order to approve tentative cancellation. Cancellation involving FSZ contracts include additional requirements. We recommend that the DEIR include discussion of how cancellations involved in this project would meet required findings. However, notification must be submitted separately from the CEQA process and CEQA documentation. (The notice should be mailed to Bridgett Luther, Director, Department of Conservation, c/o Division of Land Resource Protection, 801 K Street MS 18-01, Sacramento, CA 95814-3528.)
- A Williamson Act Easement Exchange pursuant to §§51256 and 51256.1requires cancellation as described above as well as the approval of the Secretary of Resources. Because the process can be lengthy and involved, we recommend contact with the Department prior to expenditure of funds in order to review specific requirements.
- Pursuant to Government Code §51243, if a city annexes land under Williamson Act contract, the city must succeed to all rights, duties and powers of the county under the contract unless conditions in §51243.5 apply to give the city the option to decline to succeed to the contract. Although a city may have protested a contract and although LAFCO may have upheld the protest, conditions in §51243.5 may not have been met to give the city the option to decline to succeed to the contract. A LAFCO must notify the Department within 10 days of a city's proposal to annex land under contract (Government Code §56753.5). A LAFCO must not approve a change to a sphere of influence or annexation of contracted land to a city unless specified

Mitigation using agricultural conservation easements can be implemented by at least two alternative approaches: the outright purchase of easements or the donation of mitigation fees to a local, regional or statewide organization or agency whose purpose includes the acquisition and stewardship of agricultural conservation easements. The conversion of agricultural land should be deemed an impact of at least regional significance, and the search for replacement lands conducted regionally or statewide, and not limited strictly to lands within the project's surrounding area.

Other forms of mitigation may be appropriate for this project, including the following:

- Protecting farmland in the project area or elsewhere in the County through the use of less than permanent long-term restrictions on use such as 20-year Farmland Security Zone contracts (Government Code §51296 et seq.) or 10-year Williamson Act contracts (Government Code §51200 et seq.).
- Directing a mitigation fee to invest in supporting the commercial viability of the remaining agricultural land in the project area, County or region through a mitigation bank that invests in agricultural infrastructure, water supplies, marketing, etc.
- The Department also has available listing of approximately 30 "conservation tools" that have been used to conserve or mitigate project impacts on agricultural land. This compilation report may be requested from the Division at the address or phone number below.

Although the direct conversion of agricultural land and other agricultural impacts are often deemed to be unavoidable by an agency's CEQA analysis, mitigation measures must nevertheless be considered. The adoption of a Statement of Overriding Consideration does not absolve the agency of the requirement to implement feasible mitigation that lessens a project's impacts. A principal purpose of an EIR is to present a discussion of mitigation measures in order to fully inform decision-makers and the public about ways to lessen a project's impacts. In some cases, the argument is made that mitigation cannot reduce impacts to below the level of significance because agricultural land will still be converted by the project, and, therefore, mitigation is not required. However, reduction to a level below significance is not a criterion for mitigation. Rather, the criterion is feasible mitigation that lessens a project's impacts. Pursuant to CEQA Guideline 15370, mitigation includes measures that "avoid, minimize, rectify, reduce or eliminate, or compensate" for the impact. For example, mitigation includes *"Minimizing impacts by limiting the degree or magnitude of the action and its implementation (§15370(b))"* or *"Compensating for the impact by replacing or providing substitute resources or environments (§15370(e))."*

All measures ostensibly feasible should be included in the DEIR. Each measure should be discussed, as well as the reasoning for selection or rejection. A measure brought to the attention of the Lead Agency should not be left out unless it is infeasible on its face.

State of California – The Resources Agency ARNOLD SCHWARZENEGGER, Governor
DEPARTMENT OF FISH AND GAME
http://www.dfg.ca.gov
POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
(707) 944-5500

December 22, 2005

CITY OF GREENFIELD
DEC 28 2005
RECEIVED

Mr. Mark McClain
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

Dear Mr. McClain:

South End Sphere of Influence and General Plan Amendment
Greenfield, Monterey County
SCH 2005121035

Department of Fish and Game (DFG) have reviewed the documents provided for the subject project and we have the following comments.

Please be advised that a California Endangered Species Act (CESA) Permit must be obtained if the project has the potential to result in take of species of plants or animals listed under CESA, either during construction or over the life of the project. Issuance of a CESA Permit is subject to California Environmental Quality Act (CEQA) documentation; therefore, the CEQA document must specify impacts, mitigation measures, and a mitigation monitoring and reporting program. If the project will impact CESA listed species, early consultation is encouraged, as significant modification to the project and mitigation measures may be required in order to obtain a CESA Permit.

For any activity that will divert or obstruct the natural flow, or change the bed, channel, or bank (which may include associated riparian resources) of a river or stream, or use material from a streambed, DFG may require a Streambed Alteration Agreement (SAA), pursuant to Section 1600 et seq. of the Fish and Game Code, with the applicant. Issuance of SAAs is subject to CEQA. DFG, as a responsible agency under CEQA, will consider the CEQA document for the project. The CEQA document should fully identify the potential impacts to the stream or riparian resources and provide adequate avoidance, mitigation, monitoring and reporting commitments for completion of the agreement. To obtain information about the SAA notification process, please access our website at www.dfg.ca.gov/1600; or to request a notification package, contact the Streambed Alteration Program at (707) 944-5520.

