Final
Environmental Impact Report
"South End"
Sphere of Influence
Amendment Project

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FINAL
ENVIRONMENTAL IMPACT REPORT

"SOUTH END" SPHERE OF INFLUENCE AMENDMENT PROJECT

GREENFIELD, CA

SCH# 2005121035

PMC

PACIFIC MUNICIPAL CONSULTANTS

JUNE 2006

FINAL ENVIRONMENTAL IMPACT REPORT

FOR THE

"SOUTH END" SPHERE OF INFLUENCE AMENDMENT PROJECT

SCH# 2005121035

Prepared for:

CITY OF GREENFIELD
Planning & Building Inspection Department
45 El Camino Real
Greenfield, CA 93927
Contact: Mark McClain (831) 674-5591

Prepared by:

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JUNE 2006

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1.0 INTRODUCTION

PURPOSE OF THE EIR PROCESS

This Environmental Impact Report (EIR) is an informational document prepared by the City of Greenfield to evaluate the environmental impacts of the South End Sphere of Influence Amendment Project. The primary objectives of the EIR process under the California Environmental Quality Act (CEQA) are to inform decision makers and the public about a project's potential significant environmental effects, identify possible ways to minimize significant effects and consider reasonable alternatives to the project. This EIR has been prepared with assistance from the City's consultant, Pacific Municipal Consultants, and reviewed by City staff for completeness and adequacy in accordance with Public Resources Code (PRC) Sections 21000-21177 and the State CEQA Guidelines.

The purpose of an EIR is to identify a project's significant effects on the environment, to identify alternatives to the project, and to indicate the manner in which those significant effects can be mitigated or avoided (PRC sec. 21002.1[a]). Comments from the public and public agencies on the environmental effects of a project must be made to lead agencies as soon as possible in the review of environmental documents, including, but not limited to, draft EIRs and negative declarations in order to allow the lead agency to identify, at the earliest possible time in the environmental review process, potential significant effects of a project, alternatives, and mitigation measures which would substantially reduce the effects. (PRC sec. 21003.1[a]).

As prescribed by the State CEQA Guidelines Sections 15088 and 15132, the Lead Agency, the City of Greenfield, is required to evaluate comments on environmental issues received from persons who have reviewed the Draft EIR (DEIR) and prepare written responses to these comments. This document, together with the DEIR (incorporated by reference in accordance with State CEQA Guidelines Section 15150) will comprise the Final Environmental Impact Report (FEIR) for this project. Pursuant to the requirements of the CEQA, the City of Greenfield must certify the FEIR as complete and adequate prior to approval of the project.

This FEIR contains individual responses to each written and verbal comment received during the public review period for the DEIR. In accordance with State CEQA Guidelines Section 15088(b), the written responses describe the disposition of significant environmental issues raised (e.g., revisions to the proposed project to mitigate anticipated impacts or objections). The City of Greenfield and its consultants have provided a good faith effort to respond in detail to all significant environmental issues raised by the comments.

EIR CERTIFICATION PROCESS AND PROJECT APPROVAL

In accordance with the requirements of CEQA and the procedures of the City of Greenfield, the City Council must certify the FEIR as complete and adequate prior to taking action on the proposed project. Once the EIR is certified and all information considered, using its independent judgment, the City can take action to go forward with the proposed project, make changes, or select an alternative to the proposed project. While the information in the EIR does not control the City's ultimate decision, the agency must respond to each significant effect and mitigation measure identified in the EIR by making findings supporting its decision.

2.0 Response to Comments

Letter 1

TAMC
TRANSPORTATION AGENCY FOR MONTEREY COUNTY

Regional Transportation Planning Agency • Congestion Management Planning
Local Transportation Commission • Monterey County Service Authority for Freeways & Expressways

RECEIVED
JUN 5 2006
CITY OF GREENFIELD

June 1, 2006

Mark McClain
Building Official/Planning Manager
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

SUBJECT: Comments on the Draft Environmental Impact Report for the Greenfield South End Sphere of Influence and General Plan Amendment Project

Dear Mr. McClain:

Transportation Agency for Monterey County (TAMC) staff has reviewed the 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, generating approximately 15,606 daily trips.

TAMC staff offers the following comments for your consideration:

Regional Road and Highway Impacts

1. The document acknowledges that 40% of project trips will travel northbound on US 101 and identifies a significant and unavoidable cumulative impact to US 101 mainline performance north of Greenfield, which would be mitigated by widening the roadway to accommodate the cumulative traffic volumes. TAMC is requesting that new projects pay proposed TAMC regional impact fees on an ad hoc basis to mitigate cumulative impacts to state highways, prior to TAMC asking each city to take official action adopting the fee program over the next two months. The fee program must be updated regularly to reflect changes in land use plans and transportation project development, and which will also have to take into account the need to widen US 101 through South Monterey County. 1-1

55-B Plaza Circle, Salinas, CA 93901-2902 • Tel: (831) 775-0903 • Fax: (831) 775-0897 • Website: www.tamcmonterey.org

Letter 1 Continued

TAMC urges the City to adopt the proposed regional fee program and collect regional fees from projects currently being reviewed by the City to establish a mechanism for mitigating cumulative capacity impacts on the county's road and highway system. 1-1 cont.

2. The project will generate both project-specific and cumulative impacts to US 101 interchanges in the City of Greenfield, which will be mitigated through the city's traffic impact fee program, and through a direct financial contribution toward the cost of a new US 101 interchange at Espinosa Road to replace the existing access ramps. These improvements must be implemented in coordination with Caltrans District 5 to meet Caltrans requirements and to obtain necessary approvals. A Project Study Report (PSR) will most likely need to be completed for some or all of the proposed interchange improvements. 1-2

Bicycle and Pedestrian Facilities

3. TAMC supports **Mitigation Measures 3.11-9a and 3.119b** in the document, which will provide for bicycle and pedestrian facilities serving development proposed for the area to be added into the city's sphere of influence. Our agency particularly supports the emphasis on pedestrian connectivity noted in these measures, and would like to express its appreciation for the consideration given to these modes of transportation. 1-3

   TAMC specifically recommends, however, that bicycle travel be accommodated via Class II bicycle lanes according to specifications in Chapter 1000 of the Caltrans Highway Design Manual, as opposed to separated Class I bicycle paths.

Transit System

4. **Impact 3.11-10** listed in the document notes that some increase in demand for transit will result in a less than significant impact to local and regional transit systems serving the City of Greenfield. TAMC would like to note that 2% of proposed regional fee program revenue will be allocated to Monterey-Salinas Transit (MST) for expansion of countywide transit services, which include the MST Route 23 and 53 services identified in the document that connect Greenfield with destinations in Salinas and the Monterey Peninsula. 1-4

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

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

Response to Letter 1 – Transportation Agency of Monterey County (TAMC)

Response to Comment 1-1

Regional Road and Highway Impacts. The comment recommends that new projects in Greenfield and elsewhere pay TAMC's proposed regional impact fees to address cumulative impacts on Highway 101.

Cumulative highway impacts are addressed on pages 3.11-37 through 3.11-39 of the DEIR. The comment is correct that the project and cumulative urban development in the South Salinas Valley is predicted to constrain the mainline freeway facility in the future. Significant and unavoidable level of service impacts could occur on segments of Highway 101 unless widening to six lanes occurs in the future.

As discussed on page 3.11-38, there is currently no fee collection mechanism in place by the City, TAMC or Caltrans for funding Highway 101 widening within or outside the City of Greenfield, and no cost estimates have been developed by TAMC for such a project in order to assess a meaningful fee. TAMC's package of regional improvements, as explained to the public and public agencies as the basis of the proposed TAMC fee program, has not to this point included costs for the widening of Highway 101. As freeway segment level of service is the primary cumulative impact forecasted by the City of Greenfield and other South County cities, any logical fee program for the City would be expected to include mainline improvements such as additional freeway lanes and financial assistance with interchange improvements. At this time, such improvements or direct assistance are not included in the program.

If mainline widening improvements were to be added to the proposed fee program through "adjustments" to the TAMC fee, as indicated in the comment letter, it is unclear what the total assessment would be. Without mainline improvements as an itemized component, the proposed TAMC fee is already over $8,000 per new dwelling unit. In addition, the City of Greenfield's Traffic Fee Impact (TIF) program has identified $90 million of new local improvements, including major interchanges and freeway ramp improvements. The City's new TIF is approximately $9,000 per dwelling unit to provide this comprehensive menu of improvements, many of which quality as "regional" improvements because they improve access and operations along Highway 101 within the City. TAMC's only planned improvement in Greenfield was ramp and signal work at Thorne Road. The City's plans are much more comprehensive.

The City of Greenfield supports the concept of shared responsibility for regional and cumulative impacts, as evidenced by the adopted General Plan policies that support such an approach. However, TAMC's 14-year plan is not on solid footing at the present time, as three of the four "legs" of the program – developer impact fees, half-cent sales tax and

contributions from the agriculture industry – are unreliable. Should the City collect fees from developers on an ad hoc basis at this time, there is little assurance that the fees collected would be used toward real improvements, or that any fee would have a measurable nexus toward mitigating the project's regional impacts within a reasonable geographic boundary.

The City of Greenfield looks forward to working with TAMC toward regional solutions, toward maximizing the funding available, and to meet goals that would make more State and federal money available to Monterey County as a whole. However, it may be worthwhile to explore a "subregional" approach to mitigating regional problems – such as using a higher ratio of South County fees on South County projects – to provide more equity within the program.

Response to Comment 1-2

Caltrans Coordination on Interchanges. The comment is correct that new interchanges and bridges in the City of Greenfield located along the Highway 101 corridor must be coordinated with Caltrans District 5 to meet Caltrans requirements and necessary approvals. A current example is Walnut Avenue, where the City has initiated a Project Study Report (PSR) to develop alternatives for the bridge.

Response to Comment 1-3

Bicycle Lanes. Comment in support of proposed mitigation measures is noted. The class of bicycle facility on any particular street shall be consistent with the City's circulation element.

Response to Comment 1-4

Transit System. The comment notes that the proposed TAMC fee program would allocate 2% of the revenue to MST for expansion of county-wide services. As discussed in Response to Comment 1-1, the City supports interagency coordination and would support expansion of the public transit system to better serve the City and the South County. The City agrees that improved public transit opportunities should be central to any feasible regional or subregional transportation plan.

Letter 2

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

June 2, 2006

Mr. Mark McClain, Planning Manager/Building Official
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

Sent by Facsimile to:
(831) 674-3149

SUBJECT: DEIR FOR SOUTH END GPA / SOI AMENDMENT

Dear Mr. McClain:

Staff has reviewed the Draft EIR and submits the following comments for your consideration:

NCCAB Attainment Status Designations. Page 3.3-8.
The federal one-hour ozone standard was revoked on June 15, 2005; there is no attainment designation for this revoked standard. 2-1

Mitigation Measure MM 3.3-1. Page 3.3-11-13.
The District welcomes the opportunity to review the construction emissions reduction plan (CERP) that would include best-available control measures for site preparation and construction activities. However, without implementation and enforcement of measures to reduce impacts within District thresholds of significance, MM 3.3-1 may not reduce impacts to a less than significant level. 2-2

Sub-Measures "n", "o", "p" and "q". Page 3.3-13.
"To the extent feasible"; and "minimize the use", "limit the pieces" and limit hours" " (without specified detail) are not enforceable mitigation measures. 2-3

Stationary Construction Equipment. Page 3.3-13.
Sub-measure "s", stationary equipment, may include portable equipment that is registered by the State under the Air Resources Board's Portable Equipment Registration Program. Please contact Lance Ericksen, Manager of the District's Engineering Division, for details of this program, as well as stationary sources subject to District permit. 2-4

Operational Emissions at Buildout without Mitigation. Page 3.3-15.
The document specifies that the modeling conducted did not take into account onsite mobile emissions associated with distribution facilities, packaging facilities and truck stops. Inasmuch as the Land Use Summary in Table 2-2 on page 2-17 includes 61 acres of highway commercial, 25 acres for a truck stop, and 83 acres of heavy industrial; the District suggests that the modeling be redone to reflect what is outlined in the Project Description. 2-5

Letter 2 Continued

MM 3.3-3. Page 3.3-16.
As stated under MM 3.1, above, the District welcomes the opportunity to recommend mitigation measures and suggests the following:

Highway Commercial and Industrial Uses
For the truck stop that is proposed on the Franscioni parcel, the District suggests that truck stop electrification be considered. Electrification would not only reduce fuel consumption and costs for the trucker, but would also significantly decrease emissions of diesel particulate matter and toxic air contaminants. This measure should significantly decrease PM_{10}, NO_x and ROG emissions. The District suggests that the benefits of such a measure be quantified. Information from the U. S. Department of Energy is attached for your reference, which includes locations of similar projects in California. 2-6

Health Risk Assessment
The District suggests that a Health Risk Assessment be considered for development within 500 feet of Highway 101, especially the proposed residential development. 2-7

Thank you for the opportunity to review and comment on this project.

Sincerely,

Jean Getchell
Supervising Planner
Planning and Air Monitoring Division

Attachment

cc: Lance Ericksen, Engineering Division

Response to Letter 2 – Monterey Bay Unified Air Pollution Control District

RESPONSE TO COMMENT 2-1

NCCAB Attainment Status. Comment regarding federal one-hour ozone standard is correct. Any future tables using this information will be updated.

RESPONSE TO COMMENT 2-2

Implementation of MM 3.3-1. The primary factor affecting construction impacts is the amount of ground disturbance on a given day. MM 3.3-1(l) recommends limiting ground disturbance to the quantities specified by the MBUAPCD. The City understands and has disclosed the potential for significant temporary impacts. However, by reinforcing the measures recommended by the District, it is the City's finding that all reasonable construction measures have been taken to mitigate such impacts. The measures are included in the EIR because they have been found, in practice, to be effective. Enforcement is ultimately the responsibility of the City, to ensure that contractors are in compliance with their permit conditions that include these practices.

RESPONSE TO COMMENT 2-3

Sub-Measures n, o, p and q. These measures for mobile/stationary sources reflect the realities of the construction process and the availability of certain types of equipment to the contractor at any given time. Certain conditions in the field may require idling, extensive heavy-duty equipment use or use of diesel equipment for specific tasks, even though such practices should be minimized. These measures are intended to assist with the reduction of mobile source emissions during the construction process. Fugitive dust is the primary construction-related problem. However, the City understands that any reduction in mobile source emissions will improve overall air quality during the time that construction is underway.

RESPONSE TO COMMENT 2-4

Stationary Construction Equipment. Comments regarding the ARB's Portable Equipment Registration Program are appreciated and noted for the record.

RESPONSE TO COMMENT 2-5

Operational Emissions at Buildout without Mitigation. The modeling was performed within the accuracy allowable by the URBEMIS2002 model. The URBEMIS model does not provide a detailed break-down of possible industrial and commercial land uses that could potentially be developed, nor did the traffic analysis prepared for this project provide a

break-down of trip-generation rates associated with possible land uses. Although the ultimate mix of land uses and actual mobile source conditions will vary from the modeled estimate one way or the other, the EIR takes a conservative approach to the model input. As a result, the EIR concludes and properly discloses that operational emissions will be a significant and unavoidable consequence of the proposal.

RESPONSE TO COMMENT 2-6

MM 3.3-3, Highway Commercial and Industrial Uses. Comments recommending truck stop electrification are noted. The City has amended MM 3.3-3 to include this recommendation. The following text will be added:

Truck Stop-Specific

s. Utilize truck stop electrification to decrease emissions of diesel particulates from idling trucks.

RESPONSE TO COMMENT 2-7

Health Risk Assessment. As identified on page 3.3-21, only a small portion of the residential area within the plan is located within the 500-foot "setback" area recommended by the District. The City has recognized the relationship between the freeway and new sensitive uses. The City looks forward to the review of detailed site planning that would further separate these uses. For example, drainage basins, roads or easements may increase that distance. For this reason, a health risk assessment was not deemed necessary for this project.

It is important to note that District staff was consulted during the preparation of this EIR. In accordance with District staff recommendations, the analysis presented in the EIR recognized potential health risks to occupants of proposed land uses, as well as the setback distance identified by the California Air Resources Board (ARB) for the siting of sensitive land uses near major roadways. The ARB has recommended that new sensitive receptors not be located within 500 feet of major roadways. The 500-foot "setback" distance recommended by the ARB is based on the distance within which health risks would be greatest. However, this setback distance is not intended to represent a distance or threshold beyond which a less-than-significant impact would occur. Because predicted health risks are dependent on site-specific conditions, health risk assessments can be conducted to better estimate predicted health risks along major roadways and possibly refute anticipated risks. However, given the proposed project's proximity to SR 101, preparation of a health risk assessment would not be anticipated to result in findings that would refute anticipated health risks, such that predicted risks to occupants of proposed residential land uses would be considered less than significant. As a result, District staff

agreed that a qualitative assessment of health risks would be acceptable and that preparation of a health risk assessment would not be required for this project.

Letter 3

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June 2, 2006

File No. 02035.000

Mark McClain
Building Official and Planning Manager
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

RE: Comments to "South End" Sphere of Influence Amendment Project.

Dear Mr. McClain:

Thank you for the work you, Greenfield's city staff and Pacific Municipal Consultants ("PMC") have put into the "South End" annexation project.

This is to provide you with my comments on the Draft Environmental Impact Report on the "South End" Sphere of Influence Amendment Project, dated April 2006 ("DEIR"). I would like to compliment you and PMC on understanding and expressing the benefits and objectives of this project. The project will establish long-term, job-generating land uses, promote a better jobs/housing balance within Greenfield and enhance the southern gateway entrance to the City.

The following represents our comments to the DEIR:

1. P.2-17; Table 2-2. The truck stop, hotel/motel and storage facilities have been proposed by Gary Coates as ideas that may work on the east side of highway 101. The uses were contemplated and intended to apply to either the Scheid East or Fransoioni properties. The DEIR correctly addresses the preliminary nature of this concept. 3-1

2. P.3.2-12; Williamson Act Exchange Program. In an effort to assist the City in its analysis of compliance with the Williamson Act Exchange Program ("WAEP"), attached you will find our analysis of the requirements and application of the WAEP to our project. Exhibit "A" analyzes the eligibility, selection and value 3-2

Letter 3 Continued

3. Issues surrounding the property. Exhibit "B" analyzes the necessary findings as required by the WAEP. 3-2 cont.

4. P.3.2-21. A portion of the property consists of the Elder Gravelly Loam, while a majority of the subject property consists of Arroyo Seco Gravelly Sandy Loam. It is important to emphasize that the City is contemplating moving the Sphere of Influence lines from an area northeast of the subject property that consists almost entirely of the revered Cropley Silt Clay, to an area less desirable in terms of soil quality. 3-3

5. P.3.2-26; MM 3.2-4. An agricultural impact fee does not currently exist. It is clear that the amount of land that the Franscioni family is dedicating to permanent agricultural easements far exceed the requirements established in state law and should be considered mitigation for purposes of this measure, regardless of whether an impact program is created or not. 3-4

6. P.3.3-7; Table 3.3-2. I believe the number of days the state standard for PM_{10} was exceeded was 4 and the federal standard should read zero. 3-5

7. P.3.8-10; MM 3.8-1B. It is my understanding that City of Greenfield policies on required park space do not address commercial or industrial property. We do anticipate providing retention areas on the property and we intend to work with the Scheid property owners in terms of overall site planning, which would include park space. In the event that we provide a retention basin large enough to accommodate recreational uses, we assume that by working collaboratively with the Scheid properties, that such a use would also qualify for any park space required throughout the project. 3-6

8. P. 3.11-17; Analysis Scenarios. The DEIR analyzes background conditions represented by projects that are approved but not constructed and where there is an assumption of full build out of the general plan. Does this analysis incorporate the currently approved general plan, which includes the industrial designation of the Thorpe property located northeast of the project site. 3-7

9. P 3.11-25. The last sentence of the first paragraph of this page starts with "Background Plus Interim" with nothing further. 3-8

10. P.3.11-4. The traffic study indicated that a new freeway interchange would be needed at Highway 101 and Espinosa Road. It is important note that from a project level, this analysis is important and valid. However, we believe that with further engineering, review and technical analysis, we may find that upgrading 3-9

Letter 3 Continued

the existing overpass at Patricia Lane may provide a more feasible and preferable alternative. It is our intent to find the most fair, economical and feasible resolution to the southern overpass, which will ultimately benefit the residents of Greenfield traveling to the highway commercial destinations and those traveling from their homes to school and work. In other words, this overpass will benefit the entire city.

3-9 cont.

Again, thank you for your time and effort in preparing this EIR.

If you have any questions, please do not hesitate to contact me.

Very truly yours,

Aaron P. Johnson

APJ/mca

Enclosure

Letter 3 Continued

EXHIBIT "A"

WILLIAMSON ACT EXCHANGE PROGRAM ANALYSIS
(Eligibility, Selection and Value of Property)

The Government Code provides the initial guidance on the criteria for satisfying a Williamson Act Exchange Program transaction. The laws guiding us our complicated and make reference to one another. Essentially, we are reviewing Government Code § 51256 which requires

(a) The proposed agricultural easement is consistent with the criteria in Public Resources Code § 10251. (See section A, below);

(b) The proposed agricultural easement is evaluated pursuant to selection criteria in Public Resources Code § 10252, making a beneficial contribution to the conservation agricultural land in its area (See Section B, below);

(c) The proposed land to be placed into agricultural conservation easement is of equal size or larger than the land subject to the contract to be rescinded, and is equally or more suitable for agricultural use that the land subject to the contract to be rescinded. In determining the suitability of the land for agricultural use, the city or county shall consider the soil quality and water availability of the land, adjacent land uses and any agricultural support infrastructure. (See Section C, below); and,

(d) The value of the proposed agricultural conservation easement, is equal to or greater than 12.5 percent of the cancellation valuation of the land subject to the contract to be rescinded, pursuant to subdivision (g) of § 51283. The easement value and the cancellation valuation shall be determined within 30 days before the approval of the city or county of an agreement pursuant to this section. (See Section D, below).

A. Public Resources Code § 10251. Eligibility Criteria.

Pursuant to Public Resources Code § 10251, the proposed agricultural easements identified as the Somavia Ranch (APN#137-041-034-000), Redding Ranch (APN# 221-011-040-000) and the remaining 50-Acre Vanoli Ranch (APN#221-011-017-000) (collectively, the "Easements"), must be consistent with the following criteria:

(1) The parcel proposed for conservation is expected to continue to be used for, and is large enough to sustain, commercial agricultural production. The land is also in an area that possesses the necessary market, infrastructure, and agricultural support services, and the surrounding parcel sizes and land uses will support long-term commercial agricultural production.

Letter 3 Continued

Somavia Ranch: The ranch consists of 66.09 acres of productive, irrigated row crops located west of Highway 101 at Somavia Road, between Salinas and Chualar. For the past several decades, the ranch has been used for the production of vegetables crops. The agricultural use is a viable use and a consistent use with the surrounding properties.

Redding Ranch: The ranch consists of 317.09 acres of productive, irrigated row crops located east of and adjacent to Highway 101 just south of Greenfield. For the past several decades, the Ranch has been used for the production of vegetable crops. The agricultural use is viable use and a consistent use with the surrounding properties

50 Acre Vanoli Ranch: The 50 Acre Ranch consists of 50.00 acres of productive, irrigated row crops located east of Highway 101 and is east of and adjacent to the 120-acre Fransoioni project site. This 50 acre portion of the ranch consists mainly of the preferred Cropley Silty Clay soil. The subject ranch is irrigated row crop ranch which for the past several decades has been used for the production of vegetables crops. The agricultural use is a viable use and a consistent use with the surrounding properties.

> **(2) The applicable city or county has a general plan that demonstrates a long-term commitment to agricultural land conservation. This commitment shall be reflected in the goals, objectives, policies, and implementation measures of the plan, as they relate to the area of the county or city where the easement acquisition is proposed.**

See DEIR page 3.2-18&19.

> **(3) Without conservation, the land proposed for protection is likely to be converted to nonagricultural use in the foreseeable future.**

Somavia Ranch: The current zoning and Monterey County General Plan designation for this property make it possible to be converted to other uses in the near future. The property is currently zoned "Heavy Industrial" and is located off of Somavia road, which has access to/from Highway 101. Although it would be difficult to convert to another use because of traffic constraints, a low-intensity, storage facility would be a type of conversion that could be consistent with the zoning/general plan designation with very little traffic impact.

Redding Ranch: Given its proximity and access to a major thoroughfare like Highway 101, it is possible to seek a general plan amendment from Monterey County to develop the property as a "Community Area", similar to that of Pajaro or Boronda. While the 2005-2025 City of Greenfield General Plan planning boundaries do not include the Redding Ranch for future city growth, the property is located close enough to Greenfield to warrant concern about developing in that area.

50 Acre Vanoli Ranch: The 50 Acre Ranch will be directly adjacent to the City's sphere of influence and ultimately developed land.

Letter 3 Continued

B. Public Resources Code § 10252, Selection Criteria.

Pursuant to Public Resources Code § 10252 the proposed Easements shall make a beneficial contribution to the conservation of agricultural land in its area. The director shall evaluate a proposal for a fee title or agricultural conservation easement acquisition grant based upon the overall value of the project, taking into consideration the goals and objectives for this program, and the extent to which the proposed project satisfies the following selection criteria:

(1) The quality of the agricultural land, based on land capability, farmland mapping and monitoring program definitions, productivity indices, and other soil, climate, and vegetative factors.

Somavia Ranch: This ranch consists of a mix of Copley Silty Clay and Antioch Very Fine Sandy Loam. The factors discussed in Section 3.2 of the DEIR, except for soil type, apply to the condition and climate of this ranch in terms of productive farming.

Redding Ranch: This ranch consists of a mix of Rincon Clay Loam. The factors discussed in Section 3.2 of the DEIR, except for soil type, apply to the condition and climate of this ranch in terms of productive farming.

50 Acre Vanoli Ranch: Please see DEIR "south End" Sphere of Influence Amendment Project, 3.2 Agricultural Resources, Pg. 3.2-1.

(2) The proposal meets multiple natural resource conservation objectives, including, but not limited to, wetland protection, wildlife habitat conservation, and scenic open-space preservation.

All three sites are located off of Highway 101 and are highly visible to the traveling public. The Somavia Ranch is zoned Heavy Industrial. The proposed Easement would protect the farmland from future development by permanently placing over 350 acres of highly visible farmland into an agricultural easement maintaining its current use as row crop and preserving the open-space, scenic quality of the property.

For additional discussion on the proposal's dedication to natural resource conservation, please see DEIR Section 3.1 (Aesthetic & Visual Resources), Section 3.2 (Agricultural Resources) and Section 3.4 (Biological Resources).

(3) The city demonstrates a long-term commitment to agricultural land conservation as demonstrated by the general plan and related land use policies of the city, policies of the local agency formation commission, California Environmental Quality Act policies and procedures, the existence of active local agricultural land conservancies or trusts, the use of an effective right-to-farm ordinance, and applied strategies for the economic support and enhancement of

Letter 3 Continued

agricultural enterprise, including water policies, public education, marketing support, and consumer and recreational incentives.

The Monterey County General Plan demonstrates a long-term commitment to agricultural land conservation evidenced by the following Land Use Policies:

County of Monterey General Plan Land Use Policies

Land Use Policy 26.1.12: In order to preserve its open space and rural character, the County shall encourage the voluntary restriction of development through dedication of scenic or conservation easements, transfer of development rights and other appropriate techniques.

Land Use Policy 27.3.2: The County shall encourage open space be provided within and on the fringes of residential areas.

Land Use Policy 30.0.1: The County shall prevent non-agricultural uses which could interfere with the potential of normal agricultural operations on viable farmlands designated as prime, of statewide importance, unique or of local importance.

Land Use Policy 30.0.4: The County shall make every effort to preserve, enhance, and expand viable agricultural land uses on farmland designated as prime, of statewide importance, unique, or of local importance through application of "agricultural" land use designations and encouragement of large lot agricultural zoning.

Land Use Policy 30.0.05: The County shall support other policies that provide tax and economic incentives which will enhance competitive capabilities of farms and ranches, thereby insuring long-term preservation, enhancement, and expansion of viable agricultural lands. Examples of these policies and programs may include the following:

- Establishment of a program to purchase and lease back agricultural lands near urban or developing areas for continued agricultural use.
- Use of voluntary restriction to agricultural uses through contributions of conservation easements or other appropriate techniques.
- use of Williamson Act Contracts

Land Use Policy 34.1.7: The County shall support the creation of private nonprofit land trusts and conservation organizations to receive by voluntary donation or purchase, development rights on any lands to be preserved as open space.

Monterey County General Plan Land Use Policies - South County Area Plan

Land Use Policy 26.1.1.1(SC): In order to make the most efficient use of land and to preserve agricultural land and open space, clustered development shall be encouraged in all areas where development is permitted.

Letter 3 Continued

Land Use Policy 27.1.3.1(SC): Existing communities shall be the nucleus for residential expansion and premature, scattered development shall be discouraged.

Land Use Policy 27.1.3.1(SC): The County shall support policies and programs such as large lot zoning and agricultural land trusts which will enhance the competitive capabilities of farms and ranches.

Greenfield's Policies: For a discussion of the City of Greenfield's policies on protecting agriculture, please see P.3.2-18 through 20.

LAFCO Policies: For a discussion of the LAFCO Policy analysis, please see Table 3.2-6 on P.3.2-17 of the DEIR.

CEQA Compliance: In accord with the California Environmental Quality Act requirements, Monterey County has adopted by ordinance the criteria and procedures for the evaluation of projects and the preparation of environmental reports and negative declarations as set forth in the California Public Resources Code sections 21000 et seq. See *Monterey County Code § 16.70.030.*

Land Trusts: The applicant has been working cooperatively with the Monterey County Agricultural and Historical Land Conservancy, Inc., a California non-profit corporation ("Conservancy"), who will accept the grant of the Easement. The Conservancy was founded on August 1, 1984 and was created by the residents of Monterey County to serve the residents of Monterey County. Incorporated in 1985, the Conservancy is a private, non-profit organization dedicated to the preservation of the agricultural and historical resources of Monterey County.

Right to Farm Notice: Monterey County has adopted Monterey County Code § 16.40, an ordinance protecting agricultural activities near residential and commercial activities otherwise known as a right-to-farm ordinance.

Applied Strategies: Please see the 1988 Monterey County General Plan, South County Area Plan.

> (4) If the land is in a county that participates in the Williamson Act (Chapter 7 (commencing with Section 51200) of Part 1 of Division 1 of Title 5 of the Government Code), the land proposed for protection is within a county or city designated agricultural preserve.

A portion of the proposed Easement is within a county designated agricultural preserve.

> (5) The land proposed for conservation is within two miles outside of the exterior boundary of the sphere of influence of a city as established by the local agency formation commission.

Letter 3 Continued

Somavia Ranch: Is within two miles of the unincorporated town of Chular, a community approximately 10 miles South of the Salinas city limits. Chular has a population of 1,135 people, has its own elementary school, post office, and several convenience stores. Under the Monterey County General Plan Update, Chuular will be considered a "community area" and as such identified for future growth.

Redding Ranch: Is within two miles of the City of Greenfield.

Vanoli Ranch: The 50 Acre Vanoli Ranch easement is within two miles of Greenfield.

> **(6) The applicant demonstrates fiscal and technical capability to effectively carry out the proposal. Technical capability may be demonstrated by agricultural land conservation expertise on the governing board or staff of the applicant, or through partnership with an organization that has that expertise.**

The applicant is represented by legal counsel knowledgeable on the Williamson Act and agricultural easement restrictions. In addition, the Monterey County Agricultural and Historical Land Conservancy, Inc., the California non-profit corporation who is accepting the proposed Easement for conservation, is knowledgeable and dedicated to the preservation of agricultural and historical resources of Monterey County and familiar with the state agricultural preservation policies and statutes. Furthermore, the applicant is in the business of farming and will likely continue to farm the Easement properties.

> **(7) The proposal demonstrates a coordinated approach among affected landowners, local governments, and nonprofit organizations. If other entities are affected, there is written support from those entities for the proposal and a willingness to cooperate. The support of neighboring landowners who are not involved in the proposal shall be considered.**

The Monterey County Agricultural and Historical Land Conservancy, Inc., a California non-profit corporation accepting the grant of the Easement ("Conservancy") and the City of Greenfield have expressed their support of the project. This proposal has been discussed at public meetings in the City of Greenfield, with neighbors and adjacent developers. The proposal has not met resistance to date.

> **(8) The conservation of the land supports long-term private stewardship and continued agricultural production in the region.**

According to the agreement, the Easement will be restricted under an agricultural easement with the Conservancy in perpetuity. The proposed Easement is expected to be used for, and large enough to sustain, commercial agricultural production, and is surrounded by agricultural supporting services that support long-term commercial agricultural production.

> **(9) The proposal demonstrates an innovative approach to agricultural land conservation with a potential for wide application in the state.**

Letter 3 Continued

The instant proposal demonstrates that Williamson Act Exchange Program is a process where a landowner and the state can benefit from cancellation of the Williamson Act contract. The landowner is able to cancel the contract on the restricted property and the state gains additional and better or equal value of agricultural land for agricultural preservation. In this regard, the Francioni proposal to exchange the westernmost 121.06 Acre Vanoli Ranch for the proposed Easement places a greater amount of acreage of better and equivalent soil quality under agricultural preservation.

(10) The amount of matching funds and in-kind services contributed by local governments and other sources toward the acquisition of the fee title or agricultural conservation easement, or both.

The local government is not contributing to the acquisition of the agricultural easement.

(11) The price of the proposed acquisition is cost-effective in comparison to the fair market value.

An appraisal, to be provided in this process, will show that the Easement is being donated to the Conservancy, as such it is cost-effective in comparison to the fair market value of the proposed Easement and the cost of obtaining such an easement by the Conservancy.

(12) Other relevant considerations established by the director.

To be determined by the director of the Department of Conservation.

C. The proposed land to be placed into agricultural conservation easement is of equal size or larger than the land subject to the contract to be rescinded, and is equally or more suitable for agricultural use than the land subject to the contract to be rescinded. In determining the suitability of the land for agricultural use, the city or county shall consider the soil quality and water availability of the land, adjacent land uses and any agricultural support infrastructure.

Equal or Larger Easement: The proposed land to be placed in agricultural preservation, the Somavia Ranch (+/- 66.09 acres), the Redding Ranch (+/- 317.09 acres), and the easternmost 50 Acre Vanoli Ranch in exchange for the cancellation of the westernmost 121.06 Vanoli Ranch agricultural easement is greater by replacing 439.18 acres into agricultural preservation in exchange for the cancelled westernmost Vanoli Ranch of 121.06 acres.

Equally or More Suitable for Ag Use: The Somavia, Redding and the easternmost 50 Acre Vanoli Ranch easement are superior to the agricultural quality of the soil on the westernmost 121.06 acres of the Vanoli Ranch, which consists of primarily the Arroyo Seco Gravely Loam. For a discussion of soil types on the Vanoli ranch, please see P. 3.2-7 through 11.

Letter 3 Continued

Somavia Ranch Suitability:

Soil quality and water availability: The Somavia Ranch has one well. The well is adequate for farming this ranch. Soils on the ranch include the Cropley Silty Clay, class II soil. Adjacent Uses: The Somavia Ranch fronts on Somavia Road with the Salinas River to the west. Highway 101 is located to the east and row crop are found to the north and south of the ranch. The City of Chular is located southeast of the ranch. Agricultural Support Infrastructure: The ranch has water and is close to transportation routes.

Redding Ranch Suitability:

Soil quality and water availability: The Redding Ranch has two wells on the subject property and has permanent sprinkler irrigation. The soil rating is Class II for all usable acres. Adjacent Uses: The Redding Ranch fronts on the 101 Highway to the west and the Salinas River on the east. There are row crops on the north and south of the property. Agricultural Infrastructure: The Redding Ranch has two wells on the subject property and has permanent sprinkler irrigation. There are no building improvements on the ranch excepting metal equipment shed.

50 Acre Vanoli Ranch:

Soil quality and water availability:

Water on the 50 Acre Vanoli Ranch is provided by a well on the larger portion of this parcel. The soil rating is Class II for 20 usable acres and Class III for the remaining 30 acres. The Storie Index is 90 for 10 acres, 51 for 10 acres and 63 for the remaining 30 acres. Adjacent Uses: The subject ranch is located approximately ¼ mile south of the City of Greenfield limits. The 50 acre Vanoli Ranch fronts on the larger portion of the Vanoli Ranch with the Salinas River to the east, Highway 101 to the west, row crop farming to the north, south and west (for now) and the City of Greenfield to the north. Agricultural Infrastructure: Water is currently served by a well on the property (the applicant will agree to continue to provide water to that parcel).

D. The value of the proposed agricultural conservation easement, is equal to or greater than 12.5 percent of the cancellation valuation of the land subject to the contract to be rescinded, pursuant to subdivision (a) of § 51283. The easement value and the cancellation valuation shall be determined within 30 days before the approval of the city or county of an agreement pursuant to this section.

The landowner has an October 12, 2005, draft Certified Real Estate Appraisal on the Somavia Ranch, the Redding Ranch and the easternmost 50 Acre Vanoli Ranch appraising the values of the easement individually as follows: 1) Somavia Ranch, $600,000.00; 2) Redding Ranch, 1,113,000.00; 3) easternmost 50 Acre Vanoli Ranch, $375,000.00. The Monterey County Assessor must make an appraisal 30 days before approval of the city or county rescission agreement to determine the cancellation valuation of the 121.06 Acre

Letter 3 Continued

Vanoli Ranch, the land subject to contract and to be rescinded and thereafter to be exchanged for the proposed easement.

Letter 3 Continued

EXHIBIT "B"

WILLIAMSON ACT EXCHANGE PROGRAM ANALYSIS
(Necessary Findings)

I.

Under the Williamson Act the Board or Council may grant tentative approval for cancellation of a contract only if it makes one of the following findings (Government Code § 51282):

(1) That the cancellation is consistent with the purposes of this chapter; or

Cancellation is consistent with the purposes of the chapter because the proposed exchange can meet the Williamson Act easement exchange criteria under Government Code section 51256, Public Resources Code § 10251 and § 10252.

(2) That the cancellation is in the public interest. (Cancellation of a contract shall be in the public interest if the council or board makes the following findings: (1) that other public concerns substantially outweigh the objectives of this chapter; and (2) that there is no proximate noncontracted land which is both available and suitable for the use to which it is proposed the contracted land be put, or that development of the contracted land would provide more contiguous patterns of urban development than development of proximate noncontracted land.)

The proposed project benefits the City of Greenfield by providing economic development of the adjacent land that can provide jobs for the community. There is no practical alternative noncontracted property that is suitable for the proposed use. (See (b)(5) below). Development of the contracted land will provide a contiguous pattern of urban development. (See (b)(4).). Please see DEIR Section 4.2 for more information supporting the benefit of this project to the public interest.

II.

Cancellation of a contract shall be consistent with the purposes of this chapter only if the board or council makes all the following findings:

(1)That cancellation is for land on which notice of nonrenewal has been served pursuant to § 51245. A nonrenewal notice has been filed with Monterey County.

(2) That cancellation is not likely to result in the removal of adjacent lands from agricultural uses.

The cancellation involves land that is presently being proposed in the City of Greenfield amended sphere of influence. Any adjacent property not within the proposed adjusted

Letter 3 Continued

sphere of influence is unlikely to be developed in the near future. Adjacent property is going into permanent agricultural easement.

(3) That cancellation is for an alternative use which is consistent with the applicable provisions of the city or county general plan.

See DEIR section 4.2 for benefits of the project, including planning for future growth consistent with the existing plan and zoning, and compatibility with surrounding land uses.

(4) That cancellation will not result in discontiguous patterns of urban development.

The cancellation will limit development to property that is adjacent to the city limits and therefore does not result in discontiguous patterns of urban development.

(5) That there is no proximate noncontracted land which is both available and suitable for the use to which it is proposed the contracted land be put, or, that development of proximate noncontracted land (practical alternative for the use of the proposed land).

The City of Greenfield future growth is moving south and west of the city. The proposed use of the contracted land, because of its location, the gateway of the city, will provide Heavy Industrial and Commercial development beneficial for the distribution and transportation industry traveling on Highway 101. There is no noncontracted land that is proximate to the City of Greenfield on the southern end of the city that can practically provide the same use of the proposed contracted land without leapfrogging.

