Holly Sugar Sports Park

Public Draft EIR

August 31, 2009

SCH# 2008122103

Prepared for:

City of Tracy
Department of Development and Engineering Services
333 Civic Center Plaza, Tracy, California 95376

Prepared by:

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

4630 Brand Way, Sacramento, California 95819

PUBLIC DRAFT EIR

FOR THE

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DRAFT EIR

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INTRODUCTION

The City of Tracy (City) has determined that a project-level environmental impact report (EIR) is required for the proposed Holly Sugar Sports Park project (proposed project) pursuant to the requirements of the California Environmental Quality Act (CEQA).

This EIR is a Project EIR as defined in Section 15161 of the State CEQA Guidelines. A Project EIR is an EIR which examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction and operation. The Project EIR approach is appropriate for the Holly Sugar Sports Park project because it allows comprehensive consideration of the reasonably anticipated scope of the project, including development of the future expansion area, as described in greater detail in Section 2.0.

The proposed project encompasses separate phases of park development. In order to move forward with a specific development plan for the future expansion area, the City will be required to prepare a detailed site plan of the area. At that time, the City would prepare a site-specific analysis of the future expansion area's impacts, particularly with respect to that phase's compliance with the analysis set forth in the EIR (State CEQA Guidelines Sections 151662(a)(1).

PROJECT DESCRIPTION

The proposed project consists of the construction and operation of an approximately 298-acre park, which would include an approximately 166-acre active sports park facility, approximately 86 acres of land south of the active sports park for passive recreational uses, and an approximately 46-acre area to the northwest of the active sports park site as a future expansion area.

The proposed project has been designed to address the community's short-, medium-, and long-term needs for youth sports park facilities. The project would be constructed in phases, as described in greater detail below.

ACTIVE SPORTS PARK

The active sports park consists of approximately 166 acres located north of the 86-acre passive recreation area and southeast of the 46-acre future expansion area. The active sports park may ultimately include up to 14 soccer fields of various sizes for various age groups, up to 18 baseball fields of various sizes for various age groups, up to five softball fields of various sizes for various age groups, up to four football fields, and one football/soccer stadium. In addition to the proposed ball fields, the project would include up to four children's play areas. The play areas would include swings, slides, climbing apparatus, and other features commonly found on children's playgrounds. The project site will also include several restroom facilities, concession facilities, bleachers, and parking areas.

PASSIVE RECREATION AREA

The 86-acre passive recreation area to the south of the active sports park site would serve as a buffer between the more developed active park uses and the rural residences to the south of the park site. This area may be used for passive recreational activities including, but not limited to walking and biking trails, bocce ball, disc golf, or an arboretum. No structures or athletic fields are proposed for this area. There is no parking proposed for this area, nor is non-emergency vehicular access proposed.

FUTURE EXPANSION AREA

The 46-acre future expansion parcel to the northwest of the 166-acre active sports park site may be developed in the future as the demand for developed park facilities in the City of Tracy increases. A specific site plan for this area has not been developed, however, the City is currently contemplating several amenities and features that may be suitable for future development within the expansion area.

Refer to Section 2.0, Project Description, for a more complete description of the details of the proposed project.

AREAS OF CONTROVERSY AND ISSUES TO BE RESOLVED

This Draft EIR addresses environmental impacts associated with the proposed Holly Sugar Sports Park project that are known to the City of Tracy, were raised during the Notice of Preparation (NOP) process, or raised during preparation of the Draft EIR. This Draft EIR discusses potentially significant impacts associated with aesthetics, agricultural resources, air quality, biological resources, cultural resources, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, noise, public services, transportation/circulation, and utilities. During the NOP process, the San Joaquin Valley Air Pollution Control District (SJVAPCD) provided recommendations for the preparation of the project's air quality impact analysis, including the discussion of toxic air contaminants, nuisance odors, and impacts related to global climate change. The SJVAPCD also indicated that the project is subject to the requirements of District rule 9510 (indirect source review). San Joaquin County indicated that the project would result in a conversion of agricultural land uses to non-agricultural land uses, and suggested mitigation measures to reduce this impact. Caltrans requested a copy of the Traffic Impact Study (TIS) and provided recommendations regarding the methodology for preparation of the TIS. Caltrans also indicated that any work done within a Caltrans right-of-way would require an encroachment permit. The California Public Utilities Commission (PUC) indicated that the Draft EIR should include an analysis of potential project-related rail safety concerns related to rail crossings on Tracy Boulevard and Corral Hollow Road. The PUC also requested a copy of the Traffic Impact Study for review. The Tracy Fire Department requested a meeting to discuss project impacts prior to completion of the Draft EIR. No other environmental issues were raised in the NOP and associated Initial Study, during the NOP period, including the scoping meetings, or during preparation of the Draft EIR.

ALTERNATIVES TO THE PROPOSED PROJECT

Section 15126.6 of the CEQA Guidelines requires an EIR to describe a reasonable range of alternatives to the project or to the location of the project which would reduce or avoid significant impacts, and which could feasibly accomplish the basic objectives of the proposed project. The alternatives analyzed in this EIR include the following three alternatives in addition to the proposed Holly Sugar Sports Park project.

- No Project Alternative
- Active Sports Park Only Alternative
- Alternative Location Alternative (Alvarez Site)

Alternatives are described in detail in Section 5, Alternatives to the Proposed Project. Table ES-1 summarizes the comparative environmental effects of implementing each alternative. The Active Sports Park Only Alternative is considered the environmentally superior alternative. It is noted that the Active Sports Park Only Alternative would not meet all of the project objectives identified by the City, in that it would not provide for future expansion of the park facility to meet the projected parks needs at a location adjacent to the Holly Sugar Sports Park site.

ES-1: COMPARISON OF ALTERNATIVE PROJECT IMPACTS TO THE PROPOSED PROJECT

ENVIRONMENTAL ISSUE	NO PROJECT ALTERNATIVE	ACTIVE SPORTS PARK ONLY ALTERNATIVE	ALVAREZ SITE ALTERNATIVE
Aesthetics	<	<	<
Agricultural Resources	<	<	<
Air Quality	<	<	<
Biological Resources	<	<	<
Cultural Resources	<	<	<
Geology and Soils	<	<	NC
Hazards and Hazardous Materials	<	NC	>
Hydrology and Water Quality	<	<	<
Land Use & Planning	<	>	NC
Noise	<	<	+/-
Public Services	<	<	<
Transportation and Circulation	<	<	<
Utilities	<	<	<

> = GREATER IMPACT THAN THAT OF THE PROPOSED PROJECT
< = DECREASED IMPACT THAN THAT OF THE PROPOSED PROJECT
+/- = GREATER IMPACT WITH REGARD TO SOME ASPECTS OF IMPACT AND DECREASED IMPACTS IN OTHER ASPECTS
NC = NO SUBSTANTIAL CHANGE IN IMPACT FROM THAT OF THE PROPOSED PROJECT

As shown in the table above, the No Project Alternative is the environmentally superior alternative. However, as required by CEQA, when the No Project Alternative is the environmentally superior alternative, the environmentally superior alternative among the others must be identified. Therefore, the Active Sports Park Only Alternative is the next environmentally superior alternative to the proposed project.

SUMMARY OF IMPACTS AND MITIGATION MEASURES

The environmental impacts of the proposed project, the impact level of significance prior to mitigation, the proposed mitigation measures and/or adopted policies and standard measures that are already in place to mitigate an impact, and the impact level of significance after mitigation are summarized in Table ES-2.

TABLE ES-2: PROJECT IMPACTS AND PROPOSED MITIGATION MEASURES

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
AESTHETICS			
Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas and resources or substantial degradation of visual character.	S	*Mitigation Measure 3.1-1: The City shall install trees, vegetation and other landscaping to shield parking and maintenance areas that are visible from Tracy Boulevard and Corral Hollow Road to shield these uses from the roadways.*	SU
Impact 3.1-2: Project implementation may result in light and glare impacts	S	*Mitigation Measure 3.1-2: A lighting plan shall be prepared prior to the installation of the project's lighting for each phase. The lighting plan shall demonstrate that the stadium and field lighting systems have been designed to minimize light spillage onto adjacent properties to the greatest extent feasible. The lighting plan shall include the following:* • *Design of site lighting and exterior building light fixtures to reduce the effects of light pollution and glare off of glass and metal surfaces;* • *Lighting shall be directed downward and light fixtures shall be shielded to reduce upward and spillover lighting;* • *Where it is not feasible to fully shield light fixtures from light pollution, such as the stadium lights, the lighting shall be directed downward and of the minimum wattage and height suitable for illuminating the playing surfaces and immediately surrounding areas.* • *Lighting for each playfield, parking area, and structure shall have control boxes that allow operation of specific areas of lighting in order to only illuminate the field(s) and parking area(s) in use at any given time.* • *Lights shall be turned off when the fields, parking areas, and structures are not in use.*	SU
AGRICULTURAL RESOURCES			
Impact 3.2-1: Project implementation would	S	*Mitigation Measure 3.2-1: Prior to site grading activities for each phase of project*	SU

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *S – significant* *S – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
result in the conversion of Farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, to non-agricultural uses.		*construction, the City shall determine and pay the appropriate Agricultural Mitigation Fee to offset the loss of Unique Farmland, as specified in Chapter 13.28 of the Tracy Municipal Code.*	
Impact 3.2-2: Project implementation may conflict with existing zoning for agricultural use or a Williamson Act Contract or otherwise result in land use conflicts with adjacent agricultural lands, which may lead to the indirect conversion of agricultural lands to non-agricultural uses.	PS	*Mitigation Measure 3.2-2: The City of Tracy shall enact measures to reduce the potential for park users to enter into the agricultural lands located north of the project site. Such measures may include, but are not limited to:* • *Permanent or temporary barrier fencing;* • *Signage indicating that trespassing is prohibited; or* • *Restricted access to the existing irrigation canals that currently separate the project site from lands to the north.* *Mitigation Measure 3.2-3: The project shall include a 50-foot buffer to physically separate the facility from directly adjacent agricultural uses that may pose compatibility problems for land applications of herbicides and pesticides. The 50-foot buffer shall be measured from the edge of the proposed playing fields within the sports park to the edge of active agricultural operations within the adjacent parcels.* *Mitigation Measure 3.2-4: The City shall coordinate with landowners and operators of adjacent agricultural parcels to ensure that the application of pesticides and fertilizers on adjacent agricultural lands does not occur during the organized use of the Holly Sugar Sports Park. Such coordination measures may include, but are not limited to:* • *The development of a regular timeframe when sports activities are not scheduled to occur, which would be suitable times for the application of pesticides and fertilizers on adjacent properties (i.e. weekday mornings during the non-summer months). This timeframe should be developed cooperatively with adjacent agricultural land owners. Pre-notification to adjacent agricultural operations by phone, mail or email prior to holding organized*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		sporting events. • *The City of Tracy, or operator contracted to operate the sports park facility, should distribute additional notice of scheduled games added during the year that are known in advance.*	
AIR QUALITY			
Impact 3.3-1: Construction of the proposed project would result in temporary dust and vehicle emission impacts in the project vicinity during site preparation and construction activities.	PS	*Mitigation Measure 3.3-1: Prior to the commencement of grading activities, the City shall require the contractor hired to complete the grading activities to prepare a construction emissions reduction plan that meets the requirements of SJVAPCD Rule VIII. The construction emissions reductions plan shall be submitted to the SJVAPCD for review and approval. The City of Tracy shall ensure that all required permits from the SJVAPCD have been issued prior to commencement of grading activities. The construction emissions reduction plan should include the following requirements and measures:* • *Properly and routinely maintain all construction equipment, as recommended by manufacturer's manuals, to control exhaust emissions.* • *Shut down equipment when not in use for extended periods of time, to reduce exhaust emissions associated with idling engines.* • *Encourage ride-sharing and of use transit transportation for construction employees commuting to the project site.* • *Use electric equipment for construction whenever possible in lieu of fossil fuel-powered equipment.* • *Curtail construction during period of high ambient pollutant concentrations.* • *Construction equipment shall operate no longer than eight cumulative hours per day.* • *All construction vehicles shall be equipped with proper emission control equipment and kept in good and proper running order to reduce NOx emissions.* • *On-road and off-road diesel equipment shall use aqueous diesel fuel if*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		permitted under manufacturer's guidelines. • *On-road and off-road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines.* • *On-road and off-road diesel equipment shall use cooled exhaust gas recirculation (EGR) if permitted under manufacturer's guidelines.* • *Use of Caterpillar pre-chamber diesel engines or equivalent shall be utilized if economic and available to reduce NOx emissions.* • *All construction activities within the project site shall be discontinued during the first stage smog alerts.* • *Construction and grading activities shall not be allowed during first stage ozone alerts. (First stage ozone alerts are declared when ozone levels exceed 0.20 ppm for the 1-hour average.)* *Implementation of this mitigation shall occur during all grading or site clearing activities. The SJVAPCD shall be responsible for monitoring.* *Mitigation Measure 3.3-2: The following mitigation measures, in addition to those required under Regulation VIII of the SJVAPCD, shall be implemented by the City's contractor during all phases of project grading and construction to reduce fugitive dust emissions:* • *Water previously disturbed exposed surfaces (soil) a minimum of three-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity.* • *Water all haul roads (unpaved) a minimum of three-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity.* • *All access roads and parking areas shall be covered with asphalt-concrete paving or water sprayed regularly.* • *Dust from all on-site and off-site unpaved access roads shall be effectively*	

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		stabilized by applying water or using a chemical stabilizer or suppressant. • *Reduce speed on unpaved roads to less than 15 miles per hour.* • *Install and maintain a trackout control device that meets the specifications of SJVAPCD Rule 8041 if the site exceeds 150 vehicle trips per day or more than 20 vehicle trips be day by vehicles with three or more axles.* • *Stabilize all disturbed areas, including storage piles, which are not being actively utilized for construction purposes using water, chemical stabilizers or by covering with a tarp, other suitable cover or vegetative ground cover.* • *Control fugitive dust emissions during land clearing, grubbing, scraping, excavation, leveling, grading or cut and fill operations with application of water or by presoaking.* • *When transporting materials offsite, maintain a freeboard limit of at least six inches and over or effectively wet to limit visible dust emissions.* • *Limit and remove the accumulation of mud and/or dirt from adjacent public roadways at the end of each workday. (Use of dry rotary brushes is prohibited except when preceded or accompanied by sufficient wetting to limit visible dust emissions and the use of blowers is expressly forbidden.)* • *Remove visible track-out from the site at the end of each workday.* • *Cease grading activities during periods of high winds (greater than 20 mph over a one-hour period).* • *Asphalt-concrete paving shall comply with SJVAPCD Rule 4641 and restrict use of cutback, slow-sure, and emulsified asphalt paving materials.* *Implementation of this mitigation shall occur during all grading or site clearing activities. The SJVAPCD shall be responsible for monitoring.*	
Impact 3.3-2: Project implementation may conflict with, or obstruct, the applicable air quality plan, cause a violation of air quality standards, contribute substantially to an	PS	*Mitigation Measure 3.3-3: Prior to the award of the contract to construct the project, the City of Tracy shall coordinate with the SJVAPCD to verify that the project meets the requirements of District Rule 9510, which is aimed at the following reductions:*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
existing air quality violation, or result in a cumulatively considerable net increase of a criteria pollutant in a non-attainment area.		• *20 percent of construction-exhaust nitrogen oxides;* • *45 percent of construction-exhaust PM10;* • *33 percent of operational nitrogen oxides over 10 years; and* • *50 percent of operational PM10 over 10 years.* *The City shall coordinate with SJVAPCD to develop measures and strategies to reduce operational emissions from the proposed project. If feasible measures are not available to meet the emissions reductions targets outlined above, then the City may be required to pay an in-lieu mitigation fee to the SJVAPCD to off-set project-related emissions impacts. If in-lieu fees are required, the City shall coordinate with the SJVAPCD to calculate the amount of the fees required to off-set project impacts.*	
Impact 3.3-3: Project implementation may create objectionable odors affecting a substantial number of people.	LS	None required.	--
Impact 3.3-4: Development of the proposed project may expose sensitive receptors to toxic air contaminants.	LS	None required.	--
Impact 3.3-5: Development of the proposed project may result in increases in carbon monoxide concentrations.	LS	None required.	--
Impact 3.3.6 Project implementation could result in cumulative effects on climate change and global warming.	S	*Mitigation Measure 3.3-4: As operation of the Holly Sugar Sports Park commences, the City should assess the demand for a route stop by the City-operated Tracer bus system. The demand for such a route stop should continue to be monitored, until such time that a route stop is considered justified. Once a route stop is justified, the City should arrange for the Holly Sugar Sports Park site to be included as a route stop by the City-operated Tracer bus system. The City shall be responsible for monitoring the implementation of this measure.*	SU

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
BIOLOGICAL RESOURCES			
Impact 3.4-1: Project implementation may result in direct or indirect effects on special-status invertebrate species.	LS	None required.	--
Impact 3.4-2: Project implementation may result in direct or indirect effects on special-status reptile and amphibian species.	LS	None required.	--
Impact 3.4-3: Project implementation may result in direct or indirect effects on special-status bird species.	PS	*Mitigation Measure 3.4-1: The City of Tracy shall comply with measures contained within the SJMSCP and shall consult with SJCOG biologists and the TAC prior to any site disturbing activities. The City shall implement the requirements of the SJMSCP to ensure that impacts to burrowing owls are avoided. The details of the avoidance measures shall be dictated by the TAC, and may include the following:* • *To the extent feasible, construction should be planned to avoid the burrowing owl breeding season.* • *During the non-breeding season (September 1 through January 31) burrowing owls occupying the project site should be evicted from the project site by passive relocation as described in the California Department of Fish and Game's Staff Report on Burrowing Owls (Oct., 1995)* • *During the breeding season (February 1 through August 31) occupied burrows shall not be disturbed and shall be provided with a 75 meter protective buffer until and unless the TAC, with the concurrence of the Permitting Agencies' representatives on the TAC; or unless a qualified biologist approved by the Permitting Agencies verifies through non-invasive means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Once the fledglings are capable of independent survival, the burrow can be destroyed.* *Implementation of this mitigation shall occur prior to grading or site clearing activities. The City of Tracy shall be responsible for monitoring and a qualified biologist shall*	LS

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ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	RESULTING LEVEL OF SIGNIFICANCE
		conduct surveys and relocate owls as required.	
Impact 3.4-4: Project implementation may result in direct or indirect effects on special-status mammal species.	LS	None required.	--
Impact 3.4-5: Project implementation may result in direct or indirect effects on special-status plant species.	PS	*Mitigation Measure 3.4-2: Prior to any activities that would result in disturbance to the irrigation ditches, the City shall consult with the SJCOG TAC to determine the appropriate mitigation measures that must be implemented to comply with requirements of the SJMSCP and avoid impacts to special status plant species. If it is determined that the irrigation ditches contain special status plants that are covered by the SJMSCP, the City shall secure an authorization for an incidental take by remitting all appropriate fees to the San Joaquin Council of Governments and incorporating all Incidental Take Minimization Measures into the project design and construction phase. If it is determined that the irrigation ditches contain special status plants that are not covered by the SJMSCP, the City shall either avoid the project area, or seek consultation with the appropriate regulatory agency (CDFG or USFWS) for the appropriate permits and mitigation measures. If it is determined that the irrigation ditches do not contain special status plants then no additional action is necessary.* *Implementation of this mitigation shall occur prior to grading or site clearing activities. The City of Tracy shall be responsible for monitoring and a qualified botanist shall conduct surveys as required.*	LS
Impact 3.4-6: Project implementation may result in cumulative effects on special-status species.	PS	Implement the biological mitigation measures presented within this EIR and all Incidental Take Minimization Measures required by the SJCOG through the authorization of SJMSCP coverage for the project site.	LS
Impact 3.4-7: Project implementation may result in adverse effects on riparian habitat or sensitive natural community.	LS	None required.	--

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 3.4-8: Project implementation may result in adverse effects on protected wetlands through direct removal, filling, hydrological interruption, or other means.	PS	*Mitigation Measure 3.4-3: Prior to any activities that would result in removal, fill, or hydrologic interruption of the irrigation ditches, a formal wetland delineation shall be performed by a qualified biologist and submitted to the USACE for verification. If the USACE determines that the irrigation ditches are jurisdictional and that the project activities would result in a fill, the City shall secure an authorization of the fill through the Section 404 permit process.* *Mitigation Measure 3.4-4: Prior to any activities that would result in removal, fill, or hydrologic interruption of the irrigation ditches, the City shall consult with the CDFG to determine if the activities are subject to Section 1601 of the Fish and Game Code. If the CDFG determines that the project activities are subject to these regulations, the City shall secure an authorization of the activities through a Streambed Alteration Agreement.*	LS
Impact 3.4-9: Project implementation may result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites.	LS	None required.	--
Impact 3.4-10: Project implementation may conflict with an adopted habitat conservation plan.	PS	Implement Mitigation Measure 3.4-1.	LS
CULTURAL RESOURCES			
Impact 3.5-1: Project implementation may cause a substantial adverse change to a significant historical or archaeological resource, or directly or indirectly destroy or disturb a unique paleontological resource or human remains.	PS	*Mitigation Measure 3.5-1: If any prehistoric or historic artifacts, or other indications of archaeological resources are found during grading and construction activities, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be consulted to evaluate the finds and recommend appropriate mitigation measures.* • *If cultural resources or Native American resources are identified, every effort shall be made to avoid significant cultural resources, with preservation an*	LS

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ENVIRONMENTAL IMPACT	LEVEL OF SIGNIFICANCE WITHOUT MITIGATION	MITIGATION MEASURE	RESULTING LEVEL OF SIGNIFICANCE
		important goal. If significant sites cannot feasibly be avoided, appropriate mitigation measures, such as data recovery excavations or photographic documentation of buildings, shall be undertaken consistent with applicable state and federal regulations. • *If human remains are discovered, all work shall be halted immediately within 50 meters (165 feet) of the discovery, the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.* • *If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.*	
GEOLOGY AND SOILS			
Impact 3.6-1: The proposed project may expose people or structures to potential substantial adverse effects involving strong seismic ground shaking or seismic related ground failure.	LS	None required.	--
Impact 3.6-2: Implementation and construction of the proposed project may result in substantial soil erosion or the loss of topsoil.	LS	None required.	--
Impact 3.6-3: The proposed project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of project implementation, and potentially result in liquefaction.	PS	*Mitigation Measure 3.6-1: In accordance with the California Building Code (Title 24, Part 2) Section 18O4A.3 and A.5, and the requirements of Tracy General Plan Objective SA-1.1, Policy 1, liquefaction and seismic settlement potential shall be addressed in the design level geotechnical engineering investigations. The City's Building Division of the Development and Engineering Services Department shall ensure that all the pertinent sections of the California Building Code shall be adhered to in the construction of*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		buildings and stadiums on site, and that all appropriate measures are implemented in order to reduce the risk of liquefaction and seismic settlement prior to the issuance of a Building Permit.	
Impact 3.6-4: The proposed project would be located on expansive soil creating substantial risks to life or property	PS	*Mitigation Measure 3.6-2: During excavation activities and prior to the placement of fill on the site, a certified geotechnical engineer shall be retained by the City to evaluate subgrade soils for the extent of their expansive potential in areas where buildings or stadium seating are proposed. For areas found to contain soft, potentially expansive clays, the soil shall be removed (i.e., over excavated) and/or stabilized prior to the placement and compaction of fill. Stabilization techniques include, but are not limited to, the placement of 18 inches of ½-inch to ¾-inch crushed rock over stabilization fabric (such as Mirafi 500X or equivalent), placement of larger, angular stabilization rock (1-inch to 3-inch, clean) and use of chemical treatments such as lime to reduce the soil's expansive potential. In addition, building construction alternatives, such as the use of alternative foundation types (i.e., post-tension, piles, etc.) versus end-bearing foundations, shall be considered and implemented where appropriate. Final techniques shall be (a) developed by a certified geotechnical engineer or engineering geologist and (b) reviewed and approved by the City prior to issuance of building permits for each stage of project construction.*	LS
HAZARDS AND HAZARDOUS MATERIALS			
Impact 3.7-1: Project implementation could result in impacts from the transport, use, disposal, release, emission, or handling of hazardous materials, or from being included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5.	PS	*Mitigation Measure 3.7-1: All wells located on the project site shall be properly abandoned under the San Joaquin County guidelines if they will not be used any longer. Prior to any grading activities, the City shall sample and test the soils for possible persistent pesticide residuals.*	LS
Impact 3.7-2: Project implementation could result in impacts to people residing or working on the project site as a result of public airport, public use airport, or private	LS	None required.	--

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
airstrip within two miles.			
Impact 3.7-3: Project implementation could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	No Impact	None required.	--
Impact 3.7-4: Project implementation may expose people or structures to a risk of loss, injury or death from wildland fires.	PS	*Mitigation Measure 3.7-2: The City shall ensure that the Passive Recreation Area is mowed on a regular basis in order to maintain a 4-inch mow-height of the vegetation within 50 feet of the adjacent residential parcels to the south of the project site. The mowing schedule and maintenance of the fire break shall be coordinated with, and approved by the Tracy Fire Department. The City shall also ensure that the Passive Recreation Area remains accessible to emergency vehicles.*	LS
HYDROLOGY AND WATER QUALITY			
Impact 3.8-1: Implementation of the project may significantly increase storm water runoff rates generated within the project site when compared with existing conditions	PS	*Mitigation Measure 3.8-1: Prior to ground disturbing activities, the City of Tracy shall prepare a detailed site drainage and stormwater detention plan. The Plan shall include calculations regarding the anticipated volume of stormwater runoff generated by the project, and shall include plans for the retention/detention of stormwater runoff on the project site. Calculations shall be consistent with the current version of the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment. The stormwater detention facilities shall be designed with adequate capacity to ensure that that stormwater generated on the project site during a peak storm event is retained at a rate that will ensure that discharges from the site do not exceed pre-construction levels. All detention facilities shall be developed in conformance with the City's standards, including the standards identified in the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment. The Plans and Specifications of the proposed retention facilities should meet the standards of the City of Tracy Development and Engineering Services Department as an adequate engineering product.* *The construction of stormwater detention facilities may be phased to correspond with development of the project site over time, provided that adequate detention is provided*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		at all times to ensure that runoff from the site does not exceed pre-construction levels.	

Impact 3.8-2: Implementation of the project would introduce constituents and pollutants typically associated with urban development into storm water runoff generated within the project site, which may impact surface water quality in the project area.	PS	*Mitigation Measure 3.8-2: Construction: The City shall ensure that the development of the project site shall incorporate the construction of one or more on-site retention basins to capture site runoff in conformance with City Design Standards as described in MM 3.8-1. In addition, site construction and maintenance practices shall adhere to any and all applicable provisions and ordinances resulting from the City's implementation of its SWMP, to the extent to which they exist at the time of construction and/or maintenance activities. The following list is intended as an outline summary and the City may impose additional requirements:*
		• *Non-Structural BMPs*
		  • *Minimizing Disturbance*
		  • *Preserving Natural Vegetation (where possible)*
		  • *Good Housekeeping, e.g., daily clean-up of construction site*
		• *Structural BMPs*
		  • *Erosion Controls*
		  • *Mulch*
		  • *Grass*
		  • *Stockpile Covers*
		  • *Sediment Controls*
		  • *Silt Fence*
		  • *Inlet Protection*
		  • *Check Dams*
		  • *Stabilized Construction Entrances*
		  • *Sediment Traps*
			LS

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		Mitigation Measure 3.8-3: Post-Construction: The project shall prepare a Storm Water Pollution Prevention Plan (SWPPP) that includes specific types and sources of stormwater pollutants, determine the location and nature of potential impacts, and specify appropriate control measures to eliminate any potentially significant impacts on receiving water quality from stormwater runoff. The SWPPP shall require treatment BMPs that incorporate, at a minimum, the required hydraulic sizing design criteria for volume and flow to treat projected stormwater runoff. The SWPPP shall comply with the most current standards established by the Central Valley RWQCB. Best Management Practices shall be selected from the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment according to site requirements and shall be subject to approval by the City Engineer and Central Valley RWQCB. *At least 85 to 90 percent of annual average stormwater runoff from the site shall be treated per the standards in the 1003 California Stormwater Best Management Practice New Development and Redevelopment Handbook. Drainage from all paved surfaces, including streets, parking lots, driveways, and roofs shall be routed either through swales, buffer strips, or sand filters or treated with a filtering system prior to discharge to the storm drain system. Landscaping shall be designed to effect some treatment, along with the use of a Stormwater Management filter to permanently sequester hydrocarbons, if necessary. Roofs shall be designed with down spouting into landscaped areas, bubbleups, or trenches. Driveways shall be curbed into landscaping so runoff drains first into the landscaping. Permeable pavers and pavement shall be utilized to construct the facilities, where appropriate.* *Mitigation Measure 3.8-4: Post-Construction: :After project completion, the City or successor shall properly maintain parking lots and other paved areas, by sweeping or other appropriate means, to prevent the majority of litter from washing into storm drains.*	
Impact 3.8-3: Implementation of the project would place new structures within the 100-year floodplain.	PS	*Mitigation Measure 3.8-5: Design of the project shall be consistent with the requirements of Chapter 9.52, Floodplain Regulations, of the Municipal Ordinance. Project design is anticipated to include the following:*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
		• *All structures are required to be one foot above the base flood as determined by the appropriate FEMA FIRM Map.* • *Soils suitable for building pad construction (as determined by a qualified engineer), shall be imported to the project site as-needed in order to ensure that all building and structure pads are elevated to levels necessary to meet City requirements.*	
Impact 3.8.4: Implementation of the project may result in impacts to groundwater supplies or interfere with groundwater recharge.	LS	None required.	--
Impact 3.8.5: Implementation of the project may expose people or structures at risk as a result of dam failure.	LS	None required.	--
LAND USE AND POPULATION			
Impact 3.9-1: Implementation of the proposed project may conflict with and applicable land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect.	LS	None required.	--
Impact 3.9-2 Implementation of the proposed project may conflict with an applicable habitat conservation plan or natural community conservation plan.	LS	None required.	--
NOISE			
Impact 3.10-1: Short-term construction-generated noise levels associated with the proposed project could result in a substantial temporary increase in ambient noise levels at	PS	*Mitigation Measure 3.10-1: The following mitigation measures shall be implemented:* *a) Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the hours of 7:00*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
nearby noise-sensitive land uses. Short-term increases in ambient noise levels may result in increased levels of annoyance and activity interference at nearby noise-sensitive land uses.		*a.m. and 7:00 p.m. Construction activities shall be prohibited on Sundays and federal holidays.* *b) Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.* *c) Construction equipment staging areas shall be located at the furthest distance possible from nearby noise-sensitive land uses.*	
Impact 3.10-2: Noise associated with the proposed onsite recreational uses would exceed applicable noise standards at nearby residential land uses.	S	*Mitigation Measure 3.10-2: The following mitigation measures shall be implemented:* *a) Prior to the issuance of an electrical permit for an public address systems proposed for playing fields within the project site, the City of Tracy shall test the sound system to ensure that it does not generate noise levels in excess of 75dB Leq at the property lines.* *b) Onsite exterior recreational activities shall be limited to between the hours of 7:00 a.m. and 10:00 p.m.* *c) Landscape maintenance activities shall be limited to between the hours of 7:00 a.m. and 10:00 p.m., Monday through Saturday. Landscape maintenance activities shall be prohibited on Sundays and federal holidays.*	SU
Impact 3.10-3: Implementation of the proposed project would result in a significant increase in traffic noise levels.	S	Implement MM 3.10-2c.	SU
Impact 3.10-4: Exposure to ground-borne vibration levels would not exceed applicable groundborne vibration criterion at nearby existing or proposed land uses.	LS	None required.	--
Impact 3.10-5: Projected on-site transportation noise levels at proposed on-site	PS	*Mitigation Measure 3.10-5: The following mitigation measures shall be implemented:*	LS

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recreational uses would not exceed the City's "normally acceptable" noise exposure standards for land use compatibility. However, depending on final site design of the proposed future expansion area, it is conceivable that noise sensitive land uses, such as a potential library, could be located within the projected future 60 dBA CNEL/L_{dn} noise contour of Corral Hollow Road, which would exceed the City's "normally acceptable" noise criteria for land use compatibility.		*a) Noise sensitive uses, such as a library, shall be located in excess of 70 feet from the roadway centerline of Corral Hollow Road; or,* *b) Future noise sensitive land uses, such as a library, shall be designed to ensure that predicted background interior noise levels would not exceed a "normally acceptable" interior noise level of 45 dBA CNEL/L_{dn}.*	
Impact 3.10-6: Implementation of the proposed project would result in a significant contribution to cumulative noise levels at nearby land uses.	S	Implement MM 3.10-2c.	SU
PUBLIC SERVICES			
Impact 3.11-1: Implementation of the proposed project would not result in impacts to fire protection services and would not require the construction of new fire protection facilities.	PS	*Mitigation Measure 3.11-1: Prior to City approval of the final infrastructure plans and construction documents for the Holly Sugar Sports Park, the City shall include the location and specifications of all fire hydrants, to the satisfaction of the Tracy Fire Department. The final infrastructure plans and construction documents for the project shall include hydrants with adequate fire-flow that are spaced appropriately throughout the project site, to the satisfaction of the Tracy Fire Department.*	LS
Impact 3.11-2: Implementation of the proposed project would not result in impacts to police protection services and would not require the construction of new police protection facilities.	LS	None required.	--