If you have any questions, please contact Mr. Carl Wilcox, Habitat Conservation Manager, at (707) 944-5525.

Sincerely,

Robert W. Floerke
Regional Manager
Central Coast Region

cc: State Clearinghouse

Conserving California's Wildlife Since 1870

DEPARTMENT OF TRANSPORTATION
50 HIGUERA STREET
SAN LUIS OBISPO, CA 93401-5415
PHONE (805) 549-3101
FAX (805) 549-3077
TDD (805) 549-3259
http://www.dot.ca.gov/dist05/

Flex your power!
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December 14, 2005

MON-101-52.66
SCH# 2005121035

Mark McClain
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

Dear Mr. McClain

COMMENTS TO GREENFIELD SOUTH END ANNEXATION AND COMMERCIAL-RESIDENTIAL DEVELOPMENTS

The California Department of Transportation (Department), District 5, Development Review, has reviewed the above referenced project and offers the following comments to consider in preparation of your environmental impact report (EIR).

1. The Department supports local development that is consistent with State planning priorities intended to promote equity, strengthen the economy, protect the environment, and promote public health and safety. We accomplish this by working with local jurisdictions to achieve a shared vision of how the transportation system should and can accommodate interregional and local travel and development.

2. To ensure the traffic study in the Draft EIR includes the information needed by the Department to analyze the impacts (both cumulative and project-specific) of this project, it is recommended that the analysis be prepared in accordance with the Department's *"Guide for the Preparation of Traffic Impact Studies."* An alternative methodology that produces technically comparable results can also be used.

3. Because the Department is responsible for the safety, operations, and maintenance of the State transportation system, our Level of Service (LOS) standards should be used to determine the significance of the project's impact. We endeavor to maintain a target LOS at the transition between LOS C and LOS D on all State transportation facilities. In cases where a State facility is already operating at an unacceptable LOS, *any* additional trips added should be considered a significant cumulative traffic impact, and should be mitigated accordingly.

4. The traffic study should include information on existing traffic volumes within the study area, including the State transportation system, and should be based on recent traffic volumes less than two years old. Counts older than two years cannot be used. Feel free to contact us for assistance in acquiring the most recent count data available.

5. The methodologies used to calculate the LOS should be consistent with the methods in the current version of the Highway Capacity Manual. All LOS calculations should also be included in the Draft EIR as an appendix made available for review. Additionally, the project trip generation rates should be based on the latest edition of the Institute of Transportation Engineers Trip Generation Report.

6. The traffic study for this project should clearly indicate that in addition to mitigating project-specific impacts, the developer is required to pay their pro-rata share of cumulative impact mitigation.

We look forward to receiving the Draft EIR, and providing comments from a more thorough analysis. At that time, we may include comments on other pertinent issues related to environmental justice, water quality, and hydrology.

District 5 staff has been, and will continue to be, committed to working very closely with you to achieve a shared vision of how the transportation system should and can accommodate interregional and local travel. Please don't hesitate to call me at (805) 542-4751.

Sincerely,

JOHN J. OLEJNIK
Associate Transportation Planner
District 5 Development Review Coordinator

cc: Roger Barnes (D5)
Kate McKenna (LAFCO)
Andy Cook (TAMC)
Ron Lundquist (Monterey Co DPW)

KING CITY PUBLIC SCHOOLS

King City Joint Union High School District
King City Union School District

800 Broadway • King City, CA 93930
Phone: (831) 385-0606 • Fax: (831) 385-0695

January 3, 2006

By U.S. Mail & Fax: 831 644-7696

Michael McCormick
Pacific Municipal Consultants
Consultant to City of Greenfield
585 Cannery Row, Suite 304
Monterey, CA 93940

Re: Reponse of King City Joint Union High School District to Notice of Preparation of the Draft Environmental Impact Report for the City of Greenfield South End Sphere of Influence and General Plan Amendment Project

Dear Mr. McCormick:

I write on behalf of King City Joint Union High School District ("High School District") with comments on the Notice of Preparation ("NOP") for the above described environmental impact report ("EIR"). The High School District appreciates the opportunity to express its views as to the scope and content of the environmental information relevant to the District's responsibilities.

We note initially that a significant concern of the High School District's is the fact that the Scheid Vineyard property adjoining the Greenfield High School site is apparently being contemplated for development through the project now under consideration. Several years ago, the High School District expressed interest to the Scheid Vineyard owners in purchasing an area of land adjoining Greenfield High School to allow for the expansion of Greenfield High School. The High School District was informed that it should put its interest in writing, and did so. Despite this fact, the property owners never responded, and now apparently seek to develop the property. For purposes of planning and for the present environmental analysis, it is important to note that the High School District still has an interest in a 20-acre portion of the property at issue for expansion of the High School.

Greenfield High School is on a long rectangular site. Its elongated layout interferes with ease of parking and proximity of classrooms to playfields. Additionally, which

Greenfield High School opened in 1999; it was sized smaller than plans had called for due to monetary constraints. Facilities were eliminated from the final plan, including a second gymnasium and additional classroom space. The High School District intended that it would expand the existing high school as enrollment increased and additional funding became available. Good educational planning therefore dictates expansion of the high school site in the near future, to provide adequate space for its programs.