(c) Noneconomic character of an existing agricultural use shall not be itself be sufficient reason for cancellation. It can be considered only if there is not other reasonable or comparable agricultural use to which the land may be put.

The property is currently productive.

(6) The landowner's petition shall be accompanied by a proposal for a specified alternative use of the land. The proposal for the alternative use shall list those governmental agencies known by the landowner to have permit authority related to the proposed alternative use, and the provisions and requirements of 51283.4 shall be fully applicable thereto (filing tentative cancellation upon conditions met with county).

See *City of Greenfield DEIR, South End Sphere of Influence Amendment Project, 2.0 Project Description*, Pg. 2-18.

(f) If EIR identifies significant effects on the environment must make findings found in PRC 21081.

See *City of Greenfield DEIR, South End Sphere of Influence Amendment Project*, 3.0 Environmental Setting, Impacts and Mitigation Measures, Pg. 3.1.

Response to Letter 3 – Johnson & Moncrief

RESPONSE TO COMMENT 3-1

Page 2-17, Table 2-2. Comment noted. Footnote 2 clarifies that locations and uses are conceptual.

RESPONSE TO COMMENT 3-2

Williamson Act Exchange Program. The City appreciates the applicant's effort to expand upon the required analysis and findings needed for a successful program. Please see also the comment letter from the Department of Conservation, Letter 5.

RESPONSE TO COMMENT 3-3

SOI Boundary Location. The comment is correct that the City is concurrently processing a GPA that will remove planned development out of an area of exceptional soil.

RESPONSE TO COMMENT 3-4

MM 3.2-4, Agriculture Impact Fee. The comment is correct that an agriculture impact fee does not exist at this time. The measure is a policy-level mitigation. The DEIR concludes that, although the South End SOI project includes a Williamson Act Exchange Program, the physical conversion of agricultural land will still occur despite these mitigating circumstances (page 3.2-22).

RESPONSE TO COMMENT 3-5

Table 3.3-2. Comment noted and correction made.

RESPONSE TO COMMENT 3-6

MM 3.8-1b. Any joint use of basin area for recreational purposes will only be considered if required by code or if such a facility would further the City's planning goals. Such a facility in a heavy industrial or highway commercial area may not be desirable. All proposed residential areas will be required to meet park requirements.

RESPONSE TO COMMENT 3-7

Analysis Scenarios. The traffic analysis for the South End SOI DEIR assumed a land use adjustment for the city-sponsored GPA that removed 172 acres of heavy industrial use (see Figure 3.11-2).

Response to Comment 3-8

Editorial, page 3.11-25. Wording and misplaced heading will be removed.

Response to Comment 3-9

Espinosa Road/Highway 101 Interchange, page 3.11-4. Comments regarding the overpass are noted. The measure is structured to require the improvement when and if it is warranted. Because the improvement is not required without this particular project, it is critical that the project's responsibility be assigned. As the improvement is identified within the City's updated TIF, it is anticipated that partial funding will have been collected by the time such a major improvement is triggered.

Letter 4

STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Arnold Schwarzenegger
Governor

Sean Walsh
Director

June 1, 2006

RECEIVED
JUN 5 2006
CITY OF GREENFIELD

Mark McClain
City of Greenfield
45 El Camino Real
Greenfield, CA 93927

Subject: South End GPA / SOI Amendment
SCH#: 2005121035

Dear Mark McClain:

The State Clearinghouse submitted the above named Draft EIR to selected state agencies for review. The review period closed on May 31, 2006, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

Please call the State Clearinghouse at (916) 445-0613 if you have any questions regarding the environmental review process. If you have a question about the above-named project, please refer to the ten-digit State Clearinghouse number when contacting this office.

Sincerely,

Terry Roberts
Director, State Clearinghouse

1400 TENTH STREET P.O. BOX 3044 SACRAMENTO, CALIFORNIA 95812-3044
TEL (916) 445-0613 FAX (916) 323-3018 www.opr.ca.gov

Letter 4 Continued

Document Details Report
State Clearinghouse Data Base

SCH#	2005121036
Project Title	South End GPA / SOI Amendment
Lead Agency	Greenfield, City of
Type	EIR Draft EIR
Description	The South End SOI project involves a series of complex land use actions and boundary changes that ultimately relate to the City of Greenfield's General Plan and proposed SOI boundaries. The project is described within this EIR represents the "whole of the action," made up of several components.

Lead Agency Contact

Name	Mark McClain		
Agency	City of Greenfield		
Phone	(831) 674-5591	*Fax*	
email			
Address	45 El Camino Real		
City	Greenfield	*State* CA	*Zip* 93927

Project Location

County	Monterey		
City	Greenfield		
Region			
Cross Streets	Espinoza Road / El Camino Real / Patricia Lane		
Parcel No.	221-011-068, 071, 017, 018		
Township	*Range*	*Section*	*Base*

Proximity to:

Highways	Highway 101
Airports	
Railways	SPRR
Waterways	Arroyo Seco and Salinas River
Schools	Greenfield ESD, King City JUHSD
Land Use	Agriculture GP: Partially Heavy Industrial / Partially not included in current GP area

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Cumulative Effects; Drainage/Absorption; Flood Plain/Flooding; Geologic/Seismic; Growth Inducing; Landuse; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wildlife

Reviewing Agencies Resources Agency; Regional Water Quality Control Board, Region 3; Department of Parks and Recreation; Native American Heritage Commission; Public Utilities Commission; Department of Housing and Community Development; Department of Health Services; Office of Emergency Services; Office of Historic Preservation; Department of Fish and Game, Region 3; Department of Water Resources; Department of Conservation; California Highway Patrol; Caltrans, District 5

Date Received 04/17/2006 *Start of Review* 04/17/2006 *End of Review* 05/31/2006

Note: Blanks in data fields result from insufficient information provided by lead agency.

Response to Letter 4 – Governor's Office of Planning and Research

This letter simply acknowledges that he City has complied with State Clearinghouse review requirements.

Letter 5

STATE OF CALIFORNIA, RESOURCES AGENCY — ARNOLD SCHWARZENEGGER, GOVERNOR

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 • WEBSITE conservation.ca.gov

RECEIVED
JUN 9 2006
CITY OF GREENFIELD

TO: Mr. Mark McClain
Building Official/Planning Manager
City of Greenfield
45 El Camino Real
P.O. Box 127
Greenfield, CA 93927

FROM: Dennis J. O'Bryant, Acting Assistant Director
Department of Conservation, Division of Land Resource Protection

DATE: June 5, 2006

SUBJECT: DRAFT ENVIRONMENTAL IMPACT REPORT (DEIR) SOUTH END GPA/SOI AMENDMENT PROJECT SCH#2005121035

The Department of Conservation's Division of Land Resource Protection has reviewed the proposed DEIR for the referenced project. The Department of Conservation (Department) is responsible for monitoring farmland conversion on a statewide basis and administering the California Land Conservation (Williamson) Act and other agricultural land conservation programs. We offer the following comments and recommendations on the Draft Environmental Impact Report.

Project Description

The project involves four parcels consisting of a total of 267 prime agricultural acres located south of the City of Greenfield (City).

- Parcel 1 (APN 221-001-068) an L-shaped parcel of forty-seven acres, is located west of Highway 101 within the City's current Sphere of Influence. The DEIR proposes a General Plan amendment to change Parcel 1 from Agricultural to Low-density residential.
- Parcel 2 (APN 221-011-017), is a 171-acre parcel east and adjacent to Highway 101 and currently subject to a Williamson Act Contract. The DEIR proposes inclusion of this parcel in the City's SOI and a GP amendment changing the land

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The Department of Conservation's mission is to protect Californians and their environment by: Protecting lives and property from earthquakes and landslides; Ensuring safe mining and oil and gas drilling; Conserving California's farmland; and Saving energy and resources through recycling.

Letter 5 Continued

use on 121-acres from agriculture to Highway Commercial and Heavy Industrial. The easterly 50-acres of the parcel are proposed to remain in agricultural as part of the Department's Easement Exchange Program.

- Parcel 3 (APN 221-001-071), is 46-acres north of Parcel 2 and east and adjacent to Highway 101. The DEIR proposes inclusion of Parcel 2 within its SOI and a General Plan amendment to change the parcel's designation from Heavy Industrial to Highway Commercial.
- Parcel 4 (APN 221-0010-018), located south and adjacent to Parcel 2, is a three-acre parcel proposed for inclusion within the City SOI and a GP amendment from Agriculture to Highway Commercial.

The 267 acres are currently in agricultural production, primarily producing row crops. The DEIR indicates the project applicants have requested annexation of the four parcels into the City of Greenfield. The annexation may be part of an application to LAFCO apart from and subsequent to the application to amend the SOI. 5-1

Williamson Act Contract Cancellation

The Department recommends that the following information be included in the EIR regarding Williamson Act land impacted by the project.

- A proposal for cancellation of a Williamson Act contract requires notification to the Department when the County or City accepts the petition 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. We recommend that the environmental document include discussion of how the cancellation 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 Bridget Luther, Director, Department of Conservation, c/o Division of Land Resource Protection, 801 K Street MS 18-01, Sacramento, CA 95814-3528.) 5-2

It should be clarified that until the annexation process is complete, the City of Greenfield is not a party to the contract and has no legal authority under the Williamson Act to hear or act on the termination of a Williamson Act contract.

Williamson Act Easement Exchange Program

The Williamson Act provides a voluntary contract rescission process for local entities and landowners to cancel a Williamson Act contract and to simultaneously dedicate a permanent agricultural conservation easement on other qualifying land. 5-3

Letter 5 Continued

The Williamson Act easement exchange process has specific qualifying requirements both for the contracted land and for the potential easement land and is discretionary process subject to final approval by the Department. The Department of Conservation is a responsible agency under CEQA for exchange program projects.

The decisions made by the Department in the process include a determination of whether the contract cancellation findings are supported by substantial evidence; whether the proposed easement meets eligibility and evaluation criteria; whether the proposal will be a beneficial contribution to agricultural land conservation; and the appropriateness of the easement valuation.

5-3 cont.

The Department typically advises that involved parties consult the Department several months prior to the easement exchange application process to ensure that the proposal can meet statutory requirements. The DEIR indicates that a proposal is in-progress. As the Department has not received correspondence on the proposal, the involved parties should contact the Division's Williamson Act Program for assistance. The contact person for the Williamson Act Easement Exchange Program is Adele Lagomarsino, Program Analyst, (916) 445-9411.

Mitigation Measures

The DEIR proposes to utilize the Williamson Act Easement Exchange Program in exchange for terminating the Williamson Act contract on 121-acres. Under the Easement Exchange Program agricultural conservation easements are used in lieu of paying the contract cancellation fee penalty to the State General Fund and do not qualify as a mitigation measure for the conversion of agricultural land to urban use.

Agricultural conservation easements may also be utilized on land of at least equal quality and size as partial compensation for the direct loss of agricultural land. While agricultural conservation easements can be purchased outright, an alternative approach involves 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.

5-4

Other forms of mitigation may be appropriate, 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.).

Letter 5 Continued

- 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.

5-4 cont.

Thank you for the opportunity to comment on the DEIR. If you have any questions on our comments, please contact our office at (916) 324-0850.

Response to Letter 5 – California Department of Conservation

Response to Comment 5-1

Project Description. The Department has accurately summarized the proposal. The annexation of real property as part of a separate LAFCO application is an important part of the description. The separate application will allow additional time for the applicants and City to complete all Williamson Act cancellation and exchange processes as required by the Department of Conservation.

Response to Comment 5-2

Williamson Act Cancellation Process. Exhibits A and B, attached to Letter 3 from Johnson & Montcrif, provide additional detail for the record regarding the cancellation and exchange process. The City is independently reviewing this information and will provide an objective analysis in order to make the necessary findings. The City understands that the City's determinations regarding cancellation are preliminary and must consider the Department's comments prior to approving a tentative cancellation. Until the annexation of the property is complete the City cannot act independently on this matter. Letter 3 and its exhibits are considered part of this Final EIR and incorporated into the record.

Response to Comment 5-3

Williamson Act Exchange Program. Please see the above response and Exhibits of Letter 3.

Response to Comment 5-4

Mitigation Measures. The DEIR does not propose the exchange program as mitigation for conversion of agricultural land. The mitigation only addresses the impact of the Williamson Act contract cancellation. Impacts specific to the conversion of prime farmland are disclosed and analyzed on pages 3.2-21 and 3.2-22 of the DEIR. This analysis summarizes the City's planned approach to growth and cites the fact that the City has voluntarily removed an additional 172 acres outside the project from planned urban development. Despite these mitigating circumstances, the DEIR concludes that conversion of farmland is a significant and unavoidable effect of the proposal. Although a mitigation fee has not been formed in the County or the City, MM 3.2-4 acknowledges that such a fee may be a mitigation option if one is established in the near future.

3.0 DRAFT EIR ERRATA

3.0 DRAFT EIR ERRATA

Minor typographical errors and corrections to the DEIR text are presented below. Additions are shown as bold italics and deletions are shown as strikethrough.

ERRATA TO THE AIR QUALITY SECTION

Page 3.3-8, Table 3.3-3, has been amended as follows:

TABLE 3.3-3
NCCAB Attainment Status Designations

POLLUTANT	NATIONAL DESIGNATION	STATE DESIGNATION
Ozone, 1 hour	***Not Applicable*** ~~**Attainment/Maintenance**~~	Nonattainment/Transitional
Ozone, 8 hour	Unclassified/Attainment	Not Applicable
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Unclassified	Attainment
Carbon Monoxide	Unclassified/Attainment	Unclassified/Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified	Attainment
Sulfates	Not Applicable	Attainment
Lead	Not Applicable	Attainment
Hydrogen Sulfide	Not Applicable	Unclassified
Visibility Reducing Particles	Not Applicable	Unclassified

Page 3.3-17, MM 3.3-3, has been amended as follows:

s. Utilize truck stop electrification to decrease emissions of diesel particulates from idling trucks.

Page 3.3-7, Table 3.3-2, has been amended as follows:

TABLE 3.3-2
SUMMARY OF AMBIENT AIR QUALITY DATA

POLLUTANT STANDARDS	2002	2003	2004
King City-750 Metz Road Air Monitoring Station			
Ozone (O_3)			
Maximum concentration, 1-hr/8-hr period (ppm)	0.079/0.066	0.085/0.074	0.078/0.070
Number of days state standard exceeded	0	0	0
Number of days federal standard (1-hr/8-hr) exceeded	0/0	0/0	0/0
Suspended Particulates (PM10)			
Maximum 24-hour concentration (μg/m3)	62.4	38.0	46.1
Number of days state standard exceeded	--	--	--
Number of days federal standard exceeded	0	0	0
Salinas #3 Air Monitoring Station			
Ozone (O3)			
Maximum concentration, 1-hr/8-hr period (ppm)	0.075/0.062	0.073/0.063	0.077/0.070
Number of days state standard exceeded	0	0	0
Number of days federal standard (1-hr/8-hr) exceeded	0/0	0/0	0/0
Carbon Monoxide (CO)			
Maximum concentration, 1-hr/8-hr period (ppm)	2.3/1.38	2.8/1.09	1.9/1.21
Number of days state (1-hr/8-hr) standard exceeded	0/0	0/0	0/0
Number of days federal (1-hr/8-hr) standard exceeded	0/0	0/0	0/0
Nitrogen Dioxide (NO2)			
Maximum 1-hour concentration (ppm)	0.049	0.053	0.1394
Number of days state standard exceeded	0	0	0
Annual arithmetic mean (AAM)	0.007	0.006	0.007
AAM exceed federal standard?	0	0	0
Respirable Particulate Matter (PM10)			
Maximum 24-hour concentration (μg/m3)	44.0	66.0	44.0
Number of days state standard exceeded	0	~~0~~ ***4.0***	0
Number of days federal standard exceeded	0	~~4.0~~ ***0***	0
Fine Particulate Matter (PM2.5)			
Maximum 24-hour concentration (μg/m3)	23.5	15.9	22.3
Number of days federal standard exceeded *	0	0	0

AM Annual Arithmetic Mean
(μg/m3) Micrograms per Cubic Meter
ppm Parts per Million
-- Not Calculated or Insufficient Data Available
Source: ARB 2005

ERRATA TO THE TRAFFIC AND CIRCULATION SECTION
Page 3.11, last sentence of first paragraph, has been amended as follows:

~~Background Plus Interim~~

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.

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.**

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.**

DRAFT
ENVIRONMENTAL IMPACT REPORT

"SOUTH END" SPHERE OF INFLUENCE AMENDMENT PROJECT

SCH# 2005121035

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APRIL 2006

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S - Executive Summary

This section of the Environmental Impact Report (EIR) provides a summary overview of the project environmental analysis, impacts and mitigation measures. For additional detail regarding specific issues, please consult the appropriate Subsection of Section 3.0, Environmental Setting, Impacts and Mitigation Measures.

S.1 PURPOSE AND SCOPE OF THE EIR

The City of Greenfield (City) is the Lead Agency in the preparation of this EIR to provide the public, responsible and trustee agencies, with information about the potential environmental effects of the proposed South End SOI (project). As described in CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses potential environmental effects of the proposed project and identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts (CEQA Guidelines 21002.1(a)). Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible, and have an obligation to balance a variety of public objectives, including environmental, economic, and social factors.

Based on the results of public input generated during the Notice of Preparation response period for the project, Section 3.0 of the EIR focuses upon aesthetics and visual resources, agricultural resources, air quality, biological resources, cultural and paleontological resources, geologic resources, health hazards, drainage, land use, noise, traffic and circulation, and public services and utilities.

S.2 PROJECT CHARACTERISTICS

The South End SOI Amendment project site is located immediately south of the City of Greenfield, situated in the southern Salinas Valley in central Monterey County. U.S. Highway 101 is the main regional highway in this area, running north and south through the Salinas Valley. On the east side of U.S. Highway 101 the site is bounded by agricultural uses to the east, Espinoza Road to the south, and urban uses to the north. On the west side of the U.S. Highway 101 the project site is bounded by Greenfield High School, Vista Verde Middle School to the north and agricultural uses to the south and west. Figure S.1 on the following page shows the location of the proposed project by parcel ownership immediately south of the City of Greenfield.

The South End SOI project involves a series of complex land use actions and boundary changes that ultimately relate to the City of Greenfield's General Plan and proposed Sphere of Influence boundaries. The project as described within this EIR represents the "whole of the action", made up of several components. However, because the four parcels comprising the project involve slightly different land use actions specific to each parcel, the disposition of each is described in more detail below.

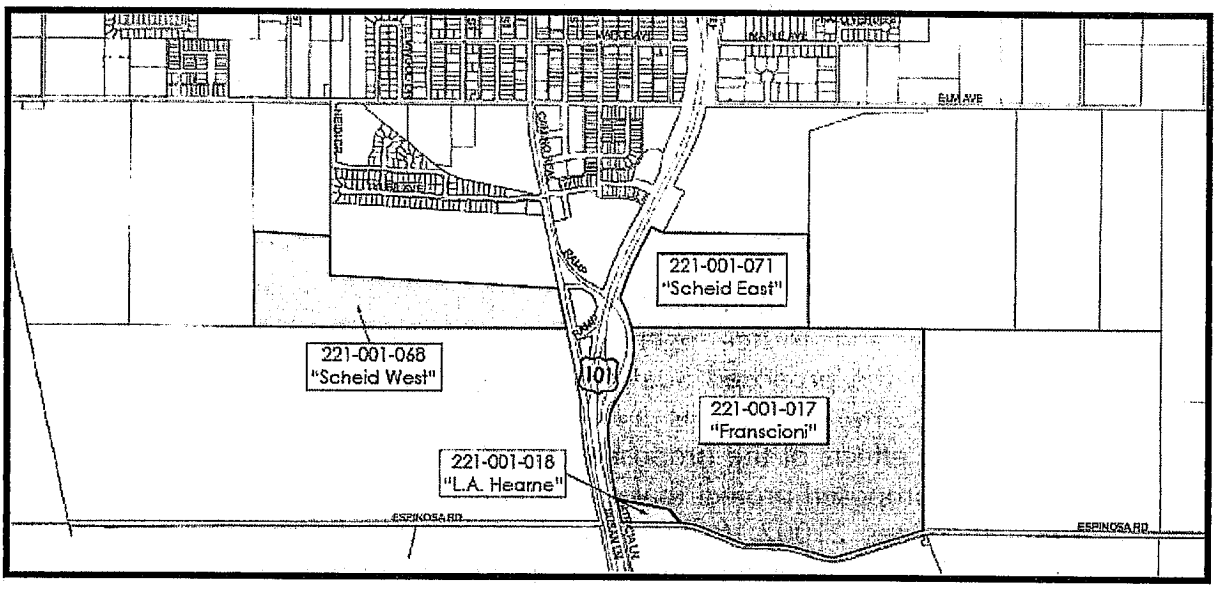

Figure S-1, Proposed Project by Parcel Ownership

APN 221-011-017 – "Franscioni Parcel". This 171-acre parcel is not currently part of the City's General Plan area. As with all four parcels, it is also outside the existing City SOI. As such, this parcel will require a General Plan Amendment to bring the area into the General Plan and proposed SOI boundaries. The underlying land uses would be changed from Agriculture (Monterey County) to Highway Commercial and Heavy Industrial. The eastern portion of this parcel also contains an agriculture easement of approximately 50 acres. This agricultural easement is the result of a Williamson Act exchange agreement that is being prepared as part of this project. Under the exchange agreement (described in detail in Section 3.2), this 50-acre area would remain in agriculture. As such, 121 acres are considered "developable" for planning and descriptive purposes. As the Franscioni parcel is proposing both Highway Commercial and Heavy Industrial land uses, the City is also recommending subdivision of the parcel so that the various land use boundaries clearly match legal parcel lines.

APN 221-001-071 – "Scheid East" Parcel. This 46-acre parcel north of Franscioni is currently within the City's General Plan boundaries, and is designated as Heavy Industrial. Because approximately half of the parcel is proposed for Highway Commercial, this parcel will require a General Plan land use change to allow the Highway Commercial use, as well as inclusion in the City's proposed SOI. Like the Franscioni parcel, the City is recommending subdivision of the parcel so that the two land use boundaries match legal parcel lines.

APN 221-001-018 – "L.A. Hearne" Parcel. This three-acre parcel at Highway 101 and Espinosa Road is currently used for agricultural equipment storage. This parcel has been included in the project boundaries primarily to create a more uniform SOI boundary

and to allow better planning opportunities at the intersection of primary roadways. This parcel requires a General Plan land use change from Agriculture (County) to Highway Commercial (City), as well as inclusion within the City's proposed SOI boundary.

APN 221-001-068 – "Scheid West" Parcel. This 47-acre "L" shaped parcel west of the highway requires a General Plan amendment to bring the property from Agriculture (County) to Low Density Residential (City).

All parcels are part of a single General Plan Amendment to accommodate the land uses described above. All parcels will also be part of the City of Greenfield's larger city-wide Sphere of Influence amendment, described below. The applicants have requested annexation of the four parcels into the City of Greenfield, although annexation may be part of an application to LAFCO apart from and subsequent to the application to amend the SOI.

S.3 PROJECT ALTERNATIVES CONSIDERED

Three alternatives to the proposed project were considered including: Alternative 1 – "No Project" (No Development); Alternative 2 – "No Residential Development" alternative; and Alternative 3 – "Original SOI" alternative. Based on the alternatives analysis contained within Section 4.0, the EIR concludes that Alternative 1 is 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.

S.4 SUMMARY OF ENVIRONMENTAL IMPACTS

Table S-1 presents a summary of project impacts and proposed mitigation measures that would reduce, minimize, or avoid potential impacts. In the table the level of significance of each environmental impact is indicated after the application of the recommended mitigation measure(s).

For detailed discussions of all project impacts and mitigation measures, the reader is referred to topical environmental analysis in Section 3.0 of this EIR.

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TABLE S-2
EXECUTIVE SUMMARY OF PROJECT IMPACTS

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Aesthetics and Visual Resources			
Impact 3.1-1 The project would alter the aesthetic character of the project site and its immediate surroundings from rural agricultural use to urban residential, industrial and highway commercial uses	Less than Significant	Please also see **Impact 3.1-4** regarding visual appearance, as well as **Impact 3.1-5 and 3.1-6**, Cumulative Visual Impacts.	Less than Significant
Impact 3.1-2 Land use changes and ultimate development within the project area would result in changes to the physical landscape and alter expansive views to and from surrounding properties and Highway 101.	Less than Significant	Please also see **Impact 3.1-4** regarding visual appearance.	Less than Significant
Impact 3.1-3 Buildout of the project area would introduce new sources of lighting within the project area that could adversely affect adjacent uses.	Potentially Significant	**MM 3.1-3** Prior to approval of final maps for each phase of development, the project applicant shall prepare and submit to the City detailed exterior lighting plans that indicates the location and type of lighting that will be used. Exterior lighting shall specify type and maker, and demonstrate a non-intrusive quality (incorporate baffles and lens cut-offs to direct lighting downward lighting) while still providing an adequate amount of light for safety and/or security. Each applicant shall not position night lighting to illuminate areas beyond the site boundaries, but shall place lights or install shielded lights to illuminate only the area of concern.	Less than Significant
Impact 3.1-4 Development Highway Commercial and Residential near the southern gateway along Highway 101 could significantly impact the overall visual quality and appearance of the City.	Potentially Significant	**MM 3.1-4a** Landscape plans shall be submitted for all specific development proposals within the project site and shall indicate landscape details such as planting plans, plant palettes, and landscape features. Landscape plans shall be prepared by a licensed landscape architect, and shall include design themes and concepts consistent with the goals of the Gateway Overlay	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		designation. The landscape criteria shall be reviewed and approved by the City and incorporated into the final subdivision map(s) and future site plans for the project. MM **3.1-4b** Utility lines shall be placed underground as required by City policy to minimize the visual impacts of man-made elements at the project site. The City Engineer shall review and approve the applicant's utility improvement plans. MM **3.1-4c** As a component of individual applications for development projects within the annexation area, applicants will submit detailed project design information to allow the City to make a determination of consistency with the Gateway Overlay designation. Such information shall contain detailed site plans, information regarding the project's proposed visual amenities, setbacks, signage and monumentation, additional landscape detail, proposed architectural schemes, architectural elevations, and visual simulations from Highway 101.	
Impact 3.1-5 Project buildout will incrementally add to ongoing changes to Greenfield's aesthetic and visual character.	Significant and Unavoidable	The South End SOI EIR, as an extension of the City's planning area and sphere of influence, will contribute incrementally to the changes resulting from the General Plan and will result in an unavoidable change to the existing aesthetics and agricultural character of the City.	Significant and Unavoidable
Impact 3.1-6 Nighttime ambient light and glare will be increased by new residential, industrial and highway commercial development in the area of the project.	Less than Significant	Implementation of mitigation measure MM **3.1-3** would reduce the effects of nighttime ambient light and glare on a project specific level. At a cumulative level, skyglow city-wide may be increasing. However, there is no evidence that this increase is causing a particular impact or triggering a specific significance threshold.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Agricultural Resources			
Impact 3.2-1 The South End project will result in the eventual conversion of approximately 217 acres of Prime Farmland to urban uses.	Significant and Unavoidable	Although the City has incorporated a series of planning measures into the General Plan itself that recognize agriculture as an important resource, 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.	Significant and Unavoidable
Impact 3.2-2 The proposed project would place urban land uses adjacent to agricultural uses, which may impair agricultural production and result in land use compatibility conflicts.	Potentially Significant	**MM 3.2-2a** The project applicant shall demonstrate adequate land use separation on all site plans and applications for subdivision. Residential subdivisions shall demonstrate a 100-foot minimum land use buffer between the edge of all active agricultural fields or vineyards and the nearest residential property lines. Non-residential setbacks shall demonstrate a 100-foot minimum land use buffer between the edge of active fields or vineyards and the nearest building surface. Distances comprising the buffer may include roadway rights of way, easements, landscaping, and other uninhabited uses, and may be reduced if it can be demonstrated that a narrower distance will provide effective separation. Ultimate design and consideration of setbacks will be subject to review and approval by the City of Greenfield **MM 3.2-2b** Consistent with notification required by Monterey County as a component of the Right-to-Farm Ordinance, the applicant shall record a Right-to-Farm notification statement to run with the title as disclosure and notice in deeds at the time of transfer or sale of all properties within 2,000 feet of agricultural land, agricultural operations or agricultural processing facilities or operations. The statement shall inform any future property owners of the continuation of agricultural activities in the area and shall disclose the potential effects of agricultural activities on adjacent land uses to future project residents.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		Please also see MM 3.9-3a-c from impact 3.9-3.	
Impact 3.2-3 The development of the proposed project site would be in conflict with an existing Williamson Act contract for the southeastern portion of the project site.	Potentially Significant	Prior to the City's submittal to LAFCO of an application to annex the subject property (APN 221-011-017), and prior to approval of any development rights or permits on the property issued by the City, the project applicant shall demonstrate that the Williamson Act Exchange has been successfully completed. The applicant shall comply with the requirements set forth in the Department of Conservation's Williamson Act Exchange Program agreement and provide adequate evidence, as determined by the City Planning Manager, that the requirements of the agreement have been met.	Less than Significant
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.	Significant and Unavoidable	The project applicant(s) will contribute and participate toward any agriculture mitigation fee or similar mitigation program as adopted and recognized by the City of Greenfield in place at the time that building permits are pulled.	Significant and Unavoidable
Air Quality			
Impact 3.3-1 Construction activity at the proposed project site would generate temporary emissions of criteria pollutants that could exceed MBUAPCD significance thresholds.	Potentially Significant	MM 3.3-1 Best-available control measures (BACM) shall be required during site preparation and construction of proposed land uses. When tentative subdivision maps are submitted and prior to approval of building permits, a construction emissions reduction plan (CERP) shall be prepared, for review by the MBUAPCD, to reduce construction-generated fugitive and mobile-source emissions. The MBUAPCD shall be consulted to determine BACM to be implemented to minimize impacts to nearby sensitive receptors. Measures to be included in the CERP prepared for this project, as currently recommended by the MBUAPCD, include but are not limited to the following: Fugitive Dust a. Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		and wind exposure; b. Prohibit all grading activities during periods of high wind (over 15 mph); c. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days); d. Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed areas; e. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard. f. Replant vegetation in disturbed areas as quickly as possible. g. Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles, such as dirt, sand, etc. h. Sweep daily, with water sweepers, all paved access roads, parking areas and staging areas at construction sites. i. Sweep streets daily, with water sweepers, if visible soil materials are carried onto adjacent public streets. j. Limit traffic speeds on unpaved roads to 15 mph. k. Install sandbags or other erosion control measures to prevent silt runoff to public roadways. l. Limit areas of active disturbance to no more than 2.2 acres per day for initial site preparation activities that involve extensive earth-moving activities (grubbing, excavation, rough grading), or 8.1 acres per day for activities that involve minimal earth moving (e.g., finish grading). <u>Mobile / Stationary Source Emissions</u> m. Diesel equipment used onsite should be year 2003, or newer, equipped with emission control technology (e.g., diesel-oxidation catalyst), or use alternative fuels (e.g., biodiesel) that sufficiently reduces diesel-exhaust emissions at nearby receptors to within acceptable levels, as defined by the MBUAPCD. For equipment retrofitted to operate with	

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		diesel exhaust emissions control technology, the CERP shall include verification of installation or presence of these devices for review by the MBUAPCD. n. To the extent feasible, construction equipment shall not be left idling o. Limit the pieces of equipment used at any given time p. Minimize the use of diesel-powered equipment (i.e., wheeled tractor, wheeled dozer) q. Limit hours of operation for heavy-duty equipment r. Undertake project during non-ozone season s. Stationary equipment shall be placed at the furthest feasible distance from nearby residences t. Post a publicly visible sign which specifies the telephone number and person to contact regarding emissions-related complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance).	
Impact 3.3-2 Construction activities would involve the use of diesel-powered equipment that may result in localized concentrations of mobile source TACs at nearby receptors. Short-term exposure to localized concentrations of TACs (primarily acrolien) could exceed applicable air quality thresholds.	Potentially Significant	Implementation of **MM 3.3-1** would substantially reduce diesel-exhaust emissions from onsite construction equipment. For instance, use of diesel oxidation catalysts, particulate filters, and alternative fuels such as biodiesel, can reduce diesel-exhaust constituent emissions by approximately 90 percent, or more (MBUAPCD 2004). Implementation of **MM 3.3-1** would require the project applicant to prepare a Construction Emissions Reduction Plan (CERP) that would sufficiently reduce short-term construction-generated emissions to within acceptable levels. The CERP shall be reviewed by the MBUAPCD, prior to issuance of a building permit.	Less than Significant
Impact 3.3-3 Operational emissions associated with buildout of the proposed Residential, Commercial and Industrial uses	Significant and Unavoidable	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.	Significant and Unavoidable

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
would result in emissions of criteria air pollutants. Project-generated emissions would exceed MBUAPCD's significance thresholds.		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. **MM 3.3-3** The project applicant shall implement MBUAPCD-recommended mitigation measures to the extent practical. Prior to approval of building permits, the MBUAPCD shall be consulted to determine applicable measures to be implemented to reduce long-term operational emissions associated with proposed land uses. The City of Greenfield will review proposed tentative maps and improvement plans to identify emission reduction measures incorporated into the project. City Staff may recommend additional measures as practical and feasible. Measures currently recommended by the MBUAPCD include the following:Commercial and Industrial Uses: <u>Highway Commercial and Industrial Uses</u>: a. Provide preferential carpool/vanpool parking spaces b. Implement a parking surcharge for single occupant vehicles c. Provide facilities that encourage the use of alternative transportation sources (e.g., public transportation, bicycle and pedestrian access), such as transit bus pullouts shelters, and onsite showers, lockers and bicycle storage/parking. d. Provide onsite child care centers e. Develop park-and-ride lots f. Employ a transportation/rideshare coordinator g. Implement a rideshare program	

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		h. Provide incentives to employees to rideshare or to take public transportation i. Implement compressed work schedules j. Implement a telecommuting program Residential Uses: k. Use EPA-certified or gas-fired fireplaces l. Provide pedestrian sidewalks and bicycle paths that link to adjacent land uses and external networks m. Incorporate energy-efficient appliances into residential uses All Uses: n. Orient buildings to minimize heating and cooling needs o. Provide shade trees to reduce cooling needs p. Include energy-efficient lighting systems q. Include solar water heaters or centralized water heating systems r. Increase insulation beyond Titlte 24 requirements to minimize heating and cooling needs.	
Impact 3.3-4 Implementation of the proposed project would result in the generation of CO at nearby intersections from increased vehicular traffic on the local transportation network. However, the proposed project would not contribute to localized CO concentrations that are projected to exceed AAQSs at nearby receptors.	Less than Significant	According to the Traffic Impact Study prepared for the proposed project, implementation of the proposed project, for both interim and future cumulative General Plan buildout conditions would not result in unacceptable levels of service at existing nearby signalized intersections. Likewise, stop-controlled intersections proposed for signalization with project implementation are not projected to operate at unacceptable levels of service.	Less than Significant
Impact 3.3-5 The proposed project would not result in the development of new sensitive land uses (residential) in the vicinity of existing odor sources. Future development of proposed commercial and industrial land uses would be anticipated to result in the exposure of a	Less than Significant	Compliance with MBUAPCD permit and nuisance rules related to odors would help to control emissions of odorous emissions from proposed stationary sources. For instance, MBUAPCD Rule 402 (Nuisances) prohibits the discharge of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons. Compliance with such	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
substantial number of individuals to increases in odorous emissions.		existing regulatory requirements would help to ensure that exposure of receptors to offensive odors remains at a less-than-significant level. In addition, existing surrounding land uses consist primarily of agricultural uses and rural residential dwellings. As a result, proposed commercial and industrial land uses would not be anticipated to result in increased exposure of a substantial number of people to odors.	
Impact 3.3-6 The proposed project would place residential units within the immediate vicinity of the NH_3 Service Company, a regulated facility. The proposed project could also include the use of diesel-fueled vehicles that may result in the generation of diesel-exhaust PM emissions, which may result in localized increases in diesel-exhaust PM.	Less than Significant	The absence of existing acute sources of TAC near sensitive receptors and the required adherence to MBUAPCD permitting requirements for all future development proposals within the annexation area will render impacts to a less than significant level.	Less than Significant
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.	Significant and Unavoidable	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.	Significant and Unavoidable

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Biological Resources			
Impact 3.4-1 Implementation of the proposed project would result in temporary and direct disturbance to nesting raptors and migratory birds (including bank swallow).	Potentially Significant	MM 3.4-1 If proposed grading, site preparation, or construction activities are planned to occur during the nesting seasons for local avian species (typically March 1st through August 31st), the project applicant shall, prior to issuance of grading or building permits, retain a qualified biologist approved by the City of Greenfield to conduct a focused survey for active nests of raptors and migratory birds within and no less than 100-feet outside project boundaries, where possible, of the construction area, no more than 30 days prior to ground disturbance. If an active nest is located during preconstruction surveys, USFWS and/or DFG (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted, as necessary, to avoid disturbance of the nest until it is abandoned or the biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100-feet around the nest) or alteration of the construction schedule. No action is necessary if construction occurs during the nonbreeding season (generally September 1st through February 28th).	Less than Significant
Impact 3.4-2 Development of the proposed project would result in temporary disturbance and permanent alteration of site conditions that could support transient San Joaquin kit fox.	Potentially Significant	During construction activities the project applicant shall use 'best management practices' to ensure no incidental take of San Joaquin kit fox occurs during construction or from project-related activity onsite. The recommended measures (as outlined in the USFWS Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance [June 1999]) include: a. Restrict project-related vehicle traffic to established roads or other designated areas onsite. Vehicles should observe a 20-mile per hour speed limit in all project areas (except on	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		paved pre-existing roads with an established speed limit). Off-road traffic outside of the designated project areas should be prohibited; b. To the extent possible, night-time construction should be minimized; c. All excavated, steep-walled holes or trenches more than two feet deep shall be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, each shall be thoroughly inspected for trapped animals that should be allowed to escape before proceeding; d. All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored open onsite for one or more nights shall be thoroughly inspected for animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way; e. All food-related trash items, such as wrappers, cans, bottles, and food scraps, shall be disposed of in closed containers and removed at least once a week from the project site; f. No firearms shall be allowed on the project site;	
		g. No pets (i.e., dogs, cats, etc.) shall be permitted onsite; h. Use of rodenticides and herbicides in project areas shall be prohibited. If rodent control must be conducted, zinc phosphide is preferred because of a proven (and recognized by the USFWS) lower risk to kit fox. Furthermore, the applicant shall retain a qualified biologist to present the importance of following best management practices to reduce impacts to possible fox (as well as other sensitive species) during project implementation. A fact sheet conveying this information shall be prepared by the biologist and distributed to any personnel who may enter the project site. Should a kit fox	

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		be found onsite, the biologist shall be notified immediately in order to outline additional avoidance measures that should be implemented as well as consult with regulatory agencies.	
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.	Potentially Significant	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.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Cultural Resources			
Impact 3.5-1 Approval of the South End SOI Amendment and any potential projects that may result from adopting the amendment could result in impacts to undiscovered prehistoric and historic resources and the inadvertent discovery of human remains.	Potentially Significant	**MM 3.5-1a** Should any previously undisturbed cultural, historic or archaeological resources be uncovered in the course of site preparation, clearing or grading activities, all operations within 150 feet of the find shall be halted until such time as a qualified professional archaeologist can be consulted to evaluate the find and recommend appropriate action. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented. **MM 3.5-1b** In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of Monterey County has determined whether the remains are subject to the coroner's authority. This is in accordance with Section 7050.5 of the California Health and Safety Code. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of identification. Pursuant to Section 5097.98 of the Public Resource Code, the Native American Heritage Commission will identify a "Native American Most Likely Descendent" to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.	Less than Significant
Impact 3.5-2 Adoption of the Sphere of Influence Amendment and any potential projects that may result from adopting the amendment could result in impacts to undiscovered paleontological resources.	Potentially Significant	**MM 3.5-2** As a condition of project approval if any paleontological resources (fossils) are discovered during ground disturbing construction activities, all work in the immediate vicinity must stop and the City of Greenfield shall be immediately notified. A qualified paleontologist shall be retained to evaluate the finds and recommend appropriate	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		mitigation measures for the inadvertently discovered paleontological resources.	
Impact 3.5-3 Approval of the SOI Amendment and any potential projects that may result from subsequent development, along with any foreseeable development in vicinity of the SOI Area, will be site-specific in nature.	Less than Significant	Adoption of the SOI Amendment and any potential projects that may result from adopting the amendment in combination with cumulative development pursuant to General Plan buildout, would likely increase the potential to disturb the local inventory and context of both known and undiscovered cultural resources. Mitigation measures **MM 3.5-1a and b** and **MM 3.5-2** however, would mitigate potential site specific impacts to cultural resources by addressing resources on a case by case basis and applying appropriate mitigation in accordance with state and local laws. With mitigation, and based on the absence of significant features on the site, the sum of cumulative effects will not be more significant than the individual impacts.	Less than Significant
Geology, Geological Hazards			
Impact 3.6-1 Future development in the project annexation could expose people and property improvements to ground shaking.	Potentially Significant	**MM 3.6-1a** All future development within the APN 221-011-017 shall comply with the recommendations identified in the Geotechnical Report prepared by Twining Laboratories, October 2005, or as required by any subsequent geotechnical report. These recommendations include, but are limited to, the following: 1. All buildings footings should have a minimum depth of 18 inches (24 for a two story building) below rough pad grade or adjacent exterior grade, which ever is lower. 2. Additional borings should be performed and data regarding the proposed structural loads should be provided in buildings at the proposed site. Additional design level geotechnical site investigations are necessary to prepare design level recommendations and to meet individual tenant requirements for geotechnical investigations.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		3. All final engineering and improvement plans shall be prepared in accordance with City of Greenfield standards and shall be submitted to the City Engineer and Public Works Director for approval. **MM 3.6-1b** As part of any subsequent application for development of APNs 221-011-071, 018 and 221-011-068, the Applicant shall submit a Geotechnical Report prepared by a qualified professional for review and approval by the City of Greenfield. The geotechnical report shall include comprehensive geologic, seismic, and/or soils and engineering evaluations. Recommendations of the report and specific construction performance criteria shall be incorporated into the final building plans, subject to review and approval by the Greenfield Building and Planning Department.	
Impact 3.6-2 The seismic hazards of the region give rise to the risk of liquefaction, ground settlement and ground failure.	Less than Significant	Adherence to mitigation measures **MM 3.6-1a** and **MM 3.6-1b**, will ensure that the impact remains at a less than significant level.	Less than Significant
Impact 3.6-3 Land clearing, grading, excavation, cut and fill operations and any other site preparation activities and installation of impervious surfaces such as pavement areas will increase the risk of soil erosion and loss of topsoil.	Potentially Significant	Erosion resulting from the project can be successfully controlled and prevented using a variety of methods including implementation of mitigation measure **MM 3.8-1a-c**, requiring that drainage control plans and retention basin design be submitted for all future development proposals for review and approval by the Public Works Director and City Engineer. Erosion is further controlled through compliance with all existing codes and laws, implementation of all recommendations of the Geotechnical Feasibility Report and implementation of best management practices by future construction contractors on the site.	Less than Significant
Impact 3.6-4 There is a low, but not necessarily insignificant, potential for soil expansion at the proposed project site, which	Potentially Significant	Mitigation Measure **MM 3.6-1a** would require that the proposed project be designed to comply with the most recent California Building Code and would incorporate the recommendations	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
could result in differential subgrade movements and cracking of foundations.		from the geotechnical investigation into building design. Along with MM 3.6-1a the implementation of MM 3.6-1b and MM3.1-1d requiring a Geotechnical Feasibility Report (and performance criteria) for APN 221-011-068, 018 and 071 would reduce the effects of expansive soils at the project site to a less than significant level.	
Impact 3.6-5 The project soils are considered to be highly corrosive having the potential for soil-induced chemical reactions, and damaging construction and building materials.	Potentially Significant	MM 3.6-5 The project applicant shall obtain laboratory testing to determine what corrosion-resistant materials are needed for project construction. The applicant shall submit evidence of compliance to the City of Greenfield prior to issuance of building permits.	Less than Significant
Hazards / Risk of Upset			
Impact 3.7-1 Construction-related hazards resulting from existing site conditions are expected during project construction.	Less than Significant	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.	Less than Significant
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.	Potentially Significant	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 engineer 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	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		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.	
Impact 3.7-3 Development of the project site may expose people and/or property to hazardous substances in connection with previous land uses.	Potentially Significant	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	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		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.	