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TRANSPORTATION AND CIRCULATION			
Impact 3.12-1: Project implementation would result in unacceptable levels of service at the intersection of Larch Road/Corral Hollow Road (Intersection #1).	S	*Mitigation Measure 3.12-1: The following mitigation measures would improve operations at the Larch Road/Corral Hollow Road intersection to an acceptable level:* • *Widen the westbound approach to provide a shared left-turn/through lane and a right-turn lane. Or* • *Install traffic signal. Optimize signal timings to allow for split eastbound and westbound signal phasing. An evaluation of all applicable signal traffic warrants should be conducted and additional factors (e.g., congestion, approach conditions, driver confusion) should be considered before the decision to install a signal is made.* *The study intersection is under San Joaquin County jurisdiction. The City of Tracy would be responsible for the intersection improvement, acquisition of right-of-way, , and the construction. However, the County of San Joaquin would need to approve the design and construction of proposed intersection improvements.*	SU
Impact 3.12-2: Project implementation would result in unacceptable levels of service at the intersection of Larch Road/Tracy Boulevard (Intersection #4).	S	*Mitigation Measure 3.12-2: The following mitigation measures would improve operations at the Larch Road/Tracy Boulevard intersection to an acceptable level:* • *Install traffic signal and optimize signal timings during the PM and Saturday peak hour. Optimization of traffic signal timings shall include determination of green time allocation for each intersection approach relative to the approach traffic volumes.* *The study intersection is partially under San Joaquin County jurisdiction. The City of Tracy would be responsible for the intersection improvement, acquisition of right-of-way, and the construction. However, the County of San Joaquin would need to approve the design and construction of proposed intersection improvements.*	SU
Impact 3.12-3: Project implementation would add traffic to three intersections currently operating at unacceptable levels of service.	LS	None required.	--

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Impact 3.12-4: Project phasing may result in operational impacts to the surrounding roadway network under near-term (2015) conditions.	LS	None required.	--
Impact 3.12-5: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of Larch Road/Corral Hollow Road (Intersection #1).	S	*Mitigation Measure 3.12-5: The following mitigation measures would improve operations at the Larch Road/Corral Hollow Road intersection to an acceptable level:* • *Provide intersection improvements needed to accommodate cumulative background growth; these improvements are listed in Table 3.12-17. The addition of project traffic would not require additional improvements, aside from those listed in Table 3.12-17, to meet the LOS D standard.*	SU

Impact 3.12-6: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of Larch Road/Tracy Boulevard (Intersection #4).	S	*Mitigation Measure 3.12-6: The following mitigation measures would improve operations at the Larch Road/Tracy Boulevard intersection to an acceptable level:*
		• *Provide intersection improvements needed to accommodate cumulative background growth; these improvements are listed in Table 3.12-17. The addition of project traffic would require additional improvements, aside from those listed in Table 3.12-17, to meet the LOS D standard:*
		  ○ *Widen the eastbound approach to provide one left-turn lane, two through lanes with a 400 foot receiving/acceleration lane on eastbound Larch Road, and a free-right turn lane.*
		  ○ *Widen the northbound approach to provide two left-turn lanes, two through lanes with a 400 foot receiving/acceleration lane on northbound Tracy Boulevard, and a right-turn lane.*
		  ○ *Optimize signal timings.*
			SU

Impact 3.12-7: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of I-205 Westbound Ramps/Tracy	PS	*Mitigation Measure 3.12-7: The following mitigation measures would improve operations at the I-205 westbound Ramps/Tracy Boulevard intersection to an acceptable level:* • *Widen northbound approach to provide a second left-turn lane*	LS

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Boulevard (Intersection #5).		• *Widen westbound approach to provide one left-turn lane, one shared through/left-turn lane, and one free right-turn lane*	
Impact 3.12-8: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the I-205 Eastbound Ramps/Tracy Boulevard (Intersection #6).	PS	*Mitigation Measure 3.12-8: The following mitigation measures would improve operations at the I-205 eastbound Ramps/Tracy Boulevard intersection to an acceptable level:* • *Widen northbound approach to provide a two through lanes and a right-turn lane* • *Widen southbound approach to provide two through lanes and two left-turn lanes* • *Widen eastbound approach to provide one left-turn lane, one shared right-through lane, and one right-turn lane*	LS
Impact 3.12-9: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of Larch Road/Holly Drive (Intersection #8).	PS	*Mitigation Measure 3.12-9: The following mitigation measures would improve operations at the Larch Road/Holly Drive intersection to an acceptable level:* • *Install traffic signal and optimize signal timings during the PM and Saturday peak hour. Optimization of traffic signal timings shall include determination of green time allocation for each intersection approach relative to the approach traffic volumes.*	LS
Impact 3.12-10: Under cumulative conditions project implementation would contribute to unacceptable levels of service at three additional intersections.	LS	None required.	--
Impact 3.12-11: Under cumulative conditions project implementation would contribute to unacceptable levels of service on two freeway segments.	LS	None required.	--
Impact 3.12-12: The proposed site access	LS	None required.	--

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ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
alignment would not result in significant vehicular hazards or unacceptable intersection operations.			
Impact 3.12-13: The proposed site access alignment would provide for adequate emergency vehicle access.	LS	None required.	--
Impact 3.12-14: The proposed project does not include plans for pedestrian and bicycle access.	PS	*Mitigation Measure 3.12-14: The following mitigation measures would improve pedestrian and bicycle access to the project site:* • *When roadway improvements are made to the frontage on Tracy Boulevard and Corral Hollow that extend to Larch Road, the City shall provide sidewalks along project site as funding becomes available. In addition, pedestrian access points that provide direct access to the active sports park, future expansion area, and the passive-recreation area should be provided on Tracy Boulevard and Corral Hollow Road.* • *The City shall provide a Class III bike route along Tracy Boulevard that would connect to the planned Class III bike route at Clover Road when that bike route is constructed in the future. The recommended Class III route would also provide access to the existing Class III route on Larch Road, east of Tracy Boulevard.* • *The City shall provide bicycle parking spaces at each of the surface parking lots that equate to five percent of the number of provided vehicle parking spaces. Overall, the site should provide a total of at least 147 bicycle parking spaces. Bicycle parking stalls should conform to City Code design standards and should be located near the sport field facilities.*	LS
Impact 3.12-15: The proposed project includes adequate parking to meet projected peak Saturday demand.	LS	None required.	--
Impact 3.12-16: Construction traffic may	PS	*Mitigation Measure 3.12-16: The following mitigation measures would reduce impacts*	LS

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PS – potentially significant *S – significant* *S – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
result in temporary impacts to roadway and intersection operations.		*from construction related traffic:* *The City shall require the preparation and implementation of construction traffic management plans for the proposed project. The construction traffic management plans should include the following items:* • *A map documenting material and equipment staging and storage locations for all phases of construction* • *A map documenting worker parking locations for all phases of construction* • *A construction schedule that outlines days and hours of construction to limit noise impacts* • *Signage plans relating to any temporary lane closures on public streets* • *Notification procedures for adjacent businesses, residents, and public safety personnel for all major deliveries, detours, and street closures that will affect traffic in the vicinity of the development* • *Provisions for monitoring surface streets designated as truck routes so that any damage and debris attributed to the trucks can be identified and corrected* • *Signage plans documenting any detours for bicycle and pedestrian traffic* *Additionally, all staging and parking related to construction shall take place on-site. The City should also water down the site to reduce dust due to construction vehicles. The City will develop a construction management plan prior to any construction activities on-site.*	
UTILITIES			
Impact 3.13-1: The project would generate wastewater that would be conveyed and treated at an existing wastewater treatment plant.	LS	None required.	--

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *S – significant* *S – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 3.13-2: Under cumulative conditions the project would require the conveyance and treatment of additional wastewater.	LS	None required.	--
Impact 3.13-3: The Project would result in the construction of storm drainage facilities.	LS	None required.	--
Impact 3.13-4: The project would be served by a landfill for solid waste disposal needs and will require compliance with various laws and regulations.	LS	None required.	--
Impact 3.13-5: The project would be adequately served by existing water supply sources under existing and cumulative conditions.	LS	None required.	--
OTHER CEQA-REQUIRED TOPICS			
Impact 4.1: Cumulative Degradation of the Existing Visual Character of the Region.	C	Implement MM 3.1-2.	CC and SU
Impact 4.2: Cumulative Impact on Agricultural Land and Uses.	C	Implement MM 3.1-2.	CC and SU
Impact 4.3: Cumulative Impact on the Region's Air Quality.	C	Implement MM 3.3-3.	LCC
Impact 4.4: Increased Project-Related Greenhouse Gas Emissions May Contribute to Climate Change.	S	Implement MM 3.3-4.	SU

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *S – significant* *S – significant and unavoidable*

ENVIRONMENTAL IMPACT	*LEVEL OF SIGNIFICANCE WITHOUT MITIGATION*	*MITIGATION MEASURE*	*RESULTING LEVEL OF SIGNIFICANCE*
Impact 4.5: Cumulative Loss of Biological Resources Including Habitats and Special Status Species.	LCC	None required.	--
Impact 4.6: Cumulative Impacts on Known and Undiscovered Cultural Resources.	LCC	None required.	--
Impact 4.7: Cumulative Impact on Geologic and Soils Characteristics.	LCC	None required.	--
Impact 4.8: Cumulative Impact Related to Hazards and Hazardous Materials.	LCC	None required.	--
Impact 4.9: Cumulative Impact on Communities and Local Land Uses.	LCC	None required.	--
Impact 4.10: Cumulative Exposure of Existing and Future Noise- Sensitive Land Uses to Increased Noise Resulting from Cumulative Development.	C	None available.	CC and SU
Impact 4.11: Cumulative Impact on Public Services.	LCC	None required.	--
Impact 4.12: Cumulative Impact on the Transportation Network.	C	None available.	CC and SU
Impact 4.13: Cumulative Impact on Utilities.	LCC	None required.	--

CC – cumulatively considerable *LCC – less than cumulatively considerable* *LS – less than significant*

PS – potentially significant *S – significant* *S – significant and unavoidable*

This section summarizes the purpose of the Environmental Impact Report (EIR) for the Holly Sugar Sports Park by the City of Tracy (City) (the "project"). The following discussion addresses the environmental procedures that are to be followed according to State law, the intended uses of the EIR, the project's relationship to the City's General Plan, the EIR scope and organization, and a summary of the agency and public comments received during the public review period for the Initial Study/Notice of Preparation (IS/NOP).

1.1 PURPOSE AND INTENDED USES OF THE EIR

The City of Tracy, as lead agency, determined that the proposed Holly Sugar Sports Park is a "project" within the definition of CEQA. CEQA requires the preparation of an environmental impact report prior to approving any project, which may have a significant impact on the environment. For the purposes of CEQA, the term "project" refers to the whole of an action, which has the potential for resulting in a direct physical change or a reasonably foreseeable indirect physical change in the environment (CEQA Guidelines Section 15378[a]).

An EIR must disclose the expected environmental impacts, including impacts that cannot be avoided, growth-inducing effects, impacts found not to be significant, and significant cumulative impacts, as well as identify mitigation measures and alternatives to the proposed project that could reduce or avoid its adverse environmental impacts. CEQA requires government agencies to consider and, where feasible, minimize environmental impacts of proposed development, and an obligation to balance a variety of public objectives, including economic, environmental, and social factors.

The City of Tracy, as the lead agency, has prepared this Draft EIR to provide the public and responsible and trustee agencies with an objective analysis of the potential environmental impacts resulting from construction and operation of the Holly Sugar Sports Park. The environmental review process enables interested parties to evaluate the proposed project in terms of its environmental consequences, to examine and recommend methods to eliminate or reduce potential adverse impacts, and to consider a reasonable range of alternatives to the project. While CEQA requires that consideration be given to avoiding adverse environmental effects, the lead agency must balance adverse environmental effects against other public objectives, including the economic and social benefits of a project, in determining whether a project should be approved.

This EIR will be used by the City to determine whether to approve, modify, or deny the Holly Sugar Sports Park project and associated approvals in light of the project's environmental effects. The EIR will be used as the primary environmental document to evaluate all subsequent park site improvements and permitting actions associated with the Holly Sugar Sports Park project. Subsequent actions that may be associated with the project are identified in Chapter 2.0, Project Description.

1.2 TYPE OF EIR

This EIR is a Project EIR as defined in Section 15161 of the State CEQA Guidelines. A Project EIR is an EIR which examines the environmental impacts of a specific development project. This type of EIR should focus primarily on the changes in the environment that would result from the development project. The EIR shall examine all phases of the project including planning, construction and operation. The Project EIR approach is appropriate for the Holly Sugar Sports Park project because it allows comprehensive consideration of the reasonably anticipated scope of the project, including development of the future expansion area, as described in greater detail in Section 2.0.

The proposed project encompasses separate phases of park development. In order to move forward with a specific development plan for the future expansion area, the City will be required to prepare a detailed site plan of the area. At that time, the City would prepare a site-specific analysis of the future expansion area's impacts, particularly with respect to that phase's compliance with the analysis set forth in the EIR (State CEQA Guidelines Sections 151662(a)(1)).

As stated in State CEQA Guidelines Section 15162(a)(1), *"When an EIR has been certified or negative declaration adopted for a project, no subsequent EIR shall be prepared for that project unless the lead agency determines, on the basis of substantial evidence in light of the whole record, one or more of the following:*

> *(1) Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;"*

Additional environmental review under CEQA may be required and would be generally based on the future expansion area's consistency with the analysis in this EIR, as required under CEQA. If the improvements or activities would have no effects beyond those disclosed in this EIR, no further CEQA compliance would be required.

1.3 KNOWN RESPONSIBLE AND TRUSTEE AGENCIES

The term "Responsible Agency" includes all public agencies other than the Lead Agency that have discretionary approval power over the project or an aspect of the project (CEQA Guidelines Section 15381). For the purpose of CEQA, a "Trustee" agency has jurisdiction by law over natural resources that are held in trust for the people of the State of California (CEQA Guidelines Section 15386).

The San Joaquin Local Agency Formation Commission (LAFCO) and San Joaquin Council of Governments (SJCOG) are responsible agencies for this project. The City is proposing to annex the project site into the City limits, an action that requires LAFCO approval. This EIR will serve as the environmental compliance document for this contemplated LAFCO approval. The City also requested that SJCOG approve the project's inclusion in the San Joaquin County Multi-Species

Habitat Conservation and Open Space Plan (SJMSCP). The SJCOG Board approved the project's inclusion in the SJMSCP on July 23, 2009.

The following agencies are considered trustee agencies for this project, and may be required to issue permits or approve certain aspects of the proposed project:

- Central Valley Regional Water Quality Control Board (CVRWQCB) - Storm Water Pollution Prevention Plan (SWPPP) approval prior to construction activities.
- San Joaquin Valley Air Pollution Control District (SJVAPCD) - Approval of construction-related air quality permits.

1.4 ENVIRONMENTAL REVIEW PROCESS

The review and certification process for the EIR has involved, or will involve, the following general procedural steps:

NOTICE OF PREPARATION AND INITIAL STUDY

The City circulated a Notice of Preparation (NOP) of an EIR for the proposed project and an Initial Study on December 29, 2008 to trustee and responsible agencies, the State Clearinghouse, and the public. A public scoping meeting was held on January 15, 2009. Concerns raised in response to the NOP were considered during preparation of the Draft EIR. The NOP, Initial Study (IS), and responses to the NOP by interested parties are presented in **Appendix A**. A summary of the comment letters received on the NOP/IS is presented below.

DRAFT EIR

This document constitutes the Draft EIR. The Draft EIR contains a description of the project, description of the environmental setting, identification of project impacts, and mitigation measures for impacts found to be significant, as well as an analysis of project alternatives, identification of significant irreversible environmental changes, growth-inducing impacts, and cumulative impacts. This Draft EIR identifies issues determined to have no impact or a less than significant impact, and provides detailed analysis of potentially significant and significant impacts. Comments received in response to the NOP were considered in preparing the analysis in this EIR. Upon completion of the Draft EIR, the City will file the Notice of Completion (NOC) with the State Clearinghouse of the Governor's Office of Planning and Research to begin the public review period.

PUBLIC NOTICE/PUBLIC REVIEW

Concurrent with the NOC, the City will provide a public notice of availability for the Draft EIR, and invite comment from the general public, agencies, organizations, and other interested parties. Consistent with CEQA, the review period for this Draft EIR is forty-five (45) days. Public comment on the Draft EIR will be accepted both in written form and oral form. All comments or questions regarding the Draft EIR should be addressed to:

Scott Claar, Associate Planner
City of Tracy
333 Civic Center Plaza
Tracy, CA 95376
(209) 831-6400

RESPONSE TO COMMENTS/FINAL EIR

Following the public review period, a Final EIR will be prepared. The Final EIR will respond to written comments received during the public review period and to oral comments received at a public hearing during such review period.

CERTIFICATION OF THE EIR/PROJECT CONSIDERATION

The City will review and consider the Final EIR. If the City finds that the Final EIR is "adequate and complete", the City Council may certify the Final EIR in accordance with CEQA. The rule of adequacy generally holds that an EIR can be certified if:

1) The EIR shows a good faith effort at full disclosure of environmental information; and

2) The EIR provides sufficient analysis to allow decisions to be made regarding the proposed project in contemplation of environmental considerations.

Following review and consideration of the Final EIR, the City may take action to approve, modify, or reject the project. A Mitigation Monitoring Program, as described below, would also be adopted in accordance with Public Resources Code Section 21081.6(a) and CEQA Guidelines Section 15097 for mitigation measures that have been incorporated into or imposed upon the project to reduce or avoid significant effects on the environment. This Mitigation Monitoring Program will be designed to ensure that these measures are carried out during project implementation, in a manner that is consistent with the EIR.

1.5 ORGANIZATION AND SCOPE

Sections 15122 through 15132 of the State 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. Discussion of the environmental issues addressed in the Draft EIR was established through review of environmental and planning documentation developed for the project, environmental and planning documentation prepared for recent projects located within the City of Tracy, and responses to the Notice of Preparation (NOP).

This Draft EIR is organized in the following manner:

EXECUTIVE SUMMARY

This Executive Summary summarizes the characteristics of the proposed project, known areas of controversy and issues to be resolved, and provides a concise summary matrix of the project's environmental impacts and possible mitigation measures. This chapter identifies alternatives that reduce or avoid at least one significant environmental effect of the proposed project.

CHAPTER 1.0 – INTRODUCTION

Chapter 1.0 briefly describes the purpose of the environmental evaluation, identifies the lead, trustee, and responsible agencies, summarizes the process associated with preparation and certification of an EIR, identifies the scope and organization of the Draft EIR, and summarizes comments received on the NOP.

CHAPTER 2.0 – PROJECT DESCRIPTION

Chapter 2 provides a detailed description of the proposed project, including the location, intended objectives, background information, the physical and technical characteristics, including the decisions subject to CEQA, subsequent projects and activities, and a list of related agency action requirements.

CHAPTER 3.0 - ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

Chapter 3.0 contains an analysis of environmental topic areas as identified below. Each subchapter addressing a topical area is organized as follows:

Environmental Setting. A description of the existing environment as it pertains to the topical area.

Regulatory Setting. A description of the regulatory environment that may be applicable to the project.

Impacts and Mitigation Measures. Identification of the thresholds of significance by which impacts are determined, a description of project-related impacts associated with the environmental topic, identification of appropriate mitigation measures, and a conclusion as to the significance of each impact.

The following environmental topics are addressed in this section:

- Aesthetics
- Agricultural Resources
- Air Quality and Climate Change
- Biological Resources
- Cultural Resources
- Geology and Soils

- Hazards and Hazardous Materials
- Hydrology and Water Quality
- Land Use
- Noise
- Public Services
- Transportation and Circulation
- Utilities

The Initial Study determined that there would be no impact or a less-than-significant impact to the following environmental issue areas: mineral resources, population and housing, and recreation. These issues are not discussed in Chapter 3; the basis for the no impact or less than significant determination for each of these topics is described in the Initial Study (**Appendix A**).

CHAPTER 4.0 – OTHER CEQA-REQUIRED TOPICS

Chapter 4.0 evaluates and describes the following CEQA required topics: impacts considered less-than-significant, significant and irreversible impacts, growth-inducing effects, cumulative, and significant and unavoidable environmental effects.

CHAPTER 5.0 - ALTERNATIVES TO THE PROJECT

State 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 any significant environmental effects of the project. Chapter 4 provides a comparative analysis between the merits of the project and the selected alternatives.

CHAPTER 6 - REPORT PREPARERS

This section lists all authors and agencies that assisted in the preparation of the EIR, by name, title, and company or agency affiliation.

APPENDICES

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

1.6 COMMENTS RECEIVED ON THE NOTICE OF PREPARATION

The City received five comment letters on the NOP for the Holly Sugar Sports Park Draft EIR. A copy of each letter is provided in **Appendix A** of this Draft EIR and the comments are summarized below. The City also held a public scoping meeting on January 15, 2009. The transcript summary from this meeting is provided in **Appendix A**.

City of Tracy Fire Department. The Tracy Fire Department requested a meeting to discuss project impacts prior to completion of the Draft EIR.

California Public Utilities Commission (PUC). The PUC indicated that the Draft EIR should include an analysis of potential project-related rail safety concerns related to rail crossings on Tracy Boulevard and Corral Hollow Road. The PUC also requested a copy of the Traffic Impact Study for review.

California Department of Transportation (Caltrans). Caltrans requested a copy of the Traffic Impact Study (TIS) and provided recommendations regarding the methodology for preparation of the TIS. Caltrans also indicated that any work done within a Caltrans right-of-way would require an encroachment permit.

San Joaquin County Community Development Department (County). The County indicated that the project would result in a conversion of agricultural land uses to non-agricultural land uses, and that the project is subject to the County's Agricultural Mitigation Ordinance.

San Joaquin Valley Air Pollution Control District (SJVAPCD). The SJVAPCD provided recommendations for the preparation of the project's air quality impact analysis, including the discussion of toxic air contaminants, nuisance odors, and impacts related to global climate change. The SJVAPCD also indicated that the project is subject to the requirements of District rule 9510 (indirect source review).

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The proposed project consists of the construction and operation of an approximately 298-acre park, which would include an approximately 166-acre active sports park facility, approximately 86 acres of land for passive recreational uses, and an approximately 46-acre future expansion area, as shown in Figure 2-3.

Figures referenced throughout this section are located at the end of the section.

2.1 PROJECT LOCATION AND ENVIRONMENTAL SETTING

REGIONAL LOCATION

The project site is located in San Joaquin County, immediately north of the City limits of Tracy, but within the City's Sphere of Influence as shown in Figures 2-1 and 2-2.

The project site consists of approximately 298 acres of land located between Tracy Boulevard and Corral Hollow Road north of Larch Road, and south of Sugar Road (APN: 212-15-001). The City owns approximately 1,200 acres of property, including the project site, north of the Larch Road developments between Corral Hollow Road and Tracy Boulevard and generally between Corral Hollow Road, Holly Road and Sugar Cut, north of Arbor Road, as shown in Figure 2-3.

PROJECT SITE

The project site is currently undeveloped and is used for agricultural purposes. There are several irrigation canals that traverse the project site which are currently used to convey non-potable water to the site and the surrounding properties. Currently, the site is farmed with alfalfa. Irrigation for this agricultural operation is pumped from Sugar Cut Slough and then flows on and through the site via drainage ditches.

The western portion of the project site is traversed by PG&E power transmission lines with towers, and a 12-inch diameter underground PG&E gas pipeline. The project site is essentially flat, and is void of native vegetation, landscaping, and trees. There are no homes or buildings located on the project site.

The project site is currently designated as Agricultural (AG) land by both the City of Tracy General Plan Land Use Designations Map and the San Joaquin County General Plan Land Use Designations Map. The County zoning designation for the project site is Agriculture (AG-40). The project site does not have an assigned zoning designation from the City of Tracy, as the project site is currently located outside of the City limits. As part of the project approval process, the City is proposing to change the site's General Plan Land Use Designation to Parks (P). The City is also proposing to rezone the site to Parks (P) upon annexation of the site into the City of Tracy.

SURROUNDING LAND USES

Lands to the north, west and east of the project site are agricultural lands with a few scattered residences, and are designated as Agricultural (AG) land by both the City of Tracy General Plan Land Use Designations Map and the San Joaquin County General Plan Land Use Designations Map.

Land to the south of the project site is developed with rural residential uses. The surrounding land use designations are shown in Figure 3.9-1.

2.2 PROJECT BACKGROUND

In late 2002, the City of Tracy and the Youth Sports Association of Tracy (YSAT) began meeting to identify a site to accommodate youth athletic facilities needed to serve the City's and surrounding communities' growing population. An inventory and analysis of current and expected youth sports participation, in conjunction with available sports facilities, was conducted by Beals Alliance, with the cooperation of YSAT. The analysis focused primarily on field sports, including baseball, softball, football, and soccer. See **Table 2-1** for the identified ball field needs for the City and YSAT (which includes the needs of the surrounding communities).

TABLE 2-1: IDENTIFIED BALL FIELD NEEDS FOR THE CITY OF TRACY AND YSAT

TYPE OF BALL FIELD	*NUMBER NEEDED*	*DIMENSIONS*
Baseball (90' basepads)	15	3 - 350' outfield 2 - 396' outfield
Baseball/softball (60' basepads)	32/11	18 - 200' outfield
Football	5	5 - 159' x 360'
Soccer (all sizes)	16	5 - 219' x 330' 4 - 150' x 240' 3 - 180' x 300' 4 - 120' x 210'
Total	**79**	

In 2005 a Draft EIR was prepared for the Tracy Youth Sports Facility project located on a 200 acre parcel at 15178 W. Schulte Road. Since that time, the City Council has determined that the Schulte Road site is not the preferred location for the City's sports park. On June 17, 2008, City of Tracy staff presented the City Council with a comparative analysis of four long-term youth sports field options, as well as short-term options.

The following four long-term sites were analyzed and discussed:

1. Plan B Site- This site is located west of Corral Hollow Road, north of Valpico Road, west of the existing residential developments in the San Joaquin County area, and south of the Union Pacific Rail Road line running parallel to the old Schulte Road.

2. Holly Sugar Site- The 1,200 acre Holly Sugar site is located north of Larch Road developments between Corral Hollow Road and Tracy Boulevard and generally between Corral Hollow Road, Holly Road and Sugar Cut, north of Arbor Road.

3. Alvarez Site- The Alvarez site is located within the Urban Reserve 1 (UR1) designation in the City's General Plan. The property is located outside the City's eastern boundary west of Chrisman Road and south of Eleventh Street.

4. Bright Site- This site is located south of the proposed Kimball High School on the east side of Lammers Road, between Eleventh Street and the proposed alignment of the Schulte Road expansion west of Corral Hollow Road.

The Holly Sugar Site was selected as the preferred location for the proposed sports park by the City Council and the Parks Commission for multiple reasons, including, but not limited to costs and timing associated with land acquisition and site development. The site is adequately sized to meet the long-term needs of the community, the site has room for expansion and future facility development, and the site is easily accessed from local and regional roadways.

2.3 PROJECT GOALS AND OBJECTIVES

Consistent with CEQA Guidelines Section 15124(b), a clear statement of objectives and the underlying purpose of the project shall be discussed. The City of Tracy has identified the following goals and objectives for the proposed project:

1. Develop a sports park facility that meets the existing and projected needs of the City of Tracy and the surrounding community.
2. Develop a sports park facility on a site with adequate room for contiguous expansion to meet future demands.
3. Ensure flexibility in the project to allow for options and alternatives for the development of future phases of the sports park facility.
4. Implement the project on a site that allows for cost-effective site acquisition and site development by the City of Tracy and associated youth sports organizations.

2.4 PROJECT DESCRIPTION

Project Overview

The proposed project consists of the construction and operation of an approximately 298-acre park, which would include an approximately 166-acre active sports park facility, approximately 86 acres of land south of the active sports park for passive recreational uses, and an approximately 46-acre area to the northwest of the active sports park site as a future expansion area, as shown in Figure 2-3.

The proposed project has been designed to address the community's short-, medium-, and long-term needs for youth sports park facilities. The project would be constructed in phases, as described in greater detail below.

ACTIVE SPORTS PARK

The active sports park consists of approximately 166 acres located north of the 86-acre passive recreation area and southeast of the 46-acre future expansion area, as shown in Figure 2-4. The active sports park may ultimately include up to 14 soccer fields of various sizes for various age groups, up to 18 baseball fields of various sizes for various age groups, up to five softball fields of various sizes for various age groups, up to four football fields, and one football/soccer stadium. In addition to the proposed ball fields, the project would include up to four children's play areas. The play areas would include swings, slides, climbing apparatus, and other features commonly found on children's playgrounds. The project site will also include several restroom facilities, concession facilities, bleachers, and parking areas.

A detailed site plan of the active sports park is shown in Figure 2-4. The ball fields proposed as part of the active sports park are summarized in Table 2-2.

TABLE 2-2: BALL FIELDS WITHIN THE ACTIVE SPORTS PARK

FIELD TYPE	QUANTITY
Soccer (U10)	4
Soccer (U12)	3
Soccer (U14-U19)	7
Baseball (396' outfield)	2
Baseball (350' outfield)	1
Baseball (330' outfield)	1
Baseball (220' outfield)	10
Baseball Stadium (220' outfield)	4
Softball (200' outfield)	4
Softball Stadium (200' outfield)	1
Football Fields	4
Football/Soccer Stadium	1
Total Ball Fields	**42**

Lighting and Seating

The proposed baseball and softball stadiums would be equipped with lighting systems to allow for nighttime games and would include permanent bleacher seating located behind the backstops behind home plate. The "non-stadium" baseball and softball fields would include areas where temporary removable bleachers may be located and would not include lighting systems.

The proposed football/soccer stadium, located near the western boundary of the site, would include stadium lighting, a public address (PA) system, permanent bleachers, and synthetic field turf. The City intends to develop the majority of the proposed football fields and a portion of the proposed soccer fields with synthetic turf. It is anticipated that all of the proposed baseball and softball fields would be developed with natural grass turf.

All of the soccer fields will have areas of grass surrounding that will provide room for spectator seating. Temporary portable bleachers may be located adjacent to some of the soccer fields, however, it is assumed that most soccer spectators will either bring their own chairs, sit on blankets, etc.

Buildings and Temporary Structures

The site plan provides the opportunity for the incorporation of both permanent and portable buildings, as site development progresses. Concession and restroom facilities would either be placed on concrete pads with mobile trailers or installed on permanent foundations. Additional mobile restrooms may be brought on to the site to accommodate large crowds during sports tournaments. Restrooms and concession stands would be located in proximity to the football and soccer fields and the active sports areas. It is anticipated that mobile storage units will be located on the project site to accommodate sports equipment storage and the storage of landscaping and field maintenance equipment. A semi-permanent structure to accommodate the maintenance shop and office would be located within an area of the site designated for maintenance equipment and operations.

Site Access

The project site would receive primary access from Tracy Boulevard, along the eastern boundary of the site, as shown in Figure 2-4. The project improvements include the construction of an access road connecting the site to Tracy Boulevard, which may require widening portions of Tracy Boulevard immediately adjacent to the site. A future access road from Corral Hollow Road to the western boundary of the site would be constructed in the future, as the final phases of the western portion of the site are developed. Details regarding the required roadway improvements to Tracy Boulevard and the timing associated with construction of the secondary access road from Corral Hollow Road are described in greater detail in Section 3.12- Transportation and Circulation.

Parking

Several parking areas would be constructed throughout the project site, as shown in Figure 2-4. There are approximately 2,931 parking spaces proposed.

Landscaping

Trees and vegetation would be located throughout the site to provide shade, water absorption, windbreaks, noise breaks, traffic calming, erosion control, and aesthetic enhancement.

Infrastructure

Wastewater: The on-site restroom facilities would connect via a lateral line to an existing sewer main line located within the right-of-way of Tracy Boulevard, approximately 400 feet north of Larch Road, which would convey the project's wastewater to the City's wastewater treatment plant for treatment. Up to four onsite wastewater lift stations would be installed in order to convey wastewater to the existing sewer main on Tracy Boulevard.

Potable Water: The project site would receive potable water via a connection to an existing water main located on Tracy Boulevard, near Larch Road. Approximately 2,000 feet of water line will

need to be installed on Tracy Boulevard to connect to the existing water main and a water lateral will be installed on the site. Potable water would be supplied by the City of Tracy.

Landscape Irrigation (Non-potable) Water: Initially, the project would receive landscaping and irrigation water from untreated surface water from Sugar Cut Slough, which has been used to irrigate the project site since at least 1912. In the future, landscape irrigation water could be recycled water from City Of Tracy Wastewater Plant. The irrigation distribution system (independent of potable distribution system) will be designed using "purple pipe" for later connection to City of Tracy recycled water distribution system. The details of this potential future connection have not been developed at this time.

Stormwater Drainage: The existing channels and ditches located on the project site would be used to retain and convey stormwater runoff. The existing channels that run east-west across the project site would be retained, while the smaller ditches running north-south would be removed during site preparation activities. Runoff flow would be attenuated to the existing 10- year event conditions in new detention basins constructed on the project site. Prior to runoff being discharged from the site, stormwater treatment would be provided on site through implementation of best management practices (BMPs) approved by the Central Valley Regional Water Quality Control Board (CVRWQCB) and consistent with City approved design criteria.

PASSIVE RECREATION AREA

The 86-acre passive recreation area to the south of the active sports park site (see Figure 2-3) would serve as a buffer between the more developed active park uses and the rural residences to the south of the park site. This area may be used for passive recreational activities including, but not limited to walking and biking trails, bocce ball, disc golf, or an arboretum. No structures or athletic fields are proposed for this area. There is no parking proposed for this area, nor is non-emergency vehicular access proposed.

FUTURE EXPANSION AREA

The 46-acre future expansion parcel to the northwest of the 166-acre active sports park site (see Figure 2-3) may be developed in the future as the demand for developed park facilities in the City of Tracy increases. A specific site plan for this area has not been developed, however, the City is currently contemplating several amenities and features that may be suitable for future development within the expansion area. For the purposes of the analysis in the EIR, it is assumed that the following uses may be developed within the future expansion area.