In order to accommodate the District's ongoing intent regarding the adjoining property, we would respectfully request that the City consider analyzing an alternative use designation for the subject property. We propose a designation of public school district use, with an underlying designation consistent with that proposed by the project applicant. That underlying use would then become effective if the school district decides for any reason not to acquire the property. In this fashion, the District's interests are protected while other uses are not unduly restricted in the event that the District elects not to acquire the property. This dual designation would be for only a limited portion of the project area. We would be happy to work with the City in identifying the specific portion that would be at issue.

The area of the Scheid land adjoining the high school site is the logical direction for such expansion. As a result of the foregoing, the High School District wishes to inform the City and its consultants of its ongoing intent to seek acquisition of a portion of the subject property. It is our hope that the High School District's need for a portion of the property will be taken into consideration in the environmental analysis and in the City's planning. We will also be pursuing this matter further with the property owners.

Below are additional, specific scoping requests for the EIR.

Population

1. **Describe historical, current, and future population projections for the High School District.**

The High School District specifically requests that historical, current, and future population projections for the District be addressed. Population growth or shrinkage is a primary consideration in determining the impact that development may have on a school district, as a booming population can directly impact the High School District and its provision of educational services, largely because of resulting school overcrowding, while a district with declining enrollment may depend on new development to avoid school closure or program cuts. Overcrowding can constitute a significant impact within the meaning of the California Environmental Quality Act ("CEQA"). (See Cal.Code Regs., tit.14, §§

15064, 15126.) This is particularly so where the overcrowding results in unsafe conditions, decreased quality of education, the need for new bus routes, and requires new school construction. The same can hold true for potential school closures or program cuts resulting from a declining population.

Housing

2. Describe the type and number of anticipated dwelling units.

3. Describe the average square footage for anticipated dwelling units, broken down by type of unit.

4. Estimate the amount of development fees to be generated by development in accordance with implementation of the Project.

5. Describe the phasing of residential and development over time from inception to build-out of the Project.

6. Identify the anticipated number of units available for low-income housing.

The foregoing categories of information (Request Nos. 2-6) are critical for determining the extent of both physical and fiscal impacts on the District. California school districts are dependent on the provisions of Government Code Sections 65995, et seq., and Education Code sections 17600, et seq., for financing new school facilities and maintenance of existing facilities. The developer fees mandated by Section 65995 provide the High School District the bulk of its financing for facilities needs related to development.

The ability of the statutory development fees to offset the impact of new development on local school districts can be determined only if types of housing and average square footage can be taken into consideration. For instance, larger homes are expected to generate approximately the same number of students as smaller homes. At the same time, however, a larger home will generate a greater statutory development fee, better providing for facilities to house the student being generated. It is for these reasons that the Government Code now requires a school district to seek – and presumably to receive – such square footage information from local planning departments. (Gov. Code § 65995.5 (c)(3).)

While the foregoing funding considerations are fiscal, they translate directly into physical, environmental impacts, in that inadequate funding for new school construction can result in overcrowding of existing facilities. Furthermore, fiscal and social considerations are relevant to an EIR, particularly when they either

contribute to or result from physical impacts. (Pub. Resources Code § 21001(g); Cal.Code Regs., tit.14, §§ 15021(b), 15131(a)-(c), 15142 & 15382.)

Phasing of development is also a crucial consideration in determining the extent of impact on schools. The timing of the development will determine when new students are expected to be generated, and therefore is an important consideration particularly when considering the cumulative impact of a project in conjunction with other development.

Transportation/Circulation/Traffic Analysis

7. Describe the existing and the anticipated vehicular traffic and student pedestrian movement patterns to and from school sites, including consideration of bus routes.

8. Assess the impact of increased vehicular movement and volumes, including potential conflicts with school pedestrian movement, school transportation, and busing activities.

9. Estimate travel demand and trip generation, trip distribution and trip assignment by including consideration of school sites and home-to-school travel.

10. Assess cumulative impacts on schools and the community in general resulting from increased vehicular movement and volumes expected from additional development already approved or pending.

The High School District makes the foregoing requests to ensure that traffic impacts on schools are adequately addressed in the EIR. Traffic issues are a particular concern for school districts in that increased traffic volume may interfere with established school bus routes, require new and additional routes, and may increase safety concerns for students walking or riding bicycles or other modes of transportation to and from school. In this instance, the traffic pattern also may have long-term consequences on school district organization that should be addressed.

Regarding inclusion of school sites in estimating trip demand, generation, distribution and assignment, High School District assumes that school sites would be one category used in determining impacts, but if not, requests that it be considered one.

Public Services - Schools

11. Describe existing and future conditions within the school district, on a school-by-school basis, including size, location and capacity of facilities.

12. Describe the adequacy of both existing infrastructure serving schools and anticipated infrastructure needed to serve future schools.

13. Describe the school district's past and present enrollment trends.

14. Describe the district's current uses of their facilities.

15. Describe projected teacher/staffing requirements based on anticipated population growth and existing State and school district policies.

16. Describe any impacts on curriculum as a result of anticipated population growth.

17. Identify the cost of providing capital facilities to accommodate students on a per-student basis, by school district.

18. Identify the expected shortfall or excess between the estimated development fees to be generated by the projects and the cost for provision of capital facilities.

19. Assess each school district's present and projected capital facility, operations, maintenance, and personnel costs.

20. Assess financing and funding sources available to the school districts, including but not limited to those mitigation measures set forth in Section 65996 of the Government Code.

21. Identify any expected fiscal impacts on the school districts, including an assessment of projected cost of land acquisition, school construction, and other facilities needs.