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
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.	Potentially Significant	**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.	Less than Significant
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.	Les 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.	Les than Significant
Drainage and Water Quality			
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	Potentially 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	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
erosion problems on or off-site.		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	

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		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.	
Impact 3.8-2 The proposed annexation area is not within the recognized 100-year flood plain.	Less than Significant	According to the FEMA Flood Insurance Rate Map, the project area is not located within a 100-year flood zone. 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.	Less than Significant
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.	Potentially Significant	**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	Less than Significant
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.	Potentially Significant	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.	Less than Significant
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.	Less than Significant	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	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		each development site would result in minimization of the combined impact.	
Land Use			
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.	Less than Significant	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, the project is consistent with LAFCO's *Standards for the Evaluation of Proposals.*	Less than Significant
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.	Less than Significant	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.	Less than Significant
Impact 3.9-3 Development of the project area could impact, or be impacted by, adjacent environmental conditions on neighboring properties.	Potentially Significant	The application for annexation of the Scheid West parcel shall also include annexation of the "NH3 Service Company" parcel.	Less than Significant
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.	Less than Significant	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	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		create a new significant impacts.	
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.	Potentially Significant	**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.	Less than Significant
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.	Potentially Significant	**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	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
		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.).	
Impact 3.10-3 Implementation of the proposed project would not contribute to a substantial increase in ambient noise levels.	Less than Significant	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.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
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.	Potentially Significant	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.	Less than Significant
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.	Less than Significant	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.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Traffic and Circulation			
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.	Significant	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.	Less than Significant
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.	Significant	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.	Less than Significant
Impact 3.11-3 In the interim development scenario, the project will add traffic volumes to Highway 101 north and south.	Less than Significant	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.	Less than Significant
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	Significant	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	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
interchange at Highway 101 and Espinosa Road.		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.	
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.	Significant	**MM 3.11-5** 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.	Less than Significant
Impact 3.11-6 Implementation of the project will require modifications to the Greenfield's roadway network at the south end of City.	Significant	**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	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
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.		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.	
Impact 3.11-7 With full General Plan buildout plus Project traffic, additional widening on Highway 101 to six lanes would be required.	Significant and Unavoidable	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.	Significant and Unavoidable
Impact 3.11-8 Buildout of the proposed project will result in a need for on-site parking facilities.	Less than Significant	The proposed project will be required to provide sufficient on-site parking supply meeting the City's requirements for each of the proposed uses.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
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.	Potentially Significant	**MM 3.11-7a** 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 3.11-7b** 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.	Less than Significant
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.	Less than Significant	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.	Less than Significant
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.	Potentially Significant	**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.	Less than Significant
Public Services and Utilities			
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).	Less than Significant	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.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.12-2 The project would require extension of the existing potable water delivery system to provide water to the project site.	Potentially Significant	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.	Less than Significant
Impact 3.12-3 The project would require extension of the existing wastewater system and result in additional demands upon the existing treatment plant.	Potentially Significant	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.	Less than Significant
Impact 3.12-4 The conversion of the project site from agricultural to urban use will generate additional demand for law enforcement services.	Less than Significant	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.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
Impact 3.12-5 The conversion of the project site from agricultural to urban residential use will generate additional demand for fire services.	Less than Significant	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. 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.	Less than Significant
Impact 3.12-6 The project would increase the demand for electric, natural gas, telephone and cable services.	Potentially Significant	**MM 3.12-6** Prior to Final Map approval, the project applicant shall obtain and submit a "will-serve" letter from PG&E.	Less than Significant
Impact 3.12-7 Development of the project would increase the demand for primary and secondary educational services within Greenfield.	Less than Significant	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.	Less than Significant
Impact 3.12-8 The proposed project would eventually generate approximately 3,680 pounds/day of solid waste.	Less than Significant	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. 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.	Less than Significant

Potential Project Impact	Level of Significance w/o Mitigation	Mitigation Measure	Resulting Level of Significance
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.	Potentially Significant	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.	Less than Significant
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.	Less than Significant	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.	Less than Significant
Impact 3.12-11 The cumulative increase in demand for wastewater treatment services would be 287,200 (gpd).	Less than Significant	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.	

1.0 INTRODUCTION

This Draft Environmental Impact Report (DEIR) for the South End Sphere of Influence (SOI) Amendment project has been prepared in accordance with the California Environmental Quality Act (CEQA). The purpose of the DEIR is to evaluate the potential environmental effects associated with the Sphere of Influence amendment, and related General Plan amendment for approximately 267 acres of land adjacent to the southern end of the City of Greenfield. This introductory section summarizes the purpose of the EIR; describes the environmental procedures that are to be followed according to state law; the intended uses of the EIR; the EIR's scope and organization; contact persons; and impact terminology.

1.1 BACKGROUND AND OVERVIEW

The City of Greenfield (City) is the Lead Agency in the preparation of this EIR to provide the public, responsible and trustee agencies, with information about the potential environmental effects of the proposed South End SOI (project). As described in CEQA Guidelines Section 15121(a), an EIR is a public information document that assesses potential environmental effects of the proposed project and identifies mitigation measures and alternatives to the proposed project that could reduce or avoid adverse environmental impacts. Public agencies are charged with the duty to consider and minimize environmental impacts of proposed development where feasible, and have an obligation to balance a variety of public objectives, including environmental, economic, and social factors.

The 267 acre project site consists of four separate parcels. The parcel numbers, acreage, ownership, proposed uses, requested actions and entitlements related to the project are detailed below in **Table 1-1,** Project Overview.

TABLE 1-1
PROJECT OVERVIEW

Parcel	Acreage	Owner	Requested Actions	Proposed Land Use
221-011-017 "Franscioni"	171	Franscioni Family (TMV Lands)	SOI Amendment, GPA, Prezoning, Williamson Act Exchange, and Annexation	Highway Commercial, Heavy Industrial, Ag easement
221-011-068 "Scheid West"	47	Scheid Vineyards	SOI Amendment, GPA, Prezoning, and Annexation	Low Density Residential
221-011-071 "Scheid East"	46	Scheid Vineyards	SOI Amendment, GPA, Prezoning, and Annexation	Highway Commercial, Heavy Industrial
221-011-018 "L.A. Hearne"	3	L.A. Hearne Company	SOI Amendment, GPA, Prezoning, and Annexation	Highway Commercial

CEQA requires the preparation of an EIR prior to approval of any "project" that may have a significant effect on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has potential to result in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]). With respect to the proposed South End SOI project, the City has determined the SOI amendment, resulting GPA (and reasonably foreseeable development) of the property is a "project" within the definition of CEQA, which has the potential to result in significant environmental effects.

1.2 TYPE OF DOCUMENT

CEQA Guidelines identify several types of EIRs, each applicable to different project circumstances. This EIR has been prepared as a "Program" EIR pursuant to CEQA Guidelines Section 15168. A Program EIR is an EIR which may be prepared for a series of actions that can be characterized as one large project and are related either:

1. Geographically,
2. As logical parts in the chain of contemplated actions,
3. In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
4. As individual activities carried out under the name authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

In this case, a series of actions in the form of related entitlements and individual development proposals are anticipated over time within a defined geographic area.

1.3 INTENDED USES OF THIS EIR

This EIR has been prepared in accordance with CEQA and is consistent with the most recent edition of the CEQA Guidelines and its updates. This document will be used by the City and any other responsible or reviewing agency as a first-tier document to identify and evaluate significant environmental issues related to the proposal.

This EIR will be used in conjunction with the City of Greenfield General Plan EIR as part of the City's application to Monterey County LAFCO for a citywide SOI amendment. This analysis is based on the potential effects of the proposed project, as measured against the existing condition of the site and its surroundings. Section 2.0 contains a detailed Project Description. Actions that would be taken relative to the project evaluated in this EIR are listed under subheading 2.7, Requested Actions and Required Approvals.

1.4 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR will involve the following procedural steps:

NOTICE OF PREPARATION

In accordance with Section 15063 of the CEQA Guidelines, the City of Greenfield determined that an EIR would clearly be necessary for the project; therefore, no initial study was prepared. In accordance with Section 15082(a) of the CEQA Guidelines, the City prepared a Notice of Preparation (NOP) of an EIR in November 2005. The NOP is included as **Appendix A** within this EIR. The NOP was circulated to the public, local, state, and federal agencies, and other interested parties to solicit comments on the proposed project. Concerns raised in response to the NOP were considered during preparation of the Draft EIR and are also included in **Appendix A.**

DRAFT EIR

The DEIR contains a description of the project, description of the environmental setting, identification of project impacts and effects found not to be significant, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives. Upon completion of the DEIR, the City will file a Notice of Completion (NOC) with the State Office of Planning and Research, in accordance with Section 15085 of the CEQA Guidelines. This begins the public review period (Public Resources Code, Section 21161) for the DEIR.

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the City will provide public notice of the availability of the DEIR for public review in accordance with CEQA Guidelines Section 15087(a), and will invite comment from the general public, Responsible Agencies, organizations, and other interested parties. The review period in this case will be 45 days. Although no public hearings on the EIR are required by CEQA, the City expects to hold a public review meeting during the 45-day review period at which time public comment on the DEIR will be accepted both in written form and orally. Notice of the time and location of the hearing will be published prior to the meeting.

All comments or questions regarding the Draft EIR should be addressed to:

Mark McClain, Building Official and Planning Manager
City of Greenfield
45 El Camino Real
Greenfield, CA 93927
Phone: (831) 674-5591

RESPONSE TO COMMENTS/FINAL EIR

Following the public review and comment period for the DEIR, a Final EIR (FEIR) will be prepared. The FEIR will respond to written comments received during the public review and comment period and to oral comments made at any public hearings. The Planning Commission and City Council will review and consider the FEIR prior to their decision to approve, revise, or reject the proposed project.

CERTIFICATION OF THE EIR

If the City finds that the FEIR is "adequate and complete", the City may certify the FEIR. The rule of adequacy generally holds that the EIR can be certified if: 1) it shows a good faith effort at full disclosure of environmental information, and 2) provides sufficient analysis to allow decisions to be made regarding the project in contemplation of environmental considerations. It is intended that LAFCO will use this document in the consideration of the citywide SOI amendment and annexation of the project site.

PROJECT CONSIDERATION

Upon review and consideration of the FEIR, the City may act upon the project. A decision to approve the project would be accompanied by written Findings in accordance with CEQA Guidelines Section 15091 and, if applicable, Section 15093 (Statement of Overriding Considerations). As a Sphere of Influence amendment and annexation request, the proposal also requires approval by the Local Agency Formation Commission (LAFCO). If the FEIR is certified by the City Council, the City will subsequently petition LAFCO for an annexation and boundary adjustment as part of the citywide SOI amendment request that includes the proposed project area. The request to annex the subject property may follow the City's SOI amendment as part of a separate application.

MITIGATION MONITORING

The City must adopt a Mitigation Monitoring and Reporting Program for mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the environment (Public Resources Code Section 21081.6(a)). This program will be designed to ensure that these measures are carried out during project implementation. The specific reporting or monitoring program required by CEQA is not required to be included in the EIR. Throughout the EIR, however, mitigation measures have been clearly identified and presented in language that will facilitate establishment of a monitoring and reporting program. Any mitigation measures adopted by the City as part of the certified FEIR will be considered as conditions for approval of the project and will be included in the Mitigation Monitoring and Reporting Program to ensure and verify compliance.

1.5 SCOPE AND ORGANIZATION

Sections 15122 through 15132 of the CEQA Guidelines identify the content requirements for Draft and Final EIRs. An EIR must include:

- a description of the environmental setting,
- an environmental impact analysis,
- mitigation measures,
- alternatives,
- significant irreversible environmental changes,
- growth-inducing impacts, and
- cumulative impacts.

The environmental issues addressed in the DEIR were established through the preparation of environmental documentation and supporting technical reports developed for the project, public agency responses to the Notice of Preparation, and comments received. Based upon documentation, technical reports, NOP responses, agency consultation and review of the project application, the City has determined the scope for this EIR. This Draft EIR is organized in the following manner:

SECTION S - EXECUTIVE SUMMARY

This section summarizes the characteristics of the proposed project and provides a concise summary matrix of the project's environmental impacts, associated mitigation measures and project alternatives.

SECTION 1.0 - INTRODUCTION

This section provides an introduction and overview describing the intended use of the EIR and the review and certification process.

SECTION 2.0 - PROJECT DESCRIPTION

This section provides a detailed description of the proposed project, including intended objectives, background information, and physical and technical characteristics of the project.

SECTION 3.0 - ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

This section contains an analysis of environmental topic areas to be addressed, as identified below. Each subsection contains a description of the existing setting of the project area, identifies project-related impacts, and recommends mitigation measures where necessary.

The following major environmental topics are addressed in this section:

- *3.1 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. Compliance of the proposed project relative to the City of Greenfield Gateway Overlay is also addressed.

- *3.2 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 land use compatibility potential safety hazards associated with new development adjacent to farmland, as well as the value and loss of agricultural resources at the project site.

- *3.3 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.

- *3.4 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 potential impacts on listed, proposed, and candidate threatened and endangered species.

- *3.5 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.

- *3.6 Geology, Soils & 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 geologic hazards or soil constraints identified. The engineering recommendations are based on the geotechnical report prepared by Twining Laboratories for a portion of the project area.

- *3.7 Hazard/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. This subsection is based upon two separate Phase I ESA's completed for the project by Twining Laboratories.

- *3.8 Drainage and Water Quality:* The impacts of the proposed project on hydrology, storm drainage, water resources, 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.

- *3.9 Land Use:* The project's relationship to relevant regional and local plans, including the City of Greenfield General Plan and other local planning documents, is discussed. The analysis focuses on project consistency with adopted plans and policies, project relationship to the recently adopted General Plan and the potential to affect existing neighborhoods. This subsection also provides a thorough discussion of LAFCO policies and state law governing boundary adjustments.

- *3.10 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.

- *3.11 Transportation 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.

- *3.12 Public Services and Utilities:* This subsection addresses the availability of existing public facilities and services, and 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.

SECTION 4.0 – ALTERNATIVES TO THE PROJECT

CEQA Guidelines Section 15126.6 requires that an EIR describe a range of reasonable alternatives to the project, which could feasibly attain the basic objectives of the project and avoid and/or lessen the environmental effects of the project. This alternatives analysis compares the proposed project and the selected alternatives. These alternatives include:

- *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 under one of two scenarios: the project site remaining in its current state or, development of the project site under its current zoning designation. Alternative 1 considers the environmental effects of not approving the proposed project and the site remaining in its current undeveloped agricultural state with no southern amendment to the SOI boundary.

- *Alternative 2 – "No Residential Alternative":* This alternative assumes a reduction in the overall size of the proposed project by eliminating the 46 acres (up to 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 the same as shown in the City's adopted (2005) 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).

- *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 dramatically amending the SOI to the south along the freeway.

SECTION 5.0 – CUMULATIVE IMPACT SUMMARY

This section evaluates the cumulative impacts generated by a list of past, present and reasonably foreseeable future projects in proximity to the project area, as identified by the City and in various technical analyses. This information is coordinated with the traffic analysis to ensure that it is consistent with cumulative growth.

SECTION 6.0 – LONG-TERM EFFECTS

This section contains required discussions and analyses of various topical issues mandated by CEQA Guidelines Section 15126.2, including: significant and unavoidable environmental effects; growth inducing impacts; irreversible environmental changes and effects found not to be significant.

SECTION 7.0 - REPORT PREPARERS AND REFERENCES

The purpose of this section is to provide a list of all lead agency personnel, EIR authors, subcontractors and agencies that assisted in the preparation of the report by name, title, and company or agency affiliation. It also itemizes supporting and reference data used in the preparation of the Draft EIR and lists all governmental agencies, organizations, and other individuals consulted in preparing the Draft EIR.

APPENDICES

This section includes all notices and other procedural documents pertinent to the EIR, as well as all technical reports prepared in support of the analysis.

1.6 IMPACT TERMINOLOGY

This Draft EIR uses the following terminology to describe environmental effects of the proposed project:

- ***Standards of Significance:*** A set of criteria used by the lead agency to determine at what level, or "threshold", an impact would be considered significant. Significance criteria used in this EIR include the CEQA Guidelines and Statutes; factual or scientific information; regulatory performance standards of local, state, and federal agencies; and the Goals, Objectives, and Policies of the City of Greenfield General Plan.

- ***Less Than Significant Impact:*** A less than significant impact would cause no substantial change in the environmental and no mitigation is required.

- *Potentially Significant Impact:* A potentially significant impact may cause a substantial adverse change in the physical conditions of the environment. Significant impacts are identified by the evaluation of project effects using specified standards of significance. Mitigation measures and/or project alternatives are identified to reduce project effects to the environment.

- *Significant Unavoidable Impact:* A significant and unavoidable impact would result in a substantial change in the environment for which no feasible mitigation is available to reduce the impact to a less than significant level, although mitigation may be available to lessen the degree of the impact.

- *Cumulative Impact:* Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION

Regional Location

The South End SOI Amendment project site is located immediately south of the City of Greenfield, situated in the southern Salinas Valley in central Monterey County. U.S. Highway 101 is the main regional highway in this area, running north and south through the Salinas Valley. The City is located along Highway 101, approximately 40 miles southeast of Monterey Bay, 35 miles south of Salinas and 60 miles north of Paso Robles. Neighboring communities within 25 miles include the cities of Gonzales and Soledad to the north, and King City to the south. The project's regional location is illustrated in **Figure 2-1.**

Project Vicinity and General Site Conditions

The 267-acre project area is located at the City of Greenfield's southern edge, immediately south of the city's incorporated boundaries. U.S. 101 bisects the project site into eastern and western sections. On the east side of the highway the site is bounded by agricultural uses to the south and east, Espinosa Road to the south, and agriculture and light industrial uses to the north. On the west side of Highway 101 the project site is bounded by Greenfield High School and Vista Verde Middle School to the north, and agricultural uses to the south and west. The St. Charles Place mixed use development sits between the project's eastern and western sections, between El Camino Real and the highway.

The parcels that comprise the project area total approximately 267 acres, most of which is irrigated farmland currently used to grow row crops and vineyards. Three acres are used for agricultural equipment storage. The topography of the project site and relative vicinity is generally flat, typical of the Salinas Valley region. The site lies at an elevation of approximately 280 feet above mean sea level with the ground surface sloping gently to the south. The project vicinity is illustrated in **Figure 2-2.**

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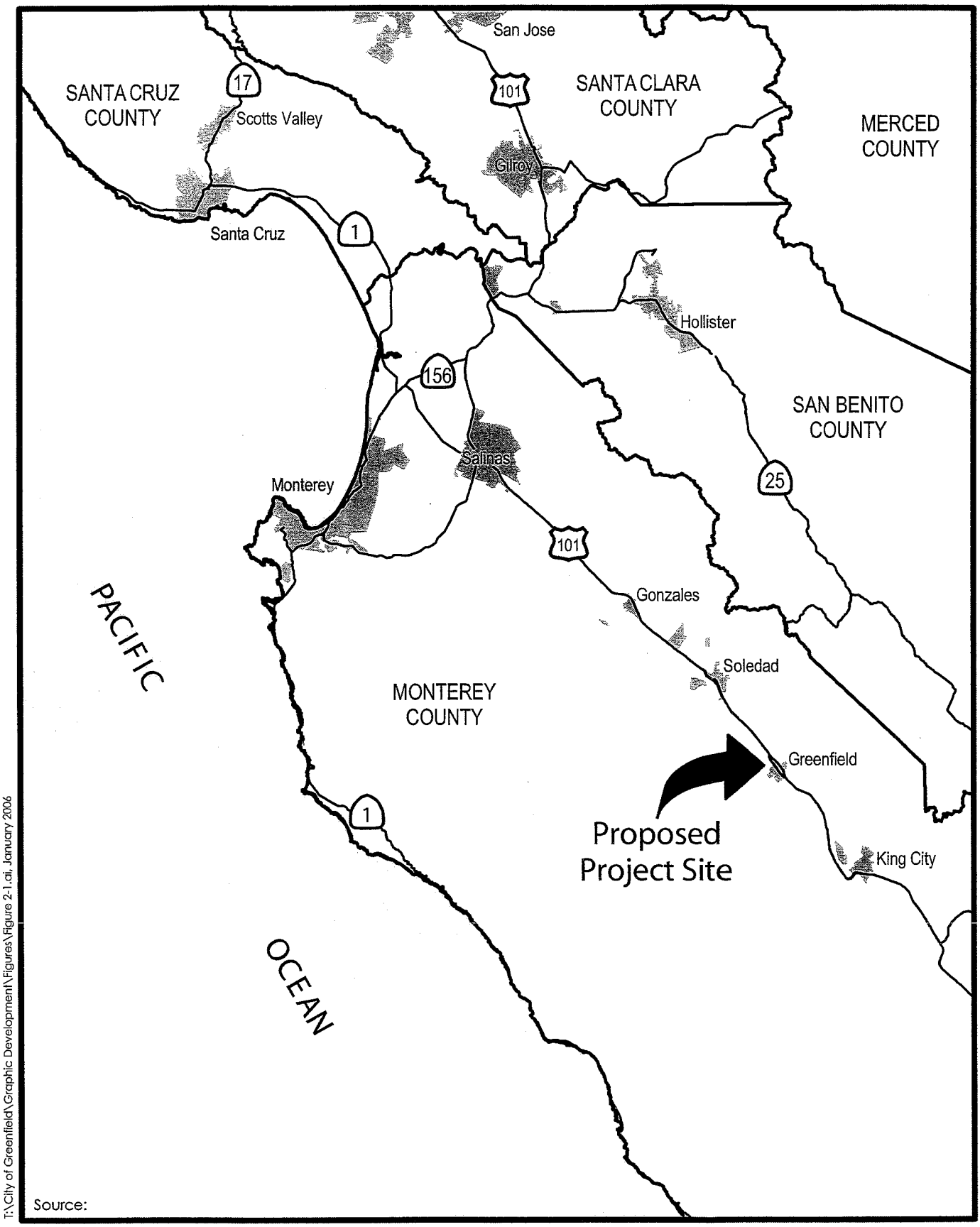

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FIGURE 2-1
REGIONAL LOCATION

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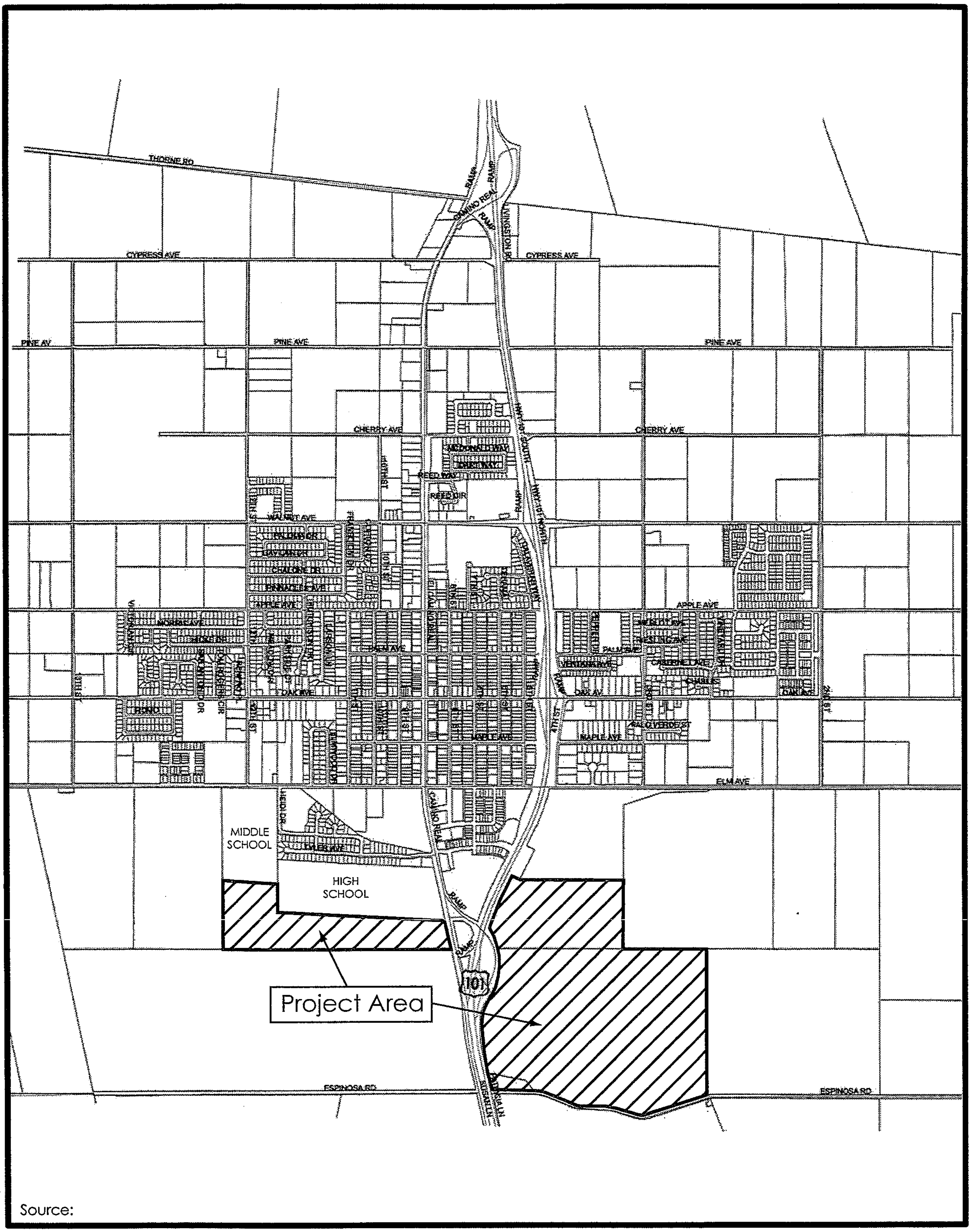

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FIGURE 2-2
PROJECT VICINITY

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2.2 CURRENT OWNERSHIP AND PARCELIZATION

The South End SOI project site is comprised of four parcels under the ownership of three separate entities. The property owners include Scheid Vineyards, the Franscioni family (TMV Lands) and the L.A. Hearne Company. TMV Lands has real interest in 171 acres (APN 221-011-017) located north of Espinosa Road on the east side of Highway 101. Scheid Vineyards has real interest in 93 acres (APN 221-011-071, and 221-011-068) located east and west of the highway. LA Hearne Company owns APN 221-011-018 which consists of approximately three acres, located at the southwest corner of US Highway 101 and Espinosa Road. Table 2-1 summarizes the ownership, size, current uses, and proposed future use of each parcel.

TABLE 2-1
CURRENT AND FUTURE USES BY PARCEL OWNERSHIP

APN	Owner	Size (acres)	Current Use	Proposed Future Use
221-011-017	Ray Franscioni (TMV Lands)	171	Farming/ Agriculture	Highway Commercial, Heavy Industrial and Agricultural Easement
221-011-071	Scheid Vineyards	46	Farming/ Agriculture	Highway Commercial and Heavy Industrial
221-011-068	Scheid Vineyards	47	Farming/ Agriculture	Low Density Residential
221-011-018	L.A. Hearne Company	3	Agricultural Equipment Storage	Highway Commercial

2.3 PLANNING REQUIREMENTS FOR EACH PARCEL

The South End SOI project involves a series of complex land use actions and boundary changes that ultimately relate to the City of Greenfield's General Plan and proposed Sphere of Influence boundaries. The project as described within this EIR represents the "whole of the action", made up of several components. However, because the four parcels comprising the project involve slightly different land use actions specific to each parcel, the disposition of each is described in more detail below.

APN 221-011-017 – "Franscioni Parcel". This 171-acre parcel is not currently part of the City's General Plan area. As with all four parcels, it is also outside the existing City SOI. As such, this parcel will require a General Plan Amendment to bring the area into the General Plan and proposed SOI boundaries. The underlying land uses would be

changed from Agriculture (Monterey County) to Highway Commercial and Heavy Industrial. The eastern portion of this parcel also contains an agriculture easement of approximately 50 acres. This agricultural easement is the result of a Williamson Act exchange agreement that is being prepared as part of this project. Under the exchange agreement (described in detail in Section 3.2), this 50-acre area would remain in agriculture. As such, 121 acres are considered "developable" for planning and descriptive purposes. As the Franscioni parcel is proposing both Highway Commercial and Heavy Industrial land uses, the City is also recommending subdivision of the parcel so that the various land use boundaries clearly match legal parcel lines.

APN 221-001-071 – "Scheid East" Parcel. This 46-acre parcel north of Franscioni is currently within the City's General Plan boundaries, and is designated as Heavy Industrial. Because approximately half of the parcel is proposed for Highway Commercial, this parcel will require a General Plan land use change to allow the Highway Commercial use, as well as inclusion in the City's proposed SOI. Like the Franscioni parcel, the City is recommending subdivision of the parcel so that the two land use boundaries match legal parcel lines.

APN 221-001-018 – "L.A. Hearne" Parcel. This three-acre parcel at Highway 101 and Espinosa Road is currently used for agricultural equipment storage. This parcel has been included in the project boundaries primarily to create a more uniform SOI boundary and to allow better planning opportunities at the intersection of primary roadways. This parcel requires a General Plan land use change from Agriculture (County) to Highway Commercial (City), as well as inclusion within the City's proposed SOI boundary.

APN 221-001-068 – "Scheid West" Parcel. This 47-acre "L" shaped parcel west of the highway requires a General Plan amendment to bring the property from Agriculture (County) to Low Density Residential (City).

All parcels (including a constrained 3-acre parcel lodged between Highway 101 and El Camino Real and incidental right of way area included within the proposed SOI) are part of a single General Plan Amendment to accommodate the land uses described above. All parcels will also be part of the City of Greenfield's larger city-wide Sphere of Influence amendment, described below. The applicants have requested annexation of the four parcels into the City of Greenfield, although annexation may be part of an application to LAFCO apart from and subsequent to the application to amend the SOI.

Parcels are illustrated in **Figure 2-3.** Proposed land uses are shown in **Figure 2-4.**

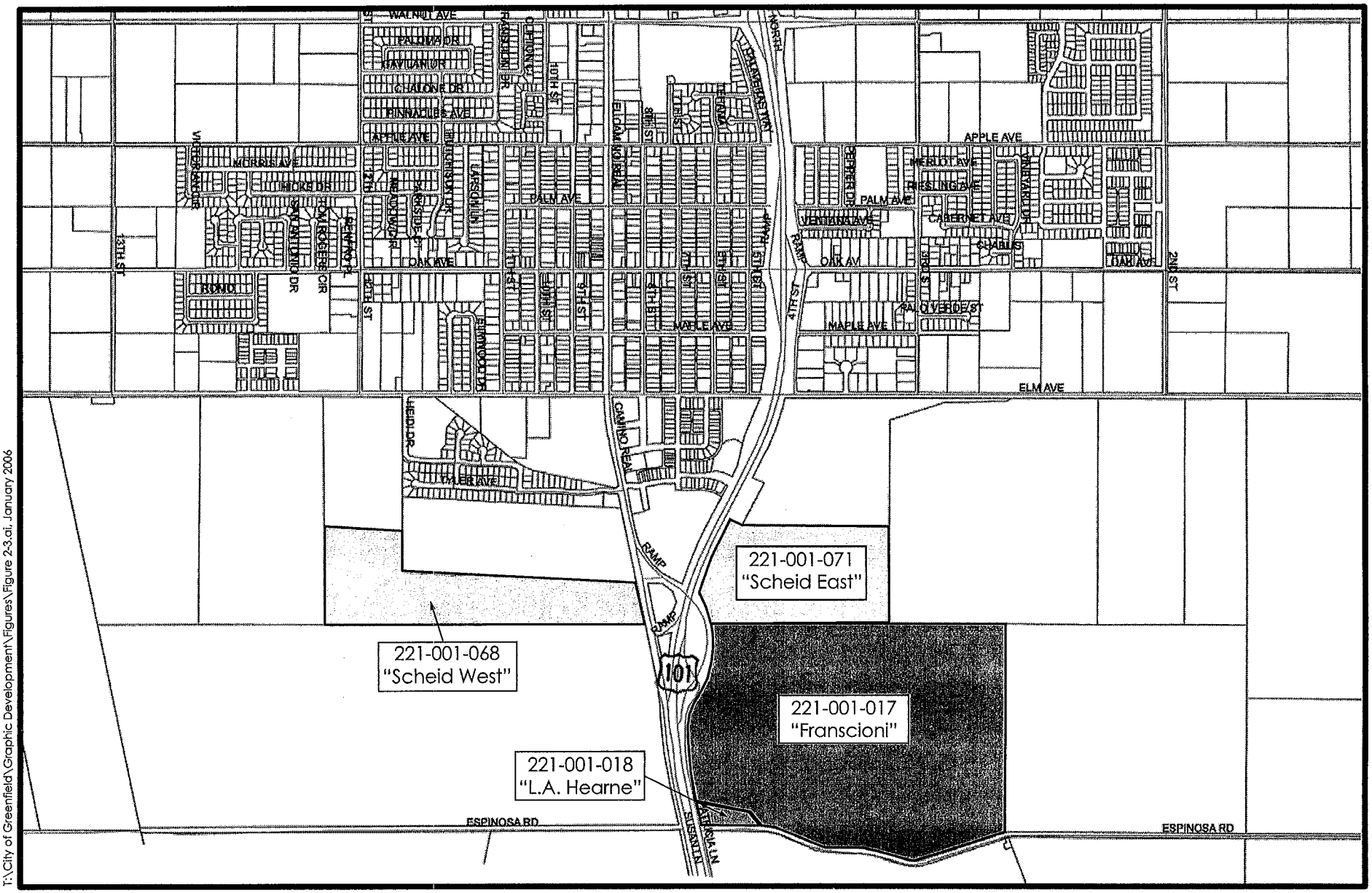

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FIGURE 2-3
SUBJECT PARCELS

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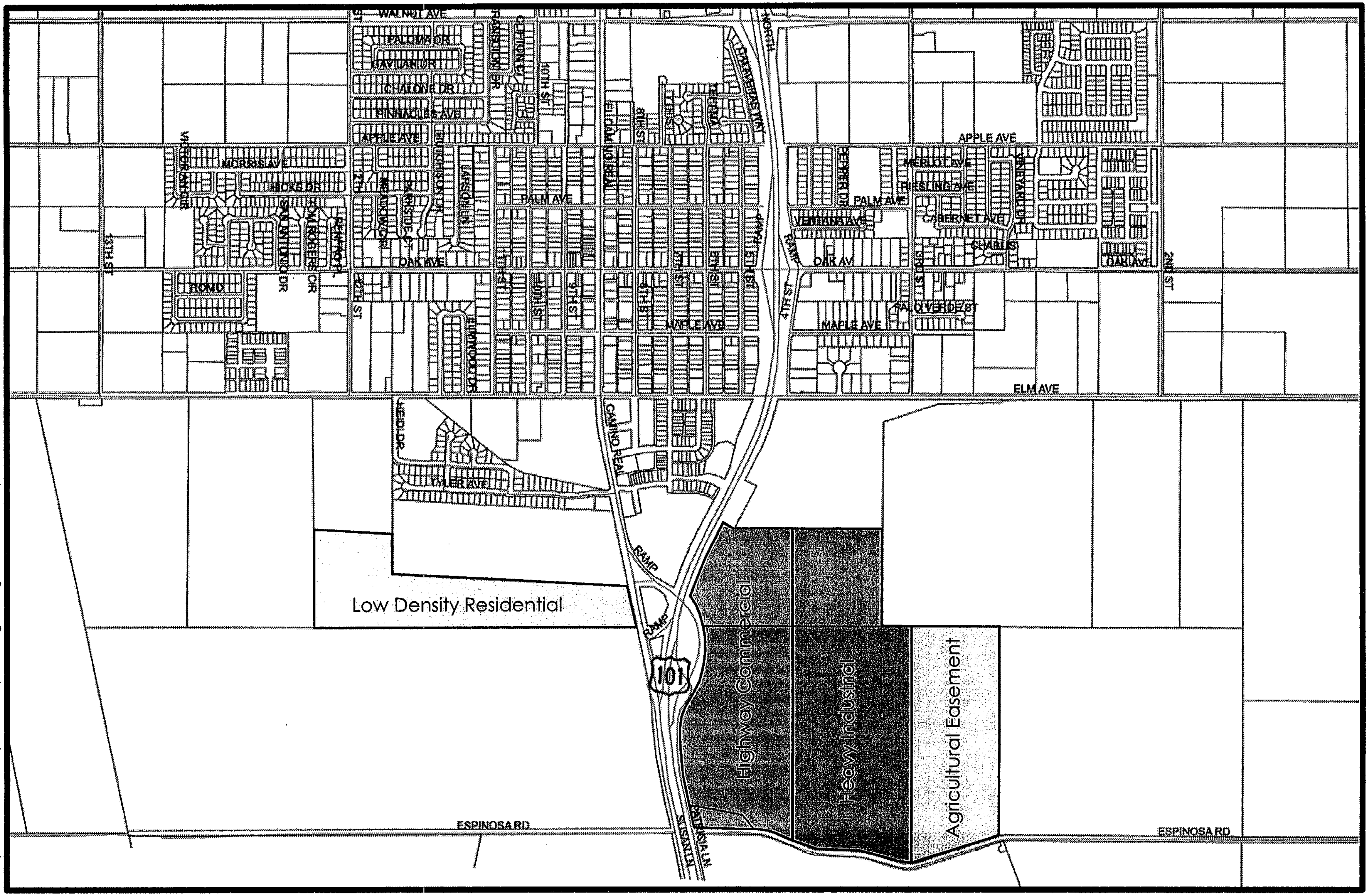

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Figure 2-4
Proposed Land Uses

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2.4 PROJECT RELATIONSHIP TO THE GREENFIELD CITY-WIDE SOI AMENDMENT

The City of Greenfield adopted a comprehensive General Plan Update in May 2005. Following adoption, the City began preparing an application to LAFCO Monterey County to amend its city-wide SOI boundary to match its new General Plan planning boundaries.