- Skate park and/or BMX park (up to 11,000 square feet maximum)
- Paintball course (2.5 acres)
- Shuffle Board and/or Bocce ball courts (4 total courts)
- Hard courts (basketball) and/or additional athletic fields (up to 23,000 square feet maximum)

- Recreation Center (including gymnasium, meeting rooms, community rooms and multipurpose rooms- totaling up to 45,000 square feet maximum)
- Library (up to 25,000 square feet maximum)
- "Spray Park" (children's park with small water features, sprinklers, etc.)
- Class 1 Bike Path

PHASING

The proposed project would be developed in phases, with facility development beginning on the eastern portion of the 166-acre active sports park site and progressing in a westerly direction.

- Phase I of development of the Holly Sugar Sports Park would include up to 26 sports fields and associated facilities and infrastructure improvements.
- Phase II of development would include up to full buildout of the 166-acre active sports park.
- Phase III of development would include up to full buildout of the 46-acre future expansion area.

The initial phase of project construction within Phase I would include the installation of the project infrastructure described above, including the primary access road connecting the project site to Tracy Blvd. The initial phase would include the construction of four soccer fields, two baseball fields and associated parking lot improvements (approximately 439 spaces) in the eastern-most portion of the project site. The remaining development of Phase I would occur as funding becomes available.

For the purposes of this Environmental Impact Report, it is assumed that the entire 166-acre active sports park site and the 86-acre passive recreation area will be developed within 5-10 years, and the future expansion area will be developed within 25 years, or by approximately 2032.

ANNEXATION, GENERAL PLAN AMENDMENT AND PRE-ZONING

As described previously, the project site is currently located outside of the Tracy City limits, within the City's Sphere of Influence (SOI). In addition to the development of the proposed park facilities, the City is also proposing to pre-zone the project site to Parks (P) to accommodate the proposed park uses and to annex the site into the City of Tracy. The area proposed for annexation includes the 166-acre active sports park site, the 46-acre future expansion area, and the 86-acre passive recreation area, as shown in Figure 2-2. Upon annexation of the site into the City of Tracy, the City would amend the General Plan Land Use Map to designate the project site Parks (P), and amend the Zoning Map to designate the project site Parks (P).

2.5 USES OF THE EIR AND REQUIRED AGENCY APPROVALS

The City of Tracy will be the Lead Agency for the proposed project, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050.

This EIR will be used by the City of Tracy to take the following actions:

- Certification of the EIR
- Adoption of the Mitigation Monitoring and Reporting Program
- Approval of site prezoning / zoning
- Approval of a General Plan Amendment
- Site Annexation request to LAFCO
- Approval of the site plans and development of the sports park

The following agencies may be required to issue permits or approve certain aspects of the proposed project:

- San Joaquin Local Agency Formation Commission (LAFCO) - Approval of annexation request.
- Central Valley Regional Water Quality Control Board (CVRWQCB) - Storm Water Pollution Prevention Plan (SWPPP) approval prior to construction activities.
- San Joaquin Valley Air Pollution Control District (SJVAPCD) - Approval of construction-related air quality permits.
- San Joaquin Council of Governments (SJCOG)- Approval of project inclusion in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP).

Subsequent Use of the EIR

This EIR provides a project-level review of environmental effects associated with development of the 166-acre active sports park site, the 86-acre passive recreation area, and the 46-acre future expansion area. As the City considers approval of subsequent development within the future expansion area, this EIR will be used as the basis for determining potential environmental effects and the appropriate level of environmental review of a subsequent activity.

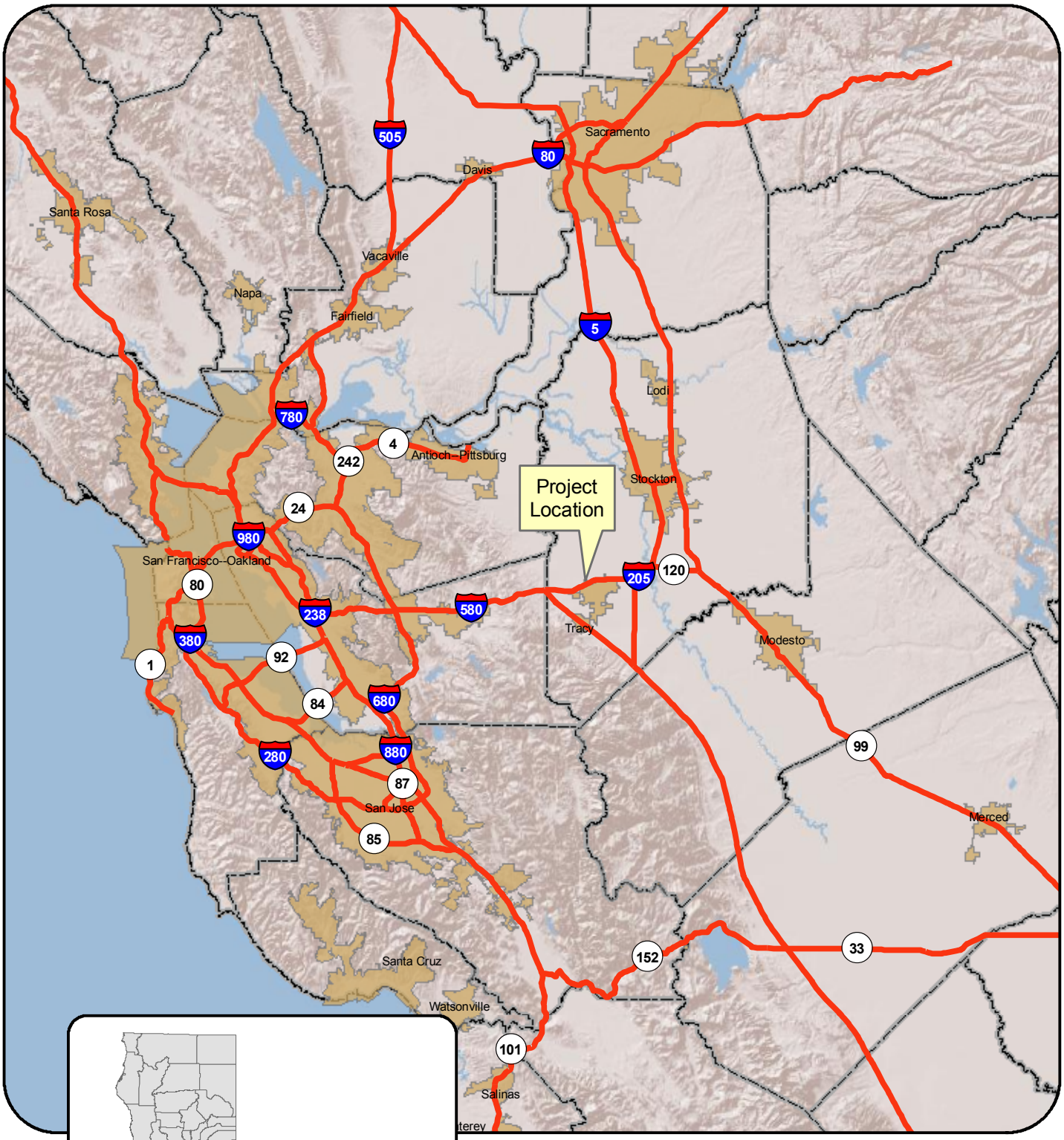

Figure 2-1 Project Location Map

N
W E
S

0 5 10 20 30 40 Miles

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November 12, 2008

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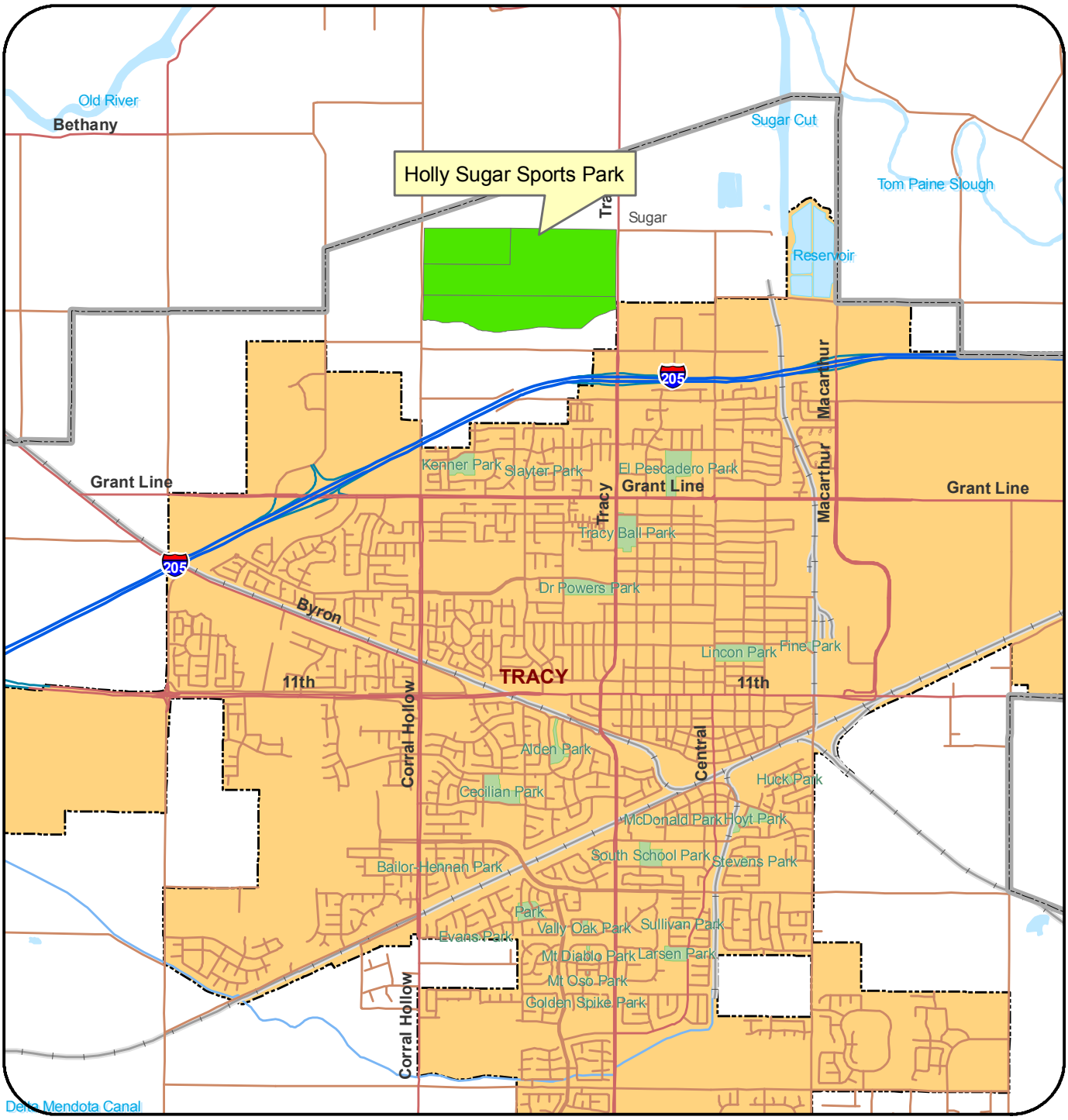

Figure 2-2 Project Vicinity Map

Holly Sugar Sports Park
City of Tracy
Sphere of Influence

N
W E
S

0 0.25 0.5 1 1.5 Miles

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

December 20, 2008

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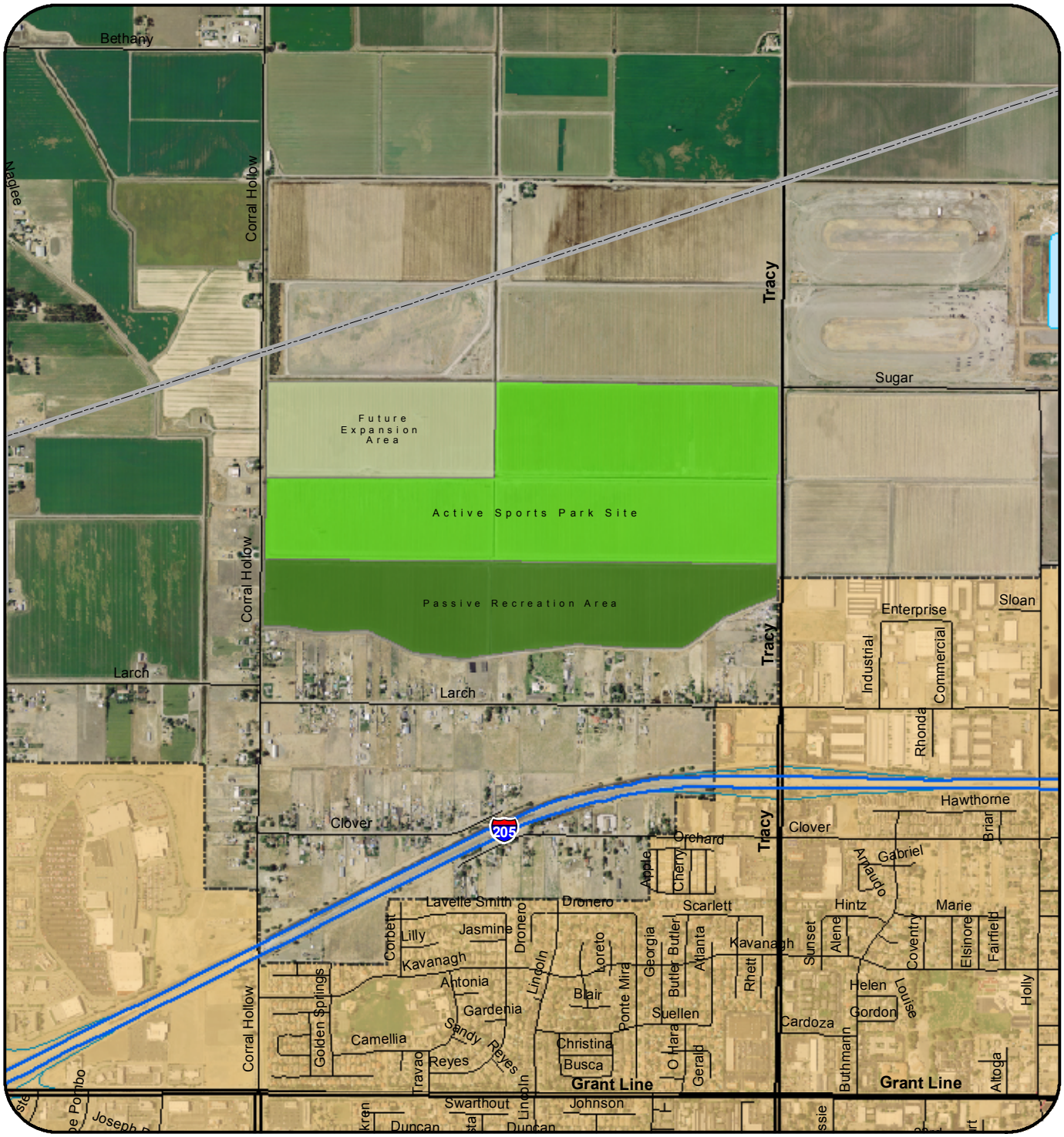

Active Sports Park Site
Passive Recreation Area
Future Expansion Area
City of Tracy
Sphere of Influence

Figure 2-3 Project Site Map

N
W E
S

0 250 500 1,000 1,500 2,000 Feet

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December 20, 2008

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QTY	DESC.
4	U10 SOCCER FIELDS
3	U12 SOCCER FIELDS
7	U14-U19 SOCCER FIELDS
2	396' OUTFIELD BASEBALL FIELDS
10	220' BASEBALL FIELDS

QTY	DESC.
4	220' BASEBALL FIELDS (STADIUM)
4	200' SOFTBALL FIELDS
1	200' SOFTBALL FIELD (STADIUM)
4	FOOTBALL FIELDS
1	FOOTBALL / SOCCER FIELD (STADIUM)
4	PLAY AREAS

PARCEL A
FUTURE POTENTIAL USES:
PLANTING BUFFER
ARBORETUM
CLASS 1 BIKE PATH
TRAILS
DISC GOLF

NORTH

Conceptual Design
Holly Sugar Sports Park
City Of Tracy

Date: 11/05/08
Project No.: 0805100

VERDE DESIGN

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Figure 2-4 Conceptual Design

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This section provides an overview of the visual character, scenic resources, views, scenic highways, and sources of light and glare that are encountered on the project site and the surrounding area. This section concludes with an evaluation of the impacts and recommendations for mitigating impacts. There were not any comments received during the public review period or scoping meetings for the Notice of Preparation regarding this topic. Information in this section is derived primarily from the following:

- City of Tracy General Plan and EIR (City of Tracy, 2006)
- A site visit completed by De Novo Planning Group (April 1, 2009)

3.1.1 ENVIRONMENTAL SETTING

PROJECT SITE AND SURROUNDING AREA

The City of Tracy is located in the San Joaquin Valley. As a result, the project site and surrounding areas are predominantly flat. The flat topography of the valley floor provides a horizontal panorama providing vistas of the valley. The Diablo Range forms a distinctive visual backdrop in views to the south and west. To the east, the Altamont pass provides a visual screen from the urban growth of Livermore.

There are no buildings, residences, or other habitable structures located on the project site. The only above-ground man-made structures on the project site consist of the PG&E power transmission lines that cross the northwest portion of the project site (within the future expansion area). There are no trees or rock outcroppings on the project site. The project site consists of flat agricultural lands that have been graded and irrigated. On April 1, 2009 the project site was mowed to remove accumulated weeds and other non-native vegetative species. The final mow height of the vegetation on site was approximately four inches.

The project site is traversed by multiple drainage and irrigation ditches. The larger of the onsite ditches run in an east-west direction and include dirt banks with pvc discharge pipes located periodically within the bank walls. There are unimproved dirt access roads running parallel to the east-west irrigation ditches. Small irrigation ditches run in a north-south direction within the project site. Site photos depicting the existing visual setting of the project site are shown in Exhibit 3.1-1.

Lands to the north and east of the project site consist of agricultural lands in active production. Lands to the west of the project site consist of a mix of active agricultural lands and rural residences located west of Corral Hollow Road. Lands to the south of the project site consist of rural residences. It is estimated that approximately 25 private rural residential properties in the vicinity of the project site have full or partial views of the site from their properties.

Scenic Highways and Corridors

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. As described in the Tracy General Plan EIR**,** there are two Officially Dedicated California

Scenic Highway segments in the Tracy Planning Area, which extend a total length of 16 miles. The first designated scenic highway is the portion of I-580 between I-205 and I-5, which offers views of the Coast Range to the west and the Central Valley's urban and agricultural lands to the east. Part of this scenic highway passes through the existing City limits. The second scenic highway is the portion of I-5 that starts at I-205 and continues south to Stanislaus County, which allows for views of the surrounding agricultural lands and the Delta-Mendota Canal and California Aqueduct.

In addition to State-designated scenic highways, the Scenic Highway Element of the 1978 San Joaquin County General Plan designated the seven-mile portion of Corral Hollow Road that runs southwest from I-580 to the County line as a scenic road.

The project site is not visible from any of the above-referenced scenic highways.

Light and Glare

There are two typical types of light intrusion. First, light emanates from the interior of structures and passes out through windows. Second, light projects from exterior sources, such as street lighting, security lighting, and landscape lighting. "Light spill" is typically defined as the presence of unwanted and/or misdirected light on properties adjacent to the property being illuminated.

Street lighting is provided within the developed areas of the City, either by the City or through private ownership. In new developments, the City itself does not install streetlights. Rather, the City requires developers to install lights and dedicate them to the City. Lights are often required for newly annexed development areas. Light introduction can be a nuisance to adjacent residential areas and diminish the view of the clear night sky, and, if uncontrolled, can disturb wildlife in natural habitat areas.

Glare is the sensation produced by luminance within the visual field that is significantly greater than the luminance to which the eyes are adapted, which causes annoyance, discomfort, or loss in visual performance and visibility.

There are no City or County maintained street lights on the project site or in the immediate vicinity of the project site. There are no major light sources in the vicinity of the project site and existing nighttime lighting conditions are consistent with rural residential and agricultural uses.

3.1.2 REGULATORY SETTING

STATE

California Scenic Highway Program

The intent of the California Scenic Highway Program is "to protect and enhance California's natural scenic beauty and to protect the social and economic values provided by the State's scenic resources." Caltrans administers the program, which was established in 1963 and is governed by the California Streets and Highways Code (§260 et seq.). The goal of the program is to preserve and protect scenic highway corridors from changes that would diminish the aesthetic value of the

adjacent land. Caltrans has compiled a list of state highways that are designated as scenic and county highways that are eligible for designation as scenic.

Scenic highway designation can provide several types of benefits to the region. Scenic areas are protected from encroachment of inappropriate land uses, free of billboards, and are generally required to maintain existing contours and preserve important vegetative features. Only low density development is allowed on steep slopes and along ridgelines on scenic highways, and noise setbacks are required for residential development.

LOCAL

City of Tracy General Plan

The Community Character Element of the General Plan includes important concepts and guidelines that apply to the type, location and character of both private and public development projects for new and existing areas of the City. The General Plan also outlines urban design principles that should be followed to attain a sense of place such as human-scale design, community focal points, edges, landmarks, and the use of landscaping.

The General Plan includes many goals and policies to preserve Tracy's "hometown feel" and to ensure future development adheres to the design principles as presented in the Community Character Element. In addition to these design principles, the General Plan encourages the use of buffer zones, cluster development and feathering of density to create better transitions between urban and rural land uses.

3.1.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have significant impact on aesthetics if it will:

- Have a substantial adverse effect on a scenic vista;
- Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway;
- Substantially degrade the existing visual character or quality of the site and its surroundings; and/or
- Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area.

The IS/NOP prepared for this project in December 2008 concluded that the project would not result in impacts to visual resources in the vicinity of a State Scenic Highway, as no such highways are near the project site, and the project site is not visible from any designated scenic highways. Therefore, this impact is not addressed further in this EIR.

IMPACTS AND MITIGATION MEASURES

Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas and resources or substantial degradation of visual character (Significant and Unavoidable)

Development of the proposed project would convert the site from its existing use as agricultural land to a developed park site with numerous athletic fields, parking lots, various single-story structures (restrooms, concession buildings, etc), bleachers, and stadium lighting.

The project site is not designated as a scenic vista by the City of Tracy General Plan (2006) or the San Joaquin County General Plan, nor does it contain any unique or distinguishing features that would qualify the site for designation as a scenic vista.

Implementation of the proposed project would, however, change the existing visual character of the site. Impacts related to a change in visual character are largely subjective and very difficult to quantify. People have different reactions to the visual quality of a project or a project feature, and what is considered "attractive" to one viewer may be considered "unattractive" to other viewers. The areas surrounding the City of Tracy to the north consist primarily of agricultural lands. Agricultural lands provide visual relief from urban and suburban developments, and help to define the character of a region. The loss of agricultural lands can have a cumulative impact on the overall visual character and quality of a region.

As described above, project implementation would introduce numerous park facilities and related uses into an area that is currently undeveloped and completely agricultural in nature and appearance. The project would include landscaping improvements such as new trees planted around the perimeter of the site and within the parking lot areas. The project would also result in the construction of several grass ballfields, which will result in expansive areas of green with limited areas of development between the fields. The project will also result in the construction of a stadium near the western edge of the active sports park site and various recreation buildings within the future expansion area.

In order to reduce impacts and land use conflicts between the project site and the surrounding rural residences, the project has been designed to include a passive recreation area along the entire southern boundary of the site. This passive recreation area will not be developed with formal park uses, and will not significantly change from its existing visual character as a result of project implementation.

While implementation of the proposed project would change the existing visual character of the site, it would not result in substantial adverse effects on a designated scenic vista. There are no large structures (over two-stories high) that would be constructed as part of the project that would impede views of the surrounding mountains and hillsides from the project vicinity. However, the project would result in the conversion of the land from agricultural uses, which would contribute to changes in the regional landscape and visual character of the area. In order to reduce visual impacts, the City has incorporated setbacks (passive recreation area) to reduce visual impacts and

visibility of the site from the surrounding areas. Additionally, the proposed site improvements will include landscaping and tree planting to enhance the visual quality of the project. However, the loss of the visual appearance of the existing agricultural land on the site will change the visual character of the project area. This is considered a **significant and unavoidable** impact.

MITIGATION MEASURE

Mitigation Measure 3.1-1*: The City shall install trees, vegetation and other landscaping to shield parking and maintenance areas that are visible from Tracy Boulevard and Corral Hollow Road to shield these uses from the roadways.*

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure 3.1-1 would reduce the visual impacts of the project by shielding parking and maintenance areas from the surrounding public roadways, however, this impact would remain significant and unavoidable.

Impact 3.1-2: Project implementation may result in light and glare impacts (Significant and Unavoidable)

Implementation of the proposed project would introduce new sources of light and glare into the project area. New sources of glare would occur primarily from the windshields of vehicles travelling to and from the project site and from vehicles parked at the site. The parking areas are located within the interior of the project site, and are not immediately adjacent to any of the light sensitive land uses in the project vicinity (the rural residences to the south and west). Due to the distance between the sources of glare and the nearest sensitive receptors, impacts from glare would be less than significant.

The project would introduce new sources of nighttime lighting, which may result in increased nighttime lighting in the project vicinity. A detailed lighting plan has not been prepared for the project, but for the purposes of this analysis, it has been conservatively assumed that nighttime field lighting will be installed at the stadium near the western boundary of the site, and at up to six (6) soccer fields, four (4) football fields and four (4) baseball/softball fields within the active sports park site, however, all of the proposed baseball/softball fields may ultimately include nighttime lighting infrastructure. It is also assumed that security lighting will be installed within the various parking areas and the exterior of restrooms within the active sports park site. It is also assumed that exterior security lighting will be installed throughout the future expansion area if/when that phase of the project is developed.

Light sources from the proposed development may have a significant adverse impact on the surrounding areas, by introducing nuisance light into the area and decreasing the visibility of nighttime skies. Additionally, on-site light sources may create light spillover impacts on surrounding land uses in the absence of mitigation. The greatest potential for light spillover impacts exists west of the project site, at the rural residences closest to the proposed stadium. The stadium lighting would be used periodically for night games, which are anticipated to conclude by 10:00 p.m. in most cases. The stadium lighting would only be used during night games, which

are anticipated to occur most frequently during the summer months. The stadium lighting would be shielded and directed downward in order to reduce light spillage onto adjacent properties.

The City of Tracy Standard Plan #154 establishes minimum requirements for light illumination, but does not have regulations limiting glare. The City addresses light and glare issues on a case-by-case basis during project approval and typically adds requirements as a condition of project approval to shield and protect against light spillover from one property to the next. Title 10.08.4000 of the Tracy Municipal Code requires that the site plan and architectural package include the exterior lighting standards and devices, and be reviewed by the Development and Engineering Department. The increase of nighttime lighting in the project area is considered a **significant impact**.

MITIGATION MEASURES

***Mitigation Measure 3.1-2**: A lighting plan shall be prepared prior to the installation of the project's lighting for each phase. The lighting plan shall demonstrate that the stadium and field lighting systems have been designed to minimize light spillage onto adjacent properties to the greatest extent feasible. The lighting plan shall include the following:*

- *Design of site lighting and exterior building light fixtures to reduce the effects of light pollution and glare off of glass and metal surfaces;*
- *Lighting shall be directed downward and light fixtures shall be shielded to reduce upward and spillover lighting;*
- *Where it is not feasible to fully shield light fixtures from light pollution, such as the stadium lights, the lighting shall be directed downward and of the minimum wattage and height suitable for illuminating the playing surfaces and immediately surrounding areas.*
- *Lighting for each playfield, parking area, and structure shall have control boxes that allow operation of specific areas of lighting in order to only illuminate the field(s) and parking area(s) in use at any given time.*
- *Lights shall be turned off when the fields, parking areas, and structures are not in use.*

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure 3.1-2 would reduce impacts associated with nighttime lighting and light spillage onto adjacent properties. However, the project would still result in an increase in nighttime lighting in the project area. This impact would remain significant and unavoidable.

Exhibit 3.1-1: Existing Site Photos

Existing photo of the area proposed for Passive Recreation. Rural residences to the south of the project site can be seen in the background.

Photo shows the existing irrigation canals on the site. PG&E transmission lines can be seen in the background to the west.

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The purpose of this section is to disclose and analyze the potential impacts associated with the conversion of the project site from agricultural uses to non-agricultural use, and to recommend mitigation measures to avoid or minimize the significance of potential impacts. This section also discusses the potential conflicts between proposed uses at the Holly Sugar Sports park site and ongoing agricultural activities in the vicinity of the project site.

Information in this section is derived primarily from the following:

- City of Tracy General Plan Agricultural Element (City of Tracy, July 2006)
- San Joaquin County General Plan (February 2005)
- California Important Farmlands 2006 Map (California Department of Conservation, March 2009)
- Site surveys conducted by De Novo Planning Group (January through April 2009)

3.2.1 ENVIRONMENTAL SETTING

EXISTING SITE CONDITIONS

The entire project site is relatively flat agricultural land which is currently being farmed with alfalfa to naturalize the soil. Irrigation water for this agricultural operation is pumped from Tom Paine Slough and then flows on and through the site via drainage ditches. The project site is owned by the City of Tracy, and existing and past agricultural activities have been conducted by tenant farmers. Historically, the site has been used to grow corn, winter wheat, and alfalfa. Prior to the City taking ownership of the project site in July 2003, the Holly Sugar Company applied food process water from the sugar refinery to grow crops. The entire project site is designated as "Unique Farmland" by the California Department of Conservation (see Figure 3.2-1).

The project site is currently located within San Joaquin County, within the City of Tracy Sphere of Influence (SOI). The County's current zoning designation for the site is General Agriculture- 40 acre minimum lot size (AG-40), and the County's current General Plan land use designation for the site is General Agriculture (A/G). As described in greater detail in the Project Description (Section 2.0 of this EIR), the City is proposing to annex the entire project site and process a General Plan Amendment to designate the site as Parks (P), and to prezone and zone the site as Parks (P).

CALIFORNIA AGRICULTURE

The California Department of Conservation Farmland Mapping and Monitoring Program identifies lands that have agriculture value and maintains a statewide map of these lands called the Important Farmlands Inventory (IFI). IFI classifies land based upon the productive capabilities of the land, rather than the mere presence of ideal soil conditions.

The suitability of soils for agricultural use is just one factor for determining the productive capabilities of land. Suitability is determined based on many characteristics, including fertility, slope, texture, drainage, depth, and salt content. A variety of classification systems have been devised by the state to categorize soil capabilities. The two most widely used systems are the

Capability Classification System and the Storie Index. The Capability Classification System classifies soils from Class I to Class VIII based on their ability to support agriculture with Class I being the highest quality soil. The Storie Index considers other factors such as slope and texture to arrive at a rating. The IFI is in part based upon both of these two classification systems.

In addition to soil suitability, other factors for determining the agricultural value of land include whether soils are irrigated, the depth of soil, water-holding capacity, and physical and chemical characteristics. Areas considered to have the greatest agricultural potential are designated as Prime Farmland or Farmland of Statewide Importance.

PRIME FARMLAND

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

FARMLAND OF STATEWIDE IMPORTANCE

Farmland of statewide importance is farmland with characteristics similar to those of prime farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.

UNIQUE FARMLAND

Unique farmland is farmland of 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 or vineyards as found in some climatic zones in California. 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.

GRAZING LAND

Grazing land is land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities.

URBAN AND BUILT-UP LAND

Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a 10-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yards,

cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

OTHER LAND

Land not included in any other mapping category. Common examples 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 mapped as Other Land.

SAN JOAQUIN COUNTY AGRICULTURE

Although the project site is within the City's SOI, it is considered unincorporated San Joaquin County. San Joaquin County ranked sixth in the state in gross value of agricultural production in 2000 and has been consistently ranked among the top ten counties in the nation since 1992. Agriculture is a major activity within the undeveloped portions of the Tracy Planning Area. This area includes land that is currently in agricultural use, lands that have been used for agricultural uses in the past but remain undeveloped, and grazing land.

CITY OF TRACY AGRICULTURE

According to the City of Tracy General Plan (2006), there are a total of 39,781 acres of land identified as Prime Farmland, Unique Farmland, Farmland of Statewide Importance and Farmland of Local Importance within the City's Planning Area, SOI and City limits combined. Of this amount, 4,890 acres are located within the City limits, 10,268 acres are within the SOI outside City limits, and 24,263 acres are located in the Tracy Planning Area outside the SOI. Farmland on the project site and within the vicinity of the project site is designated as Unique Farmland. Refer to Figure 3.2-1, Vicinity Important Farmlands, for an illustration of Important Farmlands in the project vicinity.

3.2.2 REGULATORY SETTING

FEDERAL

Farmland Protection Program

The Natural Resource Conservation Service (NRCS) administers the Farmland Protection Program (FPP). This is a program that is designed to conserve productive farmland. The NRCS provides funds to agencies for the purchase of conservation easements that meet the specific requirements of the program. Landowners that are interested in the program must agree to conserve their farmland for a minimum period of 30 years.

STATE

Williamson Act

The California Land Conservation Act of 1965, commonly known as the Williamson Act, was established based on numerous State legislative findings regarding the importance of agricultural lands in an urbanizing society. Policies emanating from those findings include those that discourage premature and unnecessary conversion of agricultural land to urban uses and discourage discontinuous urban development patterns, which unnecessarily increase the costs of community services to community residents.

The Williamson Act authorizes each County to establish an agricultural preserve. Land that is within the agricultural preserve is eligible to be placed under a contract between the property owner and County that would restrict the use of the land to agriculture in exchange for a tax assessment that is based on the yearly production yield. The contracts have a 10-year term that is automatically renewed each year, unless the property owner requests a non-renewal or the contract is cancelled. If the contract is cancelled the property owner is assessed a fee of up to 12.5 percent of the property value.

The Holly Sugar Sports Park site is not under a Williamson Act contract, nor are any of the adjacent surrounding parcels (see Figure 3.2-2).