22. Assess cumulative impacts on schools resulting from additional development already approved or pending.

The High School District wishes to make certain that each of these issues are directly discussed in the EIR. Regarding Requests 11 - 14, each of these requests go to the issue of the current condition of the District. Infrastructure is included for consideration precisely because it is an often-overlooked factor. While it may

appear that a school site has sufficient space to accommodate additional students, an inadequate infrastructure -- which might include cafeterias, restroom facilities, sewerage, electrical capacity, and the like -- may preclude such growth. Placing too great a strain on the infrastructure is itself a physical impact to be addressed in an EIR.

Relative to Request 11, the Draft EIR should also address the location of current planned school sites in all affected school districts, both to determine the adequacy of the space existing or available for school facilities and also to address traffic, student safety and related impacts affected by a school's location.

The population elements addressed in Request 13 are essential because the ultimate impact of growth can best be determined by comparing existing student enrollment, expected future enrollment, and total school capacity.

Request 14 is a necessary consideration because certain school facilities may have been designated for particular community uses, or otherwise be unavailable for full classroom service, meaning that they cannot be considered in determining the District's total capacity. Also, some classrooms are dedicated as labs, meaning that they cannot hold the full compliment of students that would occupy a traditional classroom, again affecting a school's total capacity.

Requests 15 and 16 are included because they are relevant to the social impacts, which may stem from the project. Again, such impacts are relevant to the extent they are caused by or result from physical impacts, which would include growth. (Pub. Resources Code § 21001(g); Cal.Code Regs.,tit.14, §§ 15021(b), 15131(a)-(c), 15142 & 15382.) If classrooms become overcrowded, or certain programs cannot be offered because of overwhelming student demand, the community's educational services are harmed, a clear social impact. Further, overcrowded classrooms create additional safety concerns, both for students and teachers.

Requests 17 through 21 deal with fiscal impacts on the districts. The most immediate means of determining whether school overcrowding will occur is to determine first whether the High School District has adequate available capacity, and second, if not, whether it has adequate sources of funding available to construct new facilities or expand existing ones. This requires consideration of how much it costs to house each student, and how much of that amount can be covered by existing funding sources. To the extent that the existing sources prove insufficient, the difference is an unmitigated impact on the District.

Finally, Request 22 again seeks to ensure that a cumulative impact analysis is conducted, as there has been significant development approved and projected within the District's borders.

Noise

23. Identify any noise sources and volumes, which may affect school facilities, classrooms and outdoor school areas.

Request 23 is intended to clarify that the EIR's consideration of noise issues take into account various ways in which noise may impact the schools, including, for instance, increases in noise levels in the immediate vicinity of playing fields. In this instance, the project being considered appears to lead to foreseeable development in the immediate vicinity of Greenfield High School. As such, the potential for impact on the school from noise is significant, particularly including noise during housing construction.

Social

24. Identify how school facilities are currently utilized as civic centers, and are projected to serve in that capacity in the future, and assess the impacts of the projects on that use.

25. Identify how each school district's grounds are currently utilized for recreations (parks) and open space, and are projected to serve in that capacity in the future, and assess the impacts of the projects on that use.

The first two requests are made in light of school districts' roles in providing recreational space and civic centers to the community. As overcrowding increases at school sites, the community's ability to so utilize school facilities becomes limited, which is both a physical and a social impact on the community. For example, the addition of relocatable classrooms to house new students may reduce available playing field or recreational space. Similarly, moving schools to multi-track class schedules, or having to set aside additional space for new alternative education students, may interfere with the community's ability to gain access to school facilities for civic use.

CONCLUSION

The High School District is prepared to provide any information necessary to assist the City in preparation of the EIR and in addressing each of the comment and scope/content issues set forth above. The High School District remains committed to working with the City, the County, and the developers to ensure that the District's needs are met and that development located in the area of the proposed Project as well as all of the residents of the community can receive adequate and appropriate educational facilities.

Finally, we request that all notices and copies of documentation with regard to this project be mailed both to the High School District directly, and also to our legal counsel's attention as follows:

Jeanne Howland, Chief Business Official
King City Joint Union High School District
800 Broadway
King City, CA 93930
tel (831) 385-0606
fax (831) 385-0695

Harold M. Freiman
Lozano Smith
2000 Crow Canyon Pl., Suite 200
San Ramon, CA94583
tel (925) 302-2000
fax(925) 302- 2010

Please feel free to contact me directly if we can be of any assistance.

Sincerely,

Jeanne Howland
Chief Business Offical
King City Joint Union Hgih School District

cc: (by facsimile, w/encl.)
Mark McClain, Building Official/Planning Manager, City of Greenfield
(fax: 831-674-3149)
Scheid Vineyards

KING CITY
CALIFORNIA

RECEIVED
JAN 4 2006
CITY OF GREENFIELD

December 22, 2005

Michael McCormick
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

RE: RESPONSE TO NOTICE OF PREPARATION

Dear Mr. McCormick,
Thank you for the opportunity to comment on the South End Sphere of Influence and General Plan Amendment Project Notice of Preparation ***("NOP")***.

The City of King City is currently processing several large development projects that should be considered when preparing the Environmental Impact Report ***("EIR")***. In addition, the City of King City is in the process of preparing a Citywide Sphere of Influence ***("SOI")*** Update. Please have the EIR consultant contact us to obtain a list and description of the projects.