Based on continued public input and meetings with LAFCO staff, the City is considering changes (amendments) to its adopted General Plan and proposed SOI. The amendments are focused on removing areas of extremely high quality farmland on the east, and making a more logical boundary adjustment on the west. Those amendments are in process at this time, and are anticipated to be complete by the time the City submits an application to LAFCO to amend its SOI boundary. This issue is also discussed in Section 3.9, Land Use.

The South End SOI Project was proposed to city officials near the end of the General Plan process. At that time, the City decided to analyze the South End proposal, but to do so in a way that would not jeopardize the work already completed on the General Plan. As such, the South End SOI project is being considered and analyzed on its "own merits", as a separate and distinct project. Should the City decide to approve the South End SOI Project, the project boundaries will be included in the City's SOI Amendment application to LAFCO. The city-wide boundary will be considered by LAFCO as a whole. The environmental documents for the City's General Plan, together with this EIR for the South End SOI, will constitute the environmental record for LAFCO's consideration of the entire city-wide SOI boundary. Should the City deny the South End SOI project, the City's application to LAFCO would show the South End project removed from the SOI.

The project's relationship to City of Greenfield planning boundaries is shown in **Figure 2-5.**

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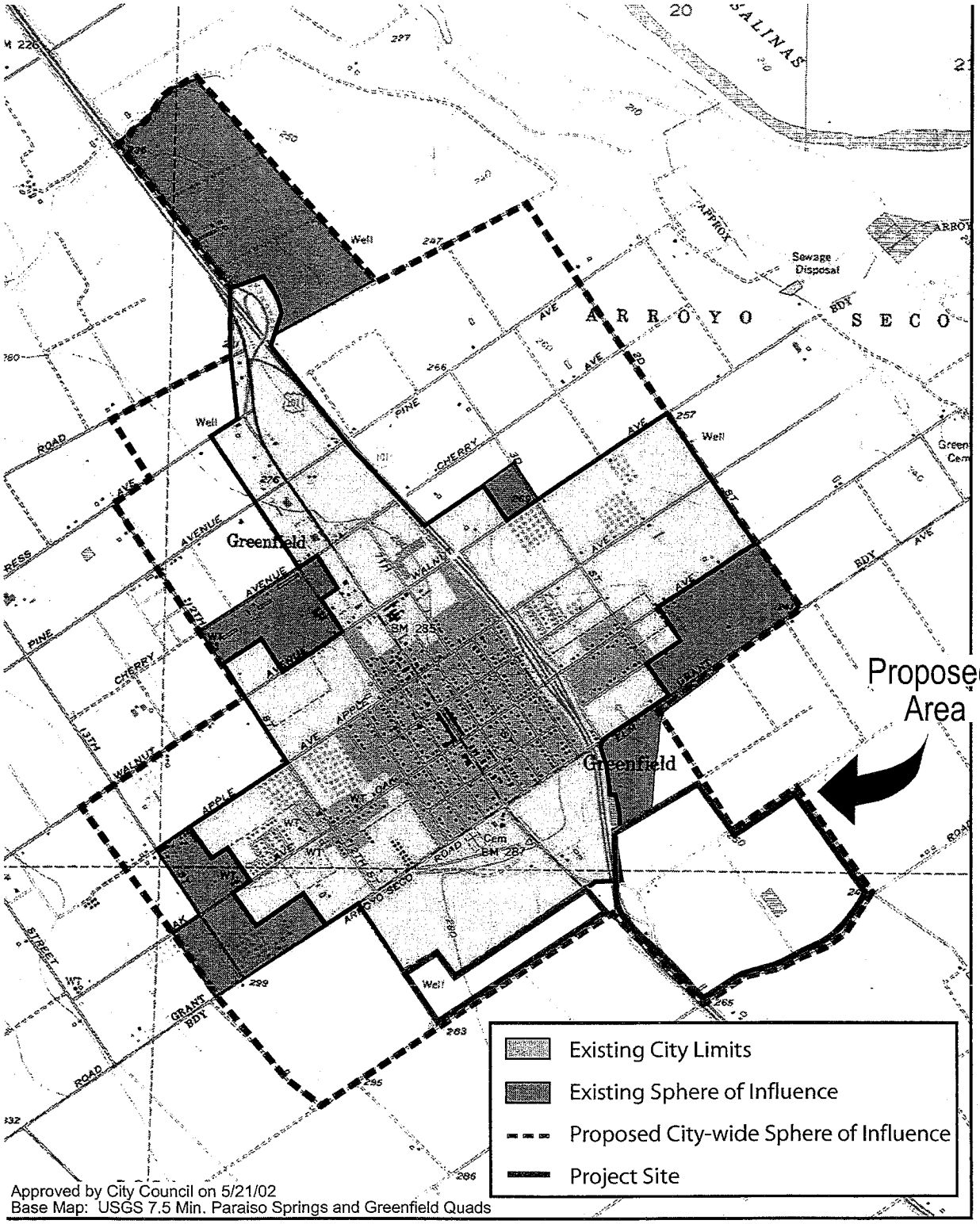

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Source: USGS 7.5 Min. Paraiso Springs and Greenfield Quads/City of Greenfield General Plan

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FIGURE 2-5
RELATIONSHIP TO CITY PLANNING BOUNDARIES

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2.5 PROJECT LAND USE AND DEVELOPMENT CHARACTERISTICS

The project site consists of approximately 267 acres of land south of the City of Greenfield incorporated limits. The application requests multiple entitlements for a General Plan Amendment, Sphere of Influence Amendment, prezoning of property, and annexation of property. No subdivision maps or detailed site plans are proposed as part application. Specific development applications for specific uses and site planning will require additional environmental review by the City of Greenfield.

A summary of proposed land uses and acreage are shown in **Table 2-2** below:

TABLE 2-2
LAND USE SUMMARY AND DEVELOPMENT POTENTIAL

Parcel	Total Acreage	Proposed Land Use	Development Potential
221-011-017 Franscioni	171	Highway Commercial (61 acres), including: -Truck Stop (25 acres) -Hotel/Motel (50 rooms) -Storage Facility (10 acres)	664,922 sf
		Heavy industrial (60 acres)	784,083 sf
		Agricultural Easement (50 acres)	None
221-011-068 Scheid West	47	Low Density Residential (47 Acres)	329 du (maximum)
221-011-071 Scheid East	46	Highway Commercial (23 acres)	250,471 sf
		Heavy Industrial (23 acres)	300,565 sf
221-011-018 LA Hearne Company	3	Highway Commercial (3 acres)	32,670 sf
Totals	267	267	915,393 sf - Highway Commercial 1,084,648 sf – Heavy Industrial 329 du – Low Density Residential

Notes and Assumptions:

1. Development Potential is based on site coverage (25% for Highway Commercial; 30% for Heavy Industrial).
2. Specific Uses (truck stop, motel, storage facility) are conceptual at this time. Exact uses and locations are estimated for analysis purposes only.
3. 329 residential units represents maximum possible yield. Net yield is estimated at 293 units.

Proposed Land Uses

Highway Commercial Development

If approved and implemented, highway commercial use would be developed along the eastside of Highway 101 on approximately 87 acres. The highway commercial portion of the project would be developed on the western portion of the Franscioni, Scheid East and L.A. Hearne parcels. At this time the applicants are considering a range of uses, including a travel center that would accommodate truck parking, restaurants and other visitor serving uses consistent with the City's Highway Commercial designation. No specific development plans have been proposed, the location of specific uses are not known, and the three-acre L.A. Hearne parcel will probably remain as an equipment storage facility in the near term. However, this EIR assumes buildout of all parcels at maximum allowable site coverage in order to provide a through and conservative analysis. Site coverage for highway commercial uses is assumed at 25 percent.

Heavy Industrial Development

The heavy industrial uses would be developed on the eastern portion of the Scheid East and Franscioni parcels. Typical uses anticipated for development within the City's Heavy Industrial designation include processing of agricultural products, major wineries, agricultural support facilities, manufacturing, and similar. For analysis purposes, the EIR (and traffic study) assume site coverage of 30 percent.

Low Density Residential Development

Low Density Residential uses are proposed on the Scheid West parcel on the west side of Highway 101, along the southern boundary of Greenfield High School and Vista Verde School. This designation would allow single-family residential units at up to seven units per acre. Assuming full buildout of the 47-acre parcel at maximum density, the project could yield up to 329 dwelling units. Actual dwelling unit yield will probably be lower once maps account for roads, detention basins, and easements. For that reason, the traffic study assumes development of 293 units.

Traffic and Circulation Improvements

Primary access to the project area would be from Highway 101. East of the highway access to the project site would be made available via Espinosa Road. The proposed circulation system for the project would include the extension of Third Street through the project area to Espinosa Road (consistent with the Circulation Element), and it is assumed that Espinosa Road would be improved along the southern boundary of the project area. West of the highway access to the project site would be via El Camino Real / Patricia Lane. Intersection improvements at the south end of the City would also be required, and internal

streets for all development areas would also be provided. Parking for employees and customers of the commercial and industrial facilities would be required onsite. All circulation plans for the proposed project would be defined as part of subsequent development proposals, and will be subject to review and approval by the City of Greenfield.

Public Services and Infrastructure

Public Service and utilities, including water, wastewater services, gas, electricity, police and fire protection, etc., would be extended from the City to the project site as part of the proposed project. **Section 3.13** of the EIR describes the potential impacts associated with the extension of services to the project area.

Gateway Overlay

Commercial and visitor serving areas that are located at the northern and southern entrances to the community serve as "gateways" to Greenfield. These areas should be aesthetically attractive since they provide an influential visual statement regarding the character of the community. Such areas should be designed to provide visual amenities that are not required for uses designed to serve more local needs. The purpose of the gateway overlay is to require the provision of attractive signage, additional landscaping, and greater attention to building design. The gateway overlay is intended to accomplish these purposes. The entire proposed 267-acre project site would be subject to the City's Gateway overlay.

2.6 PROJECT PHASING

The proposed project has been analyzed for potential development in two primary phases. The purpose of the phasing concept is to determine the thresholds for key traffic and infrastructure improvements, rather than to establish a development sequence. The project applicants have also indicated that future development phasing may be broken down further based upon market demand and uses proposed. The phasing concept to does not preclude or constrain the timing of the development of any of the subject parcels.

PHASE I "INTERIM" DEVELOPMENT

Phase I of the proposed project involves the development of up to a maximum of 329 single family residential units on the western side of the project and would also include the development of the entire Highway Commercial area on the east side of the project. Although the uses for the highway commercial portion of Phase I have not been confirmed, the project applicant has conceptually proposed travel-oriented uses including a truck stop and multiple pads suited for commercial/freeway oriented service providers (fast food,

restaurant, service station and hotel/motel). Phase I also assumes development of approximately 10 acres of "mini storage," or general industrial warehouse storage.

PHASE II - "BUILDOUT"

Phase II involves the balance (approximately 83 acres) of the heavy industrial land uses on the east side of Highway 101. At this time the project applicants have not determined what type of industrial uses would be included within Phase II. For analysis purposes, the EIR assumes maximum site coverage of heavy industrial use.

It is assumed that the proposed project site area would be fully developed within approximately 10-20 years. As stated previously, the purpose of the phasing was to identify the need for key infrastructure improvements, and does not necessarily dictate the development sequence of the parcels.

2.7 PROJECT OBJECTIVES

Consistent with CEQA Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the project shall be discussed. The following description of the project objectives is based on information provided by the project applicant and the City of Greenfield.

The principal objectives of the South End Sphere of Influence and General Plan Amendment project are as follows:

1. Sphere of Influence Amendment, General Plan Amendment and subsequent annexation and prezoning of approximately 267 acres, and extension of necessary services in accordance with LAFCO policy;
2. To establish the land use, environmental and processing framework for the planned development of residential uses, highway commercial uses and heavy industrial uses;
3. 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.
4. Establish an industrial based job market in the southern portion of the City, an identified desire of the City.
5. To create a single-family residential neighborhood that would buffer the existing schools in the southern portion of the City from agricultural uses.
6. Create a well-designed, functional revenue generating highway commercial travel center. The travel center would accommodate truck parking, restaurants, and highway commercial type of uses.

2.8 REQUESTED ACTIONS, ENTITLEMENTS AND REQUIRED APPROVALS

This EIR provides the environmental information, analysis and primary CEQA documentation necessary for the City and LAFCO to adequately consider the environmental effects of the project.

The City of Greenfield, as lead agency, will consider the project at the local level. The primary approvals sought at the local level include the SOI Amendment, General Plan amendment, annexation into the City. LAFCO, with approval authority for the SOI amendment and annexation, is a responsible agency and would take action after the City on those items.

Future approvals within the project area, if approved, would require additional site planning and related permits, additional CEQA compliance, and other processing steps as necessary. Those steps may include, but are not limited to, the following:

- Residential Subdivision Maps;
- Parcel Maps;
- Site Development Plans;
- Circulation Plans;
- All Final Improvement Plans;
- Utility Plans;
- Construction Phasing and Duration;
- Architectural and Site Plan Review;
- Landscaping and Lighting Plans;
- Development Agreements;
- Caltrans approvals and permits for encroachment and improvements relative to Highway 101;
- Grading and Building Permits; and/or
- Other related subsequent actions to further project implementation.

REFERENCES / DOCUMENTATION

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

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

Notice of Preparation for a Draft Environmental Impact Report. October 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

3.0 Environmental Setting, Impacts and Mitigation Measures

SECTION 3.1
AESTHETICS & VISUAL RESOURCES

This section of the EIR identifies potential visual and aesthetic impacts that could occur as a result of the project. The primary visual a-d aesthetic concerns are the general changes in land use and visual character from agricultural to urban uses, the potential impacts to existing views from adjacent properties and the location of the project as a southern gateway into the City. Visual impacts were evaluated using a combination of site reconnaissance, photo documentation, aerial photographs and review of existing policy documents.

3.1.1 EXISTING SETTING

REGIONAL SETTING

Much of the Greenfield area has retained its rural agricultural character. Greenfield lies in the south Salinas Valley and is bounded by the Santa Lucia Mountains and Los Padres National Forest on the west and the Gabilan Mountain Range and benchlands to the east. The mountains provide visual relief from urbanization and agricultural uses on the Valley floor. The elevation of the City ranges between approximately 290 and 310 feet above mean sea level, with terrain that is mostly flat and level and slopes downward toward the east. Other important visual features in the area include the Salinas, San Antonio and Nacimiento Rivers and tributaries, the San Antonio and Nacimiento Reservoirs and numerous canyons, valleys and creeks. Highway 101 traverses the area, and represents a prominent visual and aesthetic landmark within the Salinas Valley.

VISUAL CHARACTER OF THE PROJECT AREA

Dominant Features

The 267-acre project site is located south of the incorporated city limits, east and west of Highway 101, north of Espinosa Road. Highway 101 bisects the project site. The land area south of the City can be characterized as a blend of industrial and agricultural uses, with agriculture the dominant land use. The project site is predominately rural agriculture in character consisting of irrigated farmland, intensive field crop production, and vineyard. There is currently one residence and one metal shed located on the project site, located on the east side of U.S. Highway 101 on the northern portion of the Franscioni parcel. An agricultural equipment storage facility is located on the LA Hearne parcel. Beyond these minor improvements, the land area is essentially used for agriculture, with the visual appearance consisting of production fields, windrows and unimproved farm roads.

Adjacent Land Uses and Views

West of U.S 101 (APN 221-011-068)

Land Uses to the North

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

Land Uses to the South

Active agricultural 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 this parcel west of Highway 101. The NH_3 Service Company, an active fertilizer industrial plant, is located on the west side of Highway 101 between the eastern and western portions of the project and is bounded by El Camino Real and the Highway 101 on ramps.

Land Uses to the West

Active agricultural uses exist west of the project site including Arroyo Seco Vineyards and various row crops.

East Side of U.S. 101 (APN 221-011-017, 018 and 071)

Land Uses to the North

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

Land Uses to the South

Espinosa Road serves as the southern border of the project site east of the highway. South of Espinosa Road is intensive, active agriculture.

Land Uses to the East

Agricultural uses are to the east are also intensively farmed, and contain very high quality farmland.

Land Uses to the West

Highway 101 serves as the western border of the project site for parcels east of Highway 101. The NH_3 Service Company is located on the west side of Highway 101 between the eastern and western portions of the project and is bounded by El Camino Real and the Highway 101 on ramps.

Figures 3.1-1a, 3.1-1b and **3.1-2** provide views of the existing visual and land use conditions of the project site and immediate vicinity.

SCENIC VISTAS

A scenic vista is a view of natural environmental, historic and/or architectural features possessing visual and aesthetic qualities of value to the community. The term "vista" generally implies an expansive view, usually from an elevated point or open area. Greenfield and the proposed project site are located in the Salinas Valley. There are views and scenic vistas of distant mountain ranges to the east and west of the City and project site, as well as views of open farmland. There are also areas of active vineyard immediately west of the City and project site that provide distinction to Greenfield's visual landscape.

Open vistas, including views of distant mountain ranges located east and west of the City, can be seen while traveling north and south on Highway 101. Views provided by vantage points along the highway are important to the City of Greenfield because the visual appearance of development within the City helps to attract transient travel and tourist dollars and makes a statement regarding the City of Greenfield as a place to live. For this reason, the City has adopted "gateway" policies to help shape the appearance of new development within the northern and southern entrances to the City. However, the California Scenic Highway System identifies no designated scenic highways within the vicinity of the project site, and therefore there are no State-recognized visual policies that affect the project.

OTHER INDIVIDUAL SCENIC OR VISUAL RESOURCES

Scenic resources include, but are not limited to, significant trees, rock outcroppings, historic buildings and scenic highways. The project site consists mainly of active farmland; and no significant individual scenic resources have been identified within the project area.

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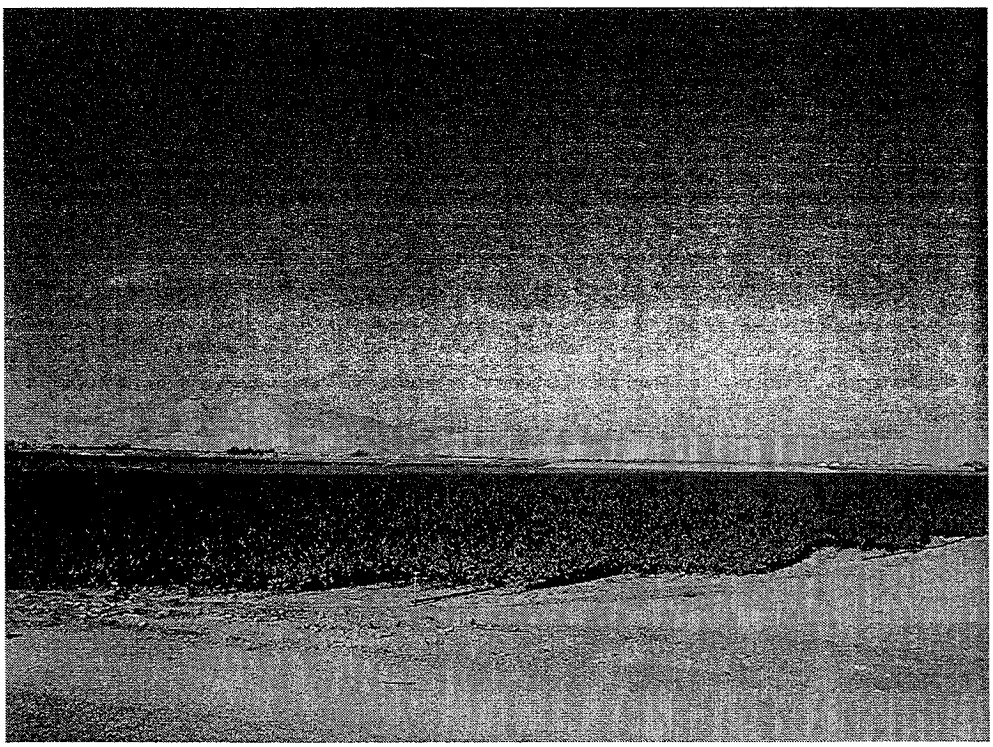
Looking East from APN 221-011-068



Looking Northeast from the Southwest corner of APN 221-011-017

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FIGURE 3.1-1A
SITE PHOTOS

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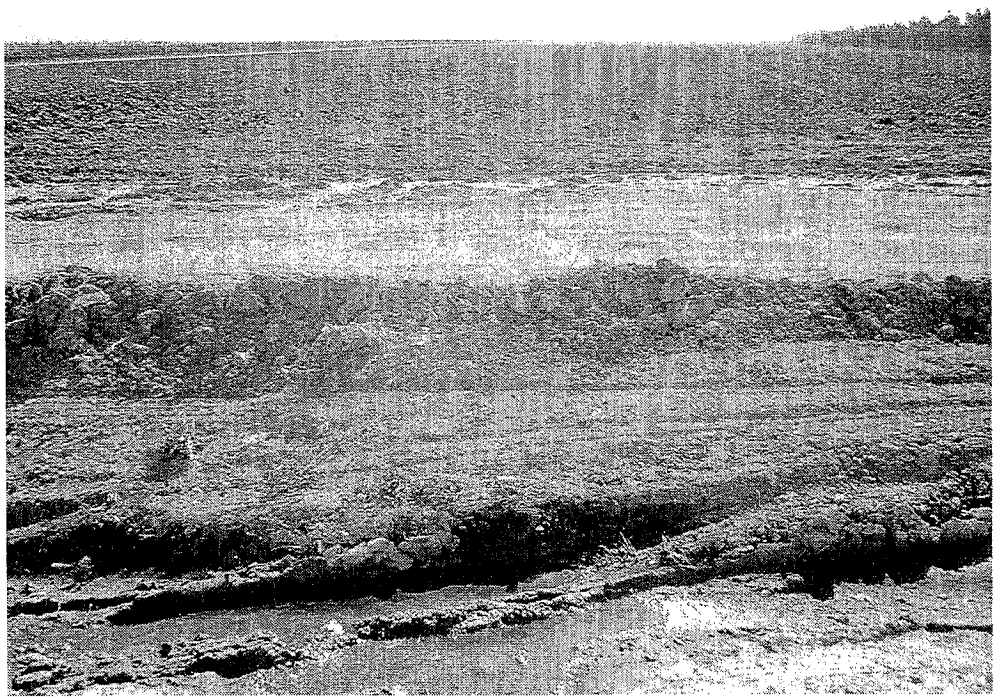
Southwest view from APN 221-011-017



Looking West at APN 221-011-068 from El Camino Real

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FIGURE 3.1-1B
SITE PHOTOS

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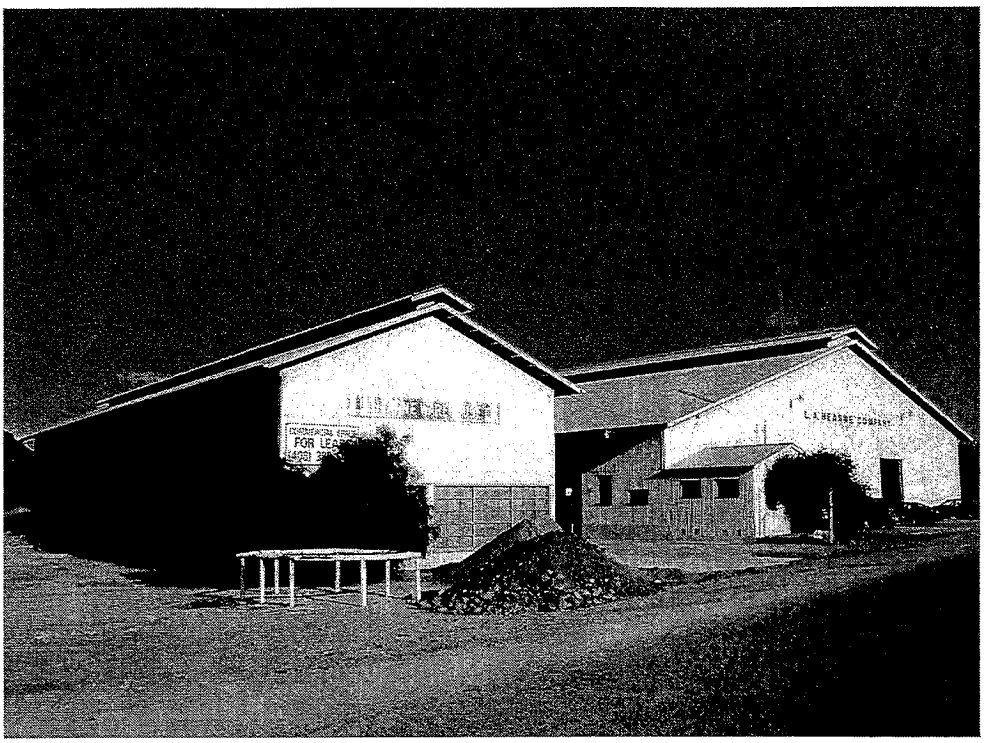
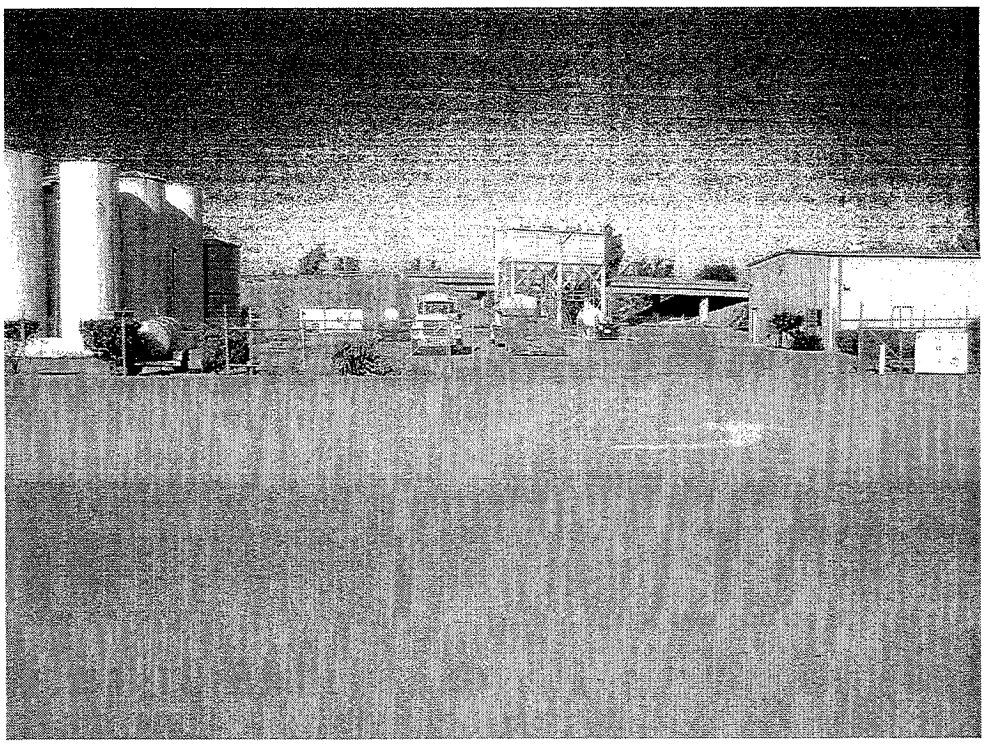


LA Hearne Company Buildings located on APN 221-011-018, southwest of APN 221-011-017



NH3 Service Company between El Camino Real and U.S. Highway 101

T:\City of Greenfield\Graphic Development\Figures\Figure 3.1-2.ai, January 2006

FIGURE 3.1-2
SITE PHOTOS - SURROUNDING USES

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3.1.2 REGULATORY SETTING

CITY OF GREENFIELD GENERAL PLAN

The City of Greenfield General Plan identifies specific land use policies and programs pertaining design standards and protection of visual resources. The General Plan states that new development should improve the physical appearance of the community while maintaining the City's small town character. Specifically, the General Plan identifies the entrances to the City as Gateway Overlay areas. This designation requires attention to aesthetics, landscaping, and signage to ensure that those entering the City are provided with an attractive view that reinforces the character of the community. Signs within the Gateway Overlay area and at entry points to the city along major roadways are required to help create an identity for Greenfield.

The Greenfield General Plan goals, policies and programs relevant to this project include the following:

Goal 2.8: Improve the community's physical appearance through creative planning, redevelopment and design of new development areas.

Policy 2.8.1: Future development shall employ planning principles that enhance community character in project design.

Policy 2.8.5: Encourage the use of attractive signage and monumentation at the entrances to residential districts, commercial areas, and other appropriate locations.

Policy 2.3.11: Commercial development projects shall incorporate landscaping that enhances the character and quality of the project and its immediate vicinity and reduces visual impacts of the development on surrounding properties.

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.

EXISTING MONTEREY COUNTY GENERAL PLAN AND CENTRAL SALINAS VALLEY AREA PLAN

The existing Monterey County General Plan and Central Salinas Valley Area Plan contains goals and policies relevant to this discussion, as the project would require annexation and will be located immediately adjacent to County lands.

Monterey County General Plan

Goal 40: To maintain and enhance a system of scenic roads and highways through areas of scenic beauty; this without imposing undue restrictions on private property or constricting the normal flow of traffic.

Policy 40.2.1: Additional sensitive treatment provisions shall be employed within the scenic corridor, including placement of utilities underground, where feasible; architectural and landscape controls; outdoor advertising restrictions; encouragement of area native plants, especially on public lands and dedicated open spaces; and cooperative landscape programs with adjoining public and private open space lands.

Policy 40.2.2: Land use controls shall be applied or retained to protect the scenic corridor and to encourage sensitive selection of sites and open space preservation. Where land is designated for development at a density which, should maximum permissible development occur, would diminish scenic quality, the landowner shall be encouraged to voluntarily dedicate a scenic easement to protect the scenic corridor.

Policy 40.3.2: The County shall promote special scenic treatment and design within the right-of-way, to include highway directional signs, guardrails and fences, lighting and illumination, provision of scenic outlooks, road lanes, frontage roads, vegetation, grading, and highway structures.

Central Salinas Valley Area Plan

Policy 26.1.6.1 (CSV): Development shall have appropriate review where it is permitted in sensitive or highly sensitive areas as shown on the Scenic Highways and Visual Sensitivity Map.

CALIFORNIA SCENIC HIGHWAY PROGRAM

The California Scenic Highway Program was created by the State Legislature in 1963. Its purpose is to preserve and protect scenic highway corridors from change which would diminish the aesthetic value of lands adjacent to highways. The state laws governing the Scenic Highway Program are found in Section 260 of the Streets and Highways Code. The State Scenic Highway System includes a list of highways that are either eligible for designation as scenic highways or have been so designated. These highways are identified in Section 263 of the Streets and Highways Code. Cities and counties can nominate eligible scenic highways for official designation by identifying and defining the scenic corridor of the highway. The municipality must also adopt ordinances to preserve the scenic quality of the corridor or document such regulations that already exist in various portions of local codes. These ordinances make up the Scenic Corridor Protection Program for each designated highway corridor under the California Scenic Highway Program.

3.1.3 PROJECT 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, a significant impact will occur if the project will result in one or more of the following:

1. Cause substantial adverse effect on a significant scenic vista;
2. Cause substantial damage to individual scenic resources including, but not limited to, trees, rock outcroppings, historic buildings or similar;
3. Substantially degrade the existing visual character or quality of the site and its surroundings;
4. Generate a new source of light and/or glare which would adversely affect day or nighttime views in adjacent areas;
5. Create an unattractive visual appearance of the built environment at the City's gateways; or
6. Result in a significant cumulative change to one or more visual or aesthetic resource when considered in the context of other projects.

METHODOLOGY

The analysis of potential aesthetic impacts is based upon field review of the project site and the surrounding areas, review of technical reports, background documents of the City of Greenfield including the General Plan and Zoning Code, and photographs of visual vantage points surrounding the project site. Potential impacts were assessed by forecasting the anticipated appearance of future development at the subject parcels, and predicting changes to the visual landscape.

PROJECT IMPACTS AND MITIGATION MEASURES

Aesthetic and Visual Character of the Project Site

Impact 3.1-1 The project would alter the aesthetic character of the project site and its immediate surroundings from rural agricultural use to urban residential, industrial and highway commercial uses. This is a **less than significant** impact at the project level.

The South End SOI project is made up of four parcels; APN 221-011-068, 071, 018, and 017. Agricultural fields and operations surround most of the project area. Vista Verde Middle School and Greenfield High School are located immediately north of APN 221-011-068, located on the west side of the highway.

According to historical aerial photographs and discussions with local residents, the project site has been in agricultural use for at least 50 years. The project site, along with surrounding agricultural lands, contribute to the City's rural landscape and agricultural identity.

Urbanization of the project site would result in permanent land use changes and result in the loss of this agricultural landscape at the location of the subject parcels and south end of the City. Highway Commercial development along the east side of the highway would be the most prominent visual change, as there will be a natural tendency to construct high-visibility commercial uses to optimize the project's proximity to travelers.

The impact of permanent change to a place's "visual character" as caused by urban development is a somewhat subjective area of study, depending upon whether the reviewer believes the change is "good" or "bad". In reviewing this site, the City must also look at what defines the City's "visual character", or rural character. The site is an example of Greenfield area's agricultural landscape; however, there is only one residence in the area and no clearly defined contributors to an established "rural community", such as barns, homesteads, old fence lines or historic structures related to the City's agricultural heritage. The character of this particular area is comprised mainly of intensive commercial agricultural practices.

Alterations to the aesthetic and visual character of the site are expected to be most noticeable from Highway 101, and less so from Espinosa Road, Third Street, Elm Avenue, and the southern portion of El Camino Real. Temporary structures associated with construction and development such as contractor's trailers, cranes, security trailers, portable toilets and concrete mixers would be placed at the site during site preparation and construction of the project. Short-term aesthetic impacts are expected to result from the presence of these temporary structures and construction equipment.

Although these effects may be **less than significant** at the project-specific level, please see also **Impact 3.1-4** regarding visual appearance, as well as **Impact 3.1-5 and 3.1-6**, Cumulative Visual Impacts.

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.

Existing Views and Scenic Vistas

Impact 3.1-2 Land use changes and ultimate development within the project area would result in changes to the physical landscape and alter expansive views to and from surrounding properties and Highway 101. This is considered a **less than significant** impact.

The subject parcels are ultimately planned for residential, highway commercial, and heavy industrial development. Future homes, heavy industrial uses, and highway commercial uses will be visible from Highway 101 in the southern portion of the City and from adjacent streets to the north, south and east including Espinosa Road, Elm Avenue, and the southern most portion of El Camino Real. New development may also be visible from local schools, as well as from the new St. Charles Place neighborhood.

According to the Greenfield General Plan, the project site is not within a visually sensitive corridor or a clearly defined sensitive viewshed. Although future development would be visible from the surrounding agricultural uses located to the east, west and south of the project site, there is not an identifiable viewpoint or elevated vista on these adjacent properties from which the project would ultimately detract in a significant way. Viewshed and vista impacts from adjacent properties are therefore considered less than significant.

Highway 101, Elm Avenue and El Camino Real, however, are higher than the project site and provide more sweeping views to the agriculture fields to the south. Views from these areas are currently not obscured, and create a defined urban edge to the City. With annexation and ultimate development within this area, the urban edge will move south, and new development will be located in an area that has traditionally been part of the City's visual landscape. The proposed project site would be subject to the City's Gateway Overlay, which includes standards for development that require the attention to aesthetics, landscaping, and signage to ensure that the entrances into the City provide an attractive appearance that reinforces the character of the City. Visual appearance of the built environment at the proposed project site is further addressed in **Impact 3.1-4.** Since the proposed project is within the City's Gateway Overlay it would, along with **MM 3.1-4a-c,** render the visual changes as seen from the "vista" created by Highway 101 a **less than significant** impact.

Light and Glare

Impact 3.1-3 Buildout of the project area would introduce new sources of lighting within the project area that could adversely affect adjacent uses. The increase of residual or spillover glare and light is **potentially significant.**

Development of the proposed project site would result in the installation of street and parking lot lighting, security lighting, possible additional traffic lights and other light sources typical to highway commercial, industrial and residential-related uses from which night-time spillover of glare and light may potentially affect adjacent residential neighborhoods to the south and west. Although the project's adjacent land uses are not particularly sensitive to new lighting sources (most adjacent areas will remain as agriculture), the following measure is nonetheless required to ensure that lighting impacts from all new development are kept to a minimum:

Mitigation Measure

MM 3.1-3 Prior to approval of final maps for each phase of development, the project applicant shall prepare and submit to the City detailed exterior lighting plans that indicates the location and type of lighting that will be used. Exterior lighting shall specify type and maker, and demonstrate a non-intrusive quality (incorporate baffles and lens cut-offs to direct lighting downward lighting) while still providing an adequate amount of light for safety and/or security. Each applicant shall not position night lighting to illuminate areas beyond the site boundaries, but shall place lights or install shielded lights to illuminate only the area of concern.

Implementation of the above mitigation measure will ensure that light and glare impacts are reduced to a **less than significant** level by requiring that lighting be consistent with the requirements of the General Plan, Zoning Ordinance and the Gateway Overlay.

Visual Appearance of the Built Environment

Impact 3.1-4 Development Highway Commercial and Residential near the southern gateway along Highway 101 could significantly impact the overall visual quality and appearance of the City. This is considered a **potentially significant impact.**

The eventual buildout of the Highway Commercial portion of the project will include physical improvements, highly visible buildings and accompanying signage and monumentation along the Highway 101 corridor at the south end of the City. A small area of residential use will also be located in the City's southern "gateway" areas.

These areas are located within the City designated Gateway Overlay areas. The Greenfield General Plan indicates that proposed development and signage must be designed to reflect Greenfield's commitment to complement, rather than compete with, the surrounding agricultural area. If not properly designed with a heightened respect for visual appearance, the resulting development could create unpleasant views for neighboring properties and traffic traveling north and south on Highway 101, inconsistent with City policy. The following mitigation measures will reduce the impact to a less than significant level.