Farmland Security Zones

In 1998 the state legislature established the Farmland Security Zone (FSZ) program. FSZs are similar to Williamson Act contracts, in that the intention is to protect farmland from conversion. The main difference however, is that the FSZ must be designated as Prime Farmland, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. The term of the contract is a minimum of 20 years. The property owners are offered an incentive of greater property tax reductions when compared to the Williamson Act contract tax incentives; the incentives were developed to encourage conservation of prime farmland through FSZs. The non-renewal and cancellation procedures are similar to those for Williamson Act contracts. The project site and the surrounding parcels are not within the FSZ program.

LOCAL

San Joaquin County General Plan

The City's SOI and Planning Area, beyond the city limits, are under the jurisdiction of San Joaquin County, and designated by the County General Plan as General Agriculture and Limited Agriculture. Policies and actions in the County General Plan direct development away from agricultural lands, towards existing urban centers and infill areas. Agricultural zoning is used in these areas to limit residential densities, or "feather" densities of development from urban to agricultural uses.

City of Tracy General Plan

The City's General Plan includes goals, objectives and policies that strive to preserve agricultural resources and minimize conflicts between agricultural and urban uses. The General Plan also encourages feathering urban uses into agricultural areas, called the soft edge approach. This approach would create appropriate transitions between urban and agricultural uses, and mitigate conflicts. To that end, the policies in the General Plan provide three techniques for implementing a soft edge: incorporating site-specific buffer zones, clustering developments, and feathering density from the highest density in the middle to the lowest density on the outskirts. These buffer zones can be created using roads, setbacks and other physical boundaries, and should be of sufficient size to protect the agriculture operations from the impacts of incompatible development and established based on the proposed land use, site conditions and anticipated agricultural practices.

City of Tracy Right-to-Farm Ordinance

The City adopted a Right-to-Farm Ordinance that establishes policies to preserve and protect existing agricultural operations. Although agriculture is acknowledged as a local priority, operations frequently become the subjects of nuisance complaints when nonagricultural land uses are developed near or adjacent to agricultural areas, often due to the lack of public information about such operations. The Ordinance helps clarify the circumstances under which an agricultural operation may be considered a nuisance by informing residents that farming activities are allowed and cannot be stopped by encroaching residential development (City of Tracy Municipal Code, Title 10, Chapter 24, Articles 1 and 2).

City of Tracy Agricultural Mitigation Fee Ordinance

On June 7, 2005, the City Council adopted Chapter 13.28 Agricultural Mitigation Fee to its Municipal Code. The Ordinance was developed in response to a settlement agreement with Delta Keeper, the Sierra Club and the South San Joaquin Irrigation District (SSJID) where the Cities of Lathrop, Manteca and Tracy agreed to implement this fee program to mitigate for the loss of farmland as development occurs, especially for projects using water from the SSJID. The Ordinance is also in response to policies in the General Plan to preserve productive farmland, including the development of a program to secure permanent agriculture on lands designated for agriculture in the City and/or County General Plan.

The fee is intended to mitigate a CEQA determination of significant, unavoidable impacts to the loss of farmland as a result of proposed development, which would be approved by the City with a statement of overriding consideration. The fees are collected and administered by the City before the issuance of building permits, and used for acquiring farmland, farmland conservation easements or farmland deed restrictions from willing sellers.

3.2.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on agricultural resources if it will:

- Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Important Farmlands), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use;
- Conflict with existing zoning for agricultural use, or a Williamson Act contract; or
- Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use.

IMPACTS AND MITIGATION MEASURES

Impact 3.2-1: Project implementation would result in the conversion of Farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, to non-agricultural uses (Significant and Unavoidable)

The entire 298-acre project site is designated as Unique Farmland by the California Department of Conservation. Additionally, the project site is actively being farmed with alfalfa, and has historically been used to grown corn and winter wheat. Implementation of the proposed project would permanently remove these 298 acres from agricultural production. Under the significance thresholds of the State CEQA Guidelines, conversion of this farmland would result in significant impacts. Converting this farmland to non-agricultural uses would permanently eliminate a source of food and fiber. These resources cannot be recreated. Because any quantity of agricultural resources that would be permanently removed from production is significant, direct impacts to farmland would be significant and unavoidable. Mitigation has been identified to help reduce the significance of the impacts to agricultural resources through payment of fees to preserve farmland. The permanent preservation of Prime Farmland and/or Unique Farmland does not fully reduce or eliminate the direct physical impacts to Important Farmland. However, this mitigation would help preserve County-wide agricultural resources, helping to preserve the agricultural economy and lessen long-term, cumulative impacts to Important Farmland. The implementation of the mitigation measure described below would reduce the severity of the agricultural resource impacts associated with implementation of the project. However, implementation of the proposed project would still result in a net loss of Important Farmland. This impact would remain **significant and unavoidable**.

MITIGATION MEASURES

***Mitigation Measure 3.2-1**: Prior to site grading activities for each phase of project construction, the City shall determine and pay the appropriate Agricultural Mitigation Fee to offset the loss of Unique Farmland, as specified in Chapter 13.28 of the Tracy Municipal Code.*

SIGNIFICANCE AFTER MITIGATION

While implementation of MM 3.2-1 will lessen the severity of impacts related to the loss of agricultural lands, this impact will remain **significant and unavoidable**.

Impact 3.2-2: Project implementation may conflict with existing zoning for agricultural use or a Williamson Act Contract or otherwise result in land use conflicts with adjacent agricultural lands, which may lead to the indirect conversion of agricultural lands to non-agricultural uses (Less than Significant with Mitigation)

The project site is not under a Williamson Act Contract, nor are any of the parcels immediately adjacent to the project site under a Williamson Act Contract. Therefore, implementation of the proposed project would not conflict with a Williamson Act Contract.

The project site is currently zoned and designated for agricultural land uses by San Joaquin County.

The project site is bordered by existing agricultural lands to the north, west and east. The agricultural lands to the west of the project site are separated from the site by Corral Hollow Road, while agricultural lands to the east are separated from the project site by Tracy Boulevard. Conversion of the site to non-agricultural zoning and operation of park facilities may adversely affect adjacent sites with agricultural zoning and nearby agricultural operations.

Urban development adjacent to farmland can have several negative impacts on continued farm operations, different from the direct conversion of farmland. Soil compaction from pedestrian and vehicle trespassers can also damage crop potential. A recent study showed that crop production in the first two rows adjacent to urban uses is about 20% lower than the rows beyond (Ventura County Agricultural Land Trust, 1996). Residents living adjacent to farmland commonly cite odor nuisance impacts, noise from farm equipment, vehicle conflicts, and dust as typical land use conflicts. However, as the proposed project consists of only park uses, no residents would be placed adjacent to existing agricultural operations as a result of project implementation.

The City's General Plan Policy OSC-2.2 P1 identifies the use of buffers between agricultural uses and urban uses to minimize indirect impacts. Buffers can consist of development setbacks, open space, parks, trails, and roads. As described in the paragraph above, the existing agricultural uses to the west and east of the project site are buffered from the site by Tracy Boulevard and Corral Hollow Road, respectively. As previously stated above, implementation of the proposed project would not introduce any new residences adjacent to existing agricultural lands, which reduces the potential for land use conflicts between agricultural and non-agricultural land uses. Furthermore,

the proposed project is a park, which is identified as a suitable use to provide a buffer between urban development and agricultural uses, consistent with Tracy General Plan Policy OSC-2.2 P1.

Future operation of the sports park, including ball fields, stadium, and other recreational uses, may result in conflicts with adjacent agricultural uses to the north and east. From the farmer's perspective, agricultural production may be adversely affected if restrictions on pesticide, herbicide, and similar product use, trespassing, and littering of fields affect their farming operations. The project would introduce increased human activity in the area and may result in trespassing or other nuisances to the adjacent agricultural operations. Users of the project site may be subjected to intermittent nuisances, such as dust associated with soil preparation and other agricultural activities and noise associated with operation of farm equipment. This is considered a **potentially significant** impact.

Indirect impacts to agricultural lands can also occur when agricultural "islands" are created. Agricultural "Islands" existing when active agricultural land uses are surrounded by non-agricultural land uses, which may place pressure on the land to convert to a non-agricultural use. The land to the south of the project site consists of rural residences, and does not include agricultural lands or any active agricultural operations. Lands to the north, west and east of the site would remain in agricultural operation following project implementation. , Implementation of the proposed project would represent a continuation of non-urban uses to the south and would not create an "island." The project would not result in significant pressure on nearby agricultural lands to convert to non-agricultural uses. This is considered a **less than significant** impact.

MITIGATION MEASURES

***Mitigation Measure 3.2-2**: The City of Tracy shall enact measures to reduce the potential for park users to enter into the agricultural lands located north of the project site. Such measures may include, but are not limited to:*

- *Permanent or temporary barrier fencing;*
- *Signage indicating that trespassing is prohibited; or*
- *Restricted access to the existing irrigation canals that currently separate the project site from lands to the north.*

***Mitigation Measure 3.2-3**: The project shall include a 50-foot buffer to physically separate the facility from directly adjacent agricultural uses that may pose compatibility problems for land applications of herbicides and pesticides. The 50-foot buffer shall be measured from the edge of the proposed playing fields within the sports park to the edge of active agricultural operations within the adjacent parcels.*

***Mitigation Measure 3.2-4**: The City shall coordinate with landowners and operators of adjacent agricultural parcels to ensure that the application of pesticides and fertilizers on adjacent agricultural lands does not occur during the organized use of the Holly Sugar Sports Park. Such coordination measures may include, but are not limited to:*

- *The development of a regular timeframe when sports activities are not scheduled to occur, which would be suitable times for the application of pesticides and fertilizers on adjacent properties (i.e. weekday mornings during the non-summer months). This timeframe should be developed cooperatively with adjacent agricultural land owners. Pre-notification to adjacent agricultural operations by phone, mail or email prior to holding organized sporting events.*

- *The City of Tracy, or operator contracted to operate the sports park facility, should distribute additional notice of scheduled games added during the year that are known in advance.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.2-1, MM 3.2-2, MM 3.2-3 and MM 3.2-4 will reduce potential impacts to adjacent agricultural operations and will reduce the potential for the project to result in the indirect conversion of agricultural lands to non-agricultural uses. This measure will reduce this impact to **less than significant**.

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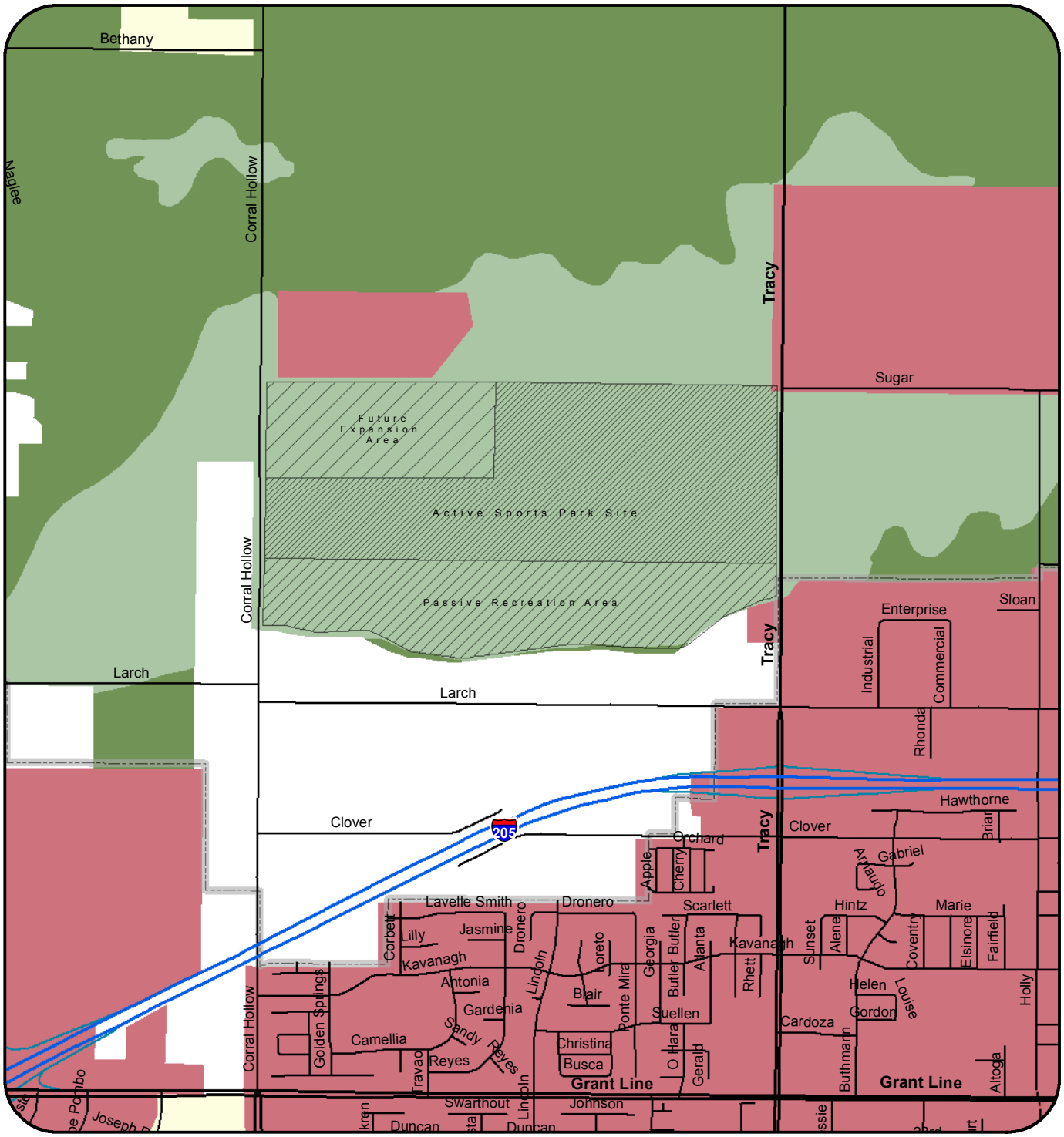

Figure 3.2-1
Important Farmlands Map

Important Farmland Data Source:
State of California Department of Conservation
Last updated for San Joaquin County - 2006

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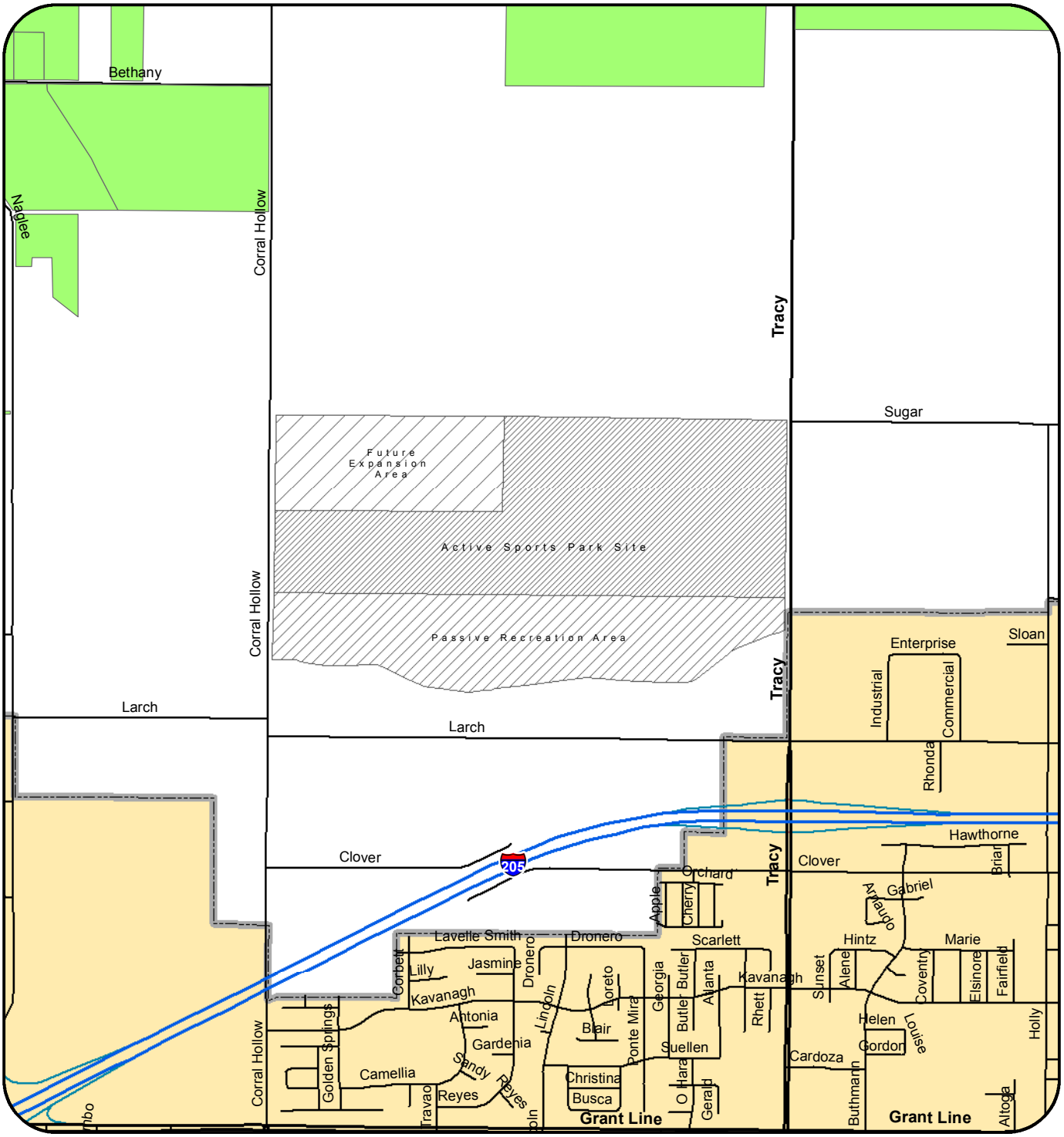

Williamson Act Classification

- Prime Ag Land Under Williamson Act

Tracy Sports Park

- Active Sports Park Site
- Passive Recreation Area
- Future Expansion Area
- City of Tracy

Williamson Act GIS Data Source:
State of California Department of Conservation
Last updated for San Joaquin County - 2006

Figure 3.2-1
Williamson Act Parcels Map

N W E S

0 250 500 1,000 1,500 2,000 Feet

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This section describes the regional air quality, current attainment status of the air basin, local sensitive receptors, emission sources, green house gas (GHG) emissions, climate change, and impacts that are likely to result from project implementation. Following this discussion is an assessment of consistency of the proposed project with applicable policies and local plans. The climate change and GHG analysis is located at the end of this chapter, under Section 3.3.4. During the NOP comment period, a comment letter was received from the San Joaquin Valley Air Pollution Control District (SJVAPCD). Information in this section is derived primarily from the following:

- City of Tracy General Plan EIR, 2006, DC&E.
- 2007 Ozone Plan, 2007 PM10 Plan and the Guide for Assessing and Mitigating Air Quality Impacts (GAMAQI), prepared by the San Joaquin Valley Air Pollution Control District.
- Meteorology Today: An Introduction to Weather, Climate, & the Environment, 2003, D.C. Ahrens
- Inventory of California Greenhouse Gas Emissions and Sinks: 1990 to 2004. (Staff Final Report), California Energy Commission, 2006

3.3.1 EXISTING SETTING

SAN JOAQUIN VALLEY AIR BASIN

The City of Tracy is located within the San Joaquin Valley Air Basin (basin). The basin is bounded by the Sierra Nevada in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south. The boundaries of the basin are shown in Figure 3.3-1. The surrounding topographic features restrict air movement through and out of the basin and, as a result, impede the dispersion of pollutants from the basin. Inversion layers are formed in the San Joaquin Valley air basin throughout the year. (An inversion layer is created when a mass of warm dry air sits over cooler air near the ground, preventing vertical dispersion of pollutants from the air mass below). During the summer, the San Joaquin Valley experiences daytime temperature inversions at elevations from 2,000 to 2,500 feet above the valley floor. During the winter months, inversions occur from 500 to 1,000 feet above the valley floor (SJVAPCD 1998).

The pollution potential of the San Joaquin Valley is very high. Surrounding elevated terrain in conjunction with temperature inversions frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in summer are ideal conditions for the formation of photochemical oxidant, and the Valley is a frequent scene of photochemical pollution.

Climate

The local climate is characterized by moderate temperatures and comfortable humidity levels, with precipitation limited to a few storms primarily during the winter months (November through April). The average annual temperature varies little throughout the basin, and average high temperatures are around 90 degrees Fahrenheit. All portions of the basin have recorded temperatures of over 100 degrees in recent years. January is usually the coldest month at all

locations, while July and August are usually the hottest months of the year. Periods of heavy fog are frequent, and low stratus clouds, occasionally referred to as "high fog," are a characteristic climatic feature. Precipitation is typically 9.25 inches annually in the Valley floor. The frequency and volume of rainfall is greater in the coastal areas of the basin.

Air Movement and Wind

As with all of Central California, climate in the Tracy area is dominated by the strength and location of a semi-permanent, subtropical high-pressure cell over the northeastern Pacific Ocean. Climate is also affected by the temperature moderating effects of the nearby oceanic heat reservoir. Warm summers, cool winters, rainfall, daytime onshore breezes, and moderate humidity characterize regional climatic conditions.

In summer, when the high-pressure cell is strongest, temperatures are very warm and humidity is low. The daily incursion of the sea breeze into the Central Valley, however, creates persistent breezes that moderate the summer heat. In winter, when the high-pressure cell is weakest, conditions are characterized by occasional rainstorms interspersed with stagnant conditions and sometimes heavy fog.

One of the most important climatic factors is the direction and intensity of the prevailing winds. During the summer months, the wind usually originates at the northern end of the San Joaquin Valley and flows in a south-southeasterly direction into the Southeast Desert Air Basin. In the winter, the wind originates from the southern end of the San Joaquin Valley and flows in a northeasterly direction. With very light average wind speeds (less than 10 miles per hour), the basin has a limited capability to disperse air contaminants horizontally. Whether there is air movement or stagnation during the morning and evening hours (before these dominant patters take effect) is one of the critical factors in determining the smog condition on any given day.

Sunlight

The presence and intensity of sunlight are necessary prerequisites for the formation of photochemical smog. Under the influence of the ultraviolet radiation of sunlight, certain original or "primary" pollutants (mainly reactive hydrocarbons and oxides of nitrogen) react to form "secondary" pollutants (primarily oxidants). Since this process is time dependent, secondary pollutants can be formed many miles downwind from the emission sources. Because of the of the prevailing daytime winds and time delayed nature of photochemical smog, oxidant concentrations are highest in the inland areas of the San Joaquin Valley.

Temperature Inversions

A temperature inversion is a reversal in the normal decrease of temperature as altitude increases. In most parts of the country, air near ground level is warmer than the air above it. Semi-permanent systems of high barometric pressure fronts establish themselves over the basin, deflecting low-pressure systems that might otherwise bring cleansing rain and winds. The height of the base of the inversion is known as the "mixing height" and controls the volume of air available for the mixing and dispersion of air pollutants.

The interrelationship of air pollutants and climatic factors are most critical on days of greatly reduced atmospheric ventilation. On days such as these, air pollutants accumulate because of the simultaneous occurrence of three favorable factors: low inversions, low maximum mixing heights and low wind speeds. Although these conditions may occur throughout the year, the months of July, August and September generally account for more than 40 percent of these occurrences.

The potential for high contaminant levels varies seasonally for many contaminants. During late spring, summer and early fall, light winds, low mixing heights and sunshine combine to produce conditions favorable for the maximum production of oxidants, mainly ozone. When strong surface inversions are formed on winter nights, especially during the hours before sunrise, coupled with near-calm winds, carbon monoxide from automobile exhausts becomes highly concentrated. The highest yearly concentrations of carbon monoxide and oxides of nitrogen and measured during November, December and January.

CRITERIA POLLUTANTS

The United States Environmental Protection Agency (EPA) uses six "criteria pollutants" as indicators of air quality, and has established for each of them a maximum concentration above which adverse effects on human health may occur. These threshold concentrations are called National Ambient Air Quality Standards (NAAQS). Each criteria pollutant is described below.

Ozone (O3) is a photochemical oxidant and the major component of smog. While O3 in the upper atmosphere is beneficial to life by shielding the earth from harmful ultraviolet radiation from the sun, high concentrations of O3 at ground level are a major health and environmental concern. O3 is not emitted directly into the air but is formed through complex chemical reactions between precursor emissions of volatile organic compounds (VOC) and oxides of nitrogen (NOx) in the presence of sunlight. These reactions are stimulated by sunlight and temperature so that peak O3 levels occur typically during the warmer times of the year. Both VOCs and NOx are emitted by transportation and industrial sources. VOCs are emitted from sources as diverse as autos, chemical manufacturing, dry cleaners, paint shops and other sources using solvents.

The reactivity of O3 causes health problems because it damages lung tissue, reduces lung function and sensitizes the lungs to other irritants. Scientific evidence indicates that ambient levels of O3 not only affect people with impaired respiratory systems, such as asthmatics, but healthy adults and children as well. Exposure to O3 for several hours at relatively low concentrations has been found to significantly reduce lung function and induce respiratory inflammation in normal, healthy people during exercise. This decrease in lung function generally is accompanied by symptoms including chest pain, coughing, sneezing and pulmonary congestion.

Carbon monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete burning of carbon in fuels. When CO enters the bloodstream, it reduces the delivery of oxygen to the body's organs and tissues. Health threats are most serious for those who suffer from cardiovascular disease, particularly those with angina or peripheral vascular disease. Exposure to elevated CO levels can cause impairment of visual perception, manual dexterity, learning ability and performance of complex tasks.

Nitrogen dioxide (NO2) is a brownish, highly reactive gas that is present in all urban atmospheres. NO2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections. Nitrogen oxides are an important precursor both to ozone (O3) and acid rain, and may affect both terrestrial and aquatic ecosystems. The major mechanism for the formation of NO2 in the atmosphere is the oxidation of the primary air pollutant nitric oxide (NOx). NOx plays a major role, together with VOCs, in the atmospheric reactions that produce O3. NOx forms when fuel is burned at high temperatures. The two major emission sources are transportation and stationary fuel combustion sources such as electric utility and industrial boilers.

Sulfur dioxide (SO2) affects breathing and may aggravate existing respiratory and cardiovascular disease in high doses. Sensitive populations include asthmatics, individuals with bronchitis or emphysema, children and the elderly. SO2 is also a primary contributor to acid deposition, or acid rain, which causes acidification of lakes and streams and can damage trees, crops, historic buildings and statues. In addition, sulfur compounds in the air contribute to visibility impairment in large parts of the country. This is especially noticeable in national parks. Ambient SO2 results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills and from nonferrous smelters.

Particulate matter (PM) includes dust, dirt, soot, smoke and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as SO2 and VOCs are also considered particulate matter.

Based on studies of human populations exposed to high concentrations of particles (sometimes in the presence of SO2) and laboratory studies of animals and humans, there are major effects of concern for human health. These include effects on breathing and respiratory symptoms, aggravation of existing respiratory and cardiovascular disease, alterations in the body's defense systems against foreign materials, damage to lung tissue, carcinogenesis and premature death.

Respirable particulate matter (PM_{10}) consists of small particles, less than 10 microns in diameter, of dust, smoke, or droplets of liquid which penetrate the human respiratory system and cause irritation by themselves, or in combination with other gases. Particulate matter in Butte County is caused primarily by dust from grading and excavation activities, from agricultural uses (as created by soil preparation activities, fertilizer and pesticide spraying, weed burning and animal husbandry), and from motor vehicles, particularly diesel-powered vehicles. PM_{10} causes a greater health risk than larger particles, since these fine particles can more easily penetrate the defenses of the human respiratory system.

Fine particulate matter ($PM_{2.5}$) consists of small particles, which are less than 2.5 microns in size. Similar to PM10, these particles are primarily the result of combustion in motor vehicles, particularly diesel engines, as well as from industrial sources and residential/agricultural activities such as burning. It is also formed through the reaction of other pollutants. As with PM_{10}, these particulates can increase the chance of respiratory disease, and cause lung damage and cancer. In 1997, the EPA created new Federal air quality standards for $PM_{2.5}$.

The major subgroups of the population that appear to be most sensitive to the effects of particulate matter include individuals with chronic obstructive pulmonary or cardiovascular disease or influenza, asthmatics, the elderly and children. Particulate matter also soils and damages materials, and is a major cause of visibility impairment.

Lead (Pb) exposure can occur through multiple pathways, including inhalation of air and ingestion of Pb in food, water, soil or dust. Excessive Pb exposure can cause seizures, mental retardation and/or behavioral disorders. Low doses of Pb can lead to central nervous system damage. Recent studies have also shown that Pb may be a factor in high blood pressure and subsequent heart disease.

ODORS

Typically odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals have the ability to smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another.

It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air.

When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

SENSITIVE RECEPTORS

A sensitive receptor is a location where human populations, especially children, seniors, and sick persons, are present and where there is a reasonable expectation of continuous human exposure to pollutants. Examples of sensitive receptors include residences, hospitals and schools.

AMBIENT AIR QUALITY

Both the U.S. Environmental Protection Agency (U.S. EPA) and the California Air Resources Board (CARB) have established ambient air quality standards for common pollutants. These ambient air quality standards represent safe levels of contaminants that avoid specific adverse health effects associated with each pollutant.

The federal and California state ambient air quality standards are summarized in **Table 3.3-1** for important pollutants. The federal and state ambient standards were developed independently, although both processes attempted to avoid health-related effects. As a result, the federal and state standards differ in some cases. In general, the California state standards are more stringent. This is particularly true for ozone and particulate matter between 2.5 and 10 microns in diameter (PM_{10}).

TABLE 3.3-1: FEDERAL AND STATE AMBIENT AIR QUALITY STANDARDS

POLLUTANT	*AVERAGING TIME*	*FEDERAL PRIMARY STANDARD*	*STATE STANDARD*
Ozone	1-Hour 8-Hour	-- 0.075 ppm	0.09 ppm 0.070 ppm
Carbon Monoxide	8-Hour 1-Hour	9.0 ppm 35.0 ppm	9.0 ppm 20.0 ppm
Nitrogen Dioxide	Annual 1-Hour	0.05 ppm --	-- 0.25 ppm
Sulfur Dioxide	Annual 24-Hour 1-Hour	0.03 ppm 0.14 ppm --	-- 0.04 ppm 0.25 ppm
PM10	Annual 24-Hour	-- 150 ug/m3	20 ug/m3 50 ug/m3
PM2.5	Annual 24-Hour	15 ug/m3 35 ug/m3	12 ug/m3 --
Lead	30-Day Avg. 3-Month Avg.	-- 1.5 ug/m3	1.5 ug/m3 --

SOURCE: CALIFORNIA AIR RESOURCES BOARD, 2008

Notes: ppm = parts per million, ug/m3 = Micrograms per Cubic Meter

In addition to the criteria pollutants discussed above, Toxic Air Contaminants (TACs) are another group of pollutants of concern. TACs are injurious in small quantities and are regulated despite the absence of criteria documents. The identification, regulation and monitoring of TACs is relatively recent compared to that for criteria pollutants. Unlike criteria pollutants, TACs are regulated on the basis of risk rather than specification of safe levels of contamination.

Attainment Status

In accordance with the California Clean Air Act (CCAA), the CARB is required to designate areas of the state as attainment, nonattainment, or unclassified with respect to applicable standards. An "attainment" designation for an area signifies that pollutant concentrations did not violate the applicable standard in that area. A "nonattainment" designation indicates that a pollutant concentration violated the applicable standard at least once, excluding those occasions when a violation was caused by an exceptional event, as defined in the criteria.

Depending on the frequency and severity of pollutants exceeding applicable standards, the nonattainment designation can be further classified as serious nonattainment, severe nonattainment, or extreme nonattainment, with extreme nonattainment being the most severe of the classifications. An "unclassified" designation signifies that the data do not support either an attainment or nonattainment status. The CCAA divides districts into moderate, serious, and severe air pollution categories, with increasingly stringent control requirements mandated for each category.

The U.S. EPA designates areas for ozone (O3), carbon monoxide (CO), and nitrogen dioxide (NO2) as "does not meet the primary standards," "cannot be classified," or "better than national standards." For sulfur dioxide (SO2), areas are designated as "does not meet the primary standards," "does not meet the secondary standards," "cannot be classified," or "better than national standards." However, the CARB terminology of attainment, nonattainment, and unclassified is more frequently used.

The sub-categories for nonattainment status (serious, severe, and extreme) are also used by U.S. EPA. In 1991, new nonattainment designations were assigned to areas that had previously been classified as Group I, II, or III for PM_{10} based on the likelihood that they would violate national PM_{10} standards. All other areas are designated "unclassified."

Federal and state air quality laws require identification of areas not meeting the ambient air quality standards. These areas must develop regional air quality plans to eventually attain the standards. Under both the federal and state Clean Air Acts, the San Joaquin Valley Air Basin is a non-attainment area (standards have not been attained) for ozone and particulate matter (PM10 and PM2.5). The air basin is either in attainment or unclassified for other ambient standards.

Air Quality Monitoring

The SJVAPCD and the California Air Resources Board (CARB) monitor ambient air quality at approximately 250 air-monitoring stations across the state. Air quality monitoring stations usually measure pollutant concentrations ten feet above ground level; therefore, air quality is often referred to in terms of ground-level concentrations.

The Tracy-Airport monitoring station is the nearest stations to the Holly Sugar Sports Park project site. The Tracy-Airport monitoring station only measures ozone (O3) and nitrogen dioxide (NO2). Monitoring activities as the Tracy Airport began in 2006, when monitoring ceased at the Tracy-Patterson Pass Road monitoring station. Therefore, it was necessary to use monitoring data from

the Stockton-Hazelton Street monitoring station, located approximately 19 miles northeast of the City of Stockton to provide monitoring data when data was not available at the Tracy Airport monitoring station. The above-mentioned stations were chosen for the similarity in geographic, meteorological, and urbanized conditions. Air Quality data from 2005-2008 is provided in Table 3.3-2.