The *traffic section* of the EIR should identify the underlying traffic assumptions and methodologies used to evaluate the existing and future traffic operations. As well, the EIR consultant should contact us to discuss potential subregional traffic programs that could encourage multi-modal transit use between Greenfield and King City (e.g., bike trails). The EIR should also address the necessary improvements needed to Highway 101 to accommodate future local and regional growth, and the available funding. The *groundwater hydrology and water resources section* should include a Water Supply Assessment pursuant to SB 610. The EIR should also consider regional planning solutions, such as the Regional Water Quality Control Board's policy to regionalize wastewater treatment. Additionally, we recommend the EIR include a discussion in the *public services and facilities section* regarding the potential establishment of a regional community services district to support services such as law enforcement, fire protection, and recreational facilities.

We look forward to receiving a copy of the Draft EIR. Please contact me at 831.385.3281, if you have any questions.

Sincerely,

Doreen Liberto-Blanck, AICP, MDR,
Community Development Director

c: Ann Marie Gallant, City Manager
Tina Metzger, Advanced Planning
Scott Bruce, AICP, Current Planning
Community Development File

MONTEREY COUNTY

PLANNING AND BUILDING INSPECTION DEPARTMENT
168 W. ALISAL ST., 2nd FLOOR, SALINAS, CA 93901
PERMIT CENTER LOCATIONS:
☑ SALINAS OFFICE: 168 WEST ALISAL ST., 2nd FLOOR, SALINAS, CA 93901 FAX: (831) 755-9516; PHONE: (831) 755-5025
☐ COASTAL OFFICE: 2620 FIRST AVE., MARINA, CALIFORNIA 93933: FAX: (831) 384-3261; PHONE: (831) 883-7500 (Building only)
☐ KING CITY OFFICE: 522 – NORTH SECOND ST., KING CITY, CA 93930 FAX: (831) 385-8387; PHONE: (831) 386-6315
http://www.co.monterey.ca.us/pbi/

January 4th, 2005

Michael McCormick
c/o Pacific Municipal Consultants
585 Cannery Row, Suite 304
Monterey, CA 93940

Re: City of Greenfield South End Sphere of Influence and General Plan Amendment Project

Dear Mr. McCormick:

Staff appreciates the opportunity to respond to your request for views on the scope and content of a Draft Environmental Impact Report (Draft EIR). We apologize for our delayed response, given the holidays and a heavy workload.

Prime Farmlands:
A primary issue arises when any jurisdiction requests development expansion into designated prime farmlands, recognized by CEQA as a potentially significant impact. Under the County's General Plan Goal 26 to promote orderly growth and development, Policy 26.1.2 discourages premature and scattered development.

1. ***Therefore, the Draft EIR should address the opportunities for in-fill development—the number and acreage of vacant lots within the City limits—as part of a study for the need for future development expansion.***

And of course, the Draft EIR must follow the State Department of Conservation eligibility requirements for a *Williamson Act Easement Exchange Program* with findings that include selection criteria for any alternative land used as an exchange. The exchanged land must include the following eligibility requirements:

2. ***be of equal or larger size than the land being removed from contract;***
3. ***have the value of the easement (based on appraisal showing the exchanged land must be equal to, or greater than, the cancellation fee calculated for recission of the contract;***
4. ***make a beneficial contribution to the conservation of agricultural land in the area;***
5. ***be of sufficient size to support commercial agriculture;***
6. ***be located within an agricultural preserve designated by a local government;***
7. ***be located within two miles outside of the exterior boundary of the sphere of influence of a city as established by LAFCO.***

Included in the proposed land use within the amended Sphere of Influence are commercial and heavy industrial uses. Several issues arise related to these land uses adjacent to prime farmlands.

8. ***The Draft EIR should address the preference for land issues compatible with surrounding agricultural operations such as Agricultural processing plants and offices that also provide a job-housing balance for the area.***
9. ***The Draft EIR should address a minimum requirement for buffer zones or transitional land uses between proposed development and agricultural operations.***

Water Issues:

The subject properties are within the Salinas Valley Basin, nearly 2 miles west of the Salinas River channel. As stated in the Central Salinas Valley Area Plan, the Salinas Valley Basin is divided into subareas, although there are no geologic barriers dividing these areas. Therefore, there is free groundwater movement between them, and the valley should be considered as a single hydrologic unit. This raises several questions as to water matters:

10. ***Is there a sustainable, long term water supply?***
11. ***What kind of measures can be placed to mitigate the potentially significant surface and subsurface run-off on water quality within the Salinas River Watershed from the introduction of commercial, industrial and residential development on these once cultivated fields?***
12. ***How will the recent Water Quality Act legislation requiring controls on nonpoint pollution be addressed for any new development?***

In-fill development:

This writer is very aware of developers that specialize in high-density, "in-fill development," even with the challenge by other developers that it is only a small, "niche" market, or that city public works and fire district regulations prohibit the kind of high-density, mixed uses promoted by New Urbanist principles and City-Centered Growth policies. These concerns can be put to rest when city officials are shown real examples of such development, such as found in the City of Chico with a population of about 100,000 in a rural area.
It is suggested that the Draft EIR provide real examples of in-fill development as another alternative to expansion into prime agricultural lands. (It may be suggested that City of Greenfield officials conduct a field trip to communities where in-fill development has been successfully realized such as the City of Chico).