Mitigation Measures

MM 3.1-4a Landscape plans shall be submitted for all specific development proposals within the project site and shall indicate landscape details such as planting plans, plant palletes, and landscape features. Landscape plans shall be prepared by a licensed landscape architect, and shall include design themes and concepts consistent with the goals of the Gateway Overlay designation. The landscape criteria shall be reviewed and approved by the City and incorporated into the final subdivision map(s) and future site plans for the project.

MM 3.1-4b Utility lines shall be placed underground as required by City policy to minimize the visual impacts of man-made elements at the project site. The City Engineer shall review and approve the applicant's utility improvement plans.

MM 3.1-4c As a component of individual applications for development projects within the annexation area, applicants will submit detailed project design information to allow the City to make a determination of consistency with the Gateway Overlay designation. Such information shall contain detailed site plans, information regarding the project's proposed visual amenities, setbacks, signage and monumentation, additional landscape detail, proposed architectural schemes, architectural elevations, and visual simulations from Highway 101.

Implementation of the above mitigation measures will reduce impacts resulting from the visual appearance of the built environment to a **less than significant** level by requiring landscaping concepts and design concepts that are consistent with the character of the community, Gateway Overlay designation and city policy.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

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.

Nighttime Ambient Light and Glare

Impact 3.1-6 Nighttime ambient light and glare will be increased by new residential, industrial and highway commercial development in the area of the project. This is a **less than significant** impact.

The project, combined with other cumulative projects, will incrementally increase ambient light and glare in an area generally devoid of light sources. Commercial and industrial lighting is often more intense than residential light sources, and all new light sources contribute to what is described as "skyglow". Implementation of mitigation measure MM **3.1-3** would reduce the effects of nighttime ambient light and glare on a project specific level. At a cumulative level, skyglow city-wide may be increasing. However, there is no evidence that this increase is causing a particular impact or triggering a specific significance threshold. Therefore, the project's contribution to cumulative light and glare impacts is considered **less than significant.**

REFERENCES/DOCUMENTATION

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

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

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

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

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

Site Visit. Pacific Municipal Consultants. October 18, 2005.

California Scenic Highway System (from webpage at http://www.dot.ca.gov/hq/LandArch/Scenic) California Office of State Landscape Architecture.

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SECTION 3.2
AGRICULTURAL RESOURCES

This section of the EIR describes the agricultural resources in the project area and the potential effects on the existing agriculture within the project site. Sources utilized in this section to assess impacts of the project include the City Greenfield General Plan, the California Department of Conservation Farmland Conversion Reports, the California Department of Conservation Important Farmlands Map, and the Soil Survey of Monterey County, California. In the case of this specific proposal, the Williamson Act exchange program is a major component of the project. It is anticipated that this section will serve the needs of the EIR and will also serve as a part of the application for a Williamson Act Exchange Program as outlined in this document.

3.2.1 EXISTING SETTING

FARMLAND CLASSIFICATIONS

The systems used by the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), to determine a soil's agricultural productivity include the Land Capability Classification and the Storie Index Rating System. The "prime" soil classifications of both systems indicate the absence of soil limitations, which if present, would require the application of management techniques (e.g., drainage, leveling, special fertilizing practices) to enhance production.

Land Capability Classification

The USDA Land Capability Classification (LCC) indicates the suitability of soils for most kind of crops. The Land Capability Classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive land forming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes. Soils are rated from Class I to Class VIII, with soils having the fewest limitations receive the highest rating (Class I). Specific subclasses are also utilized to further characterize soils. A general description of soil classification, as defined by the NRCS, is provided in **Table 3.2-1**.

TABLE 3.2-1
LAND CAPABILITY CLASSIFICATION

Class	Definition
I	Soils have few limitations that restrict their use.
II	Soils have moderate limitations that reduce the choice of plants, or that require special conservation practices.
III	Soils have severe limitations that reduce the choice of plants, require conservation practices, or both.
IV	Soils have very severe limitations that reduce the choice of plants, require very careful management, or both.
V	Soils are not likely to erode but have other limitations; impractical to remove soils that limit their use largely to pasture or range, woodland, or wildlife habitat.
VI	Soils have severe limitations that make them generally unsuited to cultivation and limit their use largely to pasture, or range, woodland, or wildlife habitat.
VII	Soils have very severe limitations that make them unsuited to cultivation and that restrict their use largely to pasture or range, woodland, or wildlife habitat.
VIII	Soils and landforms have limitation that preclude their use for commercial plant production and restrict their use to recreation, wildlife habitat, or water supply, or to aesthetic purposes.

Source: *U.S. Department of Agriculture, Natural Resources Conservation Service, 2003. National Soil Survey Handbook, title 430-VI. [Online] Available: http://soils.usda.gov/technical/handbook/.*

Storie Index Rating System

The Storie Index Rating system ranks soil characteristics according to their suitability for agriculture from Grade 1 soils (80 to 100 rating), which have few or no limitations for agricultural production to Grade 6 soils (less than 10), which are not suitable for agriculture. Under this system, soils deemed less than prime can function as prime soils when limitations such as poor drainage, slopes, or soil nutrient deficiencies are partially or entirely removed. The six grades, ranges in index rating, and definition of the grades, as defined by the NRCS, are provided below in Table 3.2-2.

TABLE 3.2-2
STORIE INDEX RATING SYSTEM

Grade	Index Rating	Definition
1 – Excellent	80 through 100	Soils are well suited to intensive use for growing irrigated crops that are climatically suited to the region.
2 – Good	60 through 79	Soils are good agricultural soils, although they may not be so desirable as Grade 1 because of moderately coarse, coarse, or gravelly surface soil texture; somewhat less permeable subsoil; lower plant available water holding capacity, fair fertility; less well drained conditions, or slight to moderate flood hazards, all acting separately or in combination.
3 – Fair	40 through 59	Soils are only fairly well suited to general agricultural use and are limited in their use because of moderate slopes; moderate soil depths; less permeable subsoil; fine, moderately fine or gravelly surface soil textures; poor drainage; moderate flood hazards; or fair to poor fertility levels, all acting alone or in combination.
4 – Poor	20 through 39	Soils are poorly suited. They are severely limited in their agricultural potential because of shallow soil depths; less permeable subsoil; steeper slope; or more clayey or gravelly surface soil textures than Grade 3 soils, as well as poor drainage; greater flood hazards; hummocky micro-relief; salinity; or fair to poor fertility levels, all acting alone or in combination.
5 – Very Poor	10 through 19	Soils are very poorly suited for agriculture, are seldom cultivated and are more commonly used for range, pasture, or woodland.
6 – Non-agricultural	Less than 10	Soils are not suited for agriculture at all due to very severe to extreme physical limitations, or because of urbanization.

Source: USDA Soil Conservation Service, Soil Survey of Sacramento County, April 1993.

Farmland Mapping and Monitoring Program

The Farmland Mapping and Monitoring Program (FMMP) was established in 1982 to continue the Important Farmland mapping efforts begun in 1975 by the U.S. Department of Agriculture, Soil Conservation Service (USDA-SCS). The intent of the USDA-SCS was to produce agricultural resource maps based on soil quality and land use across the nation. As part of the nationwide agricultural land use mapping effort, the USDA-SCS developed a series of definitions known as Land Inventory and Monitoring (LIM) criteria. The LIM criteria classified the land's suitability for agricultural production; suitability included both the physical and chemical characteristics of soils and the actual land use. Important Farmland Maps are derived from the USDA-SCS soil survey maps using the LIM criteria.

Since 1980, the State of California has assisted the USDA-SCS with completing its mapping in the state. The FMMP was created in the State Department of Conservation (DOC) to continue the mapping activity with a greater level of detail. The DOC applied a greater level of detail by modifying the LIM criteria for use in California. The LIM criteria in

California utilize the SCS and Storie Index Rating systems, but also consider physical conditions such as a dependable water supply for agricultural production, soil temperature range, depth of the ground water table, flooding potential, rock fragment content, and rooting depth.

Important Farmland Maps for California are compiled using the modified LIM criteria, as described above, and current land use information. The minimum mapping unit is 10 acres unless otherwise specified. Units of land smaller than 10 acres are incorporated into the surrounding classification. The Important Farmland Maps identify five agriculture-related categories: prime farmland, farmland of statewide importance, unique farmland, farmland of local importance, and grazing land. Each is summarized below, based on *A Guide to the Farmland Mapping and Monitoring Program* (2004), prepared by the Department of Conservation.

Prime Farmland

Prime farmland is considered land with the best combination of physical and chemical features able to sustain the long-term production of agricultural crops. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. The land must have been producing irrigated crops at some time during the four years prior to the mapping date.

Farmland of Statewide Importance

Farmland of statewide importance is considered land similar to prime farmland, but with minor shortcomings, such as greater slopes or with less ability to hold and store moisture. The land must have been used for the production of irrigated crops at some time during the two update cycles prior to the mapping date.

Unique Farmland

Unique farmland consists of land containing lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated, but may include non-irrigated orchards of vineyards as found in some climatic zones in California. The land must have been cropped at some time during the four years prior to the mapping date.

Farmland of Local Importance

Farmland of local importance is land of importance to the local agricultural economy, as determined by each County's Board of Supervisors and a local advisory committee. The Board of Supervisors determined that there would be no Farmland of Local Importance for Monterey County. (California Farmland Conversion Report 2000-2002).

Grazing Land

Grazing Land is land on which the existing vegetation is suited to the grazing of livestock. The California Cattleman's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities developed this category. The minimum mapping unit is set at 40 acres.

Urban and Built-Up Land

Urban and built-up land is considered land occupied with structures with a building density of at least one unit to one-half acre. Uses may include, but are not limited to, residential, industrial, commercial, construction, institutional, public administration purposes, railroad yards, cemeteries, airports, golf courses, sanitary landfills, sewage treatment plants, water control structures, and other development purposes. Highways, railroads, and other transportation facilities are mapped as part of this unit, if they are part of a surrounding urban area.

Other Land

Other Land is land that is not included in any other mapping category. Some typical examples of other land include low density rural developments; brush, timber, wetland, and riparian areas not suitable for livestock grazing, confined livestock, poultry or aquaculture facilities; strip mines borrow pits; and water bodies smaller than forty acres. Vacant and nonagricultural land surrounded on all sides by urban development and greater than 40 acres is also mapped as other land.

Water (W)

Perennial water bodies with an extent of at least 40 acres categorized as water.

REGIONAL SETTING

Contribution of Agriculture to the Monterey County Economy

Monterey County ranked third in agricultural production (not including timber) out of fifty-eight counties in the State in 2002 and remained the same ranking third in agricultural production in 2003 with gross revenues from the sales of agricultural commodities totaling at $3.28 billion (California Agricultural Statistics Service, 2003).

In 2003, the leading agricultural resources included lettuce (head and romaine), salad greens, strawberries and broccoli, as seen in **Table 3.2-3.**

TABLE 3.2-3
LEADING COMMODITIES FOR GROSS VALUE OF
AGRICULTURAL PRODUCTS IN MONTEREY COUNTY, 2003

Commodities	Value
Lettuce, Head	$489,306,000
Lettuce, Romaine	$445,240,000
Salad Greens	$437,622,000
Strawberries	$250,395,000
Broccoli	$197,587,000
Grapes, Wine	$160,219,000
Vegetables, Crops	$125,596,000
Lettuce, Leaf	$97,828,000
Cauliflower	$89,641,000
Spinach	$88,886,000

Source: California Agricultural Statistics Service: Summary of County Agricultural Commissioners' Reports, 2002-2003.

MONTEREY COUNTY FARMLAND CONVERSION

One of the basic underlying premises of agricultural conversion is that the proximity of agricultural land to urban uses increases the monetary value of the agricultural land either directly through formal purchase offers, indirectly through recent sales in the vicinity, or through the extension of utilities and other urban infrastructure into productive agricultural areas. The County Assessor's Office provides evidence to this premise by assessing property values higher when adjacent to the urban fringe (U.S. Census Bureau, 2000).

According to the California Department of Conservation, 2002 Farmland Conversion Reports, there has been an increase in the acreage of Prime Farmland, Farmland of Statewide Importance, and Unique Farmland and Farmland of Local Importance in Monterey County between the years 2000 and 2002. This increase can be explained by the conversion of land historically used for livestock grazing to Prime and Unique Farmlands. This conversion is largely due to the creation of irrigated vineyards and row crops being brought into production. The total agricultural acreages by type for Monterey County are presented in **Table 3.2-4.**

TABLE 3.2-4
ACRES OF IMPORTANT FARMLANDS – MONTEREY COUNTY (2000-2002)

Land use Category	Total Acreage	
	2000	2002
Prime Farmland	169,255	169,338
Farmland of Statewide Importance	45,877	46,007
Unique Farmland	24,142	25,465
Important Farmland Subtotal	239,274	240,810
Grazing Land	1,060,663	1,057,491
Agricultural Land Total	1,299,937	1,298,301

Source: California Department of Conservation, Farmland Conversion Reports 2002.

CITY OF GREENFIELD FARMLAND CONVERSION

The City of Greenfield has grown considerably since its incorporation in 1947, resulting in the conversion of a large amount of farmland to urban uses. When originally incorporated, Greenfield was known as the Clark Colony and consisted of 289 acres; by 1988 the City had annexed an additional 442 acres resulting in a total City size of 731 acres. Per the 2005 General Plan, the City is proposed to have a growth boundary of 1380 acres without the inclusion of the South End SOI Project.

PROJECT SITE CHARACTERISTICS

Crop Production and Soil Conditions

The four parcels that comprise that project site are primarily used for agricultural purposes including row crops. According to the Soil Survey of Monterey County, California, native soil in the vicinity of the site is Arroyo Seco Gravelly Sandy Loam, Elder Loam Gravelly substratum and Cropley Silty Clay. The majority of the project site consists of Arroyo Seco Gravelly Sandy Loam. West of Highway 101, Elder Loam is prominent on the project site. East of Highway 101, a small portion of the project site, along the eastern border, contains Cropley Silty Clay soil. This arrangement of soils allows for the areas east of Highway 101 in the project site to have optimal crop production, while the areas west of Highway 101 have less production potential. **Figure 3.2-1** Project Site Soil Types illustrates the division of soil types within the project site area.

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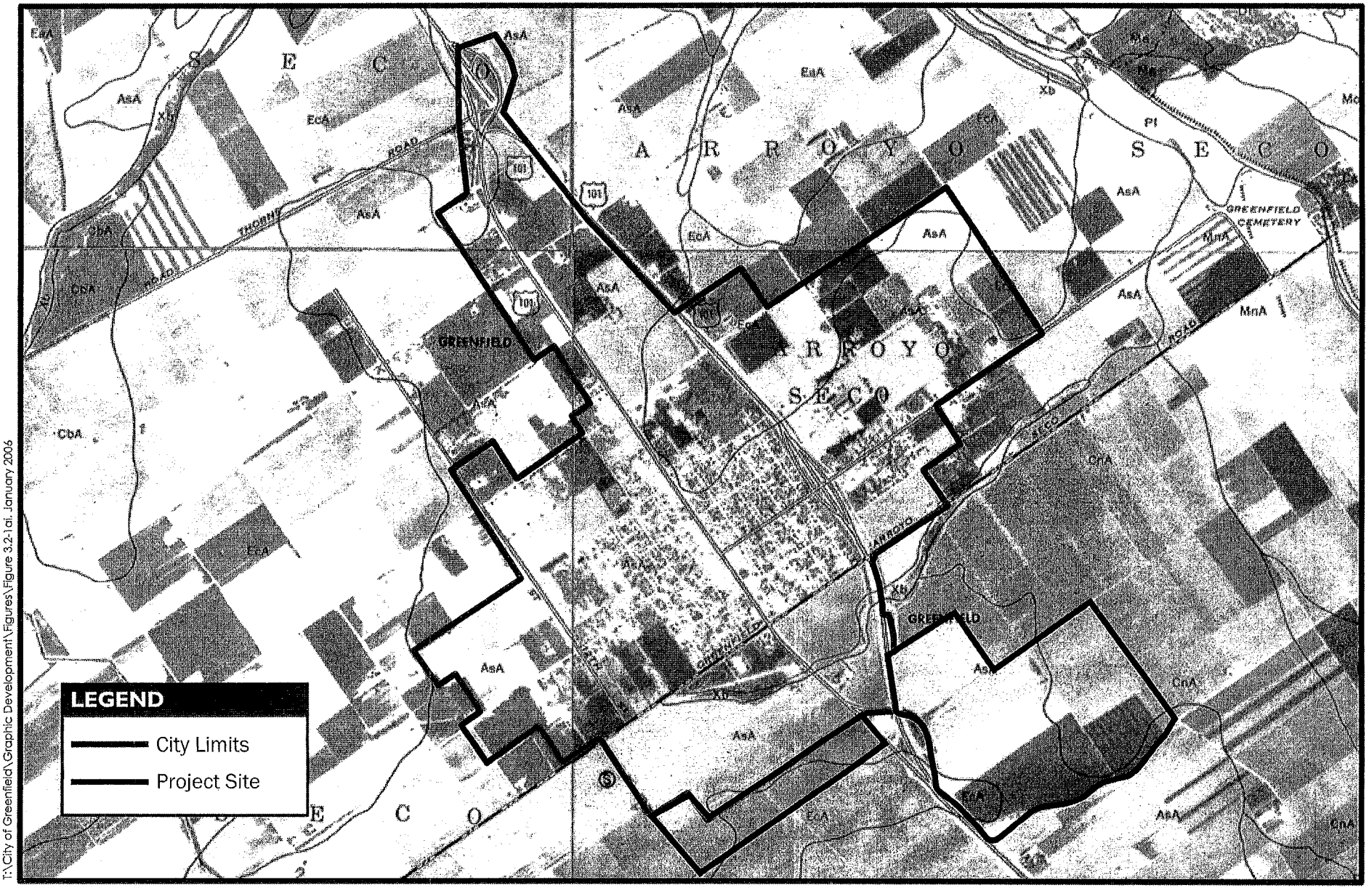

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FIGURE 3.2-1
SOIL TYPES

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Arroyo Seco Gravelly Sandy Loam

Arroyo Seco Gravelly Sandy Loam has an average slope of less than two percent. The available water holding capacity is about four to six inches and is reduced somewhat by the coarse fragments (angular granitic or schistose gravel or cobble stones), especially in the underlying material. The soil is mostly used for irrigated row and field crops. The soil also can be used for orchards and vineyards.

Elder Loam Gravelly substratum

Elder Loam Gravelly substratum has an average slope of two percent or less. This soil is on alluvial fans or plains. The gravel content of the soil ranges from zero to five percent, and depth of gravel or cobblestones is 40 to 50 inches. Permeability is moderate above the very rapidly permeable underlying material and the available water capacity is 5.5 to 9 inches. Roots can penetrate to a depth of 40 to 50 inches. Runoff is slow and the erosion hazard is slight. This soil is use for irrigated field and row crops, orchards and some vineyards.

Cropley Silty Clay

This soil is located on alluvial fans, on flood plains and in basins. Cropley Silty Clay has an average slope of zero to two percent. Runoff is categorized as slow and the erosion hazards are considered to be minimal. Permeability for Cropley soils is generally slow, and the available water capacity is eight to ten inches. Roots penetrate to a depth of more than 60 inches. The soil is used mostly for irrigated row and field crops, especially celery and lettuce.

IMPORTANT FARMLAND MAP

According to the Monterey County Important Farmland Map made available by the California Department of Conservation Division of Land Resource Protection, the approximately 267 acre project site consists entirely of Prime Farmland and does not contain any acreage of Urban and Built-Up Land, Farmland of Statewide Importance, Unique Farmland or Grazing Lands.

According to the Natural Resources Conservation Service (NRCS) Land Capability Class Systems, a major portion of the project site is Elder Gravelly Loam with 0 to 2 percent slopes, which is a Class II soil with a Storie Index rating of "90" and is, therefore, considered prime agricultural soil. The remainder of the site is Cropley Silty Clay soils with zero to two percent slopes, which is a Class II soil with a Storie Index rating of "51" and Arroyo Seco Gravelly Loam with zero to two percent slopes, which is a Class III soil with a Storie Index rating of "63." These two soil types have minimal and slight erosional hazards

and low shrink-swell potential. The Cropley soils have generally slow permeability whereas the Arroyo Seco soil has moderately rapid permeability with good drainage.

3.2.2 REGULATORY SETTING

STATE

Williamson Act

The California Land Conservation Act (Williamson Act) was enacted by the State Legislature in 1965 as a means of conserving California's prime agricultural lands from urbanization. The Williamson Act involves voluntary contracts between landowners and a city or county in which they agree to retain their lands in agriculture or other open space uses for a minimum of ten years. In return for entering into this contract, the landowners receive property tax relief on the lands under contract. This relief is provided through the assessment of the lands based upon their income-producing value rather than their market value, which may be considerably higher. The contracts have a ten-year term, which are automatically renewed each year on a common anniversary date of January 1 unless they are cancelled or a notice of non-renewal is given. If either party to a contract gives notice of non-renewal, the non-renewal process begins on the following anniversary with nine years remaining. During the remaining term of the contract after notice of non-renewal has been given, the property taxes increase gradually according to a formula that eventually brings them up to the same level as non-Williamson Act lands. Currently, approximately 70 percent of the state's prime agricultural land is protected under this Act. Prime farmland under the Williamson Act includes land that qualifies as Class I and II in the SCS classification of land that qualifies for rating 80 to 100 in the Storie Index Rating.

The proposed project contains one parcel that is subject to a Williamson Act contract (Franscioni, APN 221-011-017). The owner of the parcel is pursuing a Williamson Act Exchange for 121 acres of the 171 acres. In exchange for taking the 121 acres of land out of the Williamson Act contract, the project applicant for the parcel has agreed to place the 50 easternmost acres in a conservation easement and place several off-site properties in a permanent agricultural easement, as described below.

Williamson Act Exchange Program

The Williamson Act easement exchange (government Code Section 51256,et seq., effective 1/1/1998) provides a voluntary rescission process for local entities and landowners to cancel a Williamson Act contract and simultaneously dedicate a permanent Agricultural Conservation Easement on other land. A governing board or council must make specified findings in order to cancel a contract. The appraised value of the easement must be greater or equal that the cancellation fee required to cancel the contract. The easement land must be of equal size or larger than the Williamson Act contracted land. Williamson Act

exchanges must meet the criteria established under the California Farmland Conservancy Program, the Department's land conservation easement program.

The applicants on the proposed project are pursuing a Williamson Act Exchange for 121 acres of the 171 acres acre Franscioni Parcel. The Monterey County Agricultural and Historical Land Conservancy is cooperating with the applicant (TMV Lands) to accept a grant of an agricultural conservation easement for the following properties after the recession of a Williamson Act Contract for the 121 acres, pursuant to the Williamson Act Exchange Program. (government Code Section 51256,et seq.):

1. The remaining 50 acres of the parcel (APN 221-011-017) located on the eastern portion of the parcel not proposed for development, adjacent to the project site.
2. Approximately 66.09 acres located near Chualar known as the Somavia Road Ranch (APN 137-041-034; and
3. Approximately 317.09 acres known as Redding Ranch located just south of Greenfield (APN 221-011-040)

Agriculture Preservation Contracts

Government Code Section 51256 requires that the proposed agricultural conservation easement be consistent with the criteria set forth in Public Resource Code Section 10251, which states:

1. The proposed conservation parcel is large enough and will continue to be used for commercial agricultural use;
2. The area possesses necessary market, infrastructure, and agricultural support services and surrounding parcel sizes and land uses will support long-term commercial agricultural production;
3. The applicable county or city general plan demonstrates a long-term commitment to agricultural land conservation. This commitment shall be reflected in the goals, objectives, policies and implementation measures of the plan, as these relate to the area of the county or city where the easement acquisition is proposed; and
4. Without conservation, the land proposed for protection is likely to be converted to nonagricultural use in the foreseeable future.

Eligibility and Selection Criteria

The proposed agricultural conservation easement is also required to satisfy the selection criteria in Public Resource Section 10252:

1. Overall value and quality of agricultural land on land capability, farmland mapping and monitoring program definitions, productivity indices, and other soil, climate and vegetative factors;
2. The proposal meets multiple natural resource conservation objectives, including but not limited to, wetland preservation, wildlife habitat conservation, and scenic open space preservation;
3. The city or county demonstrates a long term commitment to agricultural land and conservation as demonstrated by the following:
    a. The general plan and related land use policies of the city or county.
    b. Policies of the local agency formation commission.
    c. California Environmental Quality Act policies and procedures.
    d. The use of active local agricultural land conservancies or trusts.
    e. The use of an effective right-to-farm ordinance.
    f. Applied strategies for economic support and enhancement or agricultural enterprise, including water policies, public education, marketing support, and consumer and recreational incentives.
    g. Other relevant policies and programs.
4. The land proposed for protection is within the county or city designated agricultural preserve;
5. The land proposed for conservation is within two miles of the exterior boundary of the sphere of influence of a city as established by LAFCO;
6. Applicant demonstrates fiscal and technical capability to effectively carry out the proposal. Technical capability may be demonstrated by agricultural land conservation expertise on the governing board or staff of the applicant or through a partnership with an organization that has expertise;
7. The proposal demonstrates a coordinated approach among affected landowners, local governments and nonprofit organizations. If other entities are affected, there is a written support from those entities for the proposal and a willingness to cooperate. The support of neighboring landowners who are not involved in the proposal shall be considered;
8. The conservation of land supports long-term private stewardship and continued agricultural production in the region;
9. Proposal demonstrates an innovative approach to agricultural land conservation with a potential for wide application in the state;
10. The amount of matching funds and in-kind services contributed by local governments and other sources toward the acquisition of the fee title or agricultural easement.

11. The price of the proposed acquisition is cost effective in comparison to the fair market value.
12. Other relevant considerations as established by the Director.

According to guidelines within the Williamson Act Exchange Program, the land proposed to be placed under an agricultural conservation easement should be of equal or greater size to the contract being rescinded and is equally or more suitable for agricultural use than the land subject to the contract to be rescinded. The value of the proposed agricultural conservation easement as determined pursuant to Public Resources Code 102060 is equal to or greater that 12.5 percent of the cancellation valuation of the land subject to the contract to be rescinded pursuant to Government Section 51283. The cancellation fee will be the amount equal to 12.5 percent of the cancellation valuation of the property. The easement parcel should be sufficient to support commercial agriculture. The easement parcel should be located within an agricultural preserve designated by a local government, and be located within two miles of the exterior boundary of the sphere of influence of a city as established by LAFCO. The easement value and the cancellation valuation shall be determined 30 days before the approval of the city or county of an agreement pursuant to this section.

LOCAL

Cortese-Knox Local Government Reorganization Acts

The Cortese-Knox Local Government Reorganization Acts of 1985 and 2000 govern the incorporation of new cities and city boundaries. The 1985 Act gives authority to the LAFCO in each county to consider proposals for incorporation and annexations within the County. The Act also established six criteria for determining the quality of agricultural lands. **Table 3.2-5** provides an analysis of the proposed project relative to the six criteria for evaluating agricultural lands.

TABLE 3.2-5
CORTESE-KNOX PRIME AGRICULTURAL LAND ANALYSIS

Cortese-Knox Criteria	Discussion
Does the land qualify for rating as Class I or Class II in the Natural Resources Conservation Service land use classification system?	Yes – The project site contains three types of the soils, Arroyo Seco Gravelly Sandy Loam, Elder Loam Gravelly substratum and Cropley Silty Clay. Both the Cropley soils and the Elder soils have a rating of Class II soils. The remaining Arroyo Seco soil has a rating of Class III soil.
Does the land qualify for rating 80 through 100 Storie Index rating?	Yes – The portion of the site containing Elder Loam soil, which received a Class II rating, has a Storie Index rating of 90. The Cropley soils have a storie index rating of 51 and the Arroyo Seco soils have a storie index rating of 63.
Does the land support livestock used for the production of food and which has an annual carry capacity of at least one animal per acre?	No – Land in the project area is not supporting livestock.
Is the land planted with fruit or nut-bearing trees, vines, bushes, or crops which have a non-bearing period of less than five years and which will return on an annual basis not less than $200 per acre?	Yes – Portions of the project are used to grow vine bushes or crops with a non-bearing period of less than five years that return an annual basis of more $200.
Has the land returned from production an annual gross value of not less than $200 per acre for three of the last five years?	Yes – Active row-crop cultivation occurs on a majority of the project area, and income from this operation likely exceeds $200 per acre per year for the last five years
Has the land been used to maintain livestock for commercial purposes?	No – Land in the project area is not supporting livestock.

LAFCO Policy Analysis - Standards for the Evaluation

LAFCO of Monterey County 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 3.2-6 summarizes relevant LAFCO policies and provides analysis of the proposed project.

TABLE 3.2-6
LAFCO POLICY ANALYSIS

Policy Summary	Discussion
Open Space and Agricultural Land	
In determining whether a proposal affects prime agricultural land, LAFCO shall apply the definition established under Cortese-Knox (Government Code §56064).	According to Cortese-Knox criteria, the project area is prime agricultural land as portions of the project site consists of Class II soils, and have a Storie Index rating of "90" and active row crops generate annual income in excess of $200 acre/year.
LAFCO shall consider the agricultural significance of the proposal area (soil, climate, and water factors).	A portion of the site consists of Class II soils with a Storie Index rating of "90", indicating prime agricultural soils; the remainder of the site consists of Class III soils with a Storie Index rating of "63" and Class II soils with a Storie Index ration of "51", indicating comparatively low agricultural land value. The California Department of Conservation *Important Farmland Inventory Map* designates the entire annexation area as Prime Farmland.
LAFCO shall consider the use value of the proposal area and the surrounding parcels.	The proposed annexation area and majority of surrounding parcels are in active row crop cultivation. The proposed project is located adjacent to U.S. Highway 101.
LAFCO shall determine if the area is designated for agricultural preservation.	A portion of the project site is currently under Williamson Act Contract, designated for agricultural preservation. The Williamson Act Exchange Program will be used to transfer the current conservation agreement to other parcels as outlined on page 3.2-12.
LAFCO shall consider whether public facilities would be extended through or adjacent to other agricultural land.	No, there will not be public facilities extended through or adjacent to other agricultural use, however there is a frontage road that extends from the southern portion of the City through the northern portion of the project site.
LAFCO shall consider whether the area is adjacent to or surrounded by existing urban development.	The project area is immediately south of the Greenfield City Limit, and urban uses exist north of the project area. Adjacent to the northern border of the project site between Elm Avenue and the project site is agricultural land that is slated to remain undeveloped (for now).

LAFCO shall consider whether surrounding parcels may be expected to develop within five years.	The project site is located adjacent to the southern boundary of the City of Greenfield SOI. The proposed project is included in the City of Greenfield's formal SOI amendment, along with parcels to the west of the project site. Adjacent properties to the east and west of the project site would be placed within the city's Future Planning Area. Parcels south of the project site would remain outside of the City's recognized SOI. Development on adjacent parcels within the Future Planning Area would be contingent on future growth patterns of the City, at this time there is no anticipated development on adjacent parcels.
LAFCO shall consider whether natural or man-made barriers would buffer the proposal area from existing urban uses.	The proposed project would include buffers separating the proposed residential, industrial and highway commercial uses from existing agricultural uses that surround the project site.
LAFCO will encourage proposals that use reclaimed wastewater, minimize nitrate contamination, and provide beneficial use of storm water.	There are no specific project proposals at this point, however this issue is addressed by mitigation measures in this EIR.

City of Greenfield General Plan

The guiding principles of the way agricultural preservation and conversion issues are addressed throughout the City are included in the Conservation, Recreation and Open Space Element of the City of Greenfield General Plan. The General Plan agricultural policies that are applicable to the proposed project will be used to evaluate the consistency of the project with the standards as required by CEQA. These policies include:

Land Use Element

Policy 2.6.1
Promote compact city growth and phased extension of urban services to discourage sprawl and encourage development that improves agriculture and vital public services.

Policy 2.6.2
Preserve agricultural land and open space around the city to inhibit sprawl and maintain the rural community character of Greenfield.

Policy 2.6.3
Land designated on the Land Use Map as "Residential Reserve" and in agricultural production shall not be converted to residential uses unless the specific findings are made.

Policy 2.6.4
Protect rural views through development regulations, landscape plans, and sensitive location of buildings and public facilities.

Policy 2.6.5
Utilize the Artisan Agriculture/Visitor Serving land use designation as a tool to retain agriculture and viticulture within the City, maintain the City's agrarian character, create jobs, and to serve as a transitional land use between urban areas and intensive agriculture.

Policy 2.6.6
Promote agritourism, the local wine industry and capitalize on the established wine road as an economic opportunity.

Program 2.6.A
Develop and adopt local standards for the conversion of agricultural land or changes in the designation of agriculturally-designated lands.

Program 2.6.B
Adopt annexation policies consistent with the General Plan policies to guide the timing of growth and expansion within the Planning Area.

Program 2.6.C
Land designated on the Land Use Map as "Residential Reserve" and in agricultural production shall not be converted to residential uses until the following findings are made: 1) that the development of the land will contribute to the establishment of a stable urban limit, and 2) that 80% of the land designated in the City for residential uses has been developed or has been approved for such development.

Program 2.6.D
Establish a permanent 200-foot agricultural buffer along the west side of 2nd Street throughout the Planning Area for all future development.

Program 2.6.E
Within fifteen (15) years from the adoption of the General Plan, update and revise the City's Sphere of Influence Study.

Program 2.6.F
Produce and release promotional materials in consultation with the Chamber of Commerce or others specific to the winery, tourism and agritourism opportunities in Greenfield.

Conservation, Recreation and Open Space Element

Policy 7.1.1 Promote the phased transition from agricultural operations to urban uses within the City's Planning Area.

Policy 7.1.2 Minimize conflicts and negative impacts resulting from development that occurs in close proximity to agricultural uses.

Policy 7.1.4 Incorporate parks, open space, and trails between urban and agricultural uses to provide buffering and transition between uses.

Program 7.1.C New development shall provide adequate setbacks for non-agricultural structures adjacent to cultivated agriculture.

3.2.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

Standards of significance were based on existing laws and regulations affecting agricultural resources and impacts generally considered to be significant (Appendix G, State CEQA Guidelines).

Only those thresholds of significance that are applicable to the proposed project are presented below. Impacts on agricultural resources were considered significant if implementation of the project would result in any of the following:

1. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resource Agency, to non-agricultural use;
2. Conflict with existing zoning for agricultural use, or a Williamson Act contract;
3. Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of farmland to non-agricultural use; or
4. Result in land use conflicts specific to the urban/agriculture interface.

METHODOLOGY

Evaluation of potential agricultural were based on review of the City of Greenfield General Plan, field review of the project site and surrounding area, and review of documentation from applicable local, state, and federal agencies. The agriculture analysis is based on information gathered from the City of Greenfield Land Use and Conservation, Recreation and Open Space Elements of the General Plan, the California Department of Conservation Farmland Conversion Reports (2000 to 2002, published in 2004), the California Department of Conservation Important Farmlands Map, consultation with California Department of Conservation, Monterey County Assessor Office and the Soil Survey of Monterey County, California (1978).

IMPACTS AND MITIGATION MEASURES

Conversion of Prime Farmland

Impact 3.2-1 The South End SOI 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.

In accordance with criteria provided in the Cortese-Knox Local Government Reorganization Act, and for the purposes of this analysis, the project site area is considered prime agricultural land. According to the Natural Resources Conservation Service (NRCS) Land Capability Class Systems, a significant portion of the project site is Elder Gravelly Loam with 0 to 2 percent slopes, which is a Class II soil with a Storie Index rating of "90" and is, therefore, considered prime agricultural soil. The remainder of the site is Cropley Silty Clay soils with zero to two percent slopes, which is a Class II soil with a Storie Index rating of "51" and Arroyo Seco Gravelly Loam with zero to two percent slopes, which is a Class III soil with a Storie Index rating of "63."

The Arroyo Seco soil has moderately rapid permeability with good drainage, which would typically indicates that the soil is not Prime Farmland. However, agricultural land is considered "prime" if it meets any one of six criteria, identified in **Table 3.2-5.** The land meets three criteria addressing including annual gross value from production of least $200 per acre over the previous five years, a Class I or Class II rating in the Natural Resources Conservation Service Land Capability Class System and a Storie Index rating of between 80 and 100 on a significant portion of the site. The designation of the entire project area as Prime Farmland is further supported by the California Department of Conservation, Farmland Mapping and Monitoring Program *Important Farmland Inventory Map*, which can be found in the Greenfield General Plan, on which the project area is identified as Prime Farmland.

The City of Greenfield has recently adopted a General Plan that responds to projected population growth over the next 20 years, but plans for that growth based on a compact land use pattern. All growth areas are contiguous to the existing City limits, and the land use plan attempts to create logical planning boundaries that expand upon the existing land use pattern of the City. As a community surrounded by prime farmland there are few options available in terms of the preferred "direction" of growth based on the quality of farmland. The City has therefore planned a land use scenario that restricts growth beyond Second Street to the east and Thorne Road to the north.

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. Of the land in the City's Planning Area subject to future conversion, it should be noted that approximately half of that acreage is either within the less intensive and "ag friendly" AAVS designation, or is subject to the City's Residential Reserve overlay. In addition, this area includes the Yanks Air Museum property (previously approved for development by the County), as well as the area just north of the current proposal that, along with the proposed project, may take many years to market and develop. The City relies on the value of the AAVS designation and compact development patterns, rather than agricultural mitigation fees or land set-aside programs, to manage land conversion.

The South End SOI project clearly adds additional farmland acreage to the City that will be converted. There are, however, other mitigating circumstances specific to this project. First, the applicants have voluntarily entered into a Williamson Act exchange program to place approximately 433 acres of land, including 50 acres within the project boundaries, into conservation status under the provisions of the exchange program (See Impact 3.2.3 below).

Secondly, the City of Greenfield is voluntarily processing a General Plan Amendment to remove approximately 172 acres of prime farmland from the General Plan boundaries. Although this separate action does not directly affect the South End SOI project, it does help to mitigate the cumulative total of acreage planned for conversion within the City's planning boundaries (see Section 4.9, Land Use).

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. (See also Cumulative Impacts below).

Agricultural-Urban Land Use Conflicts

Impact 3.2-2 The proposed project would place urban land uses adjacent to agricultural uses, which may impair agricultural production and result in land use compatibility conflicts. This is considered a **potentially significant** impact.

Development of residential uses on the Scheid West parcel in close proximity to agricultural operations could result in compatibility impacts, encroachment, and nuisance complaints due to noise, dust, and pesticide/fertilizer application inherent in most

agricultural operations. The further conversion of agricultural land to non-agricultural use may also result in secondary effects such increases in property values, which in turn creates pressure to convert farmland to non-agricultural uses.

West of Highway 101, the 46-acre Scheid West parcel would create an urban/ag edge on the southern boundary of the City. The parcels south and west of the Scheid West parcel are currently active vineyard. East of Highway 101, the proposed Highway Commercial and Heavy Industrial land uses would also abut active agriculture and active row crops. These uses are less sensitive to adjacent agricultural uses, although there is still a potential that the proposed development of the highway commercial and industrial would result in land use conflicts.

The City of Greenfield General Plan EIR (2005) outlines a number of methods for minimizing potential land use conflicts along the urban/agriculture interface to a less than significant level, including the use of land use buffers and implementation of a Right to Farm Ordinance to protect existing farming operations. The City has established a 200-foot buffer requirement on the east side of the City; however, on the south and west sides, land use buffers are more flexible.

Consistent with the General Plan EIR, the following mitigation shall be required.

Mitigation Measures

MM 3.2.2a The project applicant shall demonstrate adequate land use separation on all site plans and applications for subdivision. Residential subdivisions shall demonstrate a 100-foot minimum land use buffer between the edge of all active agricultural fields or vineyards and the nearest residential property lines. Non-residential setbacks shall demonstrate a 100-foot minimum land use buffer between the edge of active fields or vineyards and the nearest building surface. Distances comprising the buffer may include roadway rights of way, easements, landscaping, and other uninhabited uses, and may be reduced if it can be demonstrated that a narrower distance will provide effective separation. Ultimate design and consideration of setbacks will be subject to review and approval by the City of Greenfield.