TABLE 3.3- 2: AMBIENT AIR QUALITY MONITORING DATA (STOCKTON-HAZELTON ST. STATION)

POLLUTANT	CAL.	FED.	YEAR	MAX CONCENTRATION	DAYS (SAMPLES) STATE/FED STANDARD EXEEDED
	PRIMARY STANDARD				
Carbon Monoxide (CO)	9.0 ppm for 8 hours	9.0 ppm for 8 hours	2005(S)	2.86	0/0
			2006(S)	2.25	0/0
			2007(S)	2.31	0/0
			2008(S)	1.72	0/0
Ozone (O3) (1-hour)	0.09 ppm for 1 hour	NA	2005(S)	0.990	3/0
			2006(S)	0.109	6/0
			2007(T)	0.097	1/0
			2008(T)	0.123	11/0
Ozone (O3) (8-hour)	0.07 ppm for 8 hour	0.08 ppm for 8 hour	2005(S)	0.086	10/1
			2006(S)	0.092	21/13
			2007(T)	0.084	11/6
			2008(T)	0.104	25/16
Nitrogen Dioxide (NO2)	0.18 ppm for 1 hour	0.53 ppm annual average	2005(S)	0.087	0/0
			2006(T)	0.056	0/0
			2007(T)	0.045	0/0
			2008(T)	0.047	0/0
Particulate Matter (PM10)	50 ug/m3 for 24 hours	150 ug/m3 for 24 hours	2005	79.0	8/0
			2006	82.0	62/0
			2007	75.0	23/0
			2008	105.0	NA/NA
Fine Particulate Matter (PM2.5)	No Separate State Standard	35 ug/m3 for 24 hours	2005(S)	63.0	NA/0
			2006(S)	47.0	NA/20
			2007(S)	66.8	NA/34
			2008(S)	91.0	NA/NA

SOURCES: CALIFORNIA AIR RESOURCES BOARD (ADAM) AIR POLLUTION SUMMARIES, 2005, 2006, 2007, AND 2008.

Notes:
ppm = parts per million.
Ug/m3 = microns per cubic meter.
NA= not applicable
(S)= data collected at Stockton-Hazelton Monitoring Station
(T)= data collected at Tracy-Airport Monitoring Station

3.3.2 REGULATORY SETTING

FEDERAL

Clean Air Act

The Federal Clean Air Act (FCAA) was first signed into law in 1970. In 1977, and again in 1990, the law was substantially amended. The FCAA is the foundation for a national air pollution control effort, and it is composed of the following basic elements: NAAQS for criteria air pollutants, hazardous air pollutant standards, state attainment plans, motor vehicle emissions standards, stationary source emissions standards and permits, acid rain control measures, stratospheric ozone protection, and enforcement provisions.

The EPA is responsible for administering the FCAA. The FCAA requires the EPA to set NAAQS for several problem air pollutants based on human health and welfare criteria. Two types of NAAQS were established: primary standards, which protect public health, and secondary standards, which protect the public welfare from non-health-related adverse effects such as visibility reduction.

STATE

California Clean Air Act

The California Clean Air Act (CCAA) was first signed into law in 1988. The CCAA provides a comprehensive framework for air quality planning and regulation, and spells out, in statute, the state's air quality goals, planning and regulatory strategies, and performance. CARB is the agency responsible for administering the CCAA. CARB established ambient air quality standards pursuant to the California Health and Safety Code (CH&SC) [§39606(b)], which are similar to the federal standards.

Air Quality Standards

NAAQS are determined by the EPA. The standards include both primary and secondary ambient air quality standards. Primary standards are established with a safety margin. Secondary standards are more stringent than primary standards and are intended to protect public health and welfare. States have the ability to set standards that are more stringent than the federal standards. As such, California established more stringent ambient air quality standards.

Federal and state ambient air quality standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, suspended particulates (PM_{10}) and lead. In addition, California has created standards for pollutants that are not covered by federal standards. The state and federal primary standards for major pollutants are shown in Table 3.3-1.

Like the EPA, CARB also designates areas within California as either attainment or nonattainment for each criteria pollutant based on whether the CAAQS have been achieved. Under the CCAA, areas are designated as nonattainment for a pollutant in air quality data shows that a State standard for the pollutant was violated at least once during the previous three calendar years.

Exceedances that are affected by highly irregular or infrequent events are not considered violations of a State standard, and are not used as a basis for designating areas as nonattainment.

Under the CCAA, the Basin is designated as a nonattainment area for O3, PM10 and PM2.5. The Basin is designated as an attainment area for CO, NO2, SO2, and Pb. Similar to the FCAA, all areas designated as nonattainment under the CCAA are required to prepare plans showing how the area would meet the CAAQS by its attainment dates. The AQMP is the plan for improving air quality in the region.

Tanner Air Toxics Act

California regulates TACs primarily through the Tanner Air Toxics Act (AB 1807) and the Air Toxics Hot Spots Information and Assessment Act of 1987 (AB 2588). The Tanner Act sets forth a formal procedure for ARB to designate substances as TACs. This includes research, public participation, and scientific peer review before ARB can designate a substance as a TAC. To date, ARB has identified more than 21 TACs and has adopted EPA's list of HAPs as TACs. Most recently, diesel PM was added to the ARB list of TACs. Once a TAC is identified, ARB then adopts an Airborne Toxics Control Measure (ATCM) for sources that emit that particular TAC. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure below that threshold. If there is no safe threshold, the measure must incorporate BACT to minimize emissions.

The AB 2588 requires that existing facilities that emit toxic substances above a specified level prepare a toxic-emission inventory, prepare a risk assessment if emissions are significant, notify the public of significant risk levels, and prepare and implement risk reduction measures. ARB has adopted diesel exhaust control measures and more stringent emission standards for various on-road mobile sources of emissions, including transit buses and off-road diesel equipment (e.g., tractors, generators). In February 2000, ARB adopted a new public-transit bus-fleet rule and emission standards for new urban buses. These rules and standards provide for (1) more stringent emission standards for some new urban bus engines, beginning with 2002 model year engines; (2) zero-emission bus demonstration and purchase requirements applicable to transit agencies; and (3) reporting requirements under which transit agencies must demonstrate compliance with the urban transit bus fleet rule. Upcoming milestones include the low-sulfur diesel-fuel requirement, and tighter emission standards for heavy-duty diesel trucks (2007) and off-road diesel equipment (2011) nationwide.

LOCAL AIR QUALITY REGULATIONS

San Joaquin Valley Air Pollution Control District

The SJVAPCD has adopted several attainment plans to achieve state and federal air quality standards to comply with the CCAA and FCAAA. The SJVAPCD must continuously monitor its progress in implementing attainment plans and must periodically report to the CARB and the EPA. It must also periodically revise its attainment plans to reflect new conditions and requirements in accordance with schedules mandated by the CCAA and FCAAA.

The CCAA requires air districts to adopt air quality attainment plans and to review and revise their plans to address deficiencies in interim measures of progress once every three years.

The SJVAPCD is one of 35 air quality management districts in the State that have prepared AQMPs to accomplish a five-percent annual reduction in emissions. The SJVAPCD have prepared the *2007 Ozone Plan* to achieve Federal and State standards for improved air quality in the Basin regarding ozone. The *2007 Ozone Plan* provides a comprehensive list of regulatory and incentive-based measures to reduce emissions of ozone and particulate mater precursors throughout the Basin. The 2007 Ozone Plan calls for major advancements in pollution control technologies for mobile and stationary sources of air pollution. The *2007 Ozone Plan* calls for a 75-percent reduction in ozone-forming oxides of nitrogen emissions.

The SJVAPCD has also prepared the *2007 PM10 Maintenance Plan and Request for Redesignation* (2007 PM10 Plan). On April 24, 2006, the SJVAPCD submitted a Request for Determination of PM10 Attainment for the Basin to CARB. CARB concurred with the request and submitted the request to the EPA on May 8, 2006. On October 30, 2006, the EPA issued a Final Rule determining that the Basin had attained the NAAQS for PM10. However, the EPA noted that the Final Rule did not constitute a redesignation to attainment until all of the FCAA requirements under Section 107(d)(3) were met.

In addition to the *2007 Ozone Plan* and the *2007 PM10 Plan*, the SJVAPCD prepared the *Guide for Assessing and Mitigation Air Quality Impacts* (GAMAQI). The GAMAQI is an advisorial document that provides Lead Agencies, consultants, and project applicants with analysis guidance and uniform procedures for addressing air quality impacts in environmental documents. Local jurisdictions are not required to utilize the methodology outlined therein. This document describes the criteria that SJVAPCD uses when reviewing and commenting on the adequacy of environmental documents. It recommends thresholds for determining whether or not projects would have significant adverse environmental impacts, identifies methodologies for predicting project emissions and impacts, and identifies measures that can be used to avoid or reduce air quality impacts. An update of the GAMAQI was approved on January 10, 2002, and is used as a guidance document for this analysis.

SJVAPCD RULES AND REGULATIONS

The SJVAPCD has adopted numerous rules and regulations to implement its air quality plans. Following, are significant rules that will apply to the proposed project.

Regulation VIII – Fugitive PM10 Prohibitions

Regulation VIII is comprised of District Rules 8011 through 8081 which are designed to reduce PM10 emissions (predominantly dust/dirt) generated by human activity, including construction and demolition activities, road construction, bulk materials storage, paved and unpaved roads, carryout and track out, landfill operations, etc.

Rule 8021 – Construction, Demolition, Excavation, and Other Earthmoving Activities

District Rule 8021 requires owners or operators of construction projects to submit a Dust Control Plan to the District if at anytime the project involves non-residential developments of five or more acres of disturbed surface area or moving, depositing, or relocating of more than 2,500 cubic yards per day of bulk materials on at least three days of the project. The proposed project will meet these criteria and will be required to submit a Dust Control Plan to the District in order to comply with this rule.

Rule 4641 – Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations

If asphalt paving will be used, then paving operations of the proposed project will be subject to Rule 4641. This rule applies to the manufacture and use of cutback asphalt, slow cure asphalt and emulsified asphalt for paving and maintenance operations.

Rule 9510 Indirect Source Review

District Rule 9510 requires developers of large residential, commercial and industrial projects to reduce smog-forming (NOx) and particulate (PM10 and PM2.5) emissions generated by their projects. The Rule applies to projects which upon full build-out will include 50 or more residential units. Project developers are required to reduce:

- 20 percent of construction-exhaust nitrogen oxides;
- 45 percent of construction-exhaust PM10;
- 33 percent of operational nitrogen oxides over 10 years; and
- 50 percent of operational PM10 over 10 years.

Developers are encouraged to meet these reduction requirements through the implementations of on-site mitigation; however, if the on-site mitigation does not achieve the required baseline emission reductions, the developer will mitigate the difference by paying an off-site fee to the District. Fees reduce emissions by helping to fund clean-air projects in the District. In a comment letter dated January 28, 2009, the SJVAPCD stated that the project would be subject to the requirement of Rule 9510 since it would result in greater than 20,000 square feet of recreational space.

3.3.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with air quality if it will:

- Conflict with or obstruct implementation of the applicable air quality plan;
- Cause a violation of any air quality standard or contribute substantially to an existing or projected air quality violation;

- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people.

SJVAPCD Thresholds

For the purposes of this air quality analysis, actions that violate Federal standards for criteria pollutants (i.e., primary standards designed to safeguard the health of people considered to be sensitive receptors while outdoors and secondary standards designed to safeguard human welfare) are considered significant impacts. Additionally, actions that violate State standards developed by the CARB or criteria developed by the SJVAPCD, including thresholds for criteria pollutants, are considered significant impacts. Projects that would generate 10 tons per year of either ROG or NOx are considered to have a potentially significant air quality impact. The SJVAPCD has also established a threshold of 15 tons per year for PM10. As previously mentioned, the Basin is classified as a nonattainment area for ozone. In order to achieve the Federal and State standards of ozone, it is necessary to regulate ROG and NOx, which contribute to the formation of ozone. This includes both direct and indirect emissions.

In addition to the tons/year thresholds cited above, the SJVAPCD has thresholds applicable to CO emissions that require projects to perform localized CO modeling. These thresholds include the following:

- Project traffic would impact signalized intersections operating at level of service (LOS) D, E or F or would cause LOS to decline to D, E or F.
- Project traffic would increase traffic volumes on nearby roadways by 10 percent or more.
- The project would contribute to CO concentrations exceeding CAAQS of 9 parts per million (ppm) averaged over 8 hours and 20 ppm for one hour.

Construction Specific Thresholds

The SJVAPCD's approach to analysis of construction impacts is to require implementation of effective and comprehensive control measures, rather than to require detailed quantification of emission concentrations for modeling of direct impacts. PM10 emitted during construction can vary greatly depending on the level of activity, the specific operations taking place, the equipment being operated, local soils, weather conditions, and other factors, making quantification difficult. Despite this variability in emissions, experience has shown that there are a number of feasible control measures that can be reasonably implemented to significantly reduce PM10 emissions from construction activities. The SJVAPCD has determined that compliance with Regulation VIII for all sites and implementation of all other control measures indicated in Tables 6-2 and 6-3 of the GAMAQI (as appropriate) would constitute sufficient mitigation to reduce PM10 impacts to a level considered less than significant.

Odor Based Thresholds

Projects that would potentially generate objectionable odorous emissions that would be located near existing sensitive receptors or other land uses where people may congregate could constitute a significant air quality impact to existing uses. Also, residential or other sensitive receptor projects built for the intent of attracting people locating near existing odor sources could also cause a significant air quality impact for the proposed uses. The SJVAPCD suggests a threshold based on the distance of the odor source from people and complaint records for a facility or similar facility. The threshold would be more than one confirmed complaint per year averaged over a three-year period, or three unconfirmed complaints per year averaged over a three-year period.

METHODOLOGY

Emissions were estimated using the approach included in the 2007 URBEMIS model combined with emissions factors developed by CARB and the SJVAPCD. The URBEMIS model is used to calculate construction and operational emissions associated with land development projects, and includes EPA, SJVAPCD, and CARB emissions factors embedded within it.

Emissions generated by operation of the proposed park would generally come form two sources: 1) emissions associated with vehicles traveling to and from the project site, and 2) emissions associated with the operation of maintenance equipment (lawnmowers, etc.).

Traffic and trip generation rates included in the Holly Sugar Sports Park Traffic Study (Appendix H) were used to calculate emissions associated with project-generated vehicle trips.

Maintenance equipment emissions were estimated assuming that 4 motorized lawn mowers would be used a maximum of 8 hours each on the maximum day, and that 5 other maintenance equipment/vehicles would be used (infield groomer, aerator, seeder, etc.) would each be used 4 hours. Assuming each is gasoline powered and operates at 50 horsepower, daily emissions were calculated by multiplying horsepower-hours by generalized emission factors from the CARB's OFFROAD Emissions Model (CARB, 1998).

IMPACTS AND MITIGATION MEASURES

Short-term (Construction) Impacts

Impact 3.3-1: Construction of the proposed project would result in temporary dust and vehicle emission impacts in the project vicinity during site preparation and construction activities (Less than Significant with Mitigation)

As described above, the SJVAPCD's approach to CEQA analysis of construction impacts is to require implementation of effective and comprehensive control measures, rather than to require a detailed quantification of potential construction-related emissions. PM10 and other criteria

pollutants emitted during construction can vary greatly depending on the level of activity, the specific operations taking plan, the equipment being operated, and other factors.

Construction would result in numerous activities that would generate dust. The fine, silty soils in the project area and often strong afternoon winds exacerbate the potential for dust, particularly in the summer months. Grading, leveling, earthmoving and excavation are the activities that generate the most particulate emissions. Impacts would be localized and variable. Construction impacts would last for a period of several months. The initial phase of project construction would involve the installation of the primary access road connecting the project site to Tracy Boulevard. The initial phase would include the construction of four soccer fields, two baseball fields and associated parking lot improvements (approximately 439 spaces) in the eastern-most portion of the project site.

For the purposes of this analysis, it is assumed that the entire 166-acre active park site would be constructed by 2015, and the future expansion area would be constructed by 2035. It is also assumed that the passive recreation area would be developed concurrently with the 166-acre active park site. However, it is important to note that the uses proposed for the 86-acre passive recreation area would not require significant ground disturbing activities, and would not result in the construction of any permanent structures.

Construction activities that could generate dust and vehicle emissions are primarily related to grading and other ground-preparation activities in order to prepare the project site for the installation of the various ballfields proposed.

Control measures are required and enforced by the SJVAPCD under Regulation VIII. The SJVAPCD considers construction-related emissions from all projects in this region to be mitigated to a less than significant level if SJVAPCD-recommended PM10 fugitive dust rules and equipment exhaust emissions controls are implemented. With implementation of the proposed mitigation measures, fugitive dust and construction vehicle emissions impacts to surrounding sensitive land uses would be considered **less than significant**.

Naturally Occurring Asbestos (NOA)

Pursuant to guidance issued by the Governor's Office of Planning and Research (OPR), State Clearinghouse, Lead Agencies are encouraged to analyze potential impacts related to naturally occurring asbestos. NOA can be released from serpentine soils and ultramafic rocks when the rocks are broken or crushed or when soils are disturbed. At the point of release, the asbestos fibers may become airborne, causing air quality and human health hazards.

Serpentine soils and/or ultrmafic rock are known to be present in 44 of California's 58 counties. These rocks and soils are particularly abundant in the counties of the Sierra Nevada foothills, the Klamath Mountains and Coast Ranges. According to the *General Location Guide for Ultramafic Rock in California- Areas More Likely to Contain Naturally Occurring Asbestos*, serpentine soils and ultramafic roacks are not known to occur within the Holly Sugar Sports Park project site, and thus, there is no potential that the proposed project would disturb NOA. This is considered a **less than significant impact.**

Odors

Potential odors generated during construction activities would be temporary in nature and are concluded to result in **less than significant impacts**. It should be noted that emissions produced during grading and construction activities are "short-term" in nature as they occur for only the duration of construction.

MITIGATION MEASURES

Mitigation Measure 3.3-1*: Prior to the commencement of grading activities, the City shall require the contractor hired to complete the grading activities to prepare a construction emissions reduction plan that meets the requirements of SJVAPCD Rule VIII. The construction emissions reductions plan shall be submitted to the SJVAPCD for review and approval. The City of Tracy shall ensure that all required permits from the SJVAPCD have been issued prior to commencement of grading activities. The construction emissions reduction plan should include the following requirements and measures:*

- *Properly and routinely maintain all construction equipment, as recommended by manufacturer's manuals, to control exhaust emissions.*
- *Shut down equipment when not in use for extended periods of time, to reduce exhaust emissions associated with idling engines.*
- *Encourage ride-sharing and of use transit transportation for construction employees commuting to the project site.*
- *Use electric equipment for construction whenever possible in lieu of fossil fuel-powered equipment.*
- *Curtail construction during period of high ambient pollutant concentrations.*
- *Construction equipment shall operate no longer than eight cumulative hours per day.*
- *All construction vehicles shall be equipped with proper emission control equipment and kept in good and proper running order to reduce NOx emissions.*
- *On-road and off-road diesel equipment shall use aqueous diesel fuel if permitted under manufacturer's guidelines.*
- *On-road and off-road diesel equipment shall use diesel particulate filters if permitted under manufacturer's guidelines.*
- *On-road and off-road diesel equipment shall use cooled exhaust gas recirculation (EGR) if permitted under manufacturer's guidelines.*
- *Use of Caterpillar pre-chamber diesel engines or equivalent shall be utilized if economic and available to reduce NOx emissions.*
- *All construction activities within the project site shall be discontinued during the first stage smog alerts.*
- *Construction and grading activities shall not be allowed during first stage ozone alerts. (First stage ozone alerts are declared when ozone levels exceed 0.20 ppm for the 1-hour average.)*

Implementation of this mitigation shall occur during all grading or site clearing activities. The SJVAPCD shall be responsible for monitoring.

***Mitigation Measure 3.3-2**: The following mitigation measures, in addition to those required under Regulation VIII of the SJVAPCD, shall be implemented by the City's contractor during all phases of project grading and construction to reduce fugitive dust emissions:*

- *Water previously disturbed exposed surfaces (soil) a minimum of three-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity.*
- *Water all haul roads (unpaved) a minimum of three-times/day or whenever visible dust is capable of drifting from the site or approaches 20 percent opacity.*
- *All access roads and parking areas shall be covered with asphalt-concrete paving or water sprayed regularly.*
- *Dust from all on-site and off-site unpaved access roads shall be effectively stabilized by applying water or using a chemical stabilizer or suppressant.*
- *Reduce speed on unpaved roads to less than 15 miles per hour.*
- *Install and maintain a trackout control device that meets the specifications of SJVAPCD Rule 8041 if the site exceeds 150 vehicle trips per day or more than 20 vehicle trips be day by vehicles with three or more axles.*
- *Stabilize all disturbed areas, including storage piles, which are not being actively utilized for construction purposes using water, chemical stabilizers or by covering with a tarp, other suitable cover or vegetative ground cover.*
- *Control fugitive dust emissions during land clearing, grubbing, scraping, excavation, leveling, grading or cut and fill operations with application of water or by presoaking.*
- *When transporting materials offsite, maintain a freeboard limit of at least six inches and over or effectively wet to limit visible dust emissions.*
- *Limit and remove the accumulation of mud and/or dirt from adjacent public roadways at the end of each workday. (Use of dry rotary brushes is prohibited except when preceded or accompanied by sufficient wetting to limit visible dust emissions and the use of blowers is expressly forbidden.)*
- *Remove visible track-out from the site at the end of each workday.*
- *Cease grading activities during periods of high winds (greater than 20 mph over a one-hour period).*
- *Asphalt-concrete paving shall comply with SJVAPCD Rule 4641 and restrict use of cutback, slow-sure, and emulsified asphalt paving materials.*

Implementation of this mitigation shall occur during all grading or site clearing activities. The SJVAPCD shall be responsible for monitoring.

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.3-1 and 3.3-2, in addition to compliance with all applicable measures from SJVAPCD Rule VIII would reduce construction-related impacts associated with dust and construction vehicle emissions to a **less than significant** level.

Long-term (Operational) Impacts

Impact 3.3-2: Project implementation may conflict with, or obstruct, the applicable air quality plan, cause a violation of air quality standards, contribute substantially to an existing air quality violation, or result in a cumulatively considerable net increase of a criteria pollutant in a non-attainment area (Less than Significant with Mitigation)

The project would be an indirect source of air pollutants, in that it would attract and cause an increase in vehicle trips in the region. The project would also be an area source of emissions, primarily from the maintenance and landscaping activities. Table 3.3-3 shows the new auto and maintenance equipment emissions of regional pollutants that would result from the proposed project. The San Joaquin Valley Air Pollution Control District has established a threshold of significance for ozone precursors of 10 tons per year, and 15 tons per year has been assumed to represent a significant impact for PM10. Detailed emissions calculations are presented in Appendix B.

TABLE 3.3-3: TOTAL PROJECT GENERATED EMISSIONS AT FULL BUILDOUT

	EMISSIONS (TONS/YEAR)						
Source	ROG	NOX	CO	SO2	PM10	PM2.5	CO2
Landscape Maintenance	0.09	0.21	0.28	0.00	0.02	0.02	23.03
Architectural Coatings	6.56	--	--	--	--	--	--
Mobile Sources	1.66	2.3	16.36	0.01	1.04	0.24	1,176.86
Total	**8.31**	**2.51**	**16.64**	**0.01**	**1.06**	**0.26**	**1,199.89**
SJVAPCD Threshold	**10**	**10**	**--**	**--**	**15**	**--**	**--**

EMISSIONS WERE CALCULATED USING THE URBEMIS2007 (V.9.24) COMPUTER PROGRAM. ASSUMES TOTAL BUILDOUT OF THE PROPOSED PROJECT. MOBILE SOURCE EMISSIONS WERE BASED ON THE AVERAGE ANNUAL ADT PRESENTED IN APPENDIX H AND DEFAULT VEHICLE TRIP DISTANCES AND FLEET CHARACTERISTICS CONTAINED IN THE MODEL. LANDSCAPE MAINTENANCE EMISSIONS WERE DERIVED FROM THE ASSUMPTIONS OUTLINED ABOVE. EMISSIONS ASSOCIATED WITH ARCHITECTURAL COATINGS WERE BASED ON DEFAULT MODELING PARAMETERS. TO BE CONSERVATIVE, EMISSIONS WERE CALCULATED BASED ON YEAR 2010 CONDITIONS. EMISSIONS ASSOCIATED WITH NATURAL GAS USE, HEARTH, AND CONSUMER PRODUCTS WOULD NOT BE ANTICIPATED TO BE ASSOCIATED WITH THE PROPOSED PROJECT.

As shown in the table above, project generated emissions are below the SJVAPCD thresholds for ROG, NOx and PM10. As such, the project would result in **less than significant** air quality impacts. However, regardless of the emissions totals presented above, the SJVAPCD has determined that the project is still subject to the requirements of SJVAPCD Rule 9510, which requires developers of large residential, commercial and industrial projects to reduce smog-forming (NOx) and particulate (PM10 and PM2.5) emissions generated by their projects. The Rule applies to projects which upon full build-out will include 50 or more residential units. Project developers are required to reduce:

- 20 percent of construction-exhaust nitrogen oxides;
- 45 percent of construction-exhaust PM10;

- 33 percent of operational nitrogen oxides over 10 years; and
- 50 percent of operational PM10 over 10 years.

Developers are encouraged to meet these reduction requirements through the implementations of on-site mitigation; however, if the on-site mitigation does not achieve the required baseline emission reductions, the developer will mitigate the difference by paying an off-site fee to the District.

MITIGATION MEASURES

Mitigation Measure 3.3-3*: Prior to the award of the contract to construct the project, the City of Tracy shall coordinate with the SJVAPCD to verify that the project meets the requirements of District Rule 9510, which is aimed at the following reductions:*

- *20 percent of construction-exhaust nitrogen oxides;*
- *45 percent of construction-exhaust PM10;*
- *33 percent of operational nitrogen oxides over 10 years; and*
- *50 percent of operational PM10 over 10 years.*

The City shall coordinate with SJVAPCD to develop measures and strategies to reduce operational emissions from the proposed project. If feasible measures are not available to meet the emissions reductions targets outlined above, then the City may be required to pay an in-lieu mitigation fee to the SJVAPCD to off-set project-related emissions impacts. If in-lieu fees are required, the City shall coordinate with the SJVAPCD to calculate the amount of the fees required to off-set project impacts.

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.3-3 would reduce project-related operational emissions impacts to **less than significant** levels under both near-term and cumulative conditions. The implementation of MM 3.3-1 and 3.3-2 would achieve compliance with the construction emissions reductions listed above.

Impact 3.3-3: Project implementation may create objectionable odors affecting a substantial number of people (Less than Significant)

Operation of the proposed project would not result in the generation of significant objectionable odors. As described in Section 2.0, Project Description, the 150-acre active sports park site consists primarily of ballfields and supporting facilities and infrastructure. The use of the sports fields would not create objectionable odors. Maintenance of the grass fields would require the periodic application of commonly used fertilizers, which would not result in noticeable odors in the project vicinity. The land uses surrounding the project site to the north, west and east consist of agricultural uses, which are not sensitive to the generation of odors. Lands to the south of the

project site consist of rural residential parcels. The project includes an 86-acre passive recreation area along the southern boundary of the park site. The uses proposed for the passive recreation area would not generate objectionable odors, and impacts to surrounding land uses would be less than significant.

Once operational, the Holly Sugar Sports Park will attract visitors and users from Tracy and the surrounding areas. As described above, the land uses surrounding the project site are primarily agricultural in nature, with rural residences located to the south of the project site. The surrounding agricultural uses include various types of row crops, which are not significant odor producers. Agricultural operations such as cattle feed lots, poultry and hog farms can create significant objectionable odors that may impact surrounding land uses. However, the agricultural uses in the vicinity of the project site do not include livestock operations, and odors on the project site generated from the surrounding land uses are anticipated to be minimal. This is a **less than significant** impact and no mitigation is required.

Impact 3.3-4: Development of the proposed project may expose sensitive receptors to toxic air contaminants (Less than Significant)

Implementation of the proposed project would not result in the long-term operation of any major onsite stationary sources of toxic air contaminants (TACs). In addition, no major stationary sources of TACs have been identified in the vicinity of the proposed project site. Therefore, implementation of the proposed project would not be anticipated to result in an increased exposure of sensitive receptors to localized concentrations of TACs that would exceed applicable standards. This impact is considered **less than significant**.

Impact 3.3-5: Development of the proposed project may result in increases in carbon monoxide concentrations (Less than Significant)

Project traffic would increase concentrations of carbon monoxide along streets providing access to the project. Carbon monoxide is a local pollutant (i.e., high concentrations are normally only found very near sources). The major source of carbon monoxide, a colorless, odorless, poisonous gas, is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volume and congestion.

The traffic impact analysis contained in Section 3.12 examined Level of Service (LOS) for intersections affected by the project. No existing or future signalized intersection is forecast to operate at LOS E or worse with the addition of project-generated traffic with recommended mitigation under near-term or cumulative conditions. Since the project is within an attainment area for carbon monoxide (ambient air quality standards are currently attained) and in an area with low background concentrations, changes in carbon monoxide levels resulting from the project would not result in violations of the ambient air quality standards, and would represent a **less than significant** impact.

3.3.4 GREENHOUSE GASSES AND CLIMATE CHANGE ENVIRONMENTAL SETTING

Greenhouse Gases and Climate Change Linkages

Various gases in the Earth's atmosphere, classified as atmospheric greenhouse gases (GHGs), play a critical role in determining the Earth's surface temperature. Solar radiation enters Earth's atmosphere from space, and a portion of the radiation is absorbed by the Earth's surface. The Earth emits this radiation back toward space, but the properties of the radiation change from high-frequency solar radiation to lower-frequency infrared radiation.

Greenhouse gases, which are transparent to solar radiation, are effective in absorbing infrared radiation. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This phenomenon is known as the greenhouse effect. Among the prominent GHGs contributing to the greenhouse effect are carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs).

Human-caused emissions of these GHGs, in excess of natural ambient concentrations, are responsible for enhancing the greenhouse effect (Ahrens 2003). Emissions of GHGs contributing to global climate change are attributable in large part to human activities associated with the industrial/manufacturing, utility, transportation, residential, and agricultural sectors (California Energy Commission 2006a). In California, the transportation sector is the largest emitter of GHGs, followed by electricity generation (California Energy Commission 2006a).

As the name implies, global climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and toxic air contaminants, which are pollutants of regional and local concern, respectively. California is the 12th to 16th largest emitter of CO_2in the world and produced 492 million gross metric tons of carbon dioxide equivalents in 2004 (California Energy Commission 2006a).

Carbon dioxide equivalents are a measurement used to account for the fact that different GHGs have different potential to retain infrared radiation in the atmosphere and contribute to the greenhouse effect. This potential, known as the global warming potential of a GHG, is also dependent on the lifetime, or persistence, of the gas molecule in the atmosphere. Expressing GHG emissions in carbon dioxide equivalents takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO_2 were being emitted.

Consumption of fossil fuels in the transportation sector was the single largest source of California's GHG emissions in 2004, accounting for 40.7% of total GHG emissions in the state (California Energy Commission 2006a). This category was followed by the electric power sector (including both in-state and out of-state sources) (22.2%) and the industrial sector (20.5%) (California Energy Commission 2006a).

Effects of Global Climate Change

The effects of increasing global temperature are far reaching and extremely difficult to quantify. The scientific community continues to study the effects of global climate change. In general, increases in the ambient global temperature as a result of increased GHGs is anticipated to result in rising sea levels, which could threaten coastal areas through accelerated coastal erosion, threats to levees and inland water systems and disruption to coastal wetlands and habitat.

If the temperature of the ocean warms, it is anticipated that the winter snow season would be shortened. Snowpack in the Sierra Nevada provides both water supply (runoff) and storage (within the snowpack before melting), which is a major source of supply for the state. According to a California Energy Commission report, the snowpack portion of the supply could potentially decline by 70% to 90% by the end of the 21st century (CEC 2006c). This phenomenon could lead to significant challenges securing an adequate water supply for a growing state population. Further, the increased ocean temperature could result in increased moisture flux into the state; however, since this would likely increasingly come in the form of rain rather than snow in the high elevations, increased precipitation could lead to increased potential and severity of flood events, placing more pressure on California's levee/flood control system.

Sea level has risen approximately seven inches during the last century and, according to the CEC report, it is predicted to rise an additional 22 to 35 inches by 2100, depending on the future GHG emissions levels (CEC 2006c). If this occurs, resultant effects could include increased coastal flooding, saltwater intrusion and disruption of wetlands (CEC 2006c). As the existing climate throughout California changes over times, mass migration of species, or failure of species to migrate in time to adapt to the perturbations in climate, could also result. Under the emissions scenarios of the Climate Scenarios report (California Climate Change Center 2006), the impacts of global warming in California are anticipated to include, but are not limited to, the following.

PUBLIC HEALTH

Higher temperatures are expected to increase the frequency, duration, and intensity of conditions conducive to air pollution formation. For example, days with weather conducive to ozone formation are projected to increase from 25 to 35 percent under the lower warming range, to 75 to 85 percent under the medium warming range. In addition, if global background ozone levels increase as predicted in some scenarios, it may become impossible to meet local air quality standards. Air quality could be further compromised by increases in wildfires, which emit fine particulate matter that can travel long distances depending on wind conditions. The Climate Scenarios report indicates that large wildfires could become up to 55 percent more frequent if GHG emissions are not significantly reduced.

In addition, under the higher warming scenario, there could be up to 100 more days per year with temperatures above 90°F in Los Angeles and 95°F in Sacramento by 2100. This is a large increase over historical patterns and approximately twice the increase projected if temperatures remain within or below the lower warming range. Rising temperatures will increase the risk of death from dehydration, heat stroke/exhaustion, heart attack, stroke, and respiratory distress caused by extreme heat.