In summary:
Not all County agencies have responded to your request for views on the proposed Draft EIR Scope of Work which may be accredited to the thoroughness of your declared horizon of impacts. The above comments are simply the salient issues that immediately arise to the surface, primary of which is the significant conversion of prime agricultural land to other land uses.

Sincerely yours,

David E. Lutes, Senior Planner
County of Monterey

PS. Although tardy, I will send more comments as received from other County agencies when they arrive for your perusal. Of course, we anticipate the future review of the Draft EIR when circulated.

Memorandum

DATE: October 21, 2005

TO: Nick Chiulos

FROM: Ronald J. Lundquist
Interim Public Works Director

SUBJECT: RESPONSE TO THE PRELIMINARY SPHERE OF INFLUENCE UPDATE APPLICATION FOR THE CITY OF GREENFIELD

Thank you for the opportunity to comment on the *Preliminary Sphere of Influence Evaluation for the City of Greenfield.* We have reviewed the pre-application information, and as the Public Works Department for Monterey County, we are interested in learning about the project and its potential impacts on the County roadway system.

The City of Greenfield proposes a combined Sphere of Influence (SOI) amendment and annexation to include approximately 1,300 acres of land beyond the existing incorporated boundaries of the City of Greenfiled. The proposal extends the City's SOI primarily along the northerly, westerly, and southerly portions of the city. The proposed land uses are intended to support a population of 36,000 residents and over 10,000 households.

Because the proposed SOI would provide the City of Greenfield opportunities for development immediately adjacent to unincorporated areas of the County, we are concerned about the potential impacts this proposal will have on County facilities. In an effort to coordinate with our fellow agency in providing quality services for our communities, we offer the following comments for your consideration.

- Because of the extent of the potential development in these areas, the County is concerned about the impacts this proposal will have on our existing facilities and resources. The County understands that developments in these areas would likely utilize both County and City public service resources and facilities. The County recommends the City coordinate with the appropriate agencies and County departments when planning and designing public service facilities to ensure acceptable service is provided to the community.

- Because existing County street facilities are potential direct access routes to the proposed SOI areas, the County is very interested in the development within the proposed SOI. As development occurs, County roadways, including, but not limited to, Thorne Road, Walnut Avenue, Elm Avenue and Espinosa Road will be directly impacted by traffic generated by the new growth areas. Impacts to the City and County roadway systems must be determined, and any mitigations identified within the unincorporated portions of the County need to be developed in consultation with the County as well as TAMC and Caltrans. As responsible

agencies, each needs to have the opportunities to consult on the scope of the mitigations proposed for the County or State roadway systems.

- The County is very interested in the phasing of the development within the proposed SOI. As development progresses, our agencies must coordinate and implement projects, roadway improvements and mitigations as the region develops to ensure facilities will be sufficient to accommodate the additional demands associated with the growth of the community.

- The Preliminary Draft of the Justification of Proposal/Environmental Information/Plan for Providing Services states that the existing roadway network will not support the range and intensity of the proposed land uses in the SOI, and an expanded roadway network would be necessary as portions of the SOI are developed. The proposed SOI application and attached section from the City's General Plan refer to a traffic study prepared for the General Plan EIR that identifies improvements to roadways within and around proposed SOI areas. The County is interested in the phasing of the development and growth of the City, and how and when the recommended roadway improvements would be implemented within this plan. The County is available to provide input during the review process of development proposals and roadway facility improvement projects in these areas, and requests the City coordinate with the County of Monterey and all other affected agencies to implement improvements that would affect roadways and facilities in the neighboring County vicinities.

- The proposed SOI includes a Proposed Southern Addition at the southeast City limits. Because the proposed land use of this area is Commercial Industrial, there is the potential for increased vehicle and truck traffic to and from this area. Several County roadways in this vicinity, including Espinosa Road, provide direct access to this area, and any impacts to County roadways must be considered and addressed.

- The proposed SOI application and attached section from the City's General Plan indicate that cumulatively significant impacts in the area of traffic and circulation. To address regional impacts of development, the City is encouraged to utilize the Transportation Agency for Monterey County (TAMC) Regional Impact Fee to generate funds which may be applied towards regional transportation projects.

DATE: January 19, 2006

SUBJECT: **COMMENTS ON THE SCOPE AND CONTENT OF A DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE CITY OF GREENFIELD "SOUTH END SOI AND GPA PROJECT" – PROPOSED LAND ANNEXATION TO THE CITY OF GREENFIELD (TVM LANDS / SCHEID VINEYARDS, PD051170)**

Because the proposed SOI would provide the City of Greenfield opportunities for development immediately adjacent to unincorporated areas of the County, we are concerned about the potential impacts this proposal will have on County facilities. In an effort to coordinate with our fellow agency in providing quality services for our communities, we offer the following comments for your consideration.

- Because of the extent of the potential development in these areas, the County is concerned about the impacts this proposal will have on our existing facilities and resources. The County understands that developments in these areas would likely utilize both County and City public service resources and facilities. The County recommends the City coordinate with the appropriate agencies and County departments when planning and designing public service facilities to ensure acceptable service is provided to the community.

- Because existing County street facilities are potential direct access routes to the proposed SOI areas, the County is very interested in the development within the proposed SOI. As development occurs, County roadways, including, but not limited to, Elm Avenue and Espinosa Road will be directly impacted by traffic generated by the new growth areas. Impacts to the City and County roadway systems must be determined, and any mitigations identified within the unincorporated portions of the County need to be developed in consultation with the County as well as TAMC and Caltrans. As responsible agencies, each needs to have the opportunities to consult on the scope of the mitigations proposed for the County or State roadway systems.