MM 3.2.2b Consistent with notification required by Monterey County as a component of the Right-to-Farm Ordinance, the applicant shall record a Right-to-Farm notification statement to run with the title as disclosure and notice in deeds at the time of transfer or sale of all properties within 2,000 feet of agricultural land, agricultural operations or agricultural processing facilities or operations. The statement shall inform any future

property owners of the continuation of agricultural activities in the area and shall disclose the potential effects of agricultural activities on adjacent land uses to future project residents.

Implementation of the above mitigation measures, along with MM 3.9-3a-c of Section 3.9 Land Use, shall ensure that the potential for land use conflict is reduced to a **less than significant** level by requiring land use buffers between future development and existing uses and by ensuring that new property owners near agricultural land are properly notified of adjacent agricultural practices.

Agricultural Zoning and Williamson Act Contracts

Impact 3.2.3 The development of the proposed project site would be in conflict with an existing Williamson Act contract for the southeastern portion of the project site. This is considered a **significant impact** of the proposal.

The southern portion of the project site, located on a 171-acre parcel (APN 221-011-017) is under a current Williamson Act contract. The project applicant for the parcel, TMV lands, have filed "Notices of Nonrenewal" for the parcel, and is in the process of rescinding the Williamson Act contract and are pursuing a Williamson Act Exchange per Government Code Section 51256, et. seq.

The Easement Exchange program allows a property owner who has property under a current Williamson Act contract to rescind the contract, in exchange for dedication of a permanent agricultural easement on different piece of land. The easement must be of equal or greater size and value and the cancelled Williamson Act land (see Existing Setting for exchange criteria).

As a result of the Easement Exchange program the project applicant will be required to institute the final exchange program per, requiring the placement of selected property into permanent agricultural easement in exchange for the project site. Based upon City's staff's review of the proposed exchange, the proposal appears to meet the criteria for a successful exchange of lands, and that the necessary findings can be made.

The Monterey County Agricultural and Historical Land Conservancy, Inc. a California non-profit corporation, has agreed to cooperate with the project applicant in facilitating the Easement Exchange by accepting the dedication of the permanent agricultural easements above. The agreement requires the project applicant must prepare and process an application with the City of Greenfield, County of Monterey, Monterey County LAFCO, the California Department of Conservation and any other affected governmental agency with approval authority over Entitlements and the Exchange program. These and numerous

other stakeholders are involved in the Williamson Act exchange program. Table 3.2-7 outlines the requirements of selected agencies involved in the project.

TABLE 3.2-7
WILLIAMSON ACT EXCHANGE AGENCY STAKEHOLDERS

Government Agency	Responsibility
City of Greenfield	The City of Greenfield City Council makes findings and approves/disapproves the exchange program based on criteria in Government Code Section 51282.
County of Monterey	The Monterey County Board of Supervisors makes findings and approves/disapproves the exchange program based on criteria in Government Code Section 51282
Monterey County LAFCO	LAFCO of Monterey County is responsible for the approval/denial/conditioning of the proposed Sphere of Influence Amendment for the proposed exchange of agricultural preservation land. LAFCO is also responsible for the approval/denial/conditioning of the proposed Sphere of Influence Amendment and annexation request by the City of Greenfield.
California Department of Conservation (Director)	The Department of Conservation must be notified when the County and/or City accepts the Williamson Act cancellation application as complete. Once the local entity makes the findings and approves the proposal, the resolution of approval, plus the supporting documentation, must be submitted to the Director of the Department of Conservation for review of the proposed land exchange.
California Resources Agency	A Williamson Act exchange shall obtain the approval of the Secretary of Resources for California.
Other Government Agencies	Approval of the exchange program by other agencies is required as indicated by the Director of the Department of Conservation.

In addition to the procedural steps listed above, the applicant must also obtain appropriate annexation approvals, CEQA approval, development agreements, zoning approval and entitlements for the 121-acre portion of the project site. The 121 acre portion of the project site that is currently under a Williamson Act contract would be compliant with the Williamson Act Easement Exchange program, following implementation of the following mitigation measure.

MM 3.2-3 Prior to the City's submittal to LAFCO of an application to annex the subject property (APN 221-011-017), and prior to approval of any development rights or permits on the property issued by the City, the project applicant shall demonstrate that the Williamson Act Exchange has been successfully completed. The applicant shall comply with the requirements set forth in the Department of Conservation's Williamson Act Exchange Program agreement and provide adequate evidence, as determined by the City Planning Manager, that the requirements of the agreement have been met

Implementation of MM 3.2-3 would ensure compliance with the Easement Exchange program by requiring proof of the agreement between the applicant and the Monterey County Agricultural and Historical Land Conservancy, and proof of approval of the agreement from the California Department of Conservation. Proof of the agreement along with compliance of all the standards contained within the Williamson Act Easement Exchange program would reduce the potential impacts associated with the cancellation of the Williamson Act contract to a **less than significant impact.**

CUMULATIVE IMPACTS AND MITIGATION MEASURES

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. Despite the fact that the County of Monterey an experienced an 18 percent decrease in the amount of Prime Farmland converted to urban uses between 1997 and 2002, 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. The proposed project would therefore contribute to the cumulative conversion of farmland to urban uses and would result in a **significant and unavoidable** impact. Although there is no feasible mitigation measure available to reduce the impact to a less than significant level, the following policy-level measure is provided to recognize the City's willingness to explore additional strategies toward the preservation of prime farmland:

MM 3.2-4 The project applicant(s) will contribute and participate toward any agriculture mitigation fee or similar mitigation program as adopted and recognized by the City of Greenfield in place at the time that building permits are pulled.

This impact remains **significant and unavoidable.**

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SECTION 3.3
AIR QUALITY

This section of the EIR discusses the air quality impacts that may be associated with ultimate development of the proposed annexation area. The section includes the identification of pollutant standards, current air quality conditions, a quantitative assessment of air quality impacts and associated mitigation measures. Estimates of regional emissions generated by project traffic and on-site area sources were made using the URBEMIS-8.7 air quality-modeling program. The analysis is based upon the Air Quality Assessment conducted by Ambient Air Quality and Noise Consulting, contained within the Technical Appendices.

3.3.1 EXISTING SETTING

The proposed project is located in the North Central Coast Air Basin (NCCAB), which is under the jurisdiction of the Monterey Bay Unified Air Pollution Control District (MBUAPCD). Dispersion of air pollution in an area is determined by such natural factors as topography, meteorology, and climate, coupled with atmospheric stability.

TOPOGRAPHY

The NCCAB encompasses Santa Cruz, San Benito, and Monterey counties. The NCCAB is generally bounded by the Diablo Range to the northeast, which together with the southern portion of the Santa Cruz Mountains forms the Santa Clara Valley which extends into the northeastern tip of the NCCAB. Farther south, the Santa Clara Valley transitions into the San Benito Valley, which runs northwest-southeast and has the Gabilan Range as its western boundary. To the west of the Gabilan Range is the Salinas Valley that extending from Salinas at the northwest end to King City at the southeast end. The northwest portion of the NCCAB is dominated by the Santa Cruz Mountains.

METEOROLOGY AND CLIMATE

The climate of the NCCAB is dominated by a semi-permanent high pressure cell over the Pacific Ocean. In the summer, the dominant high pressure cell results in persistent west and northwest winds across the majority of coastal California. As air descends in the Pacific high pressure cell, a stable temperature inversion is formed. As temperatures increase, the warmer air aloft expands, forcing the coastal layer of air to move onshore producing a moderate sea breeze over the coastal plains and valleys. Temperature inversions inhibit vertical air movement and often result in increased transport of air pollutants to inland receptor areas.

In the winter, when the high pressure cell is weakest and farthest south, the inversion associated with the Pacific high pressure cell is typically absent in the NCCAB. Air frequently flows in a southeasterly direction out of the Salinas and San Benito valleys in the NCCAB. The predominant offshore flow during this time of year tends to aid in pollutant

dispersal producing relatively healthful to moderate air quality throughout the majority of the region. Conditions during this time are often characterized by afternoon and evening land breezes and occasional rain storms. However, local inversions caused by the cooling of air close to the ground can form in some areas during the evening and early morning hours.

Winter daytime temperatures in the NCCAB typically average in the mid 50s during the day, with nighttime temperatures averaging in the low 40s. Summer daytime temperatures typically average in the 60s during the day, with nighttime temperatures averaging in the 50s. Precipitation varies within the region, but in general, annual rainfall is lowest in the coastal plain and inland valley, higher in the foothills, and highest in the mountains.

Greenfield is located more than 40 miles from the coast within the Salinas Valley, a steep-sloped coastal valley that opens out on to the Monterey Bay and extends southeastward. It is affected by sea breezes blowing from the northwest, but is less affected by the marine stratus that persists in the coastal plains of Monterey County. Persistent sea breezes ventilate the area; however its downwind location with respect to other metropolitan areas, warm temperatures and persistent sunshine create a moderate potential for photochemical air pollution.

3.3.2 REGULATORY SETTING

Air quality in the NCCAB is regulated by federal, state, and regional control authorities. EPA is involved in local air quality planning through the Federal Clean Air Act (CAA), as amended by the Clean Air Act Amendments of 1990. At the state level, the Lewis-Presley Air Quality Management Act (originally adopted in 1976 and substantially amended in 1987) and the California Clean Air Act of 1988 set air quality planning and regulatory responsibilities for the NCCAB. California Air Resources Board (ARB) is charged with the responsibility for coordinating efforts to attain and maintain ambient air quality standards and conducting research into the causes of, and solutions to, air pollution problems. ARB delegates the permitting authority of stationary sources of emissions to local and regional air districts, such as the MBUAPCD.

FEDERAL CLEAN AIR ACT

The early federal legislative response to air quality concerns consisted of the Air Pollution Control Act of 1955, the Clean Air Act of 1963, and the Air Quality Act of 1967. The goal of the Clean Air Act (CAA) of 1970, as stated by Congress in the 1977 CAA Amendments, was "to protect and enhance the quality of the Nation's air resources." The Clean Air Act Amendments of 1990 are extremely broad. The major titles of the 1990 Amendments address attainment of air quality standards, mobile source emissions, air toxics, acid rain, a new federal permit program, enforcement, and protection of stratospheric ozone. The titles

that most substantially affect the air quality analysis of the proposed project are Title I (attainment and maintenance provisions) and Title II (mobile source provisions).

Title I of the Clean Air Act Amendments of 1990

The goal of Title I is to attain federal air quality standards for six criteria pollutants: ozone (O3), carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO2), sulfur dioxide (SO2), and lead (Pb). National Ambient Air Quality Standards (AAQS) for these criteria pollutants are summarized in **Table 3.3-1.** The 1990 Amendments divided the nation into five categories of planning regions, depending on the severity of their pollution, and set new timetables for attaining the air quality standards. The categories range from "marginal" to "extreme." Attainment deadlines are from three to 20 years, depending on the category.

Title I also requires each nonattainment area to submit a comprehensive inventory of actual emissions as part of a State Implementation Plan (SIP) revision to demonstrate the means for achieving federal standards by the established deadlines. Each nonattainment area must achieve a 15 percent reduction from its actual 1990 emissions inventory within six years. Thereafter, each area must achieve a three percent annual reduction.

Provisions of Section 182 of the 1990 Clean Air Act Amendments relate to ozone nonattainment areas and Sections 186 and 187 relate to carbon monoxide nonattainment areas. These sections emphasize strategies for reducing vehicle miles traveled. Section 182 requires submission of a SIP revision "that identifies and adopts specific enforceable transportation control strategies and transportation control measures to offset any growth in emissions from growth in vehicle miles traveled or numbers of vehicle trips in such area" to meet statutory requirements for demonstrating periodic emissions reduction requirements. Section 187 makes the same basic requirement applicable to carbon monoxide nonattainment areas. Section 188 sets forth requirements for PM_{10} nonattainment areas.

TABLE 3.3-1
SUMMARY OF AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standards [a, d]	National Standards [b, d]	
			Primary [e]	Secondary [f]
Ozone (O_3)	1-hour	0.09 ppm (180 $\mu g/m^3$)	--	Same as Primary
	8-hour	0.070 ppm (137 $\mu g/m^3$)	0.08 ppm (157 $\mu g/m^3$)	
Particulate Matter (PM_{10})	AAM	20 $\mu g/m^3$ *	50 $\mu g/m^3$ [f]	
	24-hour	50 $\mu g/m^3$	150 $\mu g/m^3$	
Fine Particulate Matter ($PM_{2.5}$)	AAM	12 $\mu g/m^3$*	15 $\mu g/m^3$	
	24-hour	No Standard	65 $\mu g/m^3$	
Carbon Monoxide (CO)	1-hour	20 ppm (23 mg/m^3)	35 ppm (40 mg/m^3)	None
	8-hour	9 ppm (10 mg/m^3)	9 ppm (10 mg/m^3)	
	8-hour (Lake Tahoe)	6 ppm (7 mg/m^3)	–	
Nitrogen Dioxide (NO_2)	AAM	–	0.053 ppm (100 $\mu g/m^3$)	Same as Primary
	1-hour	0.25 ppm (470 $\mu g/m^3$)	–	
Sulfur Dioxide (SO_2)	AAM	–	0.03 ppm (80 $\mu g/m^3$)	–
	24-hour	0.04 ppm (105 $\mu g/m^3$)	0.14 ppm (365 $\mu g/m^3$)	–
	3-hour	–	–	0.5 ppm (1,300 $\mu g/m^3$)
	1-hour	0.25 ppm (655 $\mu g/m^3$)	–	–
Lead [g]	30-day Average	1.5 $\mu g/m^3$	–	–
	Calendar Quarter	–	1.5 $\mu g/m^3$	Same as Primary
Sulfates	24-hour	25 $\mu g/m^3$	No Federal Standards	
Hydrogen Sulfide	1-hour	0.03 ppm (42 $\mu g/m^3$)		
Vinyl Chloride[g]	24-hour	0.01 ppm (26 $\mu g/m^3$)		
Visibility-Reducing Particle Matter	8-hour	Extinction coefficient of 0.23 per kilometer — visibility of 10 miles or more (0.07—30 miles or more for Lake Tahoe) due to particles when the relative humidity is less than 70%.		

[a] California standards for O_3, CO (except Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, PM (PM_{10} and $PM_{2.5}$), and visibility-reducing particles are values that are not to be exceeded. All others are not to be equaled or exceeded.

[b] National standards (other than O_3, PM, and those based on annual averages or annual arithmetic means) are not to be exceeded more than

once a year. The O_3 standard is attained when the fourth highest 8-hour concentration in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98 percent of daily concentrations, average over three years, are equal to or less than the standard.

c This concentration was approved by the Air Resources Board on April 28, 2005 and is expected to become effective in early 2006.

d Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25EC and a reference pressure of 760 torr.

e The levels of air quality necessary to protect the public health.

f The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

AAM = Annual Arithmetic Mean

Source: ARB 2005

Title II of the Clean Air Act Amendments of 1990

Title II of the 1990 Amendments, which contains provisions to control emissions from mobile sources, includes the following measures to reduce pollutants from mobile sources: (1) mandatory use of cleaner, reformulated gasoline in those cities with the most severe ozone problem, (2) use of cleaner fuels, such as methanol and natural gas, to meet particulate standards, and (3) requirements on auto manufacturers to reduce tailpipe emissions of hydrocarbons (HC) and oxides of nitrogen. Section 177 of Title II permits California to adopt stricter vehicle emission standards and allows other states to adopt California's stricter standards.

CALIFORNIA CLEAN AIR ACT

The California Clean Air Act of 1988 (CCAA), amended in 1992, requires all air districts in the state to endeavor to achieve and maintain state ambient air quality standards for ozone, carbon monoxide, sulfur dioxide, nitrogen dioxide, and particulate matter by the earliest practicable date. California's ambient air quality standards are generally stricter than national standards for the same pollutants. California also has established its own standards for sulfates, hydrogen sulfide, vinyl chloride, and visibility-reducing particles (**Table 3.3-1**).

AIR QUALITY MANAGEMENT PLANS

As required by the CCAA, the MBUAPCD adopted the 1991 Air Quality Management Plan for the Monterey Bay Region. The 1991 AQMP addressed planning requirements to meet the ozone standard mandated by the CCAA and included measures to control emissions of VOC from stationary and mobile sources. Since the 1991 AQMP was adopted, control requirements have been reduced. The AQMP was most recently updated in 2004 to reflect these changes. The most recent 2004 AQMP update concluded that the NCCAB remains on the borderline between attainment and nonattainment in part due to variable meteorological conditions occurring from year to year, transport of air pollution from the San Francisco Bay Area, and locally generated emissions (MBUAPCD 2005).

In December 1995, the MBUAPCD also prepared the 1995 Report on Attainment of the California Fine Particulate Standard in the Monterey Bay Region. This report was most recently updated in 1998. The report found that existing control on sources of NO_x emissions, which serve as precursors to PM_{10}, may lead to attainment and maintenance of the State PM_{10} standard through 2010 (MBUAPCD 2005).

The Clean Air Act requires that projects receiving federal funds demonstrate conformity to the local AQMP. Conformity guidelines for the AQMP extend these requirements to all regionally significant projects, regardless of whether federal funding is being sought. Emission forecasts contained in the AQMP are based, in part, on population forecasts adopted by the Association of Monterey Bay Area Governments (AMBAG). For population-related projects, conformity with the AQMP is assessed by comparing the projected population growth associated with the project to these population forecasts (MBUAPCD 2004).

AMBIENT AIR QUALITY

Ambient air quality in the Salinas Valley portion of Monterey County can be inferred from ambient air quality measurements conducted by the MBUAPCD at its King City and Salinas monitoring stations. **Table 3.3-2** summarizes the last three years of published data from the King City and Salinas monitoring stations.

As depicted in **Table 3.3-2**, ambient air quality has exceeded the state PM_{10} standard at the Salinas monitoring stations on approximately four occasions during the past three years of available data. No other exceedance of state or federal AAQS for other pollutants have been measured at either the King City or Salinas monitoring stations over the past three years. Ozone concentrations within the basin are generally decreasing. In the past, most ozone within the basin was the result of pollutant transport from the San Francisco Bay Area. With local growth, however, ozone air pollution from local sources is increasing.

TABLE 3.3-2
SUMMARY OF AMBIENT AIR QUALITY DATA

POLLUTANT STANDARDS	2002	2003	2004
King City-750 Metz Road Air Monitoring Station			
Ozone (O_3)			
Maximum concentration, 1-hr/8-hr period (ppm)	0.079/0.066	0.085/0.074	0.078/0.070
Number of days state standard exceeded	0	0	0
Number of days federal standard (1-hr/8-hr) exceeded	0/0	0/0	0/0
Suspended Particulates (PM_{10})			
Maximum 24-hour concentration ($\mu g/m^3$)	62.4	38.0	46.1
Number of days state standard exceeded	--	--	--
Number of days federal standard exceeded	0	0	0

Salinas #3 Air Monitoring Station			
Ozone (O_3)			
Maximum concentration, 1-hr/8-hr period (ppm)	0.075/0.062	0.073/0.063	0.077/0.070
Number of days state standard exceeded	0	0	0
Number of days federal standard (1-hr/8-hr) exceeded	0/0	0/0	0/0
Carbon Monoxide (CO)			
Maximum concentration, 1-hr/8-hr period (ppm)	2.3/1.38	2.8/1.09	1.9/1.21
Number of days state (1-hr/8-hr) standard exceeded	0/0	0/0	0/0
Number of days federal (1-hr/8-hr) standard exceeded	0/0	0/0	0/0
Nitrogen Dioxide (NO_2)			
Maximum 1-hour concentration (ppm)	0.049	0.053	0.1394
Number of days state standard exceeded	0	0	0
Annual arithmetic mean (AAM)	0.007	0.006	0.007
AAM exceed federal standard?	0	0	0
Respirable Particulate Matter (PM_{10})			
Maximum 24-hour concentration ($\mu g/m^3$)	44.0	66.0	44.0
Number of days state standard exceeded	0	0	0
Number of days federal standard exceeded	0	4	0
Fine Particulate Matter ($PM_{2.5}$)			
Maximum 24-hour concentration ($\mu g/m^3$)	23.5	15.9	22.3
Number of days federal standard exceeded *	0	0	0

AAM Annual Arithmetic Mean
(μg/m3) Micrograms per Cubic Meter
ppm Parts per Million
-- Not Calculated or Insufficient Data Available
Source: ARB 2005

ATTAINMENT STATUS FOR CRITERIA AIR POLLUTANTS

The attainment status of the NCCAB is summarized in **Table 3.3-3**. An attainment designation for an area signifies that pollutant concentrations did not violate the standard for that pollutant in that area. A nonattainment designation indicates that a pollutant concentration violated the standard at least once, excluding those occasions when a violation(s) was caused by an exceptional event, as defined in the criteria. Unclassified designations indicate insufficient data is available to determine attainment status.

Under the Federal Clean Air Act, the NCCAB is currently designated attainment for the recently established eight-hour ozone federal AAQS. The NCCAB is designated either attainment or unclassified for the remaining federal AAQS. Under the California Clean Air Act, the basin is designated as a moderate nonattainment area for the state ozone AAQS. The NCCAB is also designated a nonattainment area for the state PM_{10} AAQS.

TABLE 3.3-3
NCCAB Attainment Status Designations

POLLUTANT	NATIONAL DESIGNATION	STATE DESIGNATION
Ozone, 1 hour	Attainment/Maintenance	Nonattainment/Transitional
Ozone, 8 hour	Unclassified/Attainment	Not Applicable
PM_{10}	Unclassified	Nonattainment
$PM_{2.5}$	Unclassified	Attainment
Carbon Monoxide	Unclassified/Attainment	Unclassified/Attainment
Nitrogen Dioxide	Unclassified/Attainment	Attainment
Sulfur Dioxide	Unclassified	Attainment
Sulfates	Not Applicable	Attainment
Lead	Not Applicable	Attainment
Hydrogen Sulfide	Not Applicable	Unclassified
Visibility Reducing Particles	Not Applicable	Unclassified

Sources: ARB 2005

ODORS

Offensive odors rarely cause physical harm, however they can be very unpleasant, leading to considerable stress among the public and often generating citizen complaints to local governments and agencies. Facilities commonly known to produce odors, including wastewater treatment facilities, chemical manufacturing, painting/coating operations, feed lots/dairies, composting facilities, landfills, and transfer stations. Because offensive odors rarely cause physical harm and no requirements for their control are included in state or federal air quality regulations, the MBUAPCD has no rules or standards related to odor emissions, other than its nuisance rule. Any actions related to odors are based on citizen complaints to local governments and MBUAPCD. No existing major sources of odors have been identified in the project vicinity.

TOXIC AIR CONTAMINANTS

The ARB works in partnership with the local air districts to enforce regulations that reduce toxic air contaminants (TACs) in the state. The ARB has authority for motor vehicles, fuels, and consumer products. The ARB identifies the TACs, researches prevention or reduction methods, adopts standards for control, and enforces the standards. Particulate Matter (PM) emissions from diesel-fueled vehicles and engines are the primary TACs of concern for mobile sources. Of all controlled TACs, diesel-exhaust PM emissions are estimated to be responsible for about 70 percent of the total ambient TAC risk. The ARB has made the

reduction of the public's exposure to diesel PM one of its highest priorities, with an aggressive plan to require cleaner diesel fuel and cleaner diesel engines and vehicles (ARB 2005).

The ARB identified particulate emissions from diesel-fueled engines (diesel-exhaust PM) as a TAC in August 1998. The ARB has since developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles* (2000) and the *Risk Management Guidance for the Permitting of New Stationary Diesel-Fueled Engines* (2000). The ARB is currently developing regulations designed to reduce diesel PM emissions from diesel-fueled engines and vehicles. The goal of each regulation is to make diesel engines as clean as possible by establishing state-of-the-art technology requirements or emission standards to reduce diesel PM emissions. These regulations will require substantial reductions in diesel-exhaust PM, which began with the 2004 model year. Additional more stringent standards will apply to engines starting in the 2007 model year. Off-road vehicles came under more stringent regulation beginning with the 2005 model year. Each set of regulations will serve to significantly reduce diesel PM emissions and long-term human health risks attributable to diesel-fueled vehicles and equipment.

In addition to the above plans, the ARB recently released the *Air Quality and Land Use Handbook: A Community Health Perspective (Handbook)* (2005). The Handbook provides guidance regarding the siting of sensitive land uses near major sources of TACs (e.g., freeways, dry cleaners, and large gas stations) to reduce related health effects from TACs. The Handbook identifies the TACs commonly associated with specific types of facilities, as well as recommended set-back distances for sensitive land uses. For example, according to the Handbook, sensitive land uses should generally not be located within 500 feet of a freeway, urban roads with 100,000 vehicles/day, or rural roads with 50,000 vehicles/day. Actual setback distances will vary, depending on site-specific conditions and operational characteristics.

Whereas the ARB has primary authority over mobile sources, local air districts have authority over stationary or industrial sources. MBUAPCD requires permits for all source operations that may emit TACs. All projects that require air quality permits from the MBUAPCD are evaluated for TAC emissions. The MBUAPCD limits emissions and public exposure to TACs through a number of programs. The MBUAPCD prioritizes TAC-emitting stationary sources, based on the quantity and toxicity of the TAC emissions and the proximity of the facilities to sensitive receptors. The MBUAPCD requires a comprehensive health risk assessment for facilities that are classified in the significant-risk category, pursuant to Assembly Bill (AB) 2588 Program (Air Toxics "Hot Spot" Information and Assessment Act of 1987) (MBUAPCD 2005).

3.3.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based upon CEQA Guidelines, MBUAPCD thresholds, 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) Short term construction would emit greater than 82 pounds per day (lbs/day) of PM_{10}, or will cause a violation of PM_{10} National or State AAQS at nearby receptors;

2) Regional (operational) impacts would be significant if the project generates direct and indirect emissions of ROG or NO_x that exceed 137 lbs/day. Emissions of PM_{10} would be significant if the project would exceed 82 lbs/day or if the project would contribute to local PM_{10} concentrations that exceed Ambient Air Quality Standards. Emissions of SO_x would be significant if the project generates direct emissions of greater than 150 lbs/day;

3) Generates direct emissions of greater than 550 lbs/day of CO or if the project would contribute to local CO concentrations that exceed the State Ambient Air Quality Standard of 9.0 ppm for eight hours or 20 ppm for one hour. (Indirect emissions are typically considered to include mobile sources that access the project site but generally emit off-site; direct emissions typically include sources that emitted on-site [e.g., stationary sources, on-site mobile equipment etc.]);

4) Would expose the public to substantial levels of TACs so that the probability of contracting cancer for the Maximally Exposed Individual would exceed 10 in one million and/or so that ground-level concentrations of non-carcinogenic toxic air contaminants would result in a Hazard Index greater than one for the Maximally Exposed Individual; and/or

5) Has the potential to frequently expose members of the public to objectionable odors.

PROJECT IMPACTS AND MITIGATION MEASURES

Construction Impacts

Impact 3.3-1 Construction activity at the proposed project site would generate temporary emissions of criteria pollutants that could exceed MBUAPCD significance thresholds. This is considered a **potentially significant** impact.

Construction-generated emissions are short-term and of temporary duration, lasting only as long as construction activities occur, but possess the potential to represent a significant air quality impact. The construction and development of residential, commercial, and industrial uses would result in the temporary generation of emissions resulting from site grading and excavation, road paving, the application of architectural coatings, motor vehicle exhaust associated with construction equipment and worker trips, and the movement of construction equipment, especially on unpaved surfaces. Emissions of airborne particulate matter are largely dependent on the amount of ground disturbance associated with site preparation activities. MBUAPCD has determined that construction activities that involve minimal earth moving over an area of 8.1 acres, or more, could result in a potentially significant temporary air quality impacts, if not mitigated. Construction activities that require more extensive site preparation (e.g., grading and excavation) may result in significant impacts if the area of disturbance were to exceed 2.2 acres per day (MBUAPCD 2004).

The proposed project includes annexation of 267 acres and ultimate development of approximately 217 acres. Specific land uses to be constructed, as well as construction-related information, such as areas of maximum daily disturbance, associated with proposed uses have yet to be determined. As a result, daily construction-generated emissions cannot be accurately quantified at this time. However, given the size of the proposed project, it is conceivable that areas of maximum daily disturbance could potentially exceed the MBUAPCD's screening level thresholds. As a result, this impact is considered **potentially significant.**

Mitigation Measure

MM 3.3-1 Best-available control measures (BACM) shall be required during site preparation and construction of proposed land uses. When tentative subdivision maps are submitted and prior to approval of building permits, a construction emissions reduction plan (CERP) shall be prepared, for review by the MBUAPCD, to reduce construction-generated fugitive and mobile-source emissions. The MBUAPCD shall be consulted to determine BACM to be implemented to minimize impacts to nearby sensitive receptors. Measures to be included in the CERP prepared for

this project, as currently recommended by the MBUAPCD, include but are not limited to the following:

Fugitive Dust

a. Water all active construction areas at least twice daily. Frequency should be based on the type of operation, soil and wind exposure;
b. Prohibit all grading activities during periods of high wind (over 15 mph);
c. Apply chemical soil stabilizers on inactive construction areas (disturbed lands within construction projects that are unused for at least four consecutive days);
d. Apply non-toxic binders (e.g., latex acrylic copolymer) to exposed areas after cut and fill operations and hydroseed areas;
e. Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least 2 feet of freeboard.
f. Replant vegetation in disturbed areas as quickly as possible.
g. Enclose, cover, water twice daily, or apply non-toxic soil binders to exposed stockpiles, such as dirt, sand, etc.
h. Sweep daily, with water sweepers, all paved access roads, parking areas and staging areas at construction sites.
i. Sweep streets daily, with water sweepers, if visible soil materials are carried onto adjacent public streets.
j. Limit traffic speeds on unpaved roads to 15 mph.
k. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
l. Limit areas of active disturbance to no more than 2.2 acres per day for initial site preparation activities that involve extensive earth-moving activities (grubbing, excavation, rough grading), or 8.1 acres per day for activities that involve minimal earth moving (e.g., finish grading).

Mobile / Stationary Source Emissions

m. Diesel equipment used onsite should be year 2003, or newer, equipped with emission control technology (e.g., diesel-oxidation catalyst), or use alternative fuels (e.g., biodiesel) that sufficiently reduces diesel-exhaust emissions at nearby receptors to within acceptable levels, as defined by the MBUAPCD. For equipment retrofitted to operate with diesel exhaust emissions control

technology, the CERP shall include verification of installation or presence of these devices for review by the MBUAPCD.

n. To the extent feasible, construction equipment shall not be left idling
o. Limit the pieces of equipment used at any given time
p. Minimize the use of diesel-powered equipment (i.e., wheeled tractor, wheeled dozer)
q. Limit hours of operation for heavy-duty equipment
r. Undertake project during non-ozone season
s. Stationary equipment shall be placed at the furthest feasible distance from nearby residences
t. Post a publicly visible sign which specifies the telephone number and person to contact regarding emissions-related complaints. This person shall respond to complaints and take corrective action within 48 hours. The phone number of the Monterey Bay Unified Air Pollution Control District shall be visible to ensure compliance with Rule 402 (Nuisance).

Implementation of the above mitigation measures would reduce fugitive dust emissions associated with individual construction activities/components by approximately four to 90 percent, with overall fugitive dust emission reductions of up to approximately 50 percent, or more, depending on the activities conducted (MBUAPCD 2004). Implementation of the above mitigation measure would require the project applicant to prepare a Construction Emissions Reduction Plan (CERP) that would sufficiently reduce short-term construction-generated emissions to within acceptable levels. The CERP shall be reviewed by the MBUAPCD, prior to issuance of a building permit. With implementation of the above mitigation measure, this impact would be considered **less than significant.**

Impact 3.3-2 Construction activities would involve the use of diesel-powered equipment that may result in localized concentrations of mobile source TACs at nearby receptors. Short-term exposure to localized concentrations of TACs (primarily acrolien) could exceed applicable air quality thresholds. This is a considered **potentially significant** impact.

Implementation of the proposed project would result in the generation of diesel PM emissions during construction from the use of off-road diesel equipment for site grading and excavation, paving, and other construction activities.

Construction activities associated with the project site would occur over multiple years and would be spread over a large area. Use of diesel-powered construction equipment in any one area would be temporary and episodic and would cease when construction is

completed in that area. For these reasons, diesel PM generated by project construction itself would not be expected to create conditions where the probability of contracting cancer is greater than 10 in one million for nearby receptors. However, short-term health effects may occur. Depending on the construction activities conducted, as well as site and meteorological conditions, short-term non-carcinogenic risks associated with exposure to diesel-exhaust pollutants, particularly acrolein, could potentially exceed a Hazard Index greater than one for the Maximally Exposed Individual. Such short-term health risks commonly include, but are not limited to, eye and respiratory tract irritation and increases in asthma occurrences. Short-term health risks associated with emissions of TACs from construction equipment are considered **potentially significant.**

Implementation of **MM 3.3-1** would substantially reduce diesel-exhaust emissions from onsite construction equipment. For instance, use of diesel oxidation catalysts, particulate filters, and alternative fuels such as biodiesel, can reduce diesel-exhaust constituent emissions by approximately 90 percent, or more (MBUAPCD 2004). Implementation of **MM 3.3-1** would require the project applicant to prepare a Construction Emissions Reduction Plan (CERP) that would sufficiently reduce short-term construction-generated emissions to within acceptable levels. The CERP shall be reviewed by the MBUAPCD, prior to issuance of a building permit. With implementation of **MM 3.3-1**, this impact would be considered **less than significant.**

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. Estimated emissions are summarized in **Table 3.3-4.**

TABLE 3.3-4
OPERATIONAL EMISSIONS AT BUILDOUT WITHOUT MITIGATION

Source	Estimated Emissions (lbs/day)				
	ROG	NO_x	CO	SO_x	PM_{10}
Area sources (Direct Sources)					
Natural Gas-Fired Appliances	0.97	13.11	9.49	0.0	0.02
Hearth (Fireplaces)	33.65	5.94	267.00	1.67	44.40
Landscape Maintenance	1.29	0.17	10.2	0.06	0.03
Consumer Products	14.33	0.0	0.0	0.0	0.0
Architectural Coatings	37.86	0.0	0.0	0.0	0.0
Mobile source (Indirect Sources):	260.30	300.05	2,601.12	2.19	330.26
TOTAL (Direct Sources)	*88.10*	*19.22*	*286.69*	*1.73*	*44.45*
TOTAL (Direct & Indirect Sources)	*348.40*	*319.27*	*2,887.81*	*3.92*	*374.71*
MBUAPCD thresholds (lbs/day)	137	137	550*	150*	82

Emissions were estimated based on default model settings recommended by the MBUAPCD and trip generation rates obtained from the traffic analysis prepared for this project. CO emissions and wood stove/fireplace emissions are based on winter conditions. To be conservative, landscape maintenance activities and hearth emissions were assumed to occur on the same day.
*Applies to Direct Source Emissions Only.

As depicted in **Table 3.3-4**, emissions generated by the proposed land uses are primarily attributable to increases in motor vehicle use. Based on the modeling conducted, full buildout of the proposed land uses would result in long-term regional emissions of approximately 348 lbs/day of ROG, 319 lbs/day NO_x, 2,888 lbs/day of CO, 4 lbs/day SO_x, and 375 lbs/day of PM_{10}. Emissions from mobile sources constitute approximately 82 percent of total overall project-generated emissions.

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.**

MM 3.3-3 The project applicant shall implement MBUAPCD-recommended mitigation measures to the extent practical. Prior to approval of building permits, the MBUAPCD shall be consulted to determine applicable measures to be implemented to reduce long-term operational emissions associated with proposed land uses. The City of Greenfield will review proposed tentative maps and improvement plans to identify emission reduction measures incorporated into the project. City Staff may recommend additional measures as practical and feasible. Measures currently recommended by the MBUAPCD include the following:

Highway Commercial and Industrial Uses:

a. Provide preferential carpool/vanpool parking spaces
b. Implement a parking surcharge for single occupant vehicles
c. Provide facilities that encourage the use of alternative transportation sources (e.g., public transportation, bicycle and pedestrian access), such as transit bus pullouts shelters, and onsite showers, lockers and bicycle storage/parking.
d. Provide onsite child care centers
e. Develop park-and-ride lots
f. Employ a transportation/rideshare coordinator
g. Implement a rideshare program
h. Provide incentives to employees to rideshare or to take public transportation
i. Implement compressed work schedules
j. Implement a telecommuting program

Residential Uses:

k. Use EPA-certified or gas-fired fireplaces
l. Provide pedestrian sidewalks and bicycle paths that link to adjacent land uses and external networks
m. Incorporate energy-efficient appliances into residential uses

All Uses:

n. Orient buildings to minimize heating and cooling needs
o. Provide shade trees to reduce cooling needs
p. Include energy-efficient lighting systems
q. Include solar water heaters or centralized water heating systems

r. Increase insulation beyond Title 24 requirements to minimize heating and cooling needs

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.** Therefore a Statement of Overriding Consideration would be required.

Carbon Monoxide (CO) Emissions

Impact 3.3-4 Implementation of the proposed project would result in the generation of CO at nearby intersections from increased vehicular traffic on the local transportation network. However, the proposed project would not contribute to localized CO concentrations that are projected to exceed AAQSs at nearby receptors. This is considered a **less than significant** impact.

Local mobile-source CO emissions near roadway intersections are a direct function of traffic volume, speed, and delay. Transport of CO is extremely limited because it disperses rapidly with distance from the source under normal meteorological conditions. Under specific meteorological conditions, CO concentrations near roadways and/or intersections may reach unhealthy levels. For this reason, modeling of CO concentrations is typically recommended for sensitive land uses located near signalized roadway intersections that are projected to operate at unacceptable levels of service (i.e., LOS E or F) (Caltrans 1997).

According to the Traffic Impact Study prepared for the proposed project, implementation of the proposed project, for both interim and future cumulative General Plan buildout conditions would not result in unacceptable levels of service at existing nearby signalized intersections. Likewise, stop-controlled intersections proposed for signalization with project implementation are not projected to operate at unacceptable levels of service. Based on predicted traffic LOS and given the relatively low background CO concentrations (Table 3.3-2) predicted localized mobile-source CO concentrations are not anticipated to exceed applicable ambient air quality standards at sensitive land uses. This is considered a **less than significant** impact.

Odorous Emissions

Impact 3.3-5 The proposed project would not result in the development of new sensitive land uses (residential) in the vicinity of existing odor sources. Future development of proposed commercial and industrial land uses would be anticipated to result in the exposure of a substantial number of individuals to increases in odorous emissions. This is considered a **less than significant** impact.

The occurrence and severity of odor impacts depends on numerous factors, including: the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of the receptors. While offensive odors rarely cause any physical harm, they still can be very unpleasant, leading to considerable distress among the public and often generating citizen complaints to local governments and regulatory agencies. Projects with the potential to frequently expose members of the public to objectionable odors would be deemed to have a potentially significant impact.

No major existing sources of odors have been identified in the project vicinity. In addition, no odor complaints have been filed with the MBUAPCD for the NH_3 Service Company, which is the nearest existing industrial source to the project site. The proposed project is not anticipated to result in the installation of any major odor emission sources that would result in a potentially significant impact to the occupants of the proposed onsite or existing offsite land uses. Although specific commercial and industrial uses have not yet been identified, uses considered to be minor sources of odors may be developed. Such sources typically include dry cleaning establishments, restaurants, and gasoline stations. Receptors located in the general vicinity of such sources may be exposed to odorous emissions. In addition, the use of agricultural chemicals and fertilizers on nearby parcels may also generate odors that could be detectable for brief periods of time at proposed residential dwellings.

Compliance with MBUAPCD permit and nuisance rules related to odors would help to control emissions of odorous emissions from proposed stationary sources. For instance, MBUAPCD Rule 402 (Nuisances) prohibits the discharge of air contaminants or other materials which cause injury, detriment, nuisance, or annoyance to any considerable number of persons. Compliance with such existing regulatory requirements would help to ensure that exposure of receptors to offensive odors remains at a less-than-significant level. In addition, existing surrounding land uses consist primarily of agricultural uses and rural residential dwellings. As a result, proposed commercial and industrial land uses would not be anticipated to result in increased exposure of a substantial number of people to odors. For these reasons, this impact is considered **less than significant.**

Exposure to Toxic Air Contaminants (TACs)

Impact 3.3-6 The proposed project would place residential units within the immediate vicinity of the NH_3 Service Company, a regulated facility. The proposed project could also include the use of diesel-fueled vehicles that may result in the generation of diesel-exhaust PM emissions, which may result in localized increases in diesel-exhaust PM. This is considered a **less than significant** impact.