WATER RESOURCES

A vast network of man-made reservoirs and aqueducts capture and transport water throughout the state from northern California rivers and the Colorado River. The current distribution system relies on Sierra Nevada snow pack to supply water during the dry spring and summer months. Rising temperatures, potentially compounded by decreases in precipitation, could severely reduce spring snow pack, increasing the risk of summer water shortages.

The state's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta, a major state fresh water supply. Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25 percent of the water supply they need; decrease the potential for hydropower production within the state (although the effects on hydropower are uncertain); and seriously harm winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as 1 month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

If GHG emissions continue unabated, more precipitation will fall as rain instead of snow, and the snow that does fall will melt earlier, reducing the Sierra Nevada spring snow pack by as much as 70 to 90 percent. Under the lower warming scenario, snow pack losses are expected to be only half as large as those expected if temperatures were to rise to the higher warming range. How much snow pack will be lost depends in part on future precipitation patterns, the projections for which remain uncertain. However, even under the wetter climate projections, the loss of snow pack would pose challenges to water managers, hamper hydropower generation, and nearly eliminate all skiing and other snow-related recreational activities.

AGRICULTURE

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher carbon dioxide levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development will change, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate ozone pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

Plant growth tends to be slow at low temperatures, increasing with rising temperatures up to a threshold. However, faster growth can result in less-than optimal development for many crops, so rising temperatures are likely to worsen the quantity and quality of yield for a number of California's agricultural products. Products likely to be most affected include wine grapes, fruits and nuts, and milk.

In addition, continued global warming will likely shift the ranges of existing invasive plants and weeds and alter competition patterns with native plants. Range expansion is expected in many species while range contractions are less likely in rapidly evolving species with significant populations already established. Should range contractions occur, it is likely that new or different weed species will fill the emerging gaps. Continued global warming is also likely to alter the abundance and types of many pests, lengthen pests' breeding season, and increase pathogen growth rates.

FORESTS AND LANDSCAPES

Global warming is expected to intensify this threat by increasing the risk of wildfire and altering the distribution and character of natural vegetation. If temperatures rise into the medium warming range, the risk of large wildfires in California could increase by as much as 55 percent, which is almost twice the increase expected if temperatures stay in the lower warming range. However, since wildfire risk is determined by a combination of factors, including precipitation, winds, temperature, and landscape and vegetation conditions, future risks will not be uniform throughout the state. For example, if precipitation increases as temperatures rise, wildfires in southern California are expected to increase by approximately 30 percent toward the end of the century. In contrast, precipitation decreases could increase wildfires in northern California by up to 90 percent.

Moreover, continued global warming will alter natural ecosystems and biological diversity within the state. For example, alpine and sub-alpine ecosystems are expected to decline by as much as 60 to 80 percent by the end of the century as a result of increasing temperatures. The productivity of the state's forests is also expected to decrease as a result of global warming.

RISING SEA LEVELS

Rising sea levels, more intense coastal storms, and warmer water temperatures will increasingly threaten the state's coastal regions. Under the higher warming scenario, sea level is anticipated to rise 22 to 35 inches by 2100. Elevations of this magnitude would inundate coastal areas with saltwater, accelerate coastal erosion, threaten vital levees and inland water systems, and disrupt wetlands and natural habitats.

REGULATORY SETTING

Federal

ENERGY POLICY AND CONSERVATION ACT

The Energy Policy and Conservation Act of 1975 sought to ensure that all vehicles sold in the U.S. would meet certain fuel economy goals. Through this Act, Congress established the first fuel economy standards for on-road motor vehicles in the United States (U.S.). Pursuant to the Act, the National Highway Traffic and Safety Administration, which is part of the U.S. Department of Transportation (USDOT), is responsible for establishing additional vehicle standards and for revising existing standards.

Since 1990, the fuel economy standard for new passenger cars has been 27.5 mpg. Since 1996, the fuel economy standard for new light trucks (gross vehicle weight of 8,500 pounds or less) has been 20.7 mpg. Heavy-duty vehicles (i.e., vehicles and trucks over 8,500 pounds gross vehicle weight) are not currently subject to fuel economy standards. Compliance with federal fuel economy standards is determined on the basis of each manufacturer's average fuel economy for the portion of its vehicles produced for sale in the U.S. The Corporate Average Fuel Economy (CAFE) program, which is administered by the U.S. Environmental Protection Agency (EPA), was created to determine vehicle manufacturers' compliance with the fuel economy standards. The EPA calculates a CAFE value for each manufacturer based on city and highway fuel economy test results and vehicle sales. Based on the information generated under the CAFE program, the USDOT is authorized to assess penalties for noncompliance.

ENERGY POLICY ACT OF 1992 (EPACT)

The Energy Policy Act of 1992 (EPAct) was passed to reduce the country's dependence on foreign petroleum and improve air quality. EPAct includes several parts intended to build an inventory of alternative fuel vehicles (AFVs) in large, centrally fueled fleets in metropolitan areas. EPAct requires certain federal, state, and local government and private fleets to purchase a percentage of light duty AFVs capable of running on alternative fuels each year. In addition, financial incentives are included in EPAct. Federal tax deductions will be allowed for businesses and individuals to cover the incremental cost of AFVs. States are also required by the act to consider a variety of incentive programs to help promote AFVs.

ENERGY POLICY ACT OF 2005

The Energy Policy Act of 2005 was signed into law on August 8, 2005. Generally, the act provides for renewed and expanded tax credits for electricity generated by qualified energy sources, such as landfill gas; provides bond financing, tax incentives, grants, and loan guarantees for a clean renewable energy and rural community electrification; and establishes a federal purchase requirement for renewable energy.

FEDERAL CLIMATE CHANGE POLICY

According to the EPA, "the United States government has established a comprehensive policy to address climate change" that includes slowing the growth of emissions; strengthening science, technology, and institutions; and enhancing international cooperation. To implement this policy, "the Federal government is using voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science." The federal government's goal is to reduce the greenhouse gas (GHG) intensity (a measurement of GHG emissions per unit of economic activity) of the American economy by 18 percent over the 10-year period from 2002 to 2012. In addition, the EPA administers multiple programs that encourage voluntary GHG reductions, including "ENERGY STAR", "Climate Leaders", and Methane Voluntary Programs. However, as of this writing, there are no adopted federal plans, policies, regulations, or laws directly regulating GHG emissions.

State

CALIFORNIA STRATEGY TO REDUCE PETROLEUM DEPENDENCE (AB 2076)

AB 2076 (Chapter 936, Statutes of 2000) requires the CEC and the ARB to develop and submit to the Legislature a strategy to reduce petroleum dependence in California. The statute requires the strategy to include goals for reducing the rate of growth in the demand for petroleum fuels. In addition, the strategy is required to include recommendations to increase transportation energy efficiency as well as the use of non-petroleum fuels and advanced transportation technologies including alternative fuel vehicles, hybrid vehicles, and high-fuel efficiency vehicles.

The strategy, *Reducing California's Petroleum Dependence*, was adopted by the CEC and CARB in 2003. The strategy recommends that California reduce inroad gasoline and diesel fuel demand to 15 percent below 2003 demand levels by 2020 and maintain that level for the foreseeable future; the Governor and Legislature work to establish national fuel economy standards that double the fuel efficiency of new cars, light trucks, and sport utility vehicles (SUVs); and increase the use of non- petroleum fuels to 20 percent of on-road fuel consumption by 2020 and 30 percent by 2030.

BIOENERGY ACTION PLAN – EXECUTIVE ORDER #S-06-06

Executive Order #S-06-06 establishes targets for the use and production of biofuels and biopower and directs state agencies to work together to advance biomass programs in California while providing environmental protection and mitigation. The executive order establishes the following target to increase the production and use of bioenergy, including ethanol and biodiesel fuels made from renewable resources: produce a minimum of 20 percent of its biofuels within California by 2010, 40 percent by 2020, and 75 percent by 2050. The executive order also calls for the state to meet a target for use of biomass electricity.

GOVERNOR'S LOW CARBON FUEL STANDARD (EXECUTIVE ORDER #S-01-07)

Executive Order #S-01-07 establishes a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020 through establishment of a Low Carbon Fuel Standard. The Low Carbon Fuel Standard shall be incorporated into the State Alternative Fuels Plan required by AB 1007 and is one of the proposed discrete early action GHG reduction measures identified by CARB pursuant to AB 32.

SENATE BILL 97 (SB 97)

Senate Bill 97 was signed by the Governor on August 24, 2007. This bill would provide that in an environmental impact report, negative declaration, mitigated negative declaration, or other document required by CEQA for either transportation projects funded under the Highway Safety, Traffic Reduction, Air Quality and Port Security Bond Act of 2006, or projects funded under the Disaster Preparedness and Flood Prevention Bond Act of 2006, the failure to analyze adequately the effects of greenhouse gas emissions otherwise required to be reduced pursuant to regulations adopted under the Global Warming Solutions Act of 2006 does not create a cause of action for a

violation of CEQA. The bill would provide that this provision shall apply retroactively for any of the above documents that are not final and shall be repealed on January 1, 2010.

The bill would require the Office of Planning and Research (OPR), by July 1, 2009, to prepare, develop, and transmit to the Resources Agency guidelines for the feasible mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions, as required by CEQA, including, but not limited to, effects associated with transportation or energy consumption. The Resources Agency would be required to certify and adopt those guidelines by January 1, 2010. The OPR would be required to periodically update the guidelines to incorporate new information or criteria established by the CARB pursuant to the California Global Warming Solutions Act of 2006.

CLIMATE ACTION PROGRAM AT CALTRANS

In December 2006, the California Department of Transportation, Business, Transportation, and Housing Agency, issued a Climate Action Program. The goal of the Climate Action Program is to promote clean and energy efficient transportation, and provide guidance for mainstreaming energy and climate change issues into business operations. The overall approach to lower fuel consumption and CO2 from transportation is twofold: (1) reduce congestion and improve efficiency of transportation systems through smart land use, operational improvements, and Intelligent Transportation Systems; and (2) institutionalize energy efficiency and GHG emission reduction measures and technology into planning, project development, operations, and maintenance of transportation facilities, fleets, buildings, and equipment.

The reasoning underlying the Climate Action Program is the conclusion that "the most effective approach to addressing GHG reduction, in the short-to-medium term, is strong technology policy and market mechanisms to encourage innovations. Rapid development and availability of alternative fuels and vehicles, increased efficiency in new cars and trucks (light and heavy duty), and super clean fuels are the most direct approach to reducing GHG emissions from motor vehicles (emission performance standards and fuel or carbon performance standards)."

ASSEMBLY BILL 1493

In 2002, then Governor Gray Davis signed AB 1493. AB 1493 required the CARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of greenhouse gases emitted by passenger vehicles and light-duty truck and other vehicles determined by the ARB to be vehicles whose primary use is noncommercial personal transportation in the state." To meet the requirements of AB 1493, CARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004.

Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961), and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016. For passenger cars and light-duty trucks 3,750

pounds or less loaded vehicle weight (LVW), the 2016 GHG emission limits are approximately 37 percent lower than the during the first year of the regulations in 2009. For medium-duty passenger vehicles and light-duty trucks 3,751 LVW to 8,500 pounds gross vehicle weight (GVW), GHG emissions are reduced approximately 24 percent between 2009 and 2016.

In December 2004, a group of car dealerships, automobile manufacturers, and trade groups representing automobile manufactures filed suit against the CARB to prevent enforcement of CCR 13 1900 and CCR 13 1961 as amended by AB 1493 and CCR 13 1961.1 (Central Valley Chrysler-Jeep et al., v. Catherine E. Witherspoon, in her official capacity as Executive Director of the California Air Resources Board et al.). The suit, being heard in the U.S. District Court for the Eastern District of California, contends that California's implementation of regulations that in effect regulate vehicle fuel economy violates various federal laws, regulations, and policies. To date, the suit has not been settled, and the judge has issued an injunction stating CARB cannot enforce the regulations in question before receiving appropriate authorization from the EPA.

CALIFORNIA EXECUTIVE ORDERS S-3-05 AND S-20-06, AND ASSEMBLY BILL 32

On June 1, 2005, Governor Arnold Schwarzenegger signed Executive Order S-3-05. The goal of this Executive Order is to reduce California's GHG emissions to: 1) 2000 levels by 2010, 2) 1990 levels by the 2020 and 3) 80% below the 1990 levels by the year 2050.

In 2006, this goal was further reinforced with the passage of Assembly Bill 32 (AB 32), the Global Warming Solutions Act of 2006. AB 32 sets the same overall GHG emissions reduction goals while further mandating that ARB create a plan, which includes market mechanisms, and implement rules to achieve "real, quantifiable, cost-effective reductions of greenhouse gases." Executive Order S-20-06 further directs state agencies to begin implementing AB 32, including the recommendations made by the state's Climate Action Team.

Climate change and GHG reduction is also a concern at the federal level; however, at this time, no legislation or regulations have been enacted specifically addressing GHG emissions reductions and climate change.

CARB, which is part of Cal-EPA, develops air quality regulations at the state level. The state regulations mirror federal regulations by establishing industry-specific pollution controls for criteria, toxic, and nuisance pollutants. California also requires areas to develop plans and strategies for attaining state ambient air quality standards as set forth in the California Clean Air Act of 1988. In addition to developing regulations, CARB develops motor vehicle emission standards for California vehicles.

GHG THRESHOLDS OF SIGNIFICANCE AND METHODOLOGY

Methodology

GHG emissions were estimated using the approach included in the 2007 URBEMIS model combined with emissions factors developed by CARB and the SJVAPCD. The URBEMIS model is used to calculate construction and operational emissions associated with land development projects, and includes EPA, SJVAPCD, and CARB emissions factors embedded within it.

GHG emissions generated by operation of the proposed park would generally come form two sources: 1) emissions associated with vehicles traveling to and from the project site, and 2) emissions associated with the operation of maintenance equipment (lawnmowers, etc.).

Trip generation rates contained within the 2009 Holly Sugar Traffic Impact Study (Fehr and Peers, Appendix H) were input into the URBEMIS model.

Maintenance equipment emissions were estimated assuming that 4 motorized lawn mowers would be used a maximum of 8 hours each on the maximum day, and that 5 other maintenance equipment/vehicles would be used (infield groomer, aerator, seeder, etc.) would each be used 4 hours. Assuming each is gasoline powered and operates at 50 horsepower, daily emissions were calculated by multiplying horsepower-hours by generalized emission factors from the CARB's OFFROAD Emissions Model (CARB, 1998).

The analysis in this section includes estimated GHG emissions from all phases of the proposed project at buildout (the 156-acre active park site, the 86-acre passive recreation area and the 46-acre future expansion area).

Thresholds of Significance

As described previously, the State Legislature and the global scientific community have found that global climate change poses significant adverse effects to the environment of California and the entire world.

To mitigate these adverse effects, the State Legislature, through AB 32, has required statewide GHG reductions of 25 percent, to 1990 levels, by 2020. AB 32 and S-3-05 target the reduction of statewide emissions. It should be made clear that AB 32 and S-3-05 do not specify that the emissions reductions should be achieved through uniform reduction by geographic location or by emission source characteristics. For example, it is conceivable, although unlikely, that AB 32 goals could be achieved by new regulations that only apply to urban areas or that only apply to the transportation and/or energy sector.

At the time of the preparation of this EIR, the SJVAPCD had not adopted specific thresholds of significance for GHGs in CEQA documents. Therefore, the analysis in this section is based on methodologies presented in the California Air Pollution Control Officers Association's (CAPCOA) white paper, "*CEQA and Climate Change*" for selecting a GHG analysis methodology and establishing a GHG threshold of significance.

- For the purposes of this EIR only, a GHG impact would be considered significant if implementation of the proposed project does not assist in meeting the Statewide GHG reduction goals outlined in AB 32.

GHG IMPACTS AND MITIGATION MEASURES

Impact 3.3.6: Project implementation could result in cumulative effects on climate change and global warming (Significant and Unavoidable)

As described above, increases in greenhouse gas emissions in the State and the County could contribute to increases in global average temperatures and climate change. Climate change in turn could lead to sea level rise and other changes in environmental conditions.

The major sources of GHG emissions generated from the proposed project are vehicle source CO_2 emissions. Vehicle transportation is one of the major contributors to GHG emissions in San Joaquin County and the City of Tracy. Vehicle emissions primarily consist of CO_2 from the tailpipe during vehicle operation. URBEMIS version 9.2.4 was used to estimate the project's CO_2 emissions from increased vehicle trips. As shown in **Table 3.3-4**, mobile source CO_2 emissions from the project would be approximately 1,176.89 tons annually.

It is important to note that this CO_2 emission estimate for vehicle trips associated with the proposed project is likely much greater than the emissions that will actually occur. The analysis methodology used for the emissions estimate assumes that all emissions sources are new sources and that emissions from these sources are 100 percent additive to existing global GHG conditions. This is a standard approach taken for air quality analyses. In many cases, such an assumption is appropriate because it is impossible to determine whether emissions sources associated with a project move from outside the air basin and are in effect new emissions sources, or whether they are sources that were already in the air basin and just shifted to a new location. However, because the effects of GHGs are global, a project that merely shifts the location of a GHG-emitting activity (e.g., where people live, where vehicles drive, or where companies conduct business) would result in no net change in global GHG emissions levels.

For example, if a substantial portion of the future users of the Holly Sugar Sports Park are currently using other park facilities in the Tracy area, then the increase in vehicle trips to the Holly Sugar site would be anticipated to result in a corresponding decrease in vehicle trips to alternative park sites in the Tracy area.

In August, 2006 the City of Tracy completed a Fields Needs Assessment to determine future sports parks needs to serve the City's existing and projected population through 2025. The needs assessment projects field needs based on current population and projected population for 2015 and 2025. Based on the 2006 population, 34.9 acres of youth sports fields are needed in addition to the existing fields. When projecting field needs to 2015 and an estimated 15% population growth, an additional 35.1 acres of youth sports fields (for a total of 70 acres of fields) are needed. An additional 33.2 acres (for a total of 103.2 acres of fields) are needed when projecting population growth to 2025. The increased needed acreage of fields is not only based on growth projections but user patterns as well. For example, there are currently an estimated 7,400 youths playing sports. In 2015, that figure is estimated to grow to 8,599 and to 9,750 in 2025.

The projected field needs are based on population estimates using the average number of building permits allowed per year (600) under Measure A and the average number of people per residential dwelling unit from the year 2000 U.S. Census. Utilizing the City's population estimates through 2025, there is a demand for a total of at least 103 additional acres of sports fields. This acreage needs projection is approximate and does not include detention basins, corporation yard, access drives, play area, parking lots and other open space elements.

It is impossible to know at this time whether the future users of the proposed project would have longer or shorter commutes relative to their existing homes, whether they would walk, bike, and use public transportation more or less than under existing circumstances, and whether their overall driving habits would result in higher or lower VMT. Much of the vehicle generated CO_2 emissions attributed to the project could simply be from vehicles currently emitting CO_2 at an existing location moving to the project site, and not from new vehicle emissions sources relative to global climate change. Therefore, although it is not possible to calculate the net contribution of vehicle generated CO_2 emissions from the project (i.e., project generated emissions minus current emissions from vehicles that would move to the project site), the net CO_2 contribution would likely be much less than the 1,176.89 tons (US) of CO_2 per year calculated above. The assumptions used in this analysis are considered to be very conservative, and almost certainly overstate the actual GHG emissions generated by the proposed project. It is likely that the majority of the future users of the proposed Holly Sugar Sports park are already using park facilities within the City of Tracy, and the trips generated by the proposed project would divert trips currently assigned to existing park facilities within the City.

In addition to vehicle emissions, landscape and field maintenance activities would result in emissions of GHGs. These emissions would primarily come from lawnmowers, aerators, and other gas-fueled equipments. Total CO_2 emission estimates for the proposed project are summarized in **Table 3.3-4** below.

TABLE 3.3-4 ESTIMATED PROJECT EMISSIONS - GREENHOUSE GASES

GHG EMISSION SOURCE	*CARBON DIOXIDE (CO_2) (TONS/YEAR)*
Mobile Source (vehicle)	1,176.89
Area Source (landscaping equipment)	23.03
Totals	**1,199.89**

Source: URBEMIS Version 9.2.4; CEC 2002

CO_2 emissions in California totaled approximately 391 million tons in 2004 (CEC 2006). Total CO_2 emissions from the proposed project, as estimated above, would be approximately 0.0003 percent of this statewide total, however the actual percentage of the statewide GHG emissions totals generated by the proposed project are likely much lower than the percentage listed above, as the vast majority of the vehicle trips "generated" by the proposed project are already occurring elsewhere.

The California Attorney General's Office, and the State Office of Planning and Research (OPR) have developed strategies that local land use agencies can implement in order to reduce vehicle miles travelled as a result of land use decisions. Most of the strategies revolve around the development of higher density land uses, providing flexibility in land sue designations to allow for mixed use development and the development of alternative transportation measures. Additionally, measures that reduce the consumption of natural resources and energy can also reduce a project's contribution to global climate change. The analysis in this section is consistent with the requirements of the DRAFT OPR guidelines suggested for inclusion in Section 15126.4(c) of the State CEQA Guidelines.

As discussed throughout this EIR, the proposed project would not result in population growth in or around the City of Tracy. The proposed Holly Sugar Sports park is intended to serve existing residents and future residents anticipated under General Plan buildout conditions and to meet the City's existing and projected need for additional park facilities, as described above. As previously discussed in this section, it is anticipated that most of the users of the Holly Sugar Sports park are currently using sports park facilities elsewhere in the City and throughout the region. Project implementation may result in a redistribution of these existing vehicle trips, and may not necessarily result in overall increases of GHG emissions in the region.

MITIGATION MEASURES

Mitigation Measure 3.3-4: *As operation of the Holly Sugar Sports Park commences, the City should assess the demand for a route stop by the City-operated Tracer bus system. The demand for such a route stop should continue to be monitored, until such time that a route stop is considered justified. Once a route stop is justified, the City should arrange for the Holly Sugar Sports Park site to be included as a route stop by the City-operated Tracer bus system. The City shall be responsible for monitoring the implementation of this measure.*

Additionally, the project is subject to the requirements of SJVAPCD Rule 9510 and MM 3.3-3, which would result in the development of a plan and/or the payment of in-lieu fees to reduce operational emissions of ROG, NOx and PM10. While CO2 is a separate type of emission from those regulated and mitigated under Rule 9510, the implementation of the requirements of MM 3.3-3 would also result in a reduction of CO2 emissions from project operation.

SIGNIFICANCE AFTER MITIGATION

Implementation of the proposed project would not directly impede or otherwise negatively impact the ability of the State of California to implement the requirements of AB 32 and meet the stated AB 32 goals of GHG reductions by 2020. However, the project would result in a small increase in greenhouse gasses, primarily as a result of vehicle trips to and from the project site. The statewide and global increases in GHGs are considered to be a cumulatively significant impact. All feasible mitigation measures to reduce the project's generation of GHGs and contribution towards global climate change have been included in this EIR. However, the implementation of these measures would not fully eliminate GHG emissions from the proposed project. Therefore, this impact is

considered to be **significant and unavoidable**. No additional feasible mitigation is available to further reduce this impact to a less than significant level.

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Air Baisn GIS Data Source:
Air Resources Board, Release Date 2004
California Spatial Information Library, May 2009

Figure 3.3-1
San Joaquin Valley Air Basin

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0 12.5 25 50 75 100 Miles

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

May 20, 2009

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This section describes the regulatory setting, regional biological resources, and impacts that are likely to result from project implementation. No NOP comments regarding biological resources were received during the public review period.

3.4.1 ENVIRONMENTAL SETTING

The City of Tracy is located in the southwestern part of San Joaquin County, which is situated in the northern San Joaquin Valley just east of the Diablo Mountain Range. The elevation is approximately 50 feet above mean sea level (msl). The climate is Mediterranean, with cool, wet winters (often blanketed with fog) and hot, dry summers. Precipitation is normally in the form of rain and ranges from approximately 11 to 25 inches per year.

A mixture of agricultural and urbanized land dominates the region. Agricultural activities of the area include: alfalfa fields, hay, row crops, orchards, annual grasslands, cattle pasture, and dairies. This area of the San Joaquin Valley also contains open space that provides foraging, denning, and nesting habitats for wildlife. The Altamont Hills and surrounding mountain ranges to the west and south provide important habitats and movement corridors for a diversity of species.

GEOMORPHIC PROVINCES

The City of Tracy is located in the western portion of the Great Valley Geomorphic Province of California. The Great Valley Province is a broad structural trough bounded by the tilted block of the Sierra Nevada on the east and the complexly folded and faulted Coast Ranges on the west. The City is located to the west of the San Joaquin River, which drains the Great Valley Province into the San Joaquin Delta to the north, ultimately discharging into the San Francisco Bay to the northwest.

BIOREGIONS

The City of Tracy is located within the San Joaquin Valley Bioregion, which is comprised of Kings county, most of Fresno, Kern, Merced, and Stanislaus counties, and portions of Madera, San Luis Obispo, and Tulare counties. The San Joaquin Valley Bioregion is the third most populous out of ten bioregions in the state, with an estimated 2 million people. The largest cities are Fresno, Bakersfield, Modesto, and Stockton. Interstate 5 and State Route 99 are the major north-south roads that run the entire length of the bioregion.

The bioregion is bordered on the west by the coastal mountain ranges. Its eastern boundary joins the southern two-thirds of the Sierra bioregion, which features Yosemite, Kings Canyon, and Sequoia National Parks. At its northern end, the San Joaquin Valley bioregion borders the southern end of the Sacramento Valley bioregion. To the west, south, and east, the bioregion extends to the edges of the valley floor.

Habitat includes vernal pools, valley sink scrub and saltbush, freshwater marsh, grasslands, arid plains, orchards, and oak savannah. Historically, millions of acres of wetlands flourished in the bioregion, but stream diversions for irrigation dried all but about five percent. Remnants of the wetland habitats are protected in this bioregion in publicly owned parks, reserves, and wildlife

areas. The bioregion is considered the state's top agricultural producing region with the abundance of fertile soil.

NATURAL AND AGRICULTURAL COMMUNITIES

Natural communities provide the primary habitat for the biological resources in the region. Agricultural communities also provides habitat for a variety of biological resources in the region. Sensitive habitats include those that are of special concern to resource agencies or those that are protected under a Habitat Conservation Plan, Natural Community Conservation Plan, CEQA, the Fish and Game Code, or the Clean Water Act. Additionally, sensitive habitats are usually protected under specific policies from local agencies.

Wetland Communities

A wetland is an area that is inundated or saturated by surface or ground water 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. Wetlands generally include swamps, marshes, bogs, and similar areas.

Wetlands are defined by regulatory agencies as having special vegetation, soil, and hydrology characteristics. Hydrology, or water inundation, is a catalyst for the formation of wetlands. Frequent inundation and low oxygen causes chemical changes to the soil properties resulting in what is known as hydric soils. The prevalent vegetation in wetland communities consists of hydrophytic plants, which are adapted to areas that are frequently inundated with water. Hydrophytic plant species have the ability to grow, effectively compete, reproduce, and persist in low oxygen soil conditions.

Below is a list of wetlands that are found in the Tracy planning area:

- Farmed Wetlands: This category of wetlands includes areas that are currently in agricultural uses. This type of area occurs in the northern portion of the Tracy Planning Area.
- Lakes, Ponds and Open Water: This category of wetlands includes both natural and human-made water bodies such as that associated with working landscapes, municipal water facilities and canals, creeks and rivers.
- Seasonal Wetlands: This category of wetlands includes areas that typically fill with water during the wet winter months and then drain enough to become ideal plant habitats throughout the spring and summer. There are numerous seasonal wetlands throughout the Tracy Planning Area.
- Tidal Salt Ponds and Brackish Marsh: This category of wetlands includes areas affected by irregular tidal flooding with generally poor drainage and standing water. There are minimal occurrences along some of the larger river channels in the northern portion of the Tracy Planning Area.

Riparian Communities

Riparian natural communities support woody vegetation found along rivers, creeks and streams. Riparian habitat can range from a dense thicket of shrubs to a closed canopy of large mature trees covered by vines. Riparian systems are considered one of the most important natural resources. While small in total area when compared to the state's size, they provide a special value for wildlife habitat.

Over 135 California bird species either completely depend upon riparian habitats or use them preferentially at some stage of their life history. Riparian habitat provides food, nesting habitat, cover, and migration corridors. Another 90 species of mammals, reptiles, invertebrates and amphibians depend on riparian habitat. Riparian habitat also provides riverbank protection, erosion control and improved water quality, as well as numerous recreational and aesthetic values.

Grassland Communities

Grassland communities occur in a wide range of soil types in disturbed and undisturbed environments. Additionally, grasslands can occur where other natural communities have occurred historically, but have been mechanically removed. Vernal pool and vernal swale grasslands are more restricted based on specific soil, drainage, geology, and climate requirements.

Agricultural

Agricultural areas occur throughout the region. The agricultural areas are generally flat and well drained, and as a result are well suited for many crops. Alfalfa fields, hay, row crops, orchards, annual grasslands, cattle pasture, and dairies dominate the agricultural areas. Agricultural fields commonly have irrigation canals, ditches, and stock ponds that serve as a water source or drainage for the fields and habitat for a variety of plants and animals.

WATERSHEDS

A watershed is a region that is bound by a divide that drains to a common watercourse or body of water. Watersheds serve an important biological function, oftentimes supporting an abundance of aquatic and terrestrial wildlife including special-status species and anadromous and native local fisheries. Watersheds provide conditions necessary for riparian habitat.

The City of Tracy is situated within the San Joaquin River Basin. The San Joaquin River Basin is divided up into eight subbasins: South Delta, Lower San Joaquin, Westside, Grasslands, Southeast, Eastside, East Valley Floor, and Northeast. The City of Tracy is located within the South Delta subbasin. Some of the tributaries to the San Joaquin River include the Stanislaus River, Tuolumne River, Merced River, Calaveras River and Mokelumne River, as well as other smaller drainages.

LOCAL SETTING

The project site is located in San Joaquin County, immediately north of the City limits of Tracy, and within the City's Sphere of Influence. The project site consists of approximately 298 acres of land located east of Tracy Boulevard, west of Corral Hollow Road, north of Larch Road, and south of

Sugar Road. Lands to the north, west and east of the project site are agricultural lands, with a few scattered residences. Land to the south of the project site consists of rural residential development.

The project site is currently undeveloped and is used for agricultural purposes. The western portion of the project site is traversed by PG&E power transmission lines with towers, and a 12-inch diameter underground PG&E gas pipeline. There are several irrigation ditches (some concrete lined and others dirt lined) that traverse the project site. The ditches are currently used to capture irrigation and storm drainage runoff from the project site and surrounding properties.

Vegetation

Vegetative communities on the project site are classified as agricultural crops on the majority of the project site, with ruderal plants along the perimeter roadway shoulders and uncultivated areas, including the irrigation ditches. Although the perimeter roadway shoulders and uncultivated areas were largely void of vegetation, they can be characterized largely by nonnative plants such as, Italian ryegrass (*Lolium multiflorum*), brome (*Bromus diandrus, B. hordeaceous*), oats (*Avena fatua*), barley (*Hordeum murinum*), mustard (*Brassica* spp.), storksbill (*Erodium cicutarium*), and wild radish (*Raphanus sativa*).

The irrigation ditches were largely void of vegetation during a field survey conducted in February 2009. The lack of vegetation is likely a result of normal maintenance associated with the drainage functions for winter precipitation and irrigation on agricultural lands in the region. The ditches contained wetland characteristics such as hydrology (presence of water), and hydrophytic plants were present in some sections of the ditches. A formal wetland delineation was not performed because the proposed project includes provisions to avoid activities that would result in a fill or otherwise disturb the ditches.

Wildlife

Agricultural and ruderal vegetation provides habitat for both common and rare wildlife populations. For example, some commonly observed wildlife species in the region include: California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus),* American kestrel (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), American killdeer (*Charadrius vociferus*), gopher snake (*Pituophis melanoleucus*), garter snake (*Thamnophis species*), and western fence lizard (*Sceloporus occidentalis*), as well as many native insect species. There are also several bat species in the region. Bats often feed on insects as they fly over agricultural and natural areas, and all bat species are state species of special concern.

Locally common and abundant wildlife species are important components of the ecosystem. Due to habitat loss, many of these species must continually adapt to using agricultural, ruderal, and ornamental vegetation for cover, foraging, dispersal, and nesting.

SPECIAL-STATUS SPECIES

The following discussion is based on a background search of special-status species that are documented in the California Natural Diversity Database (CNDDB), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants, and the U.S. Fish and Wildlife Service's (USFWS) endangered and threatened species lists. The background search was regional in scope and focused on the documented occurrences within the boundaries of the following nine USGS quadrants closest to the project site: Altamont, Byron Hot Springs, Cedar Mountain, Clifton Court Forebay, Lone Tree Creek, Mendenhall Springs, Midway, Tracy, and Union Island.

The search revealed fifty-eight documented occurrences of special status species within the region: 33 plants, four invertebrates, nine amphibians/reptiles, seven birds, and five mammals. Table 3.4-1 provides a list of special-status species that are documented in the region, their habitat, and current protective status.