- The County is very interested in the phasing of the development within the proposed SOI. As development progresses, our agencies must coordinate and implement projects, roadway improvements and mitigations as the region develops to ensure facilities will be sufficient to accommodate the additional demands associated with the growth of the community. The County is available to provide input during the review process of development proposals and roadway facility improvement projects in these areas, and requests the City coordinate with the County of Monterey and all other affected agencies to implement improvements that would affect roadways and facilities in the neighboring County vicinities.

- The proposed South End SOI and GPA Project include a proposed commercial and industrial area at the southeast City limits and east of Highway 101. Because of this proposed Commercial Industrial land use, there is the potential for increased vehicle and truck traffic to and from this area. Several County roadways in this vicinity, including Espinosa Road, provide direct access to this area, and any impacts to County roadways must be considered and addressed.

- The *Preliminary Sphere of Influence Evaluation for the City of Greenfield* prepared in late-2005 states that the existing roadway network will not support the range and intensity of the proposed land uses in the preliminary SOI, and an expanded roadway network would be necessary as portions of that SOI are developed. The County is concerned that this South End SOI would have similar effects to County roadway facilities. The County requests the City coordinate with the County in identifying and developing improvements that address impacts to the neighboring County roadways facilities.

- To address cumulative regional impacts of the proposed South End SOI project, the City is encouraged to utilize the Transportation Agency for Monterey County (TAMC) Regional Impact Fee to generate funds which may be applied towards regional transportation projects.

MONTEREY BAY
Unified Air Pollution Control District
serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER
Douglas Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

January 5, 2006

Mr. Mark McClain, Planning Manager
City of Greenfield
P. O. Box 127
Greenfield, CA 93927

Sent by Facsimile to:
(831) 674-3149

SUBJECT: NOP OF DEIR FOR CITY OF GREENFIELD GENERAL PLAN UPDATE AND SOUTH END SPHERE OF INFLUENCE

Dear Mr. McClain:

Staff has reviewed the referenced document and has the following recommendations for the scope of work for the air quality analysis:

Consistency Determination
The District uses consistency with the Air Quality Management Plan for the Monterey Bay Region (AQMP) to determine a general plan's impact on regional air quality (ozone levels). The project level impact should be assessed by comparing the project's population with forecasts in the 2004 AQMP. The cumulative impact should be assessed by comparing population for all general plans within Monterey County with the population forecasts. The following data are needed to prepare this assessment: population at buildout of the general plan, estimate for time of buildout, and population forecasts in five year increments. AMBAG should be contacted to prepare the consistency determination.

Traffic Impacts
If project or cumulative traffic would cause LOS to decline from D or better to E or F, dispersion modeling should be undertaken to determine if carbon monoxide concentrations would violate ambient air quality standards at sensitive receptor locations.

Impacts on Human Health
If the project might expose sensitive receptors in adjacent land uses to air quality problems such as fugitive dust, odors or toxic air contaminants (e.g., diesel exhaust), the DEIR should include an assessment of these impacts.

Mitigation Measures
Mitigation measures should be identified for any significant impacts on air quality. The DEIR should quantify the emission reduction effectiveness of each measure, identify agencies responsible for implementation and monitoring, and conclude whether mitigation measures would reduce impacts below significance levels.

Projects Constructed Pursuant to the General Plan

The DEIR should indicate that projects constructed pursuant to the General Plan could have impacts on air quality which will be addressed when projects are proposed. The District has established the following thresholds of significance for individual projects: 137 lb/day of VOC or NO_x, 82 lb/day of PM_{10}, 150 lb/day of SO_x, a significant decline in LOS, and a cancer risk greater than 10 incidents per one million population.

District CEQA Air Quality Guidelines

The District's CEQA Air Quality Guidelines can be used to help prepare the air quality analysis. The Guidelines are available at the District's website - www.mbuapcd.org. Please do not hesitate to call if you have any questions.

Yours truly,

Jean Getchell
Supervising Planner
Planning and Air Monitoring

Milton Mocettini
612 Fairmont Drive
Salinas, CA 93901

January 4, 2006

Mr. Michael McCormick
Pacific Muncipal Consultants
585 Cannery Row, Suite 304
Monterey, CA 93940

Dear Mr. McCormick:

Thank you for expressing an interest in my views regarding the development project south of Greenfield, CA.

The following would be a list of questions or concerns I have with regards to the project:

1. While you have written a good description of the project location, would you have a map of the project? My property is south of the project, but I'm not sure how much land is between the southern border of your project and the northern border of my property.

2. With regards to the agricultural resources subsection of the EIR, is the project property protected by the Williamson Act? If yes, have alternative properties not protected by the Williamson Act been considered for the project? How does the proposed farm land targeted for the project compare in land value vs. alternative sites in the general vicinity (soil quality, rental/lease history)?

Thank you for taking into consideration my concerns. I would like to continue to be informed of the progress of this project as well as having my above questions addressed.