Stationary Sources

No major existing stationary sources of toxic air contaminants (TACs) were identified in the vicinity of the proposed project site. Emissions from the NH_3 Service Company in the City of Greenfield are monitored and permitted by the MBUAPCD under permits designed to minimize air quality impacts. The NH_3 Service Company, which is located at 41933 El Camino Real adjacent to Highway 101 between the proposed residential and Highway Commercial portions of the project site. The NH_3 Service Company has two MBUAPCD permits that allow for the release of emissions while operating equipment to load overhead dry fertilizer storage bins and the release of emissions while operating painting equipment. These two Operating Permits are numbered 4089A and 8729B by the MBUAPCD. All MBUAPCD permits include conditions prohibiting the creation of a nuisance by the use. As such, if the emissions were found to be a nuisance to the development proposed, MBUAPCD would take action to rectify the nuisance upon a valid complaint. A copy of each permit can be seen in the Technical Appendices of this EIR.

The proposed project would also result in the development of commercial and industrial land uses east of the freeway, which may generate emissions of TACs from stationary sources. The development of any new stationary sources of toxic air contaminants associated with the proposed commercial and industrial land uses would be subject to MBUAPCD rules and regulations and permitting requirements. MBUAPCD Rule 1000 (Permit Guidelines and Requirements for Sources Emitting TACs), includes specific requirements, including the incorporation of toxic control measures and preparation of health risk assessments to ensure that resultant emissions would not exceed established standards. As part of the District's permitting requirements, sources having the potential to emit TACs would be required to implement measures designed to ensure that potential health risks to nearby receptors do not exceed established standards. Compliance with applicable regulatory standards is required as part of the permitting process for the development and operation of facilities that may emit TACs. Emissions of TACs associated with the development of any stationary sources attributable to the proposed project would be considered less than significant.

Mobile Sources

The primary sources of TACs in the project area include heavy-duty diesel vehicles traveling on Highway 101. Some of the residential dwellings proposed for construction on the parcel located west of Highway 101 may be located within the 500-foot setback generally recommended by the Air Resources Board to reduce health-related impacts (e.g., respiratory symptoms, asthma exacerbations, decreased lung function) attributable to diesel-exhaust PM from major transportation sources.

It is conceivable that the proposed project may include commercial and/or industrial uses that could involve the frequent use of diesel-fueled trucks, a source of mobile TACs. The use of diesel-fueled trucks may result in localized increases of diesel-exhaust PM concentrations. The project location containing commercial and industrial use, however, is somewhat isolated and surrounded by open space on three sides. There are no nearby sensitive receptors such as homes, schools, hospitals or day care centers in this area. The nearest residences will be the St. Charles Place development on the opposite side of the freeway several hundred feet to the west and upwind from the project area.

It is also unclear what effect the ARB's new diesel engine emission standards and diesel-exhaust PM regulations would have on the level of emissions from any one facility. The combined effects of TACs from all stationary and mobile sources developed under the proposed project are not quantifiable. Future development of commercial and industrial land uses will be subject to subsequent environmental review in accordance with CEQA based on the uses proposed. As part of this review process, project applicant(s) of proposed commercial and industrial land uses shall allow the MBUAPCD to review and comment on situations in which toxic risk from diesel-exhaust PM may occur and to identify feasible mitigation measures to be implemented to reduce associated health risks. Example mitigation measures may include, but are not limited to, increased setback distance between TAC sources and receptors; limits on the operational hours and/or characteristics of TAC sources; and designing site plans so that loading and unloading areas are away from sensitive receptors, or inclusion of physical barriers between source and receptor to aid in pollutant dispersal.

In addition emissions from on-road mobile sources are regulated in California by the ARB. The ARB has developed the *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles,* which includes measures to reduce diesel-exhaust PM by 75 percent by 2010. With continued implementation of these measures, an 85-percent reduction in diesel-exhaust PM is anticipated by 2020. While many of the ARB emission controls have not been fully implemented at this time, there are existing regulations that mandate lower diesel-exhaust PM from new on-road diesel-fueled vehicles. These regulations will result in substantial reductions in diesel-exhaust PM from on-road heavy-duty diesel-fueled engines which began with the 2004 model year. One of the most recent control measures implemented by the ARB became effective on February 1, 2005,

which limits idling time of diesel-fueled commercial motor vehicles to no more than five minutes. The ARB is currently reviewing additional regulatory changes that would expand this requirement to include non-commercial diesel-fueled vehicles.

A minimal portion of the proposed residential portion of the project is located within 500 feet of heavy-duty diesel vehicles traveling on Highway 101 and future Highway Commercial and Heavy Industrial developments. Site planning opportunities exist to set back the location of sensitive receptors (residential uses) at sufficient distance from potentially significant amounts of TACs, including diesel emissions.

The absence of existing acute sources of TAC near sensitive receptors and the required adherence to MBUAPCD permitting requirements for all future development proposals within the annexation area will render impacts to a **less than significant** level.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

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.**

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SECTION 3.4
BIOLOGICAL RESOURCES

This section of the EIR evaluates project specific and cumulative impact to biological resources resulting from the development of the proposed project. The analysis of biological resources presented in this section is based on a review of the most current project description, data collected from a reconnaissance level site survey, maps, previous biological investigations and reports, as well as available literature from federal, state, and local agencies.

3.4.1 ENVIRONMENTAL SETTING

The following section describes conditions of the proposed project area with emphasis on biological resources.

REGIONAL SETTING

The project area is located immediately south of the City of Greenfield's city limits, and bisected by Highway 101 in Monterey County, California. Greenfield is located in the central portion of the County, in the middle of the Salinas Valley. The Salinas Valley is an extremely fertile alluvial formation, defined on the east by the Gabilan Range and on the west by the Santa Lucia range. As defined by the California Department of Fish and Game (DFG) Wildlife and Habitat Data Analysis Branch, habitat within Monterey County is extremely diverse and includes 33 different habitat types (DFG 2004). Predominant habitats in the Salinas Valley include cultivated cropland, vineyard, rangeland/grassland habitats, and riparian habitats along the Arroyo Seco and Salinas Rivers. **Table 1** included in the Technical Appendices presents wildlife commonly observed within the region.

BIOLOGICAL COMMUNITIES AND HABITAT TYPES OF THE PROJECT SITE

PMC biological resources staff conducted a reconnaissance level survey on November 11, 2005, to evaluate the existing habitat at the project location. Habitat occurring on the project site is discussed below. Special status wildlife species, sensitive plants, and critical habitat expected or known to occur within the general project area are also addressed in this section.

Irrigated Row and Field Crop

Habitat within the proposed project area is typical row and field crop on flat terrain, which is leveled to facilitate irrigation. Types of crops within this habitat largely depend on local soil types, climate, and farm management practices. Row and field crops in California frequently are annuals managed in a crop rotation system, although perennials such as alfalfa (*Medicago sativa*) are also often used to fix nitrogen in the soil. Crop rotation systems are used to maintain soil productivity throughout the year and break crop pest life cycles (DFG 2002). Broccoli (*Cruciferae sp.*), cauliflower (*Cruciferae sp.*), celery (*Umbelliferae sp.*), and lettuce (*Compositae sp.*) are common crops grown within and in the vicinity of the project location.

Irrigated row and field crops generally provide low habitat suitability for reproduction and cover of wildlife species, due to consistent disturbance of the area and crop loss prevention methods employed by farmers (e.g., fencing and insecticide use). However, many species of birds and mammals use cropland as foraging habitat. In addition, many other wildlife species benefit from the typical availability of irrigation water during drier months.

The project area is active irrigated row and field crop with a few associated urban areas, including one residence, a large metal shed with a few shade trees, access roads, and agricultural structures. The proposed project site also includes agricultural equipment storage facilities on APN 221-011-018.

Critical Habitat

Critical habitat is defined as specific areas that are essential to the conservation of a Federally listed species, and which may require special management considerations or protection. No critical habitat was identified at the project location or is expected to occur within the project vicinity.

Special Status Species

In general, special status species include plants and wildlife that are:

- Listed and protected under the Federal and/or California Endangered Species Acts;
- Listed and protected under other federal and/or state regulations;
- Sufficiently rare to qualify for listing or protection under federal and/or state regulations; or
- Considered unique or in decline by the scientific community.

Table 2 included in the biological resource report within Technical Appendices lists special status species identified by the U.S. Fish and Wildlife Service (USFWS) that may be affected by projects in Monterey County (USFWS 2005). **Table 2** also includes species and critical habitat (if present) listed in the California Natural Diversity Database (CNDDB) and California Native Plant Society (CNPS) inventory within a nine USGS topographical quadrangle search range (DFG 2003 and CNPS 2005). Quadrangles included in the data search were Greenfield, North Chalone Peak, Paraiso Springs, Pinalito Canyon, Reliz Canyon, San Lucas, Soledad, Thompson Canyon, and Topo Valley. Species listed as being unlikely to occur within the project area are considered to be beyond their known range or to have low habitat suitability for reproduction, cover, and/or foraging. **Figure 3.4-1** shows the nearest recorded occurrences of special status species and critical habitat (if present) listed in the CNDDB within a one-mile radius of the project area.

Species potentially needing further study, based on the analysis presented in Table 2 and with consideration to the City of Greenfield General Plan, are listed in **Table 3.4-1** below. These species are also addressed in the text below.

TABLE 3.4-1
SPECIES POTENTIALLY OCCURRING IN THE PROJECT AREA POTENTIALLY NEEDING STUDY

Common Name	Scientific Name	Status	General Habitat Description	Species' Presence Onsite (Likely/ Possible/ Unlikely)	Potential for Occurrence
Birds					
raptors (birds of prey, such as falcons, hawks, owls) as well as other migratory and resident birds	N/A	MBTA;§3 503.5 DFG Code;–	Various habitats.	Likely	Trees within and adjacent to the project location provide potential nest sites for common raptors that could also forage within the area. Migratory birds forage and nest in a variety of habitats, including those occurring at the project location. Therefore, it is likely nesting avian species occur onsite during appropriate times of year (i.e., specific species breeding season).
bank swallow	*Riparia riparia*	–;CT;–	(Nesting) Colonial nester; nests primarily in riparian and other lowland habitats west of the desert; requires vertical banks/cliffs with fine-textured/sandy soils near streams, rivers, lakes, ocean to dig nesting hole.	Possible	Habitat within the project area typically provides high suitability for reproduction and cover, as well as, moderate suitability for foraging by this species during summer months. Large dirt mounds used for water retention onsite could possibly provide suitable nest sites for this species. However, the continual disturbance of the area and the lack of preferred riparian vegetation reduces the likelihood of bank swallow presence. Therefore, performing a preconstruction nest survey of the project area would be appropriate mitigation for reducing potential impact to this species from implementation of the proposed project.

Mammals					
San Joaquin kit fox	*Vulpes macrotis mutica*	FE;CT;–	Annual grasslands or grassy open stages with scattered shrubby vegetation; need loose-textured sandy soils for burrowing, and suitable prey base.	Unlikely	Occurrence of San Joaquin kit fox is documented on the CNDDB within one mile of the project location. Because of persistent human disturbance (i.e., active agricultural practices) and lack of suitable burrows onsite, it is unlikely this species inhabits the project area. However, the City of Greenfield General Plan (2005) acknowledges that San Joaquin kit fox are known from the vicinity of the planning area and further states that although habitat quality in the City of Greenfield is thought to be poor, it is possible this species occasionally forages within the planning area. Therefore, incidental take of a transient San Joaquin kit fox during implementation of the proposed project would be considered to be a potentially significant impact.

Notes: CT: California Threatened, DFG: California Department of Fish and Game, MBTA: Migratory Bird Treaty Act, '–: No status to date, N/A: Not applicable.

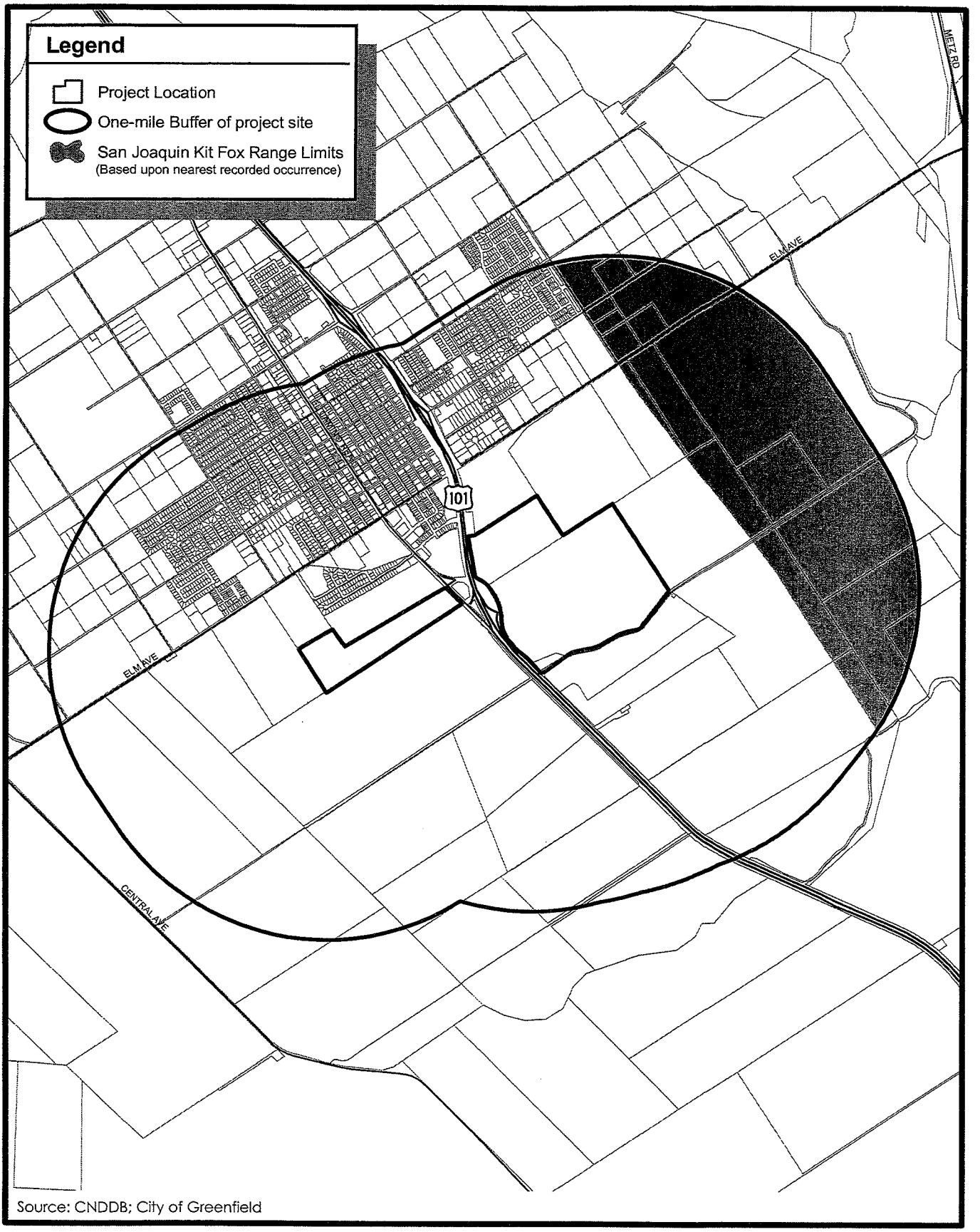

Figure 3.4-1
Recorded Occurances of Special-Status Species Within 1 Mile of Project Site

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Listed and Special Status Plants

As shown on **Figure 3.4-1**, no special status plant species are known to occur within one mile of the project area. Furthermore, based on literature review (e.g., CNPS Inventory of Rare and Endangered Plants), soil survey analysis, and onsite survey observations, it is unlikely any special status plant species occur within the project area.

Listed and Special Status Wildlife

Based on USFWS and CNDDB information, several special status animals have a potential for occurrence within the project vicinity. However, habitat at the project location provides low suitability for many of these species; therefore, they are not expected to be adversely affected by the project. After further review of species' life history and habitat suitability data, as well as consulting the City of Greenfield General Plan, only common nesting raptor and migratory bird species (such as the bank swallow [*Riparia riparia*]) have a potential for occurrence at the project site and possibly require further study. These special status species are discussed below.

Raptors and Migratory Birds

Trees within and adjacent to the project location provide potential nest sites for common raptors that could also forage within the area. Migratory birds forage and nest in a variety of habitats, including agricultural and urban regions. Active bird nests potentially found within the project area are protected under the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the DFG Code, which prohibits their disturbance or destruction.

Bank Swallow

Bank swallow is a California listed threatened species. This bird forages primarily over open riparian areas for a variety of insects including, flies, bees, and beetles. Bank swallow use holes in cliffs and river banks as well as shoreline vegetation for cover. Reproduction occurs from early May through July, with peak activity from May to June. Alteration of rivers and streams have disturbed historic nesting areas and contributed to the decline of this species.

Habitat within the project area typically provides high suitability for reproduction and cover, as well as, moderate suitability for foraging by this species during summer months. Large dirt mounds used for water retention onsite could possibly provide suitable nest sites for this species. However, the continual disturbance of the area and the lack of preferred riparian vegetation reduce the likelihood of bank swallow presence.

San Joaquin Kit Fox

The San Joaquin kit fox is a mostly nocturnal federal endangered and California threatened

listed species. These fox are believed to have ranged historically from southern Kern County to Contra Costa and Stanislaus Counties in the San Joaquin Valley (DFG 2002). They inhabited several San Joaquin Valley vegetation communities, including annual grassland and a variety of scrub habitats. Today, San Joaquin kit fox populations are extremely fragmented. In their northern range, kit fox are found primarily in foothill grassland, oak savannah, and adjacent agricultural areas. In the southern range, kit fox inhabit grassland and scrubland communities, including those that have been modified by development, such as with oil exploration, wind turbines, agricultural and grazing (USFWS 2005).

San Joaquin kit fox are primarily carnivorous, feeding on small mammals (black-tailed jackrabbit [*Lepus californicus*], desert cottontail [*Sylvilagus audubonii*], kangaroo rat [*Dipodomys sp.*], and ground squirrel [*Spermophilus sp.*]), insects, reptiles, ground-nesting birds, and bird eggs (DFG 2002). Dens are used for temperature regulation, shelter from adverse weather, protection from predators, and refuge for pups. Kit fox dig dens in open, level areas with loose-textured soils. However, kit fox also use dens constructed by other animals as well as man-made structures, such as culverts, abandoned pipelines, or banks in sumps or roadbeds. Kit fox often change dens; so many different dens may be used throughout the year (USFWS 2005).

Adult breeding pairs of kit fox stay together throughout the year. Females begin to clean and enlarge pupping dens between September and October and mating occurs between December and March. Litters of typically two to six pups are born in February or March (DFG 2002). Pups emerge from the den about one month later. Disturbance or loss of dens, fragmentation of habitat, hunting, trapping, off-road vehicles, and use of rodenticides and other poisons contribute to San Joaquin kit fox decline (USFWS 2005).

Occurrence of San Joaquin kit fox is documented on the CNDDB within one mile of the project location. Because of persistent human disturbance (i.e., active agricultural practices) and lack of suitable burrows onsite, it is unlikely this species inhabits the project area. However, the City of Greenfield General Plan acknowledges that San Joaquin kit fox are known from the vicinity of the planning area and further states that although habitat quality in the City of Greenfield is thought to be poor, it is possible this species occasionally forages within the planning area (City of Greenfield 2005).

SENSITIVE HABITATS

Sensitive habitats include:

a) areas of special concern to resource agencies,
b) areas protected under CEQA,
c) areas designated as sensitive natural communities by DFG,
d) areas outlined in Section 1600 of the California Fish and Game Code,

e) areas regulated under Section 404 of the federal Clean Water Act (CWA), and
f) areas protected under local regulations and policies.

Sensitive habitats were not observed within or immediately adjacent to the project area neither during the site reconnaissance nor during subsequent review of aerial photography.

JURISDICTIONAL WATERS

The definition and regulatory framework of jurisdictional waters are described in the 'Clean Water Act, Section 404' portion of this chapter (see **Section 3.4.2**). No potentially jurisdictional waters were observed within or immediately adjacent to the project area either during the site reconnaissance or during subsequent review of aerial photography.

WILDLIFE CORRIDORS

Wildlife corridors refer to established migration routes commonly used by resident and migratory species for passage from one geographic location to another. Corridors are present in a variety of habitats and link otherwise fragmented acres of undisturbed area. Maintaining the continuity of established wildlife corridors is important to sustain species with specific foraging requirements, preserve a species' distribution potential, and retain diversity among many wildlife populations. Therefore, resource agencies consider wildlife corridors to be a sensitive resource. No known wildlife migration routes or corridors occur within the project site or would be significantly adversely affected by implementation of the proposed project.

3.4.2 REGULATORY FRAMEWORK

This section lists specific environmental review and consultation requirements and identifies permits and approvals that must be obtained from local, state, and federal agencies before implementation of the proposed project.

FEDERAL

Endangered Species Act

Provisions of the Federal Endangered Species Act (FESA), as amended (16 USC 1531), protect federally listed threatened and endangered species and their habitats from unlawful take. "Take" under the FESA includes activities such as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." The USFWS regulations define harm to include some type of "significant habitat modification or degradation." The U.S. Supreme Court ruled on June 29, 1995, that "harm" may include habitat modification "...where it actually kills or injures wildlife by significantly impairing

essential behavioral patterns, including breeding, feeding or sheltering." For projects with a federal nexus, Section 7 of the FESA requires that federal agencies, in consultation with USFWS or NOAA Fisheries, use their authorities to further the purpose of FESA and to ensure that their actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat. Section 10(a)(1)(B) allows non-federal entities to obtain permits for incidental taking of threatened or endangered species through consultation with USFWS or NOAA Fisheries.

Clean Water Act, Section 404

The objective of the Clean Water Act (CWA 1977, as amended) is to restore and maintain the chemical, physical, and biological integrity of the Nation's waters. Discharge of fill material into "waters of the U.S." including wetlands, is regulated by the ACOE under Section 404 of the federal Clean Water Act (33 USC 1251-1376). ACOE regulations implementing Section 404 define "waters of the U.S." to include intrastate waters, including lakes, rivers, streams, wetlands, and natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce. Wetlands are defined for regulatory purposes as "areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions" (33 CFR 328.3; 40 CFR 230.3). The placement of structures in "navigable waters of the U.S." is also regulated by the ACOE under Section 10 of the federal Rivers and Harbors Act (33 USC 401 et seq.). Projects are permitted under either individual or general (e.g., nationwide) permits. Specific applicability of permit type is determined by the ACOE on a case-by-case basis.

In 1987 the ACOE published a manual that standardized the manner in which wetlands were to be delineated nationwide. To determine whether areas that appear to be wetlands are subject to ACOE jurisdiction (i.e., "jurisdictional" wetlands), a wetlands delineation must be performed. Under normal circumstances, positive indicators from three parameters, (1) wetland hydrology, (2) hydrophytic vegetation, and (3) hydric soils must be present to classify a feature as a jurisdictional wetland. In addition to verifying wetlands for potential jurisdiction, the ACOE is responsible for the issuance of permits for projects that propose filling or discharge to wetlands. Any permanent loss of a jurisdictional wetland as a result of project construction activities is considered a significant impact.

Migratory Bird Treaty Act

Migratory birds are protected under the Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711). The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The vast majority of birds found in the study area are protected under the MBTA. Thus, project construction has the potential to directly take nests, eggs, young or individuals of these protected

species. Further, construction disturbance during the breeding season could result in the incidental loss of fertile eggs or nestlings, or otherwise lead to the abandonment of nests, a violation of the MBTA.

Bald Eagle Protection Act

The bald eagle and golden eagle are federally protected under the Bald Eagle Protection Act (16 U.S.C. 668-668c). It is illegal to take, possess, sell, purchase, barter, offer to sell or purchase or barter, transport, export or import at any time or in any manner a bald or golden eagle, alive or dead; or any part, nest or egg of these eagles unless authorized by the Secretary of the Interior. Violations are subject to fines and/or imprisonment for up to one year. Active nest sites are also protected from disturbance during the breeding season.

STATE

California Endangered Species Act

Under the California Endangered Species Act (CESA), DFG has the responsibility for maintaining a list of endangered and threatened species (California Fish and Game Code 2070). DFG maintains a list of "candidate species" which are species that DFG formally notices as being under review for addition to the list of endangered or threatened species. DFG also maintains lists of "species of special concern" which serve as species "watch lists." Pursuant to the requirements of CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species may be present in the project study area and determine whether the proposed project will have a potentially significant impact on such species. In addition, DFG encourages informal consultation on any proposed project that may impact a candidate species.

Project-related impacts to species on the CESA endangered or threatened list would be considered significant. State-listed species are fully protected under the mandates of CESA. "Take" of protected species incidental to otherwise lawful management activities may be authorized under *California Fish and Game Code Section 206.591.* Authorization from DFG would be in the form of an Incidental Take Permit.

California Regional Water Quality Control Board

Clean Water Act, Section 401 Water Quality Certification

Section 401 of the Clean Water Act of 1977

Section 401 of the Clean Water Act requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the United States to obtain a certification that the discharge will comply with the applicable effluent

limitations and water quality standards. The Central Coast Regional Water Quality Control Board (in California) regulates section 401 requirements for the project area.

California Department of Fish and Game

Streambed Alteration Agreement (Sections 1600-1607 of the California Fish and Game Code)

State and local public agencies are subject to Section 1602 of the California Fish and Game Code, which governs construction activities that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake designated by the DFG. Under Section 1602, a discretionary Stream Alteration Agreement permit from the DFG (Region 3 for the proposed project) must be issued by the DFG to the project developer prior to the initiation of construction activities within lands under DFG jurisdiction. As a general rule, this requirement applies to any work undertaken within the 100-year floodplain of a stream or river containing fish or wildlife resources.

Native Plant Protection Act

The Native Plant Protection Act (*California Fish and Game Code Section. 1900-1913*) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered (as defined by DFG). An exception to this prohibition in the Act allows landowners, under specified circumstances, to take listed plant species, provided that the owners first notify DFG and give that state agency at least 10 days to come and retrieve (and presumably replant) the plants before they are plowed under or otherwise destroyed (*Fish and Game Code, § 1913* exempts from "take" prohibition "the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way"). Project impacts to these species are not considered significant unless the species are known to have a high potential to occur within the area of disturbance associated with construction of the proposed project.

Birds of Prey

Under *Section 3503.5 of the California Fish and Game Code* it is unlawful to take, possess, or destroy any birds in the orders of Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.

"Fully Protected" Species

California statutes also accord "fully protected" status to a number of specifically identified birds, mammals, reptiles, and amphibians. These species cannot be "taken," even with an incidental take permit. Section 3505 of the California Fish and Game Code makes it unlawful to "take" "any aigrette or egret, osprey, bird of paradise, goura, numidi, or any

part of such a bird." Section 3511 protects from "take" the following "fully protected birds": (a) American peregrine falcon (*Falco peregrinus anatum*); (b) brown pelican (*Pelecanus occidentalis*); (c) California black rail (*Laterallus jamaicensis coturniculus*); (d) California clapper rail (*Rallus longirostris obsoletus*); (e) California condor (*Gymnogyps californianus*); (f) California least tern (*Sterna albifrons browni*); (g) golden eagle; (h) greater sandhill crane (*Grus canadensis tabida*); (i) light-footed clapper rail (*Rallus longirostris levipes*); (j) southern bald eagle (*Haliaeetus leucocephalus leucocephalus*); (k) trumpeter swan (*Cygnus buccinator*); (l) white-tailed kite (*Elanus leucurus*); and (m) Yuma clapper rail (*Rallus longirostris yumanensis*).

California Fish and Game Code Section 4700 identifies the following "fully protected mammals" that cannot be "taken": (a) Morro Bay kangaroo rat (*Dipodomys heermanni morroensis*); (b) bighorn sheep (*Ovis canadensis*), except Nelson bighorn sheep (subspecies *Ovis canadensis nelsoni*); (d) Guadalupe fur seal (*Arctocephalus townsendi*); (e) ring-tailed cat (genus *Bassariscus*); (f) Pacific right whale (*Eubalaena sieboldi*); (g) salt-marsh harvest mouse (*Reithrodontomys raviventris*); (h) southern sea otter (*Enhydra lutris nereis*); and (i) wolverine (*Gulo gulo*).

Fish and Game Code Section 5050 protects from "take" the following "fully protected reptiles and amphibians": (a) blunt-nosed leopard lizard (*Crotaphytus wislizenii silus*); (b) San Francisco garter snake (*Thamnophis sirtalis tetrataenia*); (c) Santa Cruz long-toed salamander (*Ambystoma macrodactylum croceum*); (d) limestone salamander (*Hydromantes brunus*); and (e) black toad (*Bufo boreas exsul*).

Fish and Game Code Section 5515 also identifies certain "fully protected fish" that cannot lawfully be "taken" even with an incidental take permit. The following species are protected in this fashion: (a) Colorado River squawfish (*Ptychocheilus lucius*); (b) thicktail chub (*Gila crassicauda*); (c) Mohave chub (*Gila mohavensis*); (d) Lost River sucker (*Catostomus luxatus*); (e) Modoc sucker (*Catostomus microps*); (f) shortnose sucker (*Chasmistes brevirostris*); (g) humpback sucker (*Xyrauchen texanus*); (h) Owens River pupfish (*Cyprinoden radiosus*); (i) unarmored threespine stickleback (*Gasterosteus aculeatus williamsoni*); and (j) rough sculpin (*Cottus asperrimus*).

LOCAL

City of Greenfield General Plan

The City of Greenfield General Plan identifies specific goals, policies, and programs regarding biological resources. Goals and policies outlined in the biological resources section of the General Plan are as follows:

Goal 7.5 Encourage preservation of important ecological and biological resources, including wildlife habitat.

Policy 7.5.1 Use land use planning to reduce the impact of development on important ecological and biological resources identified during application review and analysis.

Policy 7.5.2 Encourage preservation of portions of important wildlife habitats that would be disturbed by major development.

Policy 7.5.3 Develop open space uses in an ecologically sensitive manner.

Policy 7.5.4 Development in sensitive habitat areas should be avoided or mitigated to the maximum extent possible.

Table 3.4-2 analyzes the proposed project with respect to City of Greenfield General Plan policies and programs.

TABLE 3.4-2
CITY OF GREENFIELD GENERAL PLAN POLICIES REGARDING BIOLOGICAL RESOURCES

City of Greenfield General Plan Policy	Is Project Consistent with General Plan?	Analysis
7.5.A Prior to development, areas with potential wildlife habitat shall be surveyed for special status plant and/or animal species. If any special status plant or animal species are found in areas proposed for development, the appropriate resource agencies shall be contacted and species-specific management strategies established to ensure the protection of the particular species.	Yes	A site reconnaissance was performed by PMC biologists on November 11, 2005. No special status plant or animal species were observed.
7.5.B Participate with regional, state, and federal agencies and organizations to establish and preserve open space that provides habitat for local wildlife.	Yes	This document shall be circulated to agencies for comment as per CEQA regulations. Responses to agency concerns shall subsequently be addressed. Alteration of the planned development may be warranted based on agency review of the project. Agency recommendations regarding biological resources shall be implemented to the maximum extent possible.
7.5.C At the discretion of the City, development proposals will be required to submit detailed biological resource assessments as part of the application or CEQA review process. Projects shall demonstrate compliance with the recommendations of those assessments.	Yes	Information presented in this chapter of the EIR was obtained and analyzed by a qualified biologist as part of a biological resource investigation of the proposed project area. Further documentation shall be submitted, if necessary, at the request of the City.
7.5.D The City shall explore the feasibility of a city-wide habitat mitigation fee as an alternative to site-specific mitigation requirements.	Yes	To date, a city-wide habitat mitigation fee program has not been implemented and would therefore not be applicable to the proposed development.

Notes: CEQA- California Environmental Quality Act, EIR- Environmental Impact Report

Local Land Use and Development Codes

Monterey County and the City of Greenfield have established ordinances related to biological resources with respect to development within their respective planning areas. The analysis presented in this section has been completed in accordance with these ordinances.

3.4.3 IMPACTS AND MITIGATION MEASURES

A discussion of potential impacts and an evaluation of their significance to biological resources related to the Greenfield South End addition and development is included in the following sections.

STANDARDS OF SIGNIFICANCE

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

1. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as candidate, sensitive, endangered, threatened, or other special status in local or regional plans, policies and regulations, or by the DFG or USFWS;

2. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies and regulations, or by the DFG or USFWS;

3. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, coastal, riverine, stream, marsh, vernal pool, etc.) through direct removal, filling, hydrological interruption, or other means;

4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;

5. Conflict with any local polices or ordinances protecting biological resources, such as Monterey County or City of Greenfield ordinance standards;

6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan;

7. Substantially reduce the habitat of a fish, wildlife, or plant species or cause a species to drop below self-sustaining levels; or

8. Directly affect species protected under provisions of the Migratory Bird Treaty Act.

An evaluation of the significance of potential impacts on biological resources must consider both direct effects to the resource as well as indirect effects in a local or regional

context. Potentially significant impacts would generally result in the loss of a biological resource or obviously conflict with local, state, or federal agency conservation plans, goals, policies, or regulations. Actions that would potentially result in a significant impact locally may not be considered significant under CEQA if the action would not substantially effect the resource on a population-wide or region-wide basis.

METHODOLOGY

Available information pertaining to biological resources within the project action area, which refers to the area directly or indirectly affected by the proposed action, was reviewed during this analysis, including (but not limited to):

- Aerial photography of the project location;
- City of Greenfield General Plan (2005);
- CNPS, Inventory of Rare and Endangered Plants for the Greenfield, North Chalone Peak, Paraiso Springs, Pinalito Canyon, Reliz Canyon, San Lucas, Soledad, Thompson Canyon, and Topo Valley topographic quadrangles (2005);
- DFG, California Natural Diversity Database records for the Greenfield, North Chalone Peak, Paraiso Springs, Pinalito Canyon, Reliz Canyon, San Lucas, Soledad, Thompson Canyon, and Topo Valley topographic quadrangles (2003);
- DFG, California Wildlife Habitat Relationships database (2002);
- eNature® Field Guides Online for the California Central Coast Range, Including Monterey County (2005);
- The Jepson Manual: Higher Plants of California (Hickman 1993);
- Local Land Use and Development Code ordinances;
- National Audubon Society, Field Guide to California (Alden et.al. 1998);
- USFWS, list of Federal Endangered and Threatened Species that may be affected by projects in Monterey County (2005); and
- USGS, 7.5 minute Greenfield topographic quadrangle.

SITE RECONNAISSANCE

Pacific Municipal Consultants biologists surveyed the project area on November 11, 2005. Field investigations included a general inspection of the project site to adequately characterize existing habitat with emphasis on areas with the potential to support special status species or critical habitats. A pedestrian survey was also conducted for general plant and wildlife species. Plants species noted during the site inspection were limited to roadside ruderal grasses and crops. Wildlife species observed included:

- Brewer's blackbird (Euphagus cyanocephalus),
- house finch (Carpodacus mexicanus),
- house sparrow (Passer domesticus),
- killdeer (Charadrius vociferus),

- red-tailed hawk (Buteo jamaicensis),
- red-winged blackbird (Agelaius phoeniceus),
- and various insects.

PROJECT IMPACTS AND MITIGATION MEASURES

Project components were considered in evaluating and assessing the potential impacts to biological resources. Construction of the proposed project has the potential to directly or indirectly affect biological resources as well as contribute to cumulative impacts. Potential impacts to biological resources can be temporary, long-term, or permanent, depending on the effect of project activities on an individual resource.

Potential Adverse Effect on Special Status Species

Impact 3.4-1 Implementation of the proposed project would result in temporary and direct disturbance to nesting raptors and migratory birds (including bank swallow). This would be considered a **potentially significant** impact.

Habitat at the site provides suitable nesting and foraging opportunities for many avian species, including some raptors and migratory birds. Raptors and raptor nests are considered to be a special resource by federal and state agencies and are protected under the MBTA and California Code of Regulations. All migratory birds are also protected under the MBTA. Project implementation would impact area that provides suitable habitat for these avian species.

Construction activities that require the disturbance of trees and vegetation could cause direct impact to nesting raptor and migratory birds. Removal of habitat at the project site would be considered a direct and significant impact if sensitive bird species were taken or deterred from traditional nesting or foraging locations. Construction could also result in noise, dust, increased human activity, and other indirect impacts to nesting raptors or migratory bird species in the project vicinity. Potential nest abandonment, mortality to eggs and chicks, as well as stress from loss of foraging areas are also considered potentially significant impacts.

Mitigation Measure

MM 3.4-1 If proposed grading, site preparation, or construction activities are planned to occur during the nesting seasons for local avian species (typically March 1st through August 31st), the project applicant shall, prior to issuance of grading or building permits, retain a qualified biologist approved by the City of Greenfield to conduct a focused survey for active nests of raptors and migratory birds within and no less than 100-feet outside project boundaries, where possible, of the construction area, no more than 30 days prior to ground disturbance. If an active nest is located during preconstruction

surveys, USFWS and/or DFG (as appropriate) shall be notified regarding the status of the nest. Furthermore, construction activities shall be restricted, as necessary, to avoid disturbance of the nest until it is abandoned or the biologist deems disturbance potential to be minimal. Restrictions may include establishment of exclusion zones (no ingress of personnel or equipment at a minimum radius of 100-feet around the nest) or alteration of the construction schedule. No action is necessary if construction occurs during the nonbreeding season (generally September 1st through February 28th).

Implementation of the above mitigation measure would reduce impacts to special status species to a **less than significant** level.

Impact 3.4-1 Development of the proposed project would result in temporary disturbance and permanent alteration of site conditions that could support transient San Joaquin kit fox. This would be considered a **potentially significant** impact.

San Joaquin kit fox, a special status wildlife species, could occasionally occur on the project site as a transient species. Habitat at the project location typically does not provide suitability for reproduction, cover, and foraging by this species. However, San Joaquin kit fox is recorded on the CNDDB as occurring within one mile of the project location and could potentially forage within nearby areas of the City of Greenfield. Therefore, implementation and construction of the proposed project could impact transient San Joaquin kit fox. Special status wildlife species are considered to be a sensitive resource by federal and state resource agencies, so alteration of the project site is considered a **potentially significant** impact.

Mitigation Measure

MM 3.4-2: During construction activities the project applicant shall use 'best management practices' to ensure no incidental take of San Joaquin kit fox occurs during construction or from project-related activity onsite. The recommended measures (as outlined in the USFWS Standardized Recommendations for Protection of the San Joaquin Kit Fox Prior to or During Ground Disturbance [June 1999]) include:

a) Restrict project-related vehicle traffic to established roads or other designated areas onsite. Vehicles should observe a 20-mile per hour speed limit in all project areas (except on paved pre-existing roads with an established speed limit). Off-road traffic outside of the designated project areas should be prohibited;

b) To the extent possible, night-time construction should be minimized;

c) All excavated, steep-walled holes or trenches more than two feet deep shall be covered at the close of each working day by plywood or similar materials or provided with one or more escape ramps constructed of earth fill or wooden planks. Before such holes or trenches are filled, each shall be thoroughly inspected for trapped animals that should be allowed to escape before proceeding;

d) All construction pipes, culverts, or similar structures with a diameter of 4-inches or greater that are stored open onsite for one or more nights shall be thoroughly inspected for animals before the pipe is subsequently buried, capped, or otherwise used or moved in any way;

e) All food-related trash items, such as wrappers, cans, bottles, and food scraps, shall be disposed of in closed containers and removed at least once a week from the project site;

f) No firearms shall be allowed on the project site;

g) No pets (i.e., dogs, cats, etc.) shall be permitted onsite;

h) Use of rodenticides and herbicides in project areas shall be prohibited. If rodent control must be conducted, zinc phosphide is preferred because of a proven (and recognized by the USFWS) lower risk to kit fox.