TABLE 3.4-1: SPECIAL STATUS SPECIES PRESENT IN SAN JOAQUIN COUNTY

SPECIES	*STATUS*	*HABITAT*
Plants		
SHARSMITH'S ONION Allium sharsmithiae	1B	Cismontane woodland. Rocky, serpentine slopes. 400-1200M.
LARGE-FLOWERED FIDDLENECK Amsinckia grandiflora	FE; CE;1B	Cismontane Woodland, Valley and Foothill grassland. Annual grassland in various soils. 275-550M.
BENT-FLOWERED FIDDLENECK Amsinckia lunaris	1B	Cismontane woodland, valley and foothill grassland. 50-500M.
ALKALI MILK-VETCH Astragalus tener var. tener	1B	Alkali playa, valley and foothill grassland, vernal pools. Low ground, alkali flats, and flooded lands; in annual grassland or in playas or vernal pools. 1-170M.
BRITTLESCALE Atriplex depressa	1B	Chenopod scrub, meadows, playas, valley and foothill grassland, vernal pools. Usually in alkali scalds or alkali clay in meadows or annual grassland; rarely associated w/riparian marshes or vernal pools. 1-320M.
SAN JOAQUIN SPEARSCALE Atriplex joaquiniana	1B	Chenopod scrub, alkali meadow, valley and foothill grassland. In seasonal alkali wetlands or alkali sink scrub with distichlis spicata, frankenia, etc. 1-250M.
BIG-SCALE BALSAMROOT Balsamorhiza macrolepis var. macrolepis	1B	Valley and foothill grassland, cismontane woodland. Sometimes on serpentine. 35-1000M.
BIG TARPLANT Blepharizonia plumosa	1B	Valley and foothill grassland. Dry hills and plains in annual grassland. Clay to clay-loam soils; usually on slopes and often in burned areas. 15-455M.
ROUND-LEAVED FILAREE California macrophylla	1B	Cismontane woodland, valley, and foothill grasslands. Clay soils. 15-1200M.
CHAPARRAL HAREBELL Campanula exigua	1B	Chaparral. Rocky sites, usually on serpentine in chaparral. 300-1250M.
LEMMON'S JEWELFLOWER Caulanthus coulteri var. lemmonii	1B	Pinyon-juniper woodland, valley and foothill grassland. 80-1220M.

SPECIES	STATUS	HABITAT
CONGDON'S TARPLANT Centromadia parryi ssp. congdonii	1B	Valley and foothill grassland. Alkaline soils, sometimes described as heavy white clay. 1-230M.
MT. HAMILTON FOUNTAIN THISTLE Cirsium fontinale var. campylon	1B	Cismontane woodland, chaparral, valley and foothill grassland. In seasonal and perennial drainages on serpentine. 95-890M.
HISPID BIRD'S-BEAK Cordylanthus mollis ssp. hispidus	1B	Meadows, playas, valley and foothill grassland. In damp alkaline soils, especially in alkaline meadows and alkali sinks with Distichlis. 10-155M.
PALMATE-BRACTED BIRD'S-BEAK Cordylanthus palmatus	FE;CE;1B	Chenopod scrub, valley and foothill grassland. Usually on pescadero silty clay which is alkaline, with distichilis, frankenia, etc. 5-155M.
MT. HAMILTON COREOPSIS Coreopsis hamiltonii	1B	Cismontane woodland on steep shale talus with open southwestern exposure. 530-1300M.
LIVERMORE TARPLANT Deinandra bacigalupii	1B	Meadows and seeps. Alkaline meadows. 150-185M.
HOSPITAL CANYON LARKSPUR Delphinium californicum ssp. interius	1B	Cismontane woodland, chaparral. In wet, boggy meadows, openings in chaparral and in canyons. 225-1060M.
RECURVED LARKSPUR Delphinium recurvatum	1B	Chenopod scrub, valley and foothills grassland, cismontane woodland on alkaline soils; often in valley saltbrush or valley chenopod scrub. 3-685M.
DELTA BUTTON-CELERY Eryngium racemosum	CE;1B	Riparian scrub. Seasonally inundated floodplain on clay. 3-75M.
DIAMOND-PETALED CALIFORNIA POPPY Eschscholzia rhombipetala	1B	Valley and foothill grassland. Alkaline, clay slopes and flats. 0-975M.
TALUS FRITILLARY Fritillaria falcata	1B	Chaparral, cismontane woodland, lower montane coniferous forest on shale, granite, or serpentine talus. 300-1525M.
DIABLO HELIANTHELLA Helianthella castanea	1B	Broadleaved upland forest, chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Usually in chaparral/oak woodland interface in rocky, azonal soils often in partial shade. 25-1150M.
NAPA WESTERN FLAX Hesperolinon sp. nov. "serpentinum"	1B	Chaparral. Mostly found in serpentine chaparral. 225-850M.
LEGENERE Legenere limosa	1B	Vernal pools. Many historical occurrences are extirpated. In beds of vernal pools. 1-880M.
MASON'S LILAEOPSIS Lilaeopsis masonii	CR;1B	Freshwater and brackish marshes, riparian scrub. Tidal zones, in muddy or silty soil formed through river deposition or river bank erosion. 0-10M.
SHOWY GOLDEN MADIA Madia radiata	1B	Valley and foothill grassland, cismontane woodland, chenopod scrub. Mostly on adobe clay in grassland or among shrubs. 25-1125M.
HALL'S BUSH-MALLOW Malacothamnus hallii	1B	Chaparral. Some populations on serpentine. 10-550M.
MT. DIABLO PHACELIA Phacelia phacelioides	1B	Chaparral, cismontane woodland adjacent to trails on rock outcrops and talus slopes; sometimes on

SPECIES	STATUS	HABITAT
		serpentine. 500-1370M.
HAIRLESS POPCORN-FLOWER Plagiobothrys glaber	1A	Meadows and seeps, marshes and swamps. Coastal salt marshes and alkaline meadows. 5-180M.
SUISUN MARSH ASTER Symphyotrichum lentum	1B	Marshes and swamps (brackish and freshwater). Most often seen along sloughs. 0-3M.
SALINE CLOVER Trifolium depauperatum var. hydrophilum	1B	Marshes and swamps, valley and foothill grassland, vernal pools. Mesic, alkaline sites. 0-300M.
CAPER-FRUITED TROPIDOCARPUM Tropidocarpum capparideum	1B	Valley and foothill grassland. Alkaline clay. 0-455M.
Invertebrates		
LONGHORN FAIRY SHRIMP Branchinecta longiantenna	FE	Endemic to the eastern margin of the central coast mtns. in seasonally astatic grassland vernal pools. Inhabit small, clear-water depression in sandstone and clear-to-turbid clay/grass-bottomed pools in shallow swales.
VERNAL POOL FAIRY SHRIMP Branchinecta lynchi	FT	Endemic to grasslands of the central valley, central coast mtns., and south coast mtns., in astatic rain-filled pools. Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.
MIDVALLEY FAIRY SHRIMP Branchinecta mesovallensis	FC	Vernal pools in the Central Valley.
VALLEY ELDERBERRY LONGHORN BEETLE Desmocerus californicus dimorphus	FT	Occurs only in the central valley of California, in association with blue elderberry (Sambucus mexicana). Prefers to lay eggs in elderberries 2-8 inches in diameter; some preference shown for "stressed" elderberries.
Amphibians/Reptiles		
WESTERN POND TURTLE Actinemys marmorata	CSC	A thoroughly aquatic turtle of ponds, marshes, rivers, streams, and irrigation ditches with aquatic vegetation. Need basking sites and suitable (sandy banks or grassy open fields) upland habitat for egg-laying.
CALIFORNIA TIGER SALAMANDER Ambystoma californiense	FC;CSC	Grassland habitats associated with long-lasting rain pools such as vernal pools or seasonal wetlands for breeding. Also needs ground refuges such as ground squirrel burrows.
SILVERY LEGLESS LIZARD Anniella pulchra pulchra	CSC	Sandy of loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content.
SAN JOAQUIN WHIPSNAKE Masticophis flagellum ruddocki	CSC	Open, dry habitats with little or no tree cover. Found in valley grassland and saltbush scrub in the San Joaquin Valley. Needs mammal burrows for refuge and oviposition sites.
ALAMEDA WHIPSNAKE Masticophis lateralis euryxanthus	FT;CT	Restricted to valley-foothill hardwood habitat of the coast ranges between vicinity of Monterey and North San Francisco Bay. Inhabits south-facing slopes and ravines where shrubs form a vegetative mosaic with oak trees and grasses.
COAST (CALIFORNIA) HORNED LIZARD Phrynosoma coronatum	CSC	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of

SPECIES	STATUS	HABITAT
		ants and other insects.
FOOTHILL YELLOW-LEGGED FROG Rana boylii	CSC	Partly-shaded, shallow streams and riffles with a rocky substrate in a variety of habitats. Need at least some cobble-sized substrate for egg-laying. Need at least 15 weeks to attain metamorphosis.
CALIFORNIA RED-LEGGED FROG Rana draytonii	FT;CSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to aestivation habitat.
WESTERN SPADEFOOT TOAD Spea hammondii	CSC	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands. Vernal pools are essential for breeding and egg-laying.
Birds		
TRICOLORED BLACKBIRD Agelaius tricolor	CSC	Highly colonial species, most numerous in central valley and vicinity. Largely endemic to California. Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.
BURROWING OWL Athene cuniculari	CSC	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation. Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.
SWAINSON'S HAWK Buteo swainsoni	CT	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranches. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.
NOTHERN HARRIER Circus cyaneus	CSC	Coastal salt and fresh-water marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.
BALD EAGLE Haliaeetus leucocephalus	FD;CE	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within one mile of water. Nests in large, old-growth, or dominant live three w/open branches especially ponderosa pine. Roosts communally in winter.
LOGGERHEAD SHRIKE Lanius ludovicianus	CSC	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub and washes. Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.
RAPTORS (BIRDS OF PREY: FALCONS. HAWKS, OWLS, ETC.) AND OTHER MIGRATORY AND RESIDENT BIRDS	MBTA; §3503.5 DFG Code	Large trees and riparian woodlands for nesting.
Mammals		
PALLID BAT Antrozous pallidus	CSC	Deserts, grasslands, shrublands, woodlands and forests. Most common in open, dry habitats with rocky areas for roosting. Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.
TOWNSEND'S BIG-EARED BAT Corynorhinus townsendii	CSC	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open hangins from

SPECIES	STATUS	HABITAT
		walls and ceilings. Roosting sites limited. Extremely sensitive to human disturbance.
WESTERN MASTIFF BAT Eumops perotis californicus	CSC	Many open semi-arid to arid deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.
AMERICAN BADGER Taxidea taxus	CSC	Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Need sufficient food, friable soils and open, uncultivated ground. Prey on burrowing rodents. Dig burrows.
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.

SOURCE: DFG CNDDB 2009

Abbreviations:

FE	Federal Endangered
FT	Federal Threatened
FC	Federal Candidate
FPD	Federal proposed for delisting
FPT	Federal proposed threatened
FD	Federal delisted
MBTA	Protected by Migratory Bird Treaty Act
CE	California Endangered Species
CT	California Threatened
CR	California Rare (Protected by Native Plant Protection Act)
CSC	CDFG Species of Special Concern
CC	State candidate for listing
1B	CNPS - Rare, Threatened, or Endangered

3.4.2 REGULATORY SETTING

There are a number of regulatory agencies whose responsibility includes the oversight of the natural resources of the state and nation including the CDFG, USFWS, USACOE, and the National Marine Fisheries Service. These agencies often respond to declines in the quantity of a particular habitat or plant or animal species by developing protective measures for those species or habitat type. Federal and state agencies are increasingly involved with projects at the local level in San Joaquin County. The following is an overview of the federal, state and local regulations that are applicable to the proposed project.

FEDERAL

Federal Endangered Species Act

The Federal Endangered Species Act (FESA), passed in 1973, defines an endangered species as any species or subspecies that is in danger of extinction throughout all or a significant portion of its range. A threatened species is defined as any species or subspecies that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

Once a species is listed it is fully protected from a “take” unless a take permit is issued by the USFWS. A take is defined as the harassing, harming, pursuing, hunting, shooting, wounding, killing, trapping, capturing, or collecting wildlife species or any attempt to engage in such conduct, including modification of its habitat (16 USC 1532, 50 CFR 17.3). Proposed endangered or threatened species are those species for which a proposed regulation, but not a final rule, has been published in the Federal Register.

Migratory Bird Treaty Act

To kill, posses, or trade a migratory bird, bird part, nest, or egg is a violation of the Federal Migratory Bird Treaty Act (FMBTA: 16 U.S.C., §703, Supp. I, 1989), unless it is in accordance with the regulations that have been set forth by the Secretary of the Interior.

Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (16 U.S.C. §668 et seq.) as amended provides for the protection of the bald eagle (the national emblem) and the golden eagle by prohibiting, except under certain specified conditions, the taking, possession and commerce of such birds. The protection provided includes the import, export, take, sell, purchase or barter any bald eagle or golden eagle, their parts, products, nests or eggs. The taking includes pursuing, shooting, poisoning, wounding, killing, capturing, trapping, collecting, molesting or disturbing. The law provides exceptions that can be granted for scientific or exhibition use, or for traditional and cultural use by Native Americans.

Clean Water Act – Section 404

Section 404 of the CWA regulates all discharges of dredged or fill material into waters of the U.S. Discharges of fill material includes the placement of fill that is necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site-development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes and subaqueous utility lines [33 C.F.R. §328.2(f)].

Waters of the U.S. include lakes, rivers, streams, intermittent drainages, mudflats, sandflats, wetlands, sloughs, and wet meadows. Wetlands are defined as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” [33 C.F.R. §328.3(b)]. Waters of the U.S. exhibit a defined bed and bank and ordinary high water mark (OHWM). The OHWM is defined by the USACOE as “that line on shore established by the fluctuations of water and indicated by physical character of the soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas” [33 C.F.R. §328.3(e)].

The USACOE is the agency responsible for administering the permit process for activities that affect waters of the U.S. Executive Order 11990 is a federal implementation policy, which is intended to result in no net loss of wetlands.

Clean Water Act – Section 401

Section 401 of the CWA (33 U.S.C. 1341) requires an applicant who is seeking a 404 permit to first obtain a water quality certification from the Regional Water Quality Control Board. To obtain the water quality certification, the Regional Water Quality Control Board must indicate that the proposed fill would be consistent with the standards set forth by the state.

Department of Transportation Act - Section 4(f)

Section 4(f) has been part of Federal law since 1966. It was enacted as Section 4(f) of the Department of Transportation (DOT) Act of 1966 and set forth in Title 49 United States Code (U.S.C.), Section 1653(f). In January 1983, as part of an overall recodification of the DOT Act, Section 4(f) was amended and codified in 49 U.S.C. Section 303. This law established policy on Lands, Wildlife and Waterfowl Refuges, and Historic Sites as follows:

> *It is the policy of the United States Government that special effort should be made to preserve the natural beauty of the countryside and public park and recreation lands, wildlife and waterfowl refuges, and historic sites. The Secretary of Transportation shall cooperate and consult with the Secretaries of the Interior, Housing and Urban Development, and Agriculture, and with the States, in developing transportation plans and programs that include measures to maintain or enhance the natural beauty of lands crossed by transportation activities or facilities. The Secretary of Transportation may approve a transportation program or project (other than any project for a park road or parkway under section 204 of title 23) requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance, or land of a historic site of national, state, or local significance (as determined by the Federal, state, or local officials having jurisdiction over the park, area, refuge, or site) only if: a) There is no prudent and feasible alternative to using that land; and b) The program or project includes all possible planning to minimize harm to the park, recreation area, wildlife and waterfowl refuge, or historic site resulting from the use.*

STATE

Fish and Game Code §1900-1913 California Native Plant Protection Act

In 1977 the State Legislature passed the Native Plant Protection Act (NPPA) in recognition of rare and endangered plants of the state. The intent of the law was to preserve, protect, and enhance endangered plants. The NPPA gave the California Fish and Game Commission the power to designate native plants as endangered or rare, and to require permits for collecting, transporting, or selling such plants. The NPPA includes provisions that prohibit the taking of plants designated as "rare" from the wild, and a salvage mandate for landowners, which requires notification of the CDFG 10 days in advance of approving a building site.

Fish and Game Code §2050-2097 - California Endangered Species Act

The California Endangered Species Act (CESA) protects certain plant and animal species when they are of special ecological, educational, historical, recreational, aesthetic, economic, and scientific value to the people of the State. CESA established that it is State policy to conserve, protect, restore, and enhance endangered species and their habitats.

CESA was expanded upon the original Native Plant Protection Act and enhanced legal protection for plants. To be consistent with Federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the Act as threatened species, but

did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Under State law, plant and animal species may be formally designated by official listing by the California Fish and Game Commission.

Fish and Game Code §3503, 3503.5, 3800 - Predatory Birds

Under the California Fish and Game Code, all predatory birds in the order Falconiformes or Strigiformes in California, generally called "raptors," are protected. The law indicates that it is unlawful to take, posses, or destroy the nest or eggs of any such bird unless it is in accordance with the code. Any activity that would cause a nest to be abandoned or cause a reduction or loss in a reproductive effort is considered a take. This generally includes construction activities.

Fish and Game Code §1601-1603 – Streambed Alteration

Under the California Fish and Game Code, CDFG has jurisdiction over any proposed activities that would divert or obstruct the natural flow or change the bed, channel, or bank of any lake or stream. Private landowners or project proponents must obtain a "Streambed Alteration Agreement" from CDFG prior to any alteration of a lake bed, stream channel, or their banks. Through this agreement, the CDFG may impose conditions to limit and fully mitigate impacts on fish and wildlife resources. These agreements are usually initiated through the local CDFG warden and will specify timing and construction conditions, including any mitigation necessary to protect fish and wildlife from impacts of the work.

Public Resources Code § 21000 - California Environmental Quality Act

The California Environmental Quality Act (CEQA) identifies that a species that is not listed on the federal or state endangered species list may be considered rare or endangered if the species meets certain criteria. Under CEQA public agencies must determine if a project would adversely affect a species that is not protected by FESA or CESA. Species that are not listed under FESA or CESA, but are otherwise eligible for listing (i.e. candidate, or proposed) may be protected by the local government until the opportunity to list the species arises for the responsible agency.

Species that may be considered for review are included on a list of "Species of Special Concern," developed by the CDFG. Additionally, the California Native Plant Society (CNPS) maintains a list of plant species native to California that have low numbers, limited distribution, or are otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California. List 1A contains plants that are believed to be extinct. List 1B contains plants that are rare, threatened, or endangered in California and elsewhere. List 2 contains plants that are rare, threatened, or endangered in California, but more numerous elsewhere. List 3 contains plants where additional information is needed. List 4 contains plants with a limited distribution.

Public Resources Code § 21083.4 - Oak woodlands conservation

In 2004, the California legislature enacted SB 1334, which added oak woodland conservation regulations to the Public Resources Code. This new law requires a County to determine whether a project, within its jurisdiction, may result in a conversion of oak woodlands that will have a

significant effect on the environment. If a County determines that there may be a significant effect to oak woodlands, the County must require oak woodland mitigation alternatives to mitigate the significant effect of the conversion of oak woodlands. Such mitigation alternatives include: conservation through the use of conservation easements; planting and maintaining an appropriate number of replacement trees; contribution of funds to the Oak Woodlands Conservation Fund for the purpose of purchasing oak woodlands conservation easements; and/or other mitigation measures developed by the County.

California Wetlands Conservation Policy

In August 1993, the Governor announced the "California Wetlands Conservation Policy." The goals of the policy are to establish a framework and strategy that will:

- Ensure no overall net loss and to achieve a long-term net gain in the quantity, quality, and permanence of wetland acreage and values in California in a manner that fosters creativity, stewardship, and respect for private property.
- Reduce procedural complexity in the administration of State and federal wetland conservation programs.
- Encourage partnerships to make landowner incentive programs and cooperative planning efforts the primary focus of wetland conservation and restoration.

The Governor also signed Executive Order W-59-93, which incorporates the goals and objectives contained in the new policy and directs the Resources Agency to establish an Interagency Task Force to direct and coordinate administration and implementation of the policy.

Regional Conservation Planning

DELTA PROTECTION ACT OF 1992

The primary objective of this legislation is to protect the Sacramento-San Joaquin Delta and its natural resources including wildlife, fish, and the habitats on which they depend. This legislation calls for the adoption of a comprehensive, long-term resource management plan, which includes requirements for the conservation, preservation, and restoration of Delta wildlife, fisheries, and habitats.

THE RECOVERY PLAN FOR UPLAND SPECIES OF THE SAN JOAQUIN VALLEY, CALIFORNIA

The primary objective of this recovery plan is the recovery of 11 endangered and threatened species; along with protection and long-term conservation of candidate species and species of special concern USFWS (USFWS 1998). The species covered in the plan inhabit grasslands and scrublands of the San Joaquin Valley, adjacent foothills, and small valleys.

SAN JOAQUIN COUNTY MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

A Habitat Conservation Plan (HCP) is a federal planning document that is prepared pursuant to Section 10 of the Federal Endangered Species Act (FESA). An approved HCP within a defined plan

area allows for the incidental take of species and habitat that are otherwise protected under FESA during development activities.

A Natural Community Conservation Plan (NCCP) is a state planning document administered by CDFG. An approved NCCP within a defined plan area allows for the incidental take of species and habitat that are otherwise protected under CESA during growth and development activities.

Background: The key purpose of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP), is to provide a strategy for balancing the need to conserve Open Space and the need to Convert Open Space to non-Open Space uses while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA); providing and maintaining multiple-use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and accommodating a growing population while minimizing costs to Project Proponents and society at large.

San Joaquin County's past and future (2001-2051) growth has affected and will continue to affect 97 special status plant, fish and wildlife species in 52 vegetative communities scattered throughout San Joaquin County's 1,400+ square miles and 900,000+ acres, which include 43% of the Sacramento-San Joaquin Delta's Primary Zone. The SJMSCP, in accordance with ESA Section 10(a)(1)(B) and CESA Section 2081(b) Incidental Take Permits, provides compensation for the Conversion of Open Space to non-Open Space uses which affect the plant, fish and wildlife species covered by the Plan, hereinafter referred to as "SJMSCP Covered Species". In addition, the SJMSCP provides some compensation to offset the impacts of Open Space land Conversions on non-wildlife related resources such as recreation, agriculture, scenic values and other beneficial Open Space uses.

The SJMSCP compensates for Conversions of Open Space for the following activities: urban development, mining, expansion of existing urban boundaries, non-agricultural activities occurring outside of urban boundaries, levee maintenance undertaken by the San Joaquin Area Flood Control Agency, transportation projects, school expansions, non-federal flood control projects, new parks and trails, maintenance of existing facilities for non-federal irrigation district projects, utility installation, maintenance activities, managing Preserves, and similar public agency projects. These activities will be undertaken by both public and private individuals and agencies throughout San Joaquin County and within the County's incorporated cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton and Tracy. Public agencies including Caltrans (for transportation projects), and the San Joaquin Council of Governments (for transportation projects) also will undertake activities which will be covered by the SJMSCP. In addition, 5,340 acres is allocated for anticipated projects (e.g., annexations, general plan amendments)

Species coverage will be variable under the SJMSCP and will range from full coverage under federal and state law to CEQA coverage only. The 97 SJMSCP Covered Species include 25 state and/or federally listed species. The SJMSCP Covered Species includes 27 plants (6 listed), 4 fish (2 listed), 4

amphibians (1 listed), 4 reptiles (1 listed), 33 birds (7 listed), 15 mammals (3 listed) and 10 invertebrates (5 listed).

Implementation: The SJMSCP is administered by a Joint Powers Authority consisting of members of the San Joaquin County Council of Governments (SJCOG), the California Department of Fish and Game (CDFG), and the US Fish and Wildlife Service. Development project applicants are given the option of participating in the SJMSCP as a way to streamline compliance with required local, State and federal laws regarding biological resources, and typically avoid having to approach each agency independently. According to the SJMSCP, adoption and implementation by local planning jurisdictions provides adequate compensation and mitigation for impacts to plants, fish and wildlife. SJMSCP-permitted activities within the boundaries of San Joaquin County fulfill conservation and open space obligations and policies of local general plans, resolution, ordinances and other regulations as they pertain to plants, fish and wildlife. Adoption and implementation of the SJMSCP also secures compliance pursuant to the state and federal laws such as CEQA, the National Environmental Policy Act (NEPA), the Planning and Zoning Law, the State Subdivision Map Act, the Porter-Cologne Act and the Cortese-Knox Act in regards to species covered under the SJMSCP.

Since Tracy became a signatory to the SJMSCP at the end of 2001, all applicants for projects within the City have chosen to participate in the Plan, rather than pursue compliance independently. Applicants pay mitigation fees on a per-acre basis, as established by the Joint Powers Authority according to the measures needed to mitigate impacts to the various habitat and biological resources. Different types of land require different levels of mitigation; i.e., one category requires that one acre of a similar land type be preserved for each acre developed, while another type requires that two acres be preserved for each acre developed. The entire County is mapped according to these categories so that land owners, project proponents and project reviewers are easily aware of the applicable SJMSCP fees for the proposed development.

The appropriate fees are collected by the City and remitted to SJCOG for administration. SJCOG uses the funds to preserve open space land of comparable types throughout the County, often coordinating with other private or public land trusts to purchase conservation easements or buy land outright for preservation. Development occurring on land that has been classified under the SJMSCP as “no-pay” would not be required to pay a fee. This category usually refers to already urbanized land and infill development areas. Although the fees are automatically adjusted on an annual basis, based on the construction cost index, they often cannot keep pace with the rapidly rising land prices in the Central Valley. Therefore, SJCOG is currently in the process of updating the mitigation fee schedule to more accurately match the market value of the various land types.

3.4.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on biological resources if it will:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service;
- Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- 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;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

METHODS

Literature and Database Review

De Novo Biologist Steve McMurtry conducted a literature review and database search to gather information regarding sensitive plants, animals, and habitats. The purpose of the literature and database review is to identify species known to occur within the region based on historic range, observations, and habitat requirements. Information for the literature and database review is derived primarily from the following:

- California Natural Diversity Data Base (CNDDB RareFind 3, January 29, 2009);
- California Native Plant Society's Inventory of Rare and Endangered Vascular Plants of California (Skinner, Mark W. and Bruce M. Pavlik, Eds. 2001);
- A Manual of California Vegetation (Sawyer, John and Todd Keeler-Wolf 1995);
- Terrestrial vegetation of California (Barbour and Major 1988);
- Jepson Manual: Higher Plants of California (Hickman, James C. 1993);
- “Special Plants List.” Natural Diversity Database. (California Dept. of Fish and Game);
- “Special Animals List.” Natural Diversity Database. (California Dept. of Fish and Game);
- “Special Vascular Plants, Bryophytes, and Lichens List.” Natural Diversity Database. (California Dept. of Fish and Game).
- Army Corps of Engineers Wetland Delineation Manual. (ACOE 1987)

Aerial-Photo Survey

De Novo Biologist Steve McMurtry examined aerial photographs of the project site to document the existing conditions and assess any changes that have occurred from historical aerial photos.

Field Survey

On February 13, 2009 De Novo Biologist Steve McMurtry traversed the project site on foot to determine the presence of plant communities, special status species, and sensitive habitats. Additionally, a windshield survey was conducted for the area within an approximately one-mile radius of the project site. The purpose of the site survey was to document the existing biological conditions on the project site, and in the project area.

IMPACTS AND MITIGATION

The California Natural Diversity Data Base (CNDDB) search identified several documented special-status species within the San Joaquin County region. Some species require localized micro-habitats, while others are highly mobile and may occur throughout the region. The project site does not provide adequate habitat for many of the documented special-status species that are known to occur in the region. Below is a brief description of the special status species that are present in the region and their habitat requirements. Table 3.4-1 provides a detailed description of the species habitat and listing status.

Impact 3.4-1: Project implementation may result in direct or indirect effects on special-status invertebrate species (Less than Significant)

Special-status invertebrates that occur within the San Joaquin County region include: longhorn fairy shrimp, vernal pool fairy shrimp, and midvalley fairy shrimp, which requires vernal pools and swale areas within grasslands; and the valley elderberry longhorn beetle, which is an insect that is only associated with blue elderberry plants, oftentimes in riparian areas and sometimes on land in the vicinity of riparian areas. The project site does not contain essential habitat for these special status invertebrates. Furthermore, evidence of these species was not encountered during the field survey. Implementation of the proposed project would have a **less than significant** impact on these species. No mitigation is necessary.

Impact 3.4-2: Project implementation may result in direct or indirect effects on special-status reptile and amphibian species (Less than Significant)

Special-status reptiles and amphibians that occur within the region include: the western pond turtle, which requires aquatic environments located along ponds, marshes, rivers, and ditches; the California tiger salamander, which is found is grassland habitats where there are nearby seasonal wetlands for breeding; the silvery legless lizard, which is found in sandy or loose loamy soils under sparse vegetation with high moisture content; San Joaquin whipsnake, which requires open, dry habitats with little or no tree cover with mammal burrows for refuge; the Alameda whipsnake, which is restricted to valley-foothill hardwood habitat on south-facing slopes; the California horned lizard, which occurs in a variety of habitats including, woodland, forest, riparian, and annual grasslands, usually in open sandy areas; the foothill yellow-legged frog, which occurs in partly shaded and shallow streams with rocky soils; the California red legged frog, which occurs in stream pools and ponds with riparian or emergent marsh vegetation; and the western spadefoot toad, which requires grassland habitats associated with vernal pools.

The project site contains extensive irrigation and drainage ditches. At the time of the field survey the ditches contained varying levels of water ranging from a few inches to several feet—note: the field survey was performed following several days of precipitation during the winter months. These ditches dry up, or have limited water from irrigation runoff during the hot summer months. Additionally, it should be noted that the irrigation ditches located within the boundary of the project site had limited vegetation as a result of ditch maintenance activities.

The project site does not contain appropriate habitat for the silvery legless lizard, Alameda whipsnake, California tiger salamander, foothill yellow-legged frog, western pond turtle, California red legged frog, or western spadefoot toad, nor where these species or evidence of the species found during the site visit. These species and their essential habitats are not present. Implementation of the proposed project would have a **less than significant** impact on these species. No mitigation is necessary.

The project site is frequently disturbed from active agricultural activities and does not contain high quality habitat for the San Joaquin whipsnake and California horned lizard. Agricultural fields can provide habitat for these species between disturbance activities. There are no documented occurrences of these species within a five mile radius, nor were they not encountered during the field survey. Implementation of the proposed project would have a **less than significant** impact on these species. No mitigation is necessary.

Impact 3.4-3: Project implementation may result in direct or indirect effects on special-status bird species (Less than Significant with Mitigation)

Special-status birds that occur within the region include: tricolored blackbird, Swainson's hawk, northern harrier, and bald eagle, which are associated with streams, rivers, lakes, wetlands, marshes, and other wet environments; loggerhead shrike, and burrowing owl, which lives in open areas, usually grasslands, with scattered trees and brush; and raptors that are present in varying habitats throughout the region.

Swainson's Hawk. There were a variety of raptors observed flying over the project site including a Swainson's hawk, white-tailed kite, and red-tailed hawk. The Swainson's hawk is threatened in California and is protected by the CDFG and the MBTA. Additionally, Swainson's hawk foraging habitat is protected by the CDFG. Swainson's hawks forage in open grasslands and agricultural fields and commonly nest in solitary trees and riparian areas in close proximity to foraging habitat. The foraging range for Swainson's hawk is ten miles from its nesting location. There are numerous documented occurrences of Swainson's hawk within ten miles of the project site. Although no nesting habitat for this species occur onsite, the cropland habitat on the project site is considered suitable foraging habitat for this species.

Construction on the project site could adversely affect Swainson's hawk foraging habitat. The Swainson's hawk is a species covered by the SJMSCP. The proposed project is considered an Unmapped Land Use Project by the SJMSCP, which includes annexations of land into the incorporated limits of a city. The City submitted an application to SJCOG to request coverage of the

project site under the SJMSCP as an Unmapped Land Use Project. The SJMSCP coverage application was approved by the SJMSCP Board on July 23, 2009, by Minute Resolution Number 09-01. Coverage of a project under the SJMSCP is intended to reduce impacts to biological resources, including Swainson's hawk, resulting from a project. Since the project site has successfully received coverage under the SJMSCP, the City is required to pay the appropriate fee established by the SJMSCP and to incorporate all Incidental Take Minimization Measures identified by SJCOG into the project design. SJCOG will use the mitigation fee to purchase habitat for Swainson's hawk to be protected in perpetuity. No additional mitigation measure is required, and the project's coverage under the SJMSCP ensures that this impact would be **less than significant**.

Burrowing Owls. The project site is largely in active agricultural use with alfalfa coverage. The irrigation ditches had a large number of ground burrows and ground squirrels were abundant. During the site visit, nine burrowing owls were observed along the irrigation ditches. Burrowing owls are a California Species of Special Concern and are protected by the CDFG and the MBTA. Burrowing owls forage in open grasslands and shrublands and typically nest in old ground squirrel burrows. Based on the frequency of disking on the majority of the project site, it is unlikely that burrowing owl would nest within the cropland area. However, the presence of ground squirrel burrows along the banks of the ditches constitutes suitable nesting habitat for burrowing owl and burrowing owls were present on the project site during field surveys performed in February 2009 and are presumed to be present prior to the onset of construction activities, whenever they may occur. It should also be noted that there are documented occurrences of burrowing owl on properties to the east, southeast, southwest, and west of the project site. The proposed project would have a potentially significant impact on burrowing owls. Implementation of the following mitigation measure would reduce the impact to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 3.4-1: *The City of Tracy shall comply with measures contained within the SJMSCP and shall consult with SJCOG biologists and the TAC prior to any site disturbing activities. The City shall implement the requirements of the SJMSCP to ensure that impacts to burrowing owls are avoided. The details of the avoidance measures shall be dictated by the TAC, and may include the following:*

- *To the extent feasible, construction should be planned to avoid the burrowing owl breeding season.*
- *During the non-breeding season (September 1 through January 31) burrowing owls occupying the project site should be evicted from the project site by passive relocation as described in the California Department of Fish and Game's Staff Report on Burrowing Owls (Oct., 1995)*
- *During the breeding season (February 1 through August 31) occupied burrows shall not be disturbed and shall be provided with a 75 meter protective buffer until and unless the TAC, with the concurrence of the Permitting Agencies' representatives on the TAC; or unless a qualified biologist approved by the Permitting Agencies verifies through non-invasive*

means that either: 1) the birds have not begun egg laying, or 2) juveniles from the occupied burrows are foraging independently and are capable of independent survival. Once the fledglings are capable of independent survival, the burrow can be destroyed.