Sincerely,

Milton J. Mocett

Milton J. Mocettini

TAMC
TRANSPORTATION AGENCY FOR MONTEREY COUNTY

55-B Plaza Circle
Salinas, California 93901
E-mail:
info@tamcmonterey.org
Phone: (831) 775-0903
Fax: (831) 775-0897

Fax

To:	Michael McCormick	**From:**	Andy Cook, Associate Transportation Planner
Fax:	(831) 644-7696	**Pages:**	5
Phone:	(831) 644-9174	**Date:**	1/5/2006
Re:	Greenfield South End Sphere of Influence and General Plan Amendment Project	**CC:**	

☑ **Urgent** ☑ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

Michael,

Please find the following TAMC comments on the Greenfield South End Sphere of Influence and General Plan Amendment Project NOP. The original copy of the letter will follow in the mail.

Thanks,

Andy Cook

TAMC
TRANSPORTATION AGENCY
FOR MONTEREY COUNTY

Regional Transportation Planning Agency • Congestion Management Planning
Local Transportation Commission • Monterey County Service Authority for Freeways & Expressways

January 6, 2006

City of Greenfield
C/O Michael McCormick, Pacific Municipal Consultants
585 Cannery Row, Suite 304
Monterey, CA 93940

SUBJECT: Comments on the Notice of Preparation (NOP) of a Draft Environmental Impact Report for the Greenfield South End Sphere of Influence and General Plan Amendment Project

Dear Mr. McCormick:

Transportation Agency for Monterey County (TAMC) staff have reviewed the Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) for the proposed Greenfield South End Sphere of Influence and General Plan Amendment. TAMC is the Regional Transportation Planning Agency and Congestion Management Agency for Monterey County.

The project will accommodate development of 293 new low-density residential units and approximately 217,800 square feet of commercial space on 214 acres.

TAMC staff offers the following comments for your consideration:

1. The traffic analysis should evaluate the traffic impacts of the project to regional roads and highways under both "project-specific" and "cumulative" conditions, specifically US 101. TAMC considers payment of TAMC regional development impact fees, as identified in our agency's *Nexus Study for a Regional Development Impact Fee* on a project-by project basis as adequate mitigation for new developments' cumulative impacts to state highways and regional roads across Monterey County.

2. The traffic analysis in the Draft EIR should have a clearly defined study area including the significant regional roadways outside of the city limits that would potentially be impacted by development allowed by the proposed project. All state highways and principal arterials within this study area should be identified. Applicable Level of Service (LOS) standards for each of the roadway segments and intersections on state highways and principle arterials should also be identified in the DEIR.

3. The traffic analysis in the Draft EIR should include information on existing traffic volumes within the study area, especially for those roadway segments and intersections on state highways and principal arterials. This information should be based upon recent traffic counts. The existing LOS for each roadway segment and intersection should also be calculated and included in the DEIR.

4. The methodology used to calculate the LOS should be consistent with the methods in the current version of the Highway Capacity Manual (HCM). All LOS calculations should be included in the DEIR as an appendix and made available for public review.

5. TAMC supports accommodation of alternative forms of transportation (rail, bus transit, bicycle and pedestrian transportation), both through the design of transportation facilities, and through the design and orientation of land uses. TAMC recommends that the attached list of alternative measures be considered and implemented by development to promote alternatives to automobile travel and help address the impacts of project-related traffic on regional roadways. A discussion of any travel demand reduction measures to be implemented should be included in the DEIR. In addition, any bicycle and pedestrian facilities to be implemented according to the updated plan should be identified in the and be consistent with the TAMC General Bikeways Plan for Monterey County.

Thank you for the opportunity to review this document. If you have any questions, please contact Andrew Cook of my staff at (831) 775-0903.

Sincerely,

Wm. Reichmuth, P.E., Executive Director

Attachment: Samples of Alternative Measures

Cc: Dave Murray, California Department of Transportation (Caltrans) District 5
Carl Sedoryk, Monterey-Salinas Transit
Nicholas Papadakis, AMBAG
Douglas Quetin, Monterey Bay Unified Air Pollution Control District

SAMPLES OF ALTERNATIVE MEASURES

1. Provide ridesharing, public transportation and nearby licensed child care facility information to tenants/buyers as part of move-in materials.
2. Print transit information on promotional materials.
3. Install bicycle amenities, such as bicycle racks and bicycle lanes.
4. Provide bus pullouts, pedestrian access, transit stops, shelters and amenities as part of the site plan.
5. Provide locked and secure transportation information centers or kiosks with bus route/schedule information, in common areas.
6. Provide pedestrian facilities linking transit stops and common areas.
7. Provide resources for site amenities that reduce vehicular trip making.
8. Park-and-ride facilities.
9. On-site childcare facilities.
10. Shuttle bus service, bus pools or improved transit service as part of the development.
11. Facilities to encourage telecommuting.
12. Pedestrian and bicycle system improvements.
13. Transit oriented design and/or pedestrian oriented design.
14. Provide preferential carpool/vanpool parking spaces.
15. Implement a parking surcharge for single occupant vehicles.
16. Provide shower/locker facilities.
17. Employ or appoint a transportation/rideshare coordinator.
18. Implement a rideshare program.
19. Provide incentives for employees to rideshare or take public transportation.
20. Implement compressed work schedules.

SAMPLES OF STREET AND ROAD IMPROVEMENTS

1. Safety improvements
2. Traffic signal improvements.
3. Traffic signals.
4. Turning or auxiliary lanes.
5. Add travel lanes.
6. Improve highway interchange.
7. Construct interchange.
8. Construct new street or road.