Furthermore, the applicant shall retain a qualified biologist to present the importance of following best management practices to reduce impacts to possible fox (as well as other sensitive species) during project implementation. A fact sheet conveying this information shall be prepared by the biologist and distributed to any personnel who may enter the project site. Should a kit fox be found onsite, the biologist shall be notified immediately in order to outline additional avoidance measures that should be implemented as well as consult with regulatory agencies.

Implementation of the above mitigation measure would reduce impacts to the special status species (San Joaquin Kit Fox) to a **less than significant** level.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

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.

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SECTION 3.5
CULTURAL RESOURCES

This section of the EIR considers and evaluates the potential impacts of the proposed project on cultural and paleontological resources. Cultural resources include historic buildings and structures, historic districts, historic sites, prehistoric and historic archaeological sites, and other prehistoric and historic objects and artifacts. Paleontological resources include vertebrate, invertebrate, or plant fossils.

3.5.1 EXISTING SETTING

PREHISTORY

Archaeological work in the Central Coast region dates to the late 1940s. Research during this period is highlighted by the work of:

- Pilling (1948) who identified numerous sites in Monterey County;
- Broadbent (1951a, 1951b) who tested the Berwick Park site, CA-MNT-107; and
- Heizer in 1951and in 1952 by Beardsley at the Willow Creek site, CA-MNT-281 and –282 (cf., Pohorecky 1964, 1976).

During the 1960s and 1970s research continued in the region, and also included inland surveys and excavations in areas such as the Pinnacles National Monument. Most archaeological work in the region, however, has been conducted along or near the coast, and there is limited archaeological research for the project area. Regardless, this work provides a general context for the area.

Recent archaeological work in the area generally involves the development of regional chronologies and models of culture change for Monterey Bay and its immediate environs. Significant contributions in this regard have been presented by: Breschini (1983); Breschini et al. (1983); Breschini and Haversat (1992); Cartier (1993); Dietz (1985); Dietz et al. (1988); Dietz and Jackson (1981); Hildebrandt and Mikkelsen (1993); Jones and Hylkema (1988); Jones (1993); Jones et al. (1992); Jones and Jones (1992); and Patch and Jones (1984). This work has resulted in the development of a series of seven cultural periods primarily for Monterey Bay, but also includes the Central Coast region in proximity to it (cf., Dietz et al. 1988; Jones and Hylkema 1988; Hylkema 1991; Hildebrandt and Mikkelsen 1993; and Jones 1993). These seven periods and their associated dates are: Paleoindian 10,000–8,000 B.C.; Millingstone 8,000–3,500 B.C.; Early 3,500–600 B.C.; Middle 600 B.C.–A.D. 1200; Late A.D. 1200–1769; and Historic. It is possible that archaeological resources related to any of these periods may occur in the project area.

ETHNOGRAPHY

At the time of Euroamerican contact (ca. 1769), Native Americans identified as Salinan occupied the area from Soledad in the north to near San Luis Obispo in the south and

extending from the coast to the eastern edge of the Salinas River Valley. Salinan peoples spoke a Hokan language, but there is scarce information concerning their culture. The major sociopolitical unit of Salinan was the village. Each village was an autonomous unit that was ruled by a chief. The position of chief appears to have been patrilineal (i.e., passed from father to son).

Salinan technology primarily highlights exploitation of terrestrial resources, although both coastal and inland groups engaged in fishing. Hunting weaponry and facilities included sinew-backed and self-bows; wooden arrow shafts; projectile points and other flaked stone tools; and nets. Salinan utilitarian tools and facilities included baskets, (both coiled and twined), for food and water collection, food storage, and food preparation; bowl mortars; pestles; metates; stone bowls; and bone awls. Clothing included tule aprons, rabbit skin or otter skin cloaks, and basket hats.

Salinan peoples generally experienced friendly relations with neighboring cultural groups such as the Yokuts to the east and Chumash to the south, but were hostile toward the Costanoans to the north. Interaction between Salinan, Yokuts, and Chumash involved trade and use of each other's territory to acquire resources. On the other hand, it appears that Salinan and Costanoans were in competition with each other regarding access to trade routes, and their interactions were generally unfriendly. (Hester 1978)

HISTORY

Sebastian Vizcaino's landing at present day Monterey in 1602 is the earliest documented contact with Native Americans in the area. Following Vizcaino's landing, other Spanish ships may have stopped at Monterey, but contact was minimal until the initial overland exploration of the area by Gaspar de Portolá in 1769. Portolá's expedition followed the coast, while subsequent exploration of the region by Pedro Fages in 1770 and 1772, Fernando Javier de Rivera in 1774, and Juan Bautista de Anza in 1776 traveled on the east side of the Santa Cruz Mountains, along a route which became known as El Camino Real.

Gaspar de Portolá founded Monterey in 1769, and in 1770 Padre Junipero Serra founded Mission San Carlos de Borromeo, which was later relocated to Carmel. Other missions, such as Mission Santa Cruz, founded in 1791, Mission San Juan Bautista, founded in 1797, Mission San Antonio de Padua, founded in 1771, Mission San Miguel, founded in 1797, and Mission Soledad, founded in 1791 are also located in the general area and had a dramatic effect on Native American populations. The Spanish attempted to convert the Native American population to Catholicism and incorporate them into the "mission system." The process of missionization disrupted traditional Salinan cultural practices, and they were generally slow to adapt to the mission system. The Spanish, however, were intent on implementing it, and by 1810 most Native Americans in the area were either incorporated or relocated into local missions. This factor, coupled with exposure to European diseases, virtually ended the traditional life of Native Americans in the area.

The Mexican period (1821-1848) in California is an outgrowth of the Mexican Revolution, and its accompanying social and political views affected the mission system. In 1833 the missions were secularized and their lands divided among the *Californios* as land grants called *Ranchos*. These *ranchos* facilitated the growth of a semi-aristocratic group that controlled the larger *ranchos*. Owners of *ranchos* used local populations, including Native Americans, essentially as forced labor to accomplish work on their large tracts of land. Consequently, Salinan, and other Native American groups across California, were forced into a marginalized existence as *peons* or *vaqueros* on the large *ranchos*. *Ranchos* in the general project area include: San Vincente (Munrass); Ex-Mission Soledad; Mission Soledad; Los Coches; Arroyo Seco (Torre); Posa de los Ositos; and San Lorenzo (Soberanes).

The end of the Mexican-American War and the signing of the Treaty of Guadalupe Hidalgo in 1848 marked the beginning of the American period (1848-Present) in California history. The onset of this period, however, did nothing to change the economic condition of the Native American populations working on the *ranchos*. The latter half of the nineteenth century witnessed an ongoing and growing immigration of Anglo-Americans into the area, an influx also accompanied by regional cultural and economic changes. Indeed, Anglo-American culture expanded at the expense of Hispanic culture. Dispersed farmsteads slowly replaced the immense Mexican ranchos, and the farming of various crops slowly replaced cattle ranching as the primary economic activity in the region. Larger and larger tracts of land were opened for farming, and these agricultural developments demanded a large labor force, sparking a new wave of immigration into the region. These trends (i.e., expansion of agriculture and immigration of workers to work on farms) have continued into the twentieth century, and generally characterize the development of the area to the present. Currently, the City of Greenfield is a center for agricultural production in the region.

PROJECT SITE SETTING

Records Search

A records search at the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park; a sacred lands search conducted by the Native American Heritage Commission; consultation with the Native American community; and archival research.

Archaeological and historical investigations for the proposed project area identified that the area is not previously surveyed, and that the project area is adjacent to historic site P-27-002322, which is the alignment of Highway 101. The current alignment for Highway 101 was built over the historic alignment.

A search of the University of California Museum of Paleontology (UCMP) collections database for the proposed project area did not identify any evidence of paleontological resources. In addition, the geography and geology of the area suggest that it is not sensitive for paleontological resources.

Field Survey

PMC cultural resources staff conducted of a "windshield survey" of the project areas that could reasonably be expected to contain visible cultural resources. The survey identified that there are buildings and structures on the project site. The project site contains one private residence (a mid 20th century ranch style home) and one metal shed on the northern portion of APN 221-011-017, commercial structures located at the southwest portion of the project site, on APN 221-011-018, used for agricultural storage, and a large drainage basin located in the central portion of APN 221-011-017. The project area is disturbed by agriculture (i.e., the area consists of active agricultural fields), and the area does not appear to be archaeologically sensitive for either prehistoric or historic sites and their associated artifacts. Due to the fact the project area undergone years of agricultural production, including tilling, paleontological resources are unlikely to be found on site.

3.5.2 REGULATORY FRAMEWORK

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires that lead agencies determine whether projects may have a significant effect on archaeological and historical resources. This determination applies to those resources that meet significance criteria qualifying them as "unique," "important," listed on the California Register of Historic Resources (CRHR), or eligible for listing on the CRHR. If the lead agency determines that a project may have a significant effect on an archaeological or historical resource, the project is determined to have a significant effect on the environment, and these effects must be addressed. If it is determined that a cultural resource does not meet any of the qualifying criteria as a historical resource or unique archaeological resource, it need not be considered further in the planning process. CEQA also provides for the identification and protection of significant paleontological resources.

CEQA emphasizes avoidance of archaeological and historical resources as the preferred means of reducing potential significant effects. If avoidance is not feasible, an excavation program, restoration, rehabilitation, or some other form of mitigation must be developed to mitigate any impacts.

LOCAL

City of Greenfield General Plan

The City of Greenfield General Plan provides sound goals and policies for the identification and protection of significant cultural resources. The General Plan Goals and Policies include:

Goal 2.5: Encourage the protection of historic, landmark or other structures significant to the City.

Policy 2.5.1: Review all development proposals involving historic buildings to ensure that modifications or other treatments are consistent with the historic architecture and authenticity of the building, and consistent with Secretary of the Interior standards.

Policy 2.5.2: Support redevelopment and rehabilitation efforts for historic resources in the community.

Policy 2.5.3: Review proposed infill development projects for consistency with the architectural character of the surrounding neighborhood and structures.

Policy 2.5.4: Consider reducing or waiving certain development requirements (where public safety and the general welfare is not impaired) to encourage the reuse of existing significant or historic structures.

Goal 7.6: Encourage preservation of cultural resources within the Planning Area.

Policy 7.6.1: Preserve areas that have identifiable and important archaeological or pale ontological significance.

Goal 7.7: Preserve and enhance historic structures and features within the community.

Policy 7.7.1: Promote the compatibility of new development located adjacent to existing structures of historic significance with the architecture and site development of the historic structure.

Policy 7.7.2: Respect the character of the building and it's setting during the remodeling and renovation of facades of historic buildings.

Policy 7.7.3: Encourage the use of the State Historic Building Code for historic buildings and other structures that contribute to the City's historic character.

Policy 7.7.4: Recognize the value of Greenfield's historic resources as an economic development tool.

Policy 7.7.5: Preserve the integrity of historic structures and the parcels on which they are located by properly implementing applicable design, building, and fire codes.

Policy 7.7.6: Work with property owners to preserve historic features within the community.

Policy 7.7.7: Encourage owners of eligible historic properties to apply for State and Federal registration of these sites and to participate in tax incentive programs for historic restoration.

These goals and policies emphasize avoidance of cultural resources as the preferred means of reducing potentially significant effects.

Monterey County General Plan

The Monterey County General Plan provides goals, objectives, and policies for the identification and protection of significant cultural resources. The General Plan goals, objectives, and policies are relevant due to the sphere of influence amendment and annexation request by the City of Greenfield for lands that are currently within Monterey County jurisdiction. The General Plan Goals, Objectives, and Policies include: Goal 12, Objectives 12.1 and 12,2, and Policies 12.1.1-12.1.7; and Goal 52, Objectives 52.1, 52.2, and 52.3, and Policies 52.1.1-52.1.8, 52.2.1 and 52.2.2, and 52.3.1. These goals, objectives, and policies emphasize avoidance of cultural resources as the preferred means of reducing potentially significant effects.

Monterey County Zoning Ordinance

Monterey County zoning ordinances provide for the identification and protection of significant cultural resources. Due the SOI amendment and annexation request as part of the proposed project for lands currently within Monterey County jurisdiction the zoning ordinances are relevant to the proposed project site. These ordinances include Title 21.54, 21.64.270, and 21.66.050. These ordinances emphasize avoidance of cultural resources as the preferred means of reducing potentially significant effects.

3.5.3 IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The impact analysis provided below is based on the application of the following State CEQA Guidelines Appendix G and Section 15065(a) thresholds of significance:

1. Cause a substantial adverse change in the significance of a historical resource as defined in State CEQA Guidelines Section 15064.5;

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to State CEQA Guidelines Section 15064.5;

3. Directly or indirectly destroy a unique paleontological resource or site or unique geological feature; or,

4. Disturb any human remains, including those interred outside of formal cemeteries.

CEQA, at Public Resources Code 21083.2, requires planning agencies to determine if a project may have a significant effect on historical resources and unique archaeological resources. CEQA, at §15064.5, defines a significant effect as one that may cause a substantial adverse change in the significance of an historical resource. A "substantial adverse change" means physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of an historical resource is materially impaired. The Lead Agency shall identify potentially feasible mitigation measures to mitigate significant adverse changes in the significance of an historical resource.

CEQA also requires planning agencies to consider the effects of a project on unique archaeological resources. If an archaeological artifact, object, or site meets the definition of a unique archaeological resource, then the artifact, object, or site must be treated in accordance with the special provisions for such resources as presented at Public Resources Code 21083.2(e).

The CEQA guidelines at section 15064.5 describe an "historical resource" as:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources.

2. A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, or identified as significant in an historical resource survey meeting the requirements in Section 5024.1(g) of the Public Resources Code shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources.

Public Resources Code 5024.1 presents criteria for determining the eligibility of a cultural resource for inclusion in the California Register of Historical Resources (CRHR). These criteria include:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual or possesses high artistic value; or

4. Has yielded, or may yield, information important in prehistory or history.

Public Resources Code 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site that:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

2. Has a special and particular quality, such as being the oldest of its type or the best available example of its type.

3. Is associated with a scientifically recognized important prehistoric or historic person or event.

METHODOLOGY

Cultural resources staff of PMC conducted archaeological and historical investigations for the South End SOI project area. These investigations included: a records search at the Northwest Information Center (NWIC) at Sonoma State University, Rohnert Park; a sacred lands search conducted by the Native American Heritage Commission; consultation with the Native American community; and archival research.

PMC cultural resources staff conducted of a "windshield survey" of the project areas that could reasonably be expected to contain visible cultural resources.

A search of the University of California Museum of Paleontology (UCMP) collections database for the proposed project area did not identify any evidence of paleontological

resources. In addition, the geography and geology of the area suggest that it is not sensitive for paleontological resources.

PROJECT IMPACTS AND MITIGATION MEASURES

Undiscovered Prehistoric Resources, Historic Resources, and Human Remains

Impact 3.5-1 Approval of the South End SOI Amendment and any potential projects that may result from adopting the amendment could result in impacts to undiscovered prehistoric and historic resources and the inadvertent discovery of human remains. Although their presence is unlikely this is considered a **potentially significant** impact.

According to extensive research and "Windshield Survey" completed, the project area does not appear to be archaeologically sensitive. Onsite investigation and review of maps and records on file at the Northwest Information Center at Sonoma State University did not reveal any archaeological resource on or within the project area. The site has historically been used for agriculture and is heavily disturbed due to discing, tilling and planting, which could destroy or cover cultural and paleontological resources, had they ever been present. The project site is located adjacent to historic site P-27-002322, which is the alignment of Highway 101. However although recorded as significant the existing new Highway 101 was constructed and paved over the historic alignment, therefore there is no significance. The residence and commercial structures located on the project area were identified not to be eligible for historical significance. However, destruction or ground disturbance of undiscovered resources, from project construction could result in **potentially significant** impacts to undiscovered prehistoric and historic resources and human remains.

Mitigation Measures

MM 3.5-1a Should any previously undisturbed cultural, historic or archaeological resources be uncovered in the course of site preparation, clearing or grading activities, all operations within 150 feet of the find shall be halted until such time as a qualified professional archaeologist can be consulted to evaluate the find and recommend appropriate action. If the find is determined to be significant, appropriate mitigation measures shall be formulated and implemented.

MM 3.5-1b In the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the coroner of Monterey County has determined whether the remains are subject to the coroner's authority. This is in accordance with Section 7050.5 of the California

Health and Safety Code. If the human remains are of Native American origin, the coroner must notify the Native American Heritage Commission within 24 hours of identification. Pursuant to Section 5097.98 of the Public Resource Code, the Native American Heritage Commission will identify a "Native American Most Likely Descendent" to inspect the site and provide recommendations for the proper treatment of the remains and any associated grave goods.

Implementation of MM 3.5.1a and b would reduce potential impacts to unknown prehistoric and historic resources and inadvertently discovered human remains to a **less than significant** level.

Paleontological Resources

Impact 3.5-2 Adoption of the Sphere of Influence Amendment and any potential projects that may result from adopting the amendment could result in impacts to undiscovered paleontological resources. This is considered a **potentially significant** impact.

A search of the University of California, Berkeley Museum of Paleontology collections database did not identify any evidence of paleontological resources in the project area. However, there is a possibility of unanticipated and accidental paleontological discoveries within the project area. Unanticipated and accidental paleontological discoveries within the project area considered a **potentially significant** impact.

Mitigation Measures

MM 3.5-2 As a condition of project approval if any paleontological resources (fossils) are discovered during ground disturbing construction activities, all work in the immediate vicinity must stop and the City of Greenfield shall be immediately notified. A qualified paleontologist shall be retained to evaluate the finds and recommend appropriate mitigation measures for the inadvertently discovered paleontological resources.

Implementation of MM 3.5-2 would reduce impacts on paleontological resources to a **less than significant** level.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

Prehistoric, Peleontological, and Historic Resources

Impact 3.5-3 Approval of the SOI Amendment and any potential projects that may result from subsequent development, along with any foreseeable

development in vicinity of the SOI Area, will be site-specific in nature. Cumulative effects will be **less than significant.**

Adoption of the SOI Amendment and any potential projects that may result from adopting the amendment in combination with cumulative development pursuant to General Plan buildout, would likely increase the potential to disturb the local inventory and context of both known and undiscovered cultural resources. Mitigation measures **MM 3.5-1a and b** and **MM 3.5-2** however, would mitigate potential site specific impacts to cultural resources by addressing resources on a case by case basis and applying appropriate mitigation in accordance with state and local laws. With mitigation, and based on the absence of significant features on the site, the sum of cumulative effects will not be more significant than the individual impacts. Therefore, cumulative impacts related to prehistoric, paleontological, and historic cultural resources would be reduced to a **less than significant** level and are not cumulatively considerable.

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SECTION 3.6
GEOLOGY, SOILS & GEOLOGICAL HAZARDS

This section of the EIR discusses the geologic setting of the project site and general vicinity and analyzes potential impacts that may result from implementing the project or in the context of these conditions the project. Areas of analysis include surface soils conditions, ground rupture, seismic hazards. The information contained in this section is based on site-specific geologic studies, information from the California Division of Mines and Geology, and U.S. Geologic Survey maps and the Geotechnical Feasibility Investigation prepared by Twining Laboratories Inc. for a portion of the proposed project site.

3.6.1 EXISTING SETTING

GEOLOGY, SOILS AND TOPOGRAPHY

Regional Geologic Setting

The project site is in the central portion of the broad, nearly flat Salinas Valley, located in the Coast Ranges Geomorphic Province of California. The Salinas Valley is bounded by the Santa Lucia Range on the southwest and the Gabilan Range on the northeast. The orientation of these topographic features parallels the region's northwest trending structural grain. The oldest exposed rock unit of the Santa Lucia Range is the Mesozoic and the older metasedimentary rock of the Sur series, which is intruded by granitic plutions of Cretaceous age. A thick section of sedimentary deposits of Tertiary age overlies the older crystalline rock and makes up most of the near-surface bedrock southwest of the Greenfield area. The predominant Tertiary unit in this portion of the range is the marine Monterey Shale of upper and middle Miocene age. Fluvial terraces flank the northeastern edge of the Santa Lucia Range.

In the Gabilan Range to the northeast, Cretaceous granitic basement rock is predominant, with lesser amounts of middle Tertiary (Miocene) volcanic and non-marine sedimentary rocks. To the southeast, the granitic rock overlain primarily by upper Tertiary (Pliocene) to lower Quaternary (Pleistocene) marine sedimentary rocks, with the Plio-Pleistocene Paso Robles Formation especially prevalent.

Project Site Setting

The project site consists of four separate parcels, APN 221-011-017, 018, 071, and 068. Twining Laboratories, Inc. completed a Geotechnical Feasibility Investigation for APN 221-011-017. The Geotechnical Feasibility Investigation analyzed approximately 121 acres of the 171 acre parcel, which is currently used for agricultural row crops. The 50 acres of the parcel not addressed in the Geotechnical Feasibility Investigation would be placed under an agricultural easement as part of the proposed project. The geology of the parcel studied is relative and similar in character to surrounding properties, with similar soils and land use conditions. Therefore, the conclusion and assumptions regarding the information

contained within the Geotechnical Report, City of Greenfield General Plan EIR and other related documents is adequate to assess the potential geotechnical impact related implementation of the entire project area.

TOPOGRAPHY

The project site is in the central portion of the broad, nearly flat Salinas Valley, and is relatively flat and level with no distinct or prominent topographic features. The ground surface elevation is approximately 250 feet above mean sea level (msl).

GROUNDWATER CONDITIONS

The City of Greenfield is located in the Upper Salinas Valley groundwater subasin. This subasin has extremely deep and productive alluvium, and wells can yield of up 4,000 gallons per minute. This subasin has excellent storage and recharge capacity.

According to the geotechnical report completed by Twining Laboratories, groundwater was encountered in two of the 18 sample soil borings taken during the geotechnical investigation, at approximately 44 and 49 feet below the ground surface. A review of available data and personal communication with the Monterey County Water Resources Agency by Twining Laboratories revealed that the historic high for groundwater depth is approximately 40 feet below the ground surface. The sample soil borings were completed to a depth of 50 feet. Water tables are subject to fluctuation over time, depending on seasonal precipitation, irrigation land use climatic conditions and other factors.

FAULTS AND SEISMICITY

Intensity Criteria

Earthquake magnitude is a measure of the total amount of energy released in an earthquake. With increasing magnitude (i.e. larger earthquakes) ground motions are stronger, last longer, and are felt over larger areas. Earthquake intensity is a measure of the effects of earthquake ground motions on people and buildings. Earthquake intensity, however, is often more useful than magnitude when discussing the damaging effects of earthquakes. The most common intensity scale is the Modified Mercalli Intensity scale, which ranges from I to XII. **Table 3.6-1** describes the effects of earthquakes and compares the Richter Scale (magnitude) to the Modified Mercalli scale (intensity).

TABLE 3.6-1
MODIFIED MERCALLI INTENSITY SCALE FOR EARTHQUAKES

Richter Magnitude Scale	Modified Mercalli Scale	Effects of Intensity
0.1-0.9	I	Earthquake shaking not felt.
1.0-2.9	II	Shaking felt by those at rest.
3.0-3.9	III	Felt by most people indoors; some can estimate duration of shaking.
4.0-4.5	IV	Felt by most people indoors. Hanging objects rattle, wooden walls, frames creak.
4.6-4.9	V	Felt by everyone indoors; many estimate duration of shaking. Standing autos rock. Crockery clashes, dishes and glasses rattle. Doors open, close, and swing.
5.0-6.4	VII	People frightened and walls unsteady. Pictures and books thrown, dishes/glass are broken. Weak chimneys break. Plaster, loose bricks and parapets fall.
6.5-6.9	VIII	Difficult to stand, waves on ponds, cohesionless soils slump. Stucco and masonry walls fall. Chimneys, stacks, towers, elevated tanks twist and fall.
7.0-7.4	IX	General fright as people are thrown down. Hard to drive, trees broken, damage to foundations and frames. Reservoirs damaged, underground pipelines broken.
7.5-7.9	X	General panic, ground cracks, masonry and frame buildings destroyed. Bridges destroyed, dams, dikes and embankments damaged. Railroads bent.
8.0-8.4	XI	Large landslides, water thrown, general destruction of buildings; pipelines destroyed; railroads bent.
8.5+	XII	Total nearby damage, rock masses displaced. Lines of sight/level distorted. Objects thrown into air.

Source: California Department of Mines and Geology

In addition to the Mercalli Scale, faults are classified according to criteria provided by the California Building Code, as identified in Table 3.6-2.

TABLE 3.6-2
CALIFORNIA BUILDING CODE FAULT CLASSIFICATIONS

Fault type	Characteristics
A	Faults that have a Richter magnitude potential of 7.0 and a slip rate equal to or greater than 5 mm/year. These types of faults are considered to be active and capable of producing large magnitude events. Most segments of the San Andreas Fault are be classified as a Type A fault.
B	All faults that are not Type A or Type C. Includes most of the active faults in California.
C	Faults that have a Richter magnitude potential of less than 6.5 and a slip rate of less than or equal to 2 mm/year. These faults are considered to be sufficiently inactive and not capable of producing large magnitude events such that potential near-source ground shaking effects can be ignored. Most faults outside of California are Type C.

Source: California Building Code

Seismic Ground Shaking

According to the City of Greenfield *General Plan (2005)* there are no known faults within the vicinity of the project site and the impact for surface rupture is considered very low. The nearest fault line to the proposed project site is the Reiliz/Rinconda Fault system approximately five miles to the west. The San Andreas Fault is located approximately 15 miles to the northeast. No known historical earthquakes have occurred on the Reliez/Rinconada fault; however it is considered an "active" fault.

Ground Rupture

Damage resulting from fault rupture occurs normally where structures are located across fault traces that move at the time of an earthquake. The project site is not located within an Alquist-Priolo Earthquake Fault zone. The potential for ground rupture is considered low.

Liquefaction

Potential seismic hazards that may impact the proposed project site include liquefaction and seismic settlement. Considering the depth of the historical high groundwater measured by the Monterey County Water Resources Agency the depth of groundwater encountered at the site by Twining Laboratories and the presence of non-liquefiable clay soil between the depth of 35 and 50 feet below the surface ground, true surface manifestations of liquefaction are not expected to impact the project site.

Landslides

Due to the relatively level topography of the project area, the potential for landslides at the project site is considered to be low.

Soil Related Engineering Constraints

Expansive Soils

Expansive soils experience volumetric changes (shrink/swell) as the moisture content of the clayey soils varies. The shrink/swell cycles can impact foundation and lightly loaded slabs-on-grade when not designed for the anticipated expansive soil pressures. Expansive soils cause more damage to structures, particularly light building and pavements, than any other natural hazard, including earthquakes and floods. Expansion potential may not manifest itself until months or years after construction. Near surface slightly expansive clay soils were encountered across portions of the project site.

The potential for damage to slabs due to expansive soils is usually addressed by placing non-expansive section below slabs-on-grade. Expansive clay soils were generally

encountered within the upper five feet in boring where surface clay soils were encountered.

Corrosion Potential

The risk of corrosion of construction materials relates to the potential for soil-induced reaction. The rate of deterioration depends on soil resistivity, texture acidity, and chemical concentration. According to the geotechnical report the portion of the site that was investigated was found to have "very corrosive" soils.

Erosion Potential

The United States Department of Agriculture Soil Survey of Monterey County, California (1978), identifies native soil in the project site vicinity as Arroyo Seco Gravelly Sandy Loam and Elder Loam Gravelly with zero to two percent slopes, and Cropley Silty Clay, which has minimal soil erosion potential. The majority of the project site consists of Arroyo Seco Gravelly Sandy Loam. These types of soil have slight erosion hazards, low shrink-swell potential, and slow to moderately rapid permeability with moderate to good drainage. There is no evidence onsite of soil erosion, however the potential of soil erosion and the loss of topsoil may occur with the construction of improvements such as buildings, roads, drainage swales and other permanent improvements that would result from the proposed project.

3.6.2 REGULATORY SETTING

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 geological and seismic hazards. The goal of Chapter Eight related to seismic and geologic hazards is to "Protect human life, reduce the potential for serious injury, and minimize the risk of property losses from the effects of earthquakes, including fault rupture, ground shaking, and liquefaction-induced ground failure."

Policy 8.1.1 Existing and new buildings, structures, and walls within the City shall meet minimum seismic safety standards.

Policy 8.1.2 Projects within areas of potential significant seismic activity shall provide detailed geologic, geologic-seismic and soils studies by a Registered Geologist (RG), Certified Engineering Geologist (CEG), and/or Geotechnical Engineer to evaluate geologic-seismic and soils conditions, as well as ground shaking and liquefaction potential.

Policy 8.1.3 The development of structures in areas of high liquefaction potential shall be contingent on geologic and engineering studies which: 1) define and delineate potentially hazardous geologic and/or soils conditions, 2) recommend means of mitigating these adverse conditions; and 3) provide implementation of the mitigation measures.

Policy 8.1.4 All new buildings, structures, and walls shall conform to the latest seismic and geologic safety structural standards of the California Building Code.

Policy 8.1.5 Prohibit the erection of critical structures and facilities whose loss would substantially affect the public safety or the provision of needed services, in areas where there is a high risk of severe damage in the event of an earthquake (due to ground shaking, liquefaction, etc.) unless appropriate engineering and construction practices are applied to ensure structural stability.

Program 8.1.A
Structures intended for human occupancy shall be adequately set back from active and potentially active faults as appropriate. Ensure that minimum setbacks take into account the varying degree of seismic risk and the consequences of failure.

Program 8.1.B
Through the environmental review process, new development shall provide comprehensive geologic, seismic, and/or soils and engineering studies for any critical structure proposed for construction in areas subject to groundshaking, fault displacement, ground failure, or liquefaction.

CALIFORNIA BUILDING CODES

The California Building Code (Title 24) provides standards for testing and building construction as well as safety measures for development within earthquake prone areas.

MONTEREY COUNTY ZONING ORDINANCE

Section 21.66.040 of the Monterey County Zoning Ordinance establishes that development projects located in areas of known geologic hazards are required to submit a geologic report, prepared by a registered geologist, for approval by the Department of Planning and Building Inspection. The report must be consistent with "Guidelines for Geologic/Seismic Reports" of the California Division of Mines and Geology and must include a detailed analysis of the setting and specific development standards to be incorporated into the project's design.

MONTEREY COUNTY GENERAL PLAN

The Monterey County General Plan identifies goals, objectives and policies for seismic and other geologic hazards. The Monterey County General Plan goal is to minimize loss of life,

injury, damage to property, and economic and social dislocations resulting from seismic and other geologic hazards. Objectives and policies 15.1 through 15.5 implement the County's goal to minimize risk associate with seismic and geologic hazards.

3.6.3 PROJECT IMPACTS AND MITIGATION MEASURES

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines and generally accepted standards for environmental documents prepared pursuant to CEQA. For the purposes of this EIR, impacts are considered to be significant if any of the following would result from implementation of the proposed project:

1. Exposure of people or structures to substantial adverse effects, including the risk of loss, injury, or death involving:

    a) Rupture of a known earthquake fault, as delineated on the most recent Aquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault (Refer to Division of Mines and Geology Special Publication 42);

    b) Strong seismic ground shaking;

    c) Seismic-related ground failure, including liquefaction;

    d) Landslides;

Substantial soil erosion or the loss of topsoil;

Destruction or modification of unique geologic features or extensive landform alteration;

Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse;

Be located on expansive soil, as defined in Table 18-1-B of the California Building Code (1994), creating substantial risks to life or property;

Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater; or

Contributes significantly to any cumulative geological, soils or seismicity impact.

METHODOLOGY

The following impact evaluation is based largely upon the findings and recommendations of the Geotechnical Report completed by Twining Laboratories, which is included in the Technical Appendices of this EIR. The geotechnical investigation included soil borings at 18 locations throughout APN 221-011-017. Soils were tested for a range of engineering properties to determine their suitability for the proposed development. The geotechnical report includes general conclusion and recommendations for excavation, grading and treatment of soils to overcome any deficiencies. The City of Greenfield General Plan Chapter 10 Environmental Review was also used to examine the portion of the project site that were not included in Twining Laboratories Geotechnical Report.

PROJECT IMPACTS AND MITIGATION MEASURES

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.

Seismic Ground Shaking

Impact 3.6-1 Future development in the project annexation could expose people and property improvements to ground shaking. This is considered a **potentially significant** impact.

The closest active fault to the site is the Reliez/Rinconada Fault, approximately five miles west of the project site. The San Andreas Fault is located approximately 15 miles to the northeast. No known historical earthquakes have occurred on the Reliez/Rinconada Fault; however it is considered an "active" fault. Severe damage can result from ground rupture along a fault trace or from severe ground shaking for any sustained amount of time. In addition, thick, loose materials tend to amplify and prolong the ground shaking during a seismic event. The alluvial materials located in the Salinas Valley area are more susceptible to prolonged and amplified ground shaking during a seismic event than the bedrock in the uplands. All development will be subject to compliance with the California Building Code. In addition, the following mitigations will be required:

Mitigation Measures

MM 3.6-1a All future development within the APN 221-011-017 shall comply with the recommendations identified in the Geotechnical Report prepared by Twining Laboratories, October 2005, or as required by any subsequent geotechnical report. These recommendations include, but are limited to, the following:

1. All buildings footings should have a minimum depth of 18 inches (24 for a two story building) below rough pad grade or adjacent exterior grade, which ever is lower.

2. Additional borings should be performed and data regarding the proposed structural loads should be provided in buildings at the proposed site. Additional design level geotechnical site investigations are necessary to prepare design level recommendations and to meet individual tenant requirements for geotechnical investigations.

3. All final engineering and improvement plans shall be prepared in accordance with City of Greenfield standards and shall be submitted to the City Engineer and Public Works Director for approval.

MM 3.6-1b As part of any subsequent application for development of APNs 221-011-071, 018 and 221-011-068, the Applicant shall submit a Geotechnical Investigation prepared by a qualified professional for review and approval by the City of Greenfield. The geotechnical report shall include

comprehensive geologic, seismic, and/or soils and engineering evaluations. Recommendations of the report and specific construction performance criteria shall be incorporated into the final building plans, subject to review and approval by the Greenfield Building and Planning Department.

Implementation of the above mitigation measures will reduce the potential impacts of seismic ground shaking to a **less than significant level**, by ensuring compliance with all building standards and engineering recommendations, and requiring preparation of site-specific geotechnical reports and performance criteria for the remaining parcels.

Seismic Ground Failure/Liquefaction

Impact 3.6-2 The seismic hazards of the region give rise to the risk of liquefaction, ground settlement and ground failure. This is a **less than significant** impact.

According to the Geotechnical Investigation completed by Twining Laboratories, the depth of groundwater encountered at the site was between 44 and 49 feet below surface grade, and the historical high groundwater level was 39 feet below surface grade, measured at the site by the Monterey County Water Resources Agency. The presence of non-liquefiable clay soils at the site is between the depths of 35 feet and 50 feet below surface grade. Considering groundwater depth encountered during the geotechnical investigation, true surface manifestations of liquefaction are not expected to impact the portion of the project area investigated.

According to the City of Greenfield General Plan the estimated liquefaction potential for the remaining portion of the proposed project site not investigated in the Geotechnical Report is also considered to be low, and would be expected to have similar geologic characteristics.

A common occurrence during seismic shaking is the induced settlement of loose, unconsolidated sediments. This can occur in unsaturated and saturated granular soils. Based on the data obtained as part of the geotechnical investigation a total seismic settlement of about one-third inch was estimated as a result of shaking from the design basis earthquake. A differential seismic settlement of about one-quarter inch across the building pads should also be anticipated.

The project site is nearly level and with the exception of the man-made agricultural plateaus between agricultural uses and Highway 101, no topographic slope-faces are exposed, therefore, the potential hazard of lateral spreading is considered very low as well. The man-made agricultural plateaus between agricultural uses Elm Street, Third Street and Highway 101 do not pose a significant risk to development of the proposed project site.

Nevertheless, proper engineering measures including but not limited to over-excavation of near surface soils beneath building, exterior slabs and pavements, as identified in the geotechnical report, should be taken. In addition adherence to mitigation measures MM 3.6-1a and MM 3.6-1b, will ensure that the impact remains at a **less than significant** level.

Landslides

The project site and its surroundings are flat and nearly level with slopes ranging between zero and two percent. With the exception of the aforementioned man-made sloped plateaus there are no slopes or mapped landslides in the vicinity that possess significant landslide potential either as a result of strong seismic activity or site construction and there is very low potential for landsliding or slope stability problems. **No impact** is expected.

Soil Erosion/Loss of Topsoil

Impact 3.6-3 Land clearing, grading, excavation, cut and fill operations and any other site preparation activities and installation of impervious surfaces such as pavement areas will increase the risk of soil erosion and loss of topsoil. This impact is considered **potentially significant.**

There is no evidence of significant soil erosion at the project site due primarily to level topography. However, soil erosion and loss of topsoil may occur with the construction of improvements such as buildings, roads, drainage swales and other permanent improvements that would result from the annexation. Heavy earth moving equipment is used for site grading and compaction. In general, grading activities create the potential for increased ground instability and erosion. Grading and other construction-related activities would disturb the soil which could increase soil erosion rates. All disturbed soil is subject to erosion with the amount of erosion dependent on soil type, vegetation cover, slope length and gradient. Some erosion of cuts, fills, roadside drains and downstream areas could occur throughout the lifetime of the project.

Erosion resulting from the project can be successfully controlled and prevented using a variety of methods including implementation of mitigation measure MM 3.8-1a-c, requiring that drainage control plans and retention basin design be submitted for all future development proposals for review and approval by the Public Works Director and City Engineer. Erosion is further controlled through compliance with all existing codes and laws, implementation of all recommendations of the Geotechnical Feasibility Report and implementation of best management practices by future construction contractors on the site. Together, these measures will reduce potential impacts to soil erosion and loss of topsoil to a **less than significant** level.

Expansive Soils

Impact 3.6-4 There is a low, but not necessarily insignificant, potential for soil expansion at the proposed project site, which could result in differential subgrade movements and cracking of foundations. This is a **potentially significant** impact

Expansive soils are subject to shrinking and swelling during seasonal wetting and drying cycles. The shrink/swell cycles can impact foundations and lightly loaded slabs-on-grade when not designed for the anticipated expansive soul pressures. Expansion potential may not manifest itself until months or years after construction. The project area is relatively flat and the soil characteristics for both Arroyo Seco Gravelly Loam and Elder Gravelly Loam include slow runoff, light erosion hazard, low shrink-swell potential, and favorable drainage. A portion of the site includes Cropley Silty Clay soils, which have a high shrink swell potential. The geotechnical investigation indicated that near surface slightly expansive clay soils were encountered across portions of the project site. Mitigation Measure **MM 3.6-1a** would require that the proposed project be designed to comply with the most recent California Building Code and would incorporate the recommendations from the geotechnical investigation into building design. Along with **MM 3.6-1a** the implementation of **MM 3.6-1b** and **MM3.1-1d** requiring a Geotechnical Feasibility Report (and performance criteria) for APN 221-011-068, 018 and 071 would reduce the effects of expansive soils at the project site to a **less than significant** level.

Corrosion / Corrosive Soils

Impact 3.6-5 The project soils are considered to be highly corrosive having the potential for soil-induced chemical reactions, and damaging construction and building materials. This is considered a **potentially significant** impact.

The geotechnical investigation indicated that the rate of deterioration from corrosive soils depends on soil resistivity, texture, acidity, and chemical concentrations. The results of preliminary chemical tests indicate that the soils are considered "very corrosive." The investigation indicated that additional testing should be completed in order to provide general recommendations for corrosion protections. The following mitigation measure should reduce the impact of corrosive soil to a **less than significant** level.

MM 3.6-5 The project applicant shall conduct laboratory testing to determine the range of appropriate corrosion-resistant materials needed for project construction. The applicant shall submit evidence of compliance to the City of Greenfield Building Official prior to issuance of building permits.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

The project will not combine with any other factors or impacts from cumulative projects and, thus, is not significant due to the localized, site-specific nature of geotechnical and seismic impacts. No significant cumulative impacts are predicted relative to geology or geologic hazards. Cumulative development would result in **no cumulative impact.**

REFERENCES/DOCUMENTATION

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

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

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