Implementation of this mitigation shall occur prior to grading or site clearing activities. The City of Tracy shall be responsible for monitoring and a qualified biologist shall conduct surveys and relocate owls as required.

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.4-1 would reduce impacts to special-status bird species to a **less than significant** level.

Impact 3.4-4: Project implementation may result in direct or indirect effects on special-status mammal species (Less than Significant)

Special-status mammals that occur within the region include: the pallid bat, the Townsend's big eared bat, and the western mastiff bat, which occur in a variety of habitats, including grasslands, trees, cliffs, and buildings; and the American badger and San Joaquin kit fox, which occurs in annual grassland and scrub habitats where there is an abundance of burrowing rodents.

The project site could serve as foraging habitat for the pallid bat, Townsend's big eared bat, or western mastiff bat. These species are highly mobile mammals; however, there are no documented occurrences of these species within a five mile radius of the project site and there is no suitable roosting habitat present onsite. Implementation of the proposed project would have a **less than significant** impact on these species. No mitigation is necessary.

The project site is frequently disturbed from active agricultural activities. As a result, the project site does not contain high quality habitat for the American badger or the San Joaquin kit fox. However, these species are highly mobile mammals that may forage on or pass through the project site from time to time. All but one of the documented occurrences of the San Joaquin kit fox occur on the southwest side of Tracy near the foothills. One documented occurrence is located approximately five miles to the northwest near Mountain House. There is only one documented occurrence of American badger, located approximately two miles to the southeast. The proposed project may have an indirect impact on these species by removing potential foraging habitat, but the project site is not in an area that would be classified as a movement corridor for either of these species. Implementation of the proposed project would have a **less than significant** impact on these species. No mitigation is necessary.

Impact 3.4-5: Project implementation may result in direct or indirect effects on special-status plant species (Less than Significant with Mitigation)

Numerous special-status plant species are known to occur in the region. Many of these special status plant species require specialized habitats such as serpentine soils, rocky outcrops, slopes, vernal pools, marshes, swamps, riparian habitat, alkali soils, and chaparral, which are not present

on the project site. The project site is located in an area that was likely valley grassland prior to human settlement, and there are several plant species that are found in valley and foothills grasslands areas. These species include large-flowered fiddleneck, bent-flowered fiddleneck, big-balsamroot, big tarplant, round-leaved filaree, Lemmon's jewelflower, and showy golden madia. Human settlement has involved a high frequency of ground disturbance associated with the historical farming activities in the region, including the project site.

The project site was largely covered with alfalfa. There was limited ground cover along the farm roads and irrigation ditches. There is the potential for several special status plants to growth within the irrigation ditches due to the mesic conditions that are present during specific times. These include the Mason's lilaeopsis, Suisun Marsh aster, and Delta button celery, two of which are documented within a five mile radius of the project site. There are no documented occurrences of special status plants on the project site or within the irrigation ditches on adjacent properties that are interconnected. The potential for their occurrence cannot be dismissed, however, because potentially suitable habitat is present and protocol-level surveys within the ditches have not been conducted (i.e. blooming period surveys).

It is anticipated that the irrigation ditches would be preserved and will continue to serve as drainage for the project site and general vicinity. Drainage plans are not yet prepared, therefore, it is unknown whether or not these ditches will be retained in their existing conditions or modified to meet drainage standards and specifications. There is also a possibility that the ditches could be improved as part of a restoration, landscaping, and drainage plan that incorporates a naturally landscaped drainage feature as an aesthetic, biological, and educational amenity for the community interwoven into the sports park. It is not known whether any modifications to the ditches would occur. If the final project plans show that the ditches will be maintained in their current condition without any disturbance to the plants within the ditches, the project would be determined to have a less than significant impact. Because the final plans are not yet prepared there is a possibility that the project could cause disturbance to the plants within the ditches, which is considered a potentially significant impact. Implementation of the following mitigation measure would reduce the impact to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 3.4-2*: Prior to any activities that would result in disturbance to the irrigation ditches, the City shall consult with the SJCOG TAC to determine the appropriate mitigation measures that must be implemented to comply with requirements of the SJMSCP and avoid impacts to special status plant species. If it is determined that the irrigation ditches contain special status plants that are covered by the SJMSCP, the City shall secure an authorization for an incidental take by remitting all appropriate fees to the San Joaquin Council of Governments and incorporating all Incidental Take Minimization Measures into the project design and construction phase. If it is determined that the irrigation ditches contain special status plants that are not covered by the SJMSCP, the City shall either avoid the project area, or seek consultation with the appropriate regulatory agency (CDFG or USFWS) for the appropriate permits and mitigation measures. If it is determined that the irrigation ditches do not contain special status plants then no additional action is necessary.*

Implementation of this mitigation shall occur prior to grading or site clearing activities. The City of Tracy shall be responsible for monitoring and a qualified botanist shall conduct surveys as required.

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.4-2 would reduce impacts to special-status plant species to a **less than significant** level.

Impact 3.4-6: Project implementation may result in cumulative effects on special-status species (Less than Significant with Mitigation)

Construction on the project site would permanently remove agricultural land that provides habitat for the threatened Swainson's hawk and burrowing owl, as well as numerous raptor species. When combined with other projects in the City and throughout the region, the permanent removal of the agricultural land is considered a potentially significant cumulative impact. The SJMSCP was created and adopted to address both the project and cumulative impacts to biological resources, including the burrowing owl and Swainson's hawk. The City continues to participate in the SJMSCP, and the continued collection and application of mitigation fees for the purpose of preserving agricultural lands as foraging territory would reduce the cumulative impacts to a **less than significant** level. The City is required to implement the biological mitigation measures presented within this EIR and all Incidental Take Minimization Measures required by the SJCOG through the authorization of SJMSCP coverage for the project site.

Impact 3.4-7: Project implementation may result in adverse effects on riparian habitat or sensitive natural community (Less than Significant)

The CNDDB record search revealed documented occurrences of eight sensitive habitats within the nine closest USGS quadrants including: Alkali Meadow, Alkali Seep, Cismontane Alkali Marsh, Great Valley Valley Oak Riparian, Northern Claypan Vernal Pool, Sycamore Alluvial Woodland, Valley Needlegrass Grassland, and Valley Sink Scrub. The Great Valley Valley Oak Riparian Forest is the only sensitive habitat that is documented within a five mile radius. The project site does not contain any of these sensitive habitats. The project site is an agricultural field that has historically been used for active agriculture. Implementation of the proposed project would have a **less than significant** impact. No mitigation is necessary.

Impact 3.4-8: Project implementation may result in adverse effects on protected wetlands through direct removal, filling, hydrological interruption, or other means (Less than Significant with Mitigation)

The project site contains irrigation/drainage ditches that may be subject to USACE and CDFG jurisdiction. A formal wetland delineation of jurisdictional waters of the United States within the project site has not been performed and verified by the USACE, nor are any of these activities covered under the SJMSCP. Any activities that would require removal, filling, or hydrologic interruption of the irrigation ditches would be subject to the federal Clean Water Act Section 404 and California Fish and Game Code Section 1601 (Streambed Alteration Agreement). Under these regulations a formal wetland delineation would need to be prepared and verified by the USACE

prior to any activities that would involve the irrigation/drainage ditches. However, these irrigation/drainage ditches are not planned to be adversely affected; instead they are planned to be retained for drainage purposes.

Drainage plans are not yet prepared, therefore, it is unknown whether or not these ditches will be retained in their existing conditions or modified to meet drainage standards and specifications. There is also a possibility that the ditches could be improved as part of a restoration, landscaping, and drainage plan that incorporates a naturally landscaped drainage feature as an aesthetic, biological, and educational amenity for the community interwoven into the sports park. It is not known whether any modifications to the ditches would occur; however, any modification or restoration of the ditches would be subject to Section 404 of the federal Clean Water Act and Section 1601 of the California Fish and Game Code. If the final project plan show that the ditches will be maintained in their current condition without any removal, fill, or hydrologic interruption, the project would be determined to have a less than significant impact. Because the final plans are not yet prepared there is a possibility that the project could cause removal, fill, or hydrologic interruption to the ditches, which is considered a potentially significant impact. Implementation of the following mitigation measure would reduce the impact to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 3.4-3*: Prior to any activities that would result in removal, fill, or hydrologic interruption of the irrigation ditches, a formal wetland delineation shall be performed by a qualified biologist and submitted to the USACE for verification. If the USACE determines that the irrigation ditches are jurisdictional and that the project activities would result in a fill, the City shall secure an authorization of the fill through the Section 404 permit process.*

Mitigation Measure 3.4-4*: Prior to any activities that would result in removal, fill, or hydrologic interruption of the irrigation ditches, the City shall consult with the CDFG to determine if the activities are subject to Section 1601 of the Fish and Game Code. If the CDFG determines that the project activities are subject to these regulations, the City shall secure an authorization of the activities through a Streambed Alteration Agreement.*

Impact 3.4-9: Project implementation may result in interference with the movement of native fish or wildlife species or with established wildlife corridors, or impede the use of native wildlife nursery sites (Less than Significant)

The CNDDB record search did not reveal any documented wildlife corridors or wildlife nursery sites on or adjacent to the project site. Furthermore, the field survey did not reveal any wildlife corridors or wildlife nursery sites on or adjacent to the project site. The irrigation/drainage ditches may serve as a corridor for movement of wildlife in the region; however, the project plans include retention of these ditches for drainage, which provides an ancillary benefit of retaining the ditches

for wildlife. Implementation of the proposed project would have a **less than significant** impact. No mitigation is necessary.

Impact 3.4-10: Project implementation may conflict with an adopted habitat conservation plan (Less than Significant)

The proposed project is subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The proposed project is an annexation of land into an existing incorporated city limits and is located immediately adjacent to the boundaries of the defined community, which falls into the category of "Unmapped Land Use Project" under the SJMSCP. Projects in this category are subject to a case-by-case review by a Technical Advisory Committee (TAC) to ensure that the biological impacts of the proposed project are within the parameters established by the SJMSCP and the Biological Opinion.

"Unmapped Land Use Projects" that seek coverage under the SJMSCP are required to complete the "*Section 8.2.1(10) Checklist for Unmapped SJMSCP Projects*" with supporting documentation for SJCOG to review and confirm that the proposed project is consistent with the SJMSCP and the Biological Opinion. If the TAC confirms that the proposed project is consistent with the SJMSCP, they will recommend to the Joint Powers Authority that the project receive coverage under the SJMSCP. The project's coverage under the SJMSCP was determined by SJCOG to be consistent with the SJMSCP and the application to include the project site in the SJMSCP was approved by the SJMSCP Board on July 23, 2009, by Minute Resolution Number 09-01.

The biological resources assessment prepared for the proposed project includes a "*Section 8.2.1(10) Checklist for Unmapped SJMSCP Projects.*" The checklist is attached as Appendix I. An SJMSCP/Biological Opinion consistency summary is provided below:

- Coverage for the proposed project is consistent with the overall SJMSCP biological intent and conservation program.
- Coverage for the proposed project is consistent with the SJMSCP Biological Opinion.
- Biological impacts and Incidental Take associated with the proposed project are within the scope of the environmental analyses adopted in conjunction with the SJMSCP.
- The project does not introduce significant new biological conditions into the Plan Area (i.e., impacts of the proposed project are less than or equal to those described in the SJMSCP and its supporting environmental documents).
- The project acres have been analyzed based on habitat type (e.g., Natural Land, Agricultural Habitat Land or Multi-Purpose Open Space Land) and sufficient take acres remain for each habitat type to allow coverage of the proposed project as permitted under the SJMSCP.
- The project is adjacent to existing city limits; or
- The project is not one of the projects specifically exempted from SJMSCP Coverage as identified in the SJMSCP.
- The project does not disrupt a corridor used by the giant garter snake, riparian brush rabbit, riparian woo drat, the San Joaquin kit fox or fisheries as indentified in the SJMSCP.
- The project does not interfere with the San Joaquin River Wildlife Corridor.

- The project does not include installation of a linear barrier to species dispersal as defined in the SJMSCP.

As described above, the proposed project does not conflict with the SJMSCP or Biological Opinion, and was approved for coverage under the SJMSCP on July 23, 2009. The approval of coverage by the Joint Powers Authority, issuance of Incidental Take Minimization Measures by the SJCOG, and implementation of Mitigation Measure 3.4-1 would insure that the proposed project would have a **less than significant** impact.

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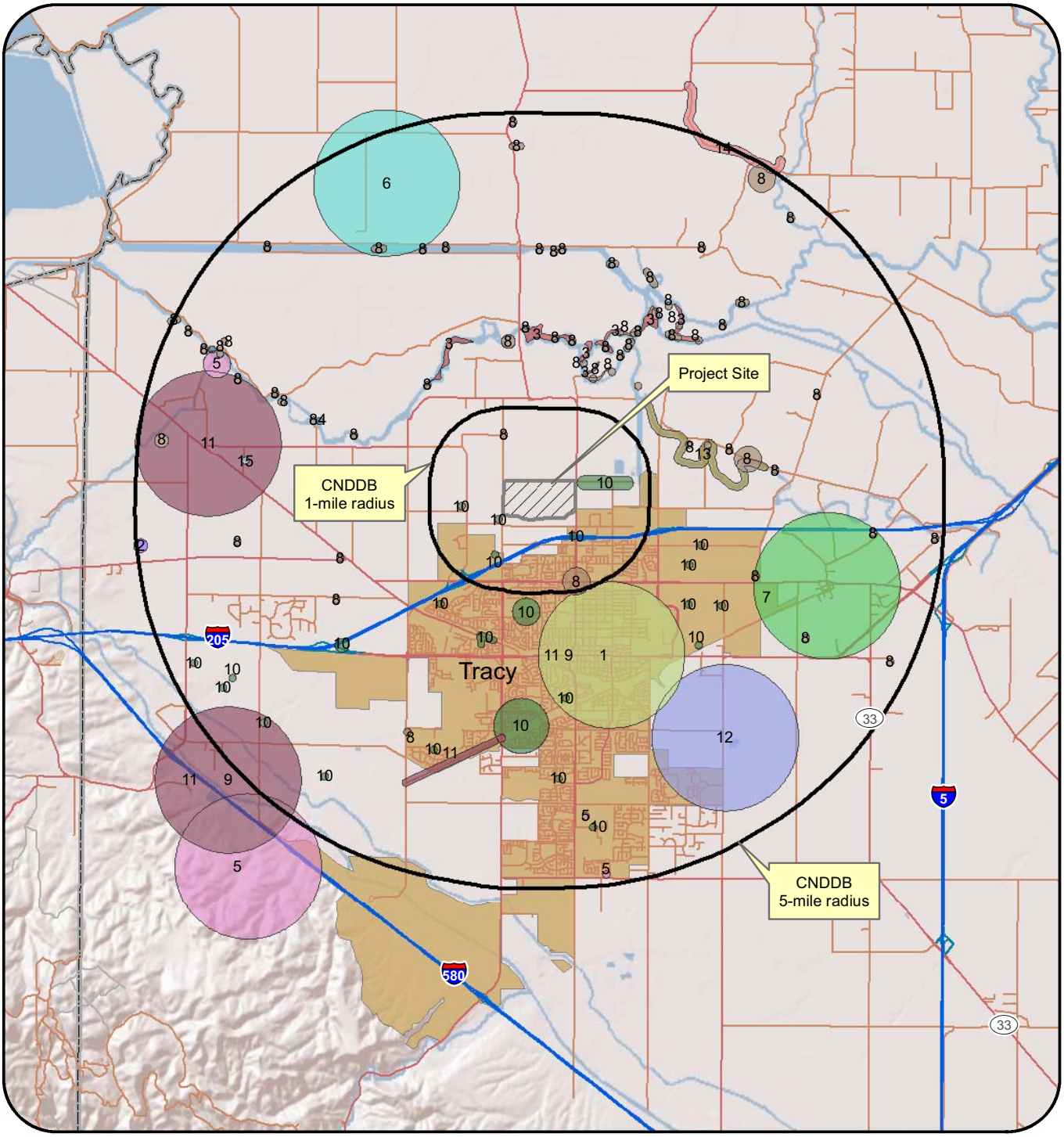

Legend

- 1, American badger
- 2, California horned lark
- 3, Great Valley Valley Oak Riparian Forest
- 4, Mason's lilaeopsis
- 5, San Joaquin kit fox
- 6, San Joaquin pocket mouse
- 7, Suisun Marsh aster
- 8, Swainson's hawk
- 9, big tarplant
- 10, burrowing owl
- 11, caper-fruited tropidocarpum
- 12, round-leaved filaree
- 13, tricolored blackbird
- 14, valley elderberry longhorn beetle
- 15, western pond turtle

Figure 3.4-1 CNDDB Special Status Species Map
(1-mile and 5-mile radius search)

N W E S

0 0.5 1 2 3 4 Miles

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

February 19, 2009

Data Source: CNDDB, February 2009

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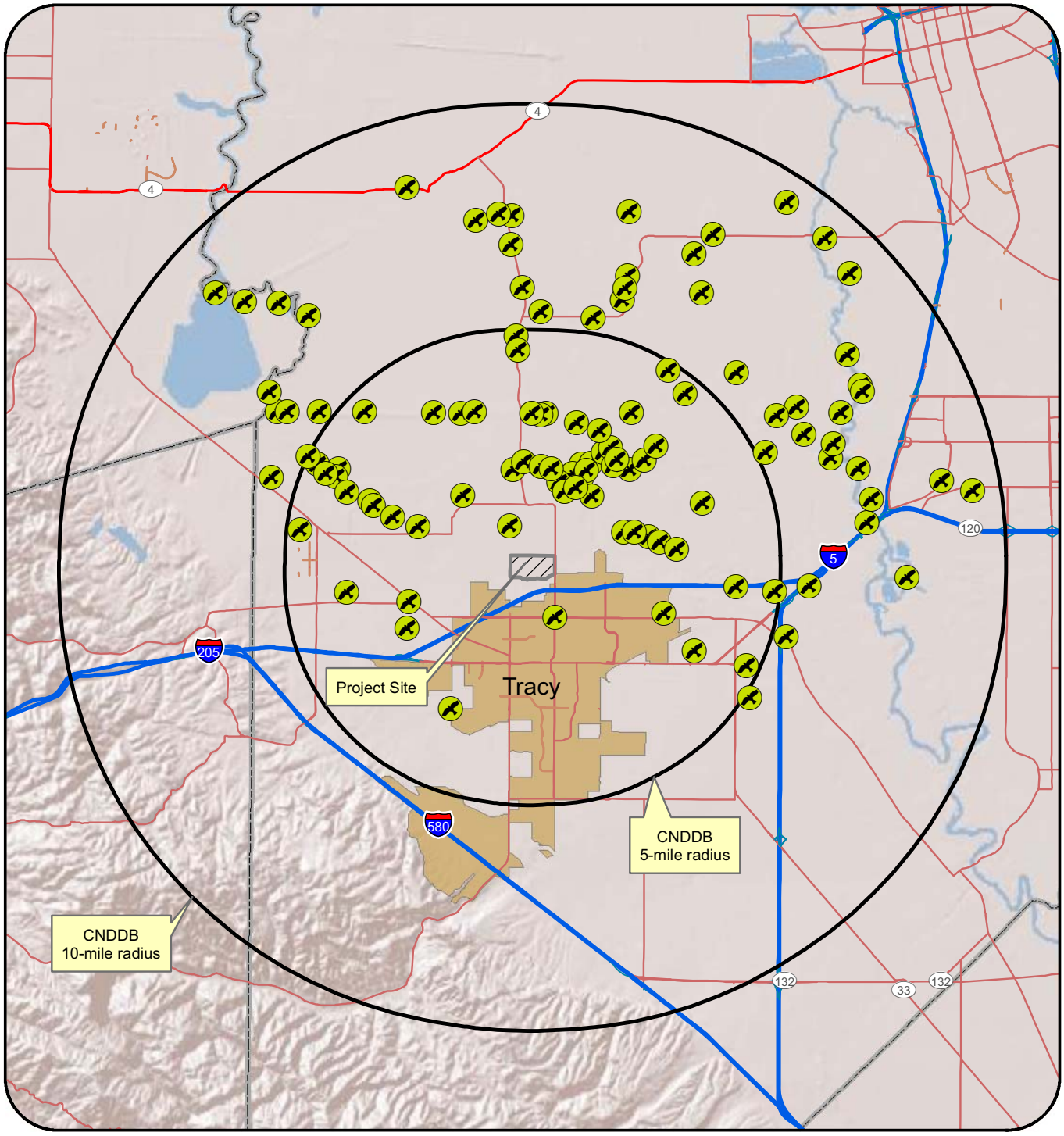

Figure 3,4-2 Swainson's Hawk Recorded Occurrences
(5-mile and 10-mile radius search)

Legend

Swainson's Hawk Occurrences

N
W E
S

0 0.5 1 2 3 4 5 6 7 Miles

Source: CNDDB, February 2009

De Novo Planning Group
A Land Use Planning, Design, and Environmental Firm

February 19, 2009

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This section provides a background discussion of the prehistoric period background, ethnographic background, historic period background, known cultural resources in the region, the regulatory setting, an impact analysis, and mitigation measures. There were no comments received during the public review period for the IS/NOP related to cultural resources. Information in this section is derived primarily from the *Cultural Resource Assessment of the Holly Sugar Sports Park Project Area*, Peak and Associates, April 2009. This report is attached as Appendix C.

3.5.1 ENVIRONMENTAL SETTING

ETHNOGRAPHIC BACKGROUND

The project site lies within the ethnographic territory of the Yokuts people. The Yokuts were members of the Penutian language family which held all of the Central Valley, San Francisco Bay Area, and the Pacific Coast from Marin County to near Point Sur. The Yokuts differed from other ethnographic groups in California as they had true tribal divisions with group names (Kroeber 1925). Each tribe spoke a particular dialect, common to its members, but similar enough to other Yokuts that they were mutually intelligible (Kroeber 1925).

The Yokuts held portions of the San Joaquin Valley from the Tehachapi's in the south to Stockton in the north. On the north they were bordered by the Plains Miwok, on the west by the Saclan or Bay Miwok and Costonoan peoples. Although neighbors were often from distinct language families, differences between the people appear to have been more influenced by environmental factors as opposed to linguistic affinities. Thus the Plains Miwok were more similar to the nearby Yokuts than to foothill members of their own language group. Similarities in cultural inventory co-varied with distance from other groups and proximity to culturally diverse people. The material culture of the southern San Joaquin Yokuts was therefore more closely related to that of their non-Yokuts neighbors than to that of Delta members of their own language group.

The best estimates place the pre-contact population for each of the southern tribes at 350 persons. For the northern groups, population figures have been calculated on the basis of average population density per square mile. The highest density was 10+ persons per square mile, according to these figures, achieved along major drainages. On the plains, primarily east of the San Joaquin River, the average density was only two to three persons per square mile, while even fewer persons occupied the drier foothills to the west of the valley (Wallace 1978a:448; Wallace 1978b:462).

The archeology of the northernmost San Joaquin Valley suggests that the Yokuts were relative latecomers to the area. Cultural differentiation from the Plains Miwok culture occurred before A.D. 1500. Artifacts recovered from sites in the western side of the San Joaquin Valley in Merced and Fresno counties have been assigned to the time between A.D. 1500-1600 and the beginning of contact with the Spanish. Linguistic data suggest that the Northern Valley Yokuts were pressured by their eastern neighbors -- the Monache -- who moved down the Sierra foothills and caused Yokuts to spread northward across the valley into what had formerly been Costanoan and Miwok territory. This territorial shift took place over a span of two hundred years, leaving the Yokuts well-established in the San Joaquin Valley before the first Spanish expeditions (Wallace 1978b:463). The Southern Valley Yokuts may have been established in their ethnographic territory somewhat earlier, perhaps as early

as 2000 years ago, although physical signs of human occupation near Buena Vista Lake have been dated at 6000 B.C. (Wallace 1978a:449).

HISTORY

In 1848, after James Marshall discovered gold at Sutter's Mill in Coloma, thousands of people flocked to California to seek their fortunes. Although some people took overland trails to California, arriving in Sacramento, most traveled the faster route by sea, arriving in San Francisco. With thousands of miners arriving weekly, San Francisco became the initial staging area for the many people heading off to the gold fields of the Sierra Nevada foothills. The project site lies along one of the routes to the southern mining region. This route ran east from Mission San José past Livermore, over Altamont Pass, to Mountain House before continuing to Stockton, Sacramento, or the gold camps beyond those cities.

In 1849, when Thomas Goodall (or Goodale) constructed an adobe building along the route, he founded Mountain House, west of the project site. The building served as a rest stop for stagecoaches, travelers and stockmen. In 1850 Simon Zimmerman purchased the stop and through his hard work, Mountain House became a famous way station on the road to Stockton (Wood 1883:464-65; Thompson and West 1878:25).

The only problem with this route was the Old River branch of the San Joaquin River. In order to travel to Stockton or the southern mines by this route, people needed to cross the river. By the early 1850s, Maurice Byrnes established a ferry on the El Pescadero land grant north of the project site. By the mid-1850s German immigrant Henry Mohr assumed control of Byrnes (Burns) Landing. In addition to running the ferry, Mohr also established a grain and stock farm on Union Island, across Old River, north of the project site. Seeing Mohr's success other farmers moved into the area, acquired land, and developed their own farms (Tinkham 1923: 963).

The arrival of permanent settlers led to the discovery of coal deposits in nearby Corral Hollow in the hills west of the project site in 1856. In this pre-railroad era the only way to ship the coal to San Francisco was down the Old River. Between 1856 and 1861 the Corral Hollow coal companies shipped approximately 1,200 tons of coal from Mohr's landing. This arrangement worked well until the winter of 1861-62 when heavy rains caused flooding throughout the state. Apparently the Old River's high waters destroyed Mohr's Ferry and landing (Tinkham 1923:963).

When Mohr's ferry and landing were destroyed, people in the area recognized the need for a new settlement on higher ground. The most logical place for the new town, subsequently named for the property owner, was on property owned by Erick P. Wicklund, a Swedish farmer. His property was located about one-third of a mile southwest of the old Mohr's Landing site. With the continued expansion of the coal mining industry and its related shipments, and the increase in grain farming in the area, Wicklund soon became the local center for transportation and trade. The town's structures included a coal depot and coal bunkers, a hotel, a warehouse, and a blacksmith shop. Wicklund's success continued until 1868 when it reached its peak. At that time a daily stage provided service to Antioch and a steamer made two trips per week between San Francisco and the Mohr's Landing at Wicklund (Tinkham 1923:963,301).

With the arrival of the Central Pacific Railroad in 1869 and the establishment of the community of Ellis to serve as a coal station for the trains, Wicklund's popularity soon diminished. Accelerating the demise of the town, the Corral Hollow coal mines played out, leaving Wicklund with little shipping business for Mohr's landing and causing Wicklund residents to move their houses to Ellis due to its close proximity to the railroad. By November 1870, the town had over 45 buildings (Gilbert 1879:130).

Despite the loss of the shipping business and most of the residents, some people remained in Wicklund for at least ten more years. In 1879 the hotel, blacksmith shop, and a warehouse still remained, but the completion of another branch of the Central Pacific and the subsequent establishment of Bethany in 1879 led to the final abandonment of Wicklund (Gilbert 1879:130).

Unlike other areas that experienced a population growth with the arrival of the railroad, the project area's population did not expand significantly. The lack of a consistent year-around source of water limited the agricultural potential to dry farming crops such as wheat or other grain products. The water problem was not addressed until well after the turn of the century when first the federal government and later the state orchestrated large water projects that supplied central and southern California with water.

In 1912, the Naglee-Burk Irrigation Association was formed, and three years later, in 1915, the West Side Irrigation District was established and soon irrigation water was available and presented new opportunities for farmers located between Tracy and the Old River.

World War I was underway in Europe and US Government price supports for sugar beets led to the Pacific Sugar Company to open a mill near the project site. Price supports for sugar beets ended in 1919 and this, together with an infestation of whiteflies led to a decline in sugar beet production, and with it, the fortunes of the Pacific Sugar Company. The plant site was temporarily leased to the Amalgamated Sugar Company and in 1925 was sold to the Holly Sugar Company who still uses the plant for distribution, but has ceased processing sugar beets.

With the additional closure of the Holly Sugar plant in Manteca, acreage devoted to sugar beet production declined dramatically in the area. Alfalfa became the crop of choice for the irrigated fields between the City of Tracy and the Old River, including the land once owned by the Holly Sugar Company, including the project site.

The history of the community of Tracy is tied to the railroad. In 1869 the Central Pacific Railroad completed its line through the area and within a few years Lathrop Junction, west of the future town of Tracy, was established to service the railroad. A coaling station was built at the base of Altamont Pass and the small community that sprang up around it became known as Ellis. By 1878, the Central Pacific was constructing a new connecting rail line from Oakland and at the junction with the earlier line Tracy was established. As a railroad created town, Tracy was named after Lathrop J. Tracy, a grain merchant and railroad official from Ohio. Soon after the founding of Tracy, the coaling station at Ellis was closed and the workers, their families, and even two of the former town's hotels were moved east to Tracy (www.ci.tracy.us/about/history).

Transportation was the main employer in the area until the availability of irrigation water after 1915 led to increased interest, and profits, in agriculture. With agricultural abundance and transportation facilities in place, the two interests came together to assist the US war effort with the creation of the Sharpe Army Depot in 1941. The 720 acre facility was used by the US Army to receive, store, package and ship supplies- including local agricultural products, to forces in the Pacific Theater until its closure in 1976. It was also used to store and maintain heavy equipment and aircraft and at one time employed about 1,200 people.

Another growth-inducing impact to the local area was the creation of the Lawrence Livermore National Laboratory facility in the hills southwest of Tracy in the early 1950s to supplement the activities at Los Alamos and the main lab site on the UC Berkeley campus. This Cold War era facility led to a population increase in the neighboring communities of Livermore and Tracy as the workers and their families at the "Lab" settled in.

Increasing land values in the San Francisco bay area in the past few decades have led to a spur in population growth in the City of Tracy and surrounding areas. The creation of the Holly Sugar Sports Complex is keeping with the tradition of municipalities balancing growth with public recreation needs and will undoubtedly be a long-term asset as the area's population continues to increase.

KNOWN CULTURAL RESOURCES

A field reconnaissance of the 298 acre project site was conducted during late February and early March, 2009 by Peak & Associates Staff Archeologist Neal Neuenschwander and archeologist Michael Lawson. A complete, intensive pedestrian inventory of the project site was undertaken by means of parallel transects spaced at intervals of roughly 10 to 15 meters.

The project site is currently used to raise alfalfa. Roads, ditches, and the rows between the alfalfa provided for excellent visibility of the ground surface. The alfalfa crop was young and generally under 10 inches in height and had not yet completely obscured the ground surface. No portion of the project was excluded from the intensive reconnaissance.

No evidence of prehistoric period activity was observed within the project site. The unrecorded portion of the Bellota-Newark transmission line, P-39-004374, was recorded and supplemental Department of Parks and Recreation (DPR) 523 forms and a location map for the resource, as well as the original site form, are presented in Appendix D of the cultural resources report.

A review of literature maintained by the Central California Information Center of the California Historical Resources Information System at California State University, Stanislaus was conducted on February 11, 2009 for the proposed project and one-quarter mile radius (Appendix B of the cultural resources report). According to the Central California Information Center, no previously identified prehistoric period cultural resources are known within, or within a 1/4 mile radius of the project site. Four historic period residences have been recorded near the project site, and the Bellota-Newark transmission line, assigned the designation P-39-004374, crosses through the project site, but this segment has not been formally recorded. A small, liner-shaped portion of the project site was inspected by archeologists in 2003 (Dougherty et al. 2003).

The Native American Heritage Commission was contacted by Peak & Associates for a Sacred Lands review. According to the Commission, there is no record of any Sacred Lands within the project (Appendix C of the cultural resources report).

3.5.2 REGULATORY SETTING

FEDERAL

National Historic Preservation Act

The National Historic Preservation Act was enacted in 1966 as a means to protect cultural resources that are eligible to be listed on the National Register of Historic Places (NRHP). The law sets forth criterion that is used to evaluate the eligibility of cultural resources. The NRHP is composed of districts, sites, buildings, structures, objects, architecture, archaeology, engineering, and culture that are significant to American History.

Virtually any physical evidence of past human activity can be considered a cultural resource. Although not all such resources are considered to be significant and eligible for listing, they often provide the only means of reconstructing the human history of a given site or region, particularly where there is no written history of that area or that period. Consequently, their significance is judged largely in terms of their historical or archaeological interpretive values. Along with research values, cultural resources can be significant, in part, for their aesthetic, educational, cultural and religious values.

STATE

California Register of Historic Resources

The California Register of Historical Resources (CRHR) was established in 1992 and codified in the Public Resource Code §5020, 5024 and 21085. The law creates several categories of properties that may be eligible for the CRHR. Certain properties are included in the program automatically, including: properties listed in the NRHP; properties eligible for listing in the NRHP; and certain classes of State Historical Landmarks. Determining the CRHR eligibility of historic and prehistoric properties is guided by CCR §§15064.5(b) and Public Resources Code (PRC) §§21083.2 and 21084.1. NRHP eligibility is based on similar criteria outlined in Section 106 of the NHPA (16 U.S. Code [USC] 470).

Cultural resources, under CRHR and NRHP guidelines, are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance. A cultural resource may be eligible for listing on the CRHR and/or NRHP if it:

- is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
- is associated with the lives of persons important in our past;

- 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 values; or
- has yielded, or may be likely to yield, information important in prehistory or history.

If a prehistoric or historic period cultural resource does not meet any of the four CRHR criteria, but does meet the definition of a "unique" site as outlined in PRC §21083.2, it may still be treated as a significant resource if it is: an archaeological artifact, object or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- it contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information,
- it has a special and particular quality such as being the oldest of its type or the best available example of its type, or
- it is directly associated with a scientifically recognized important prehistoric or historic event.

California Environmental Quality Act

CEQA Guidelines §15064.5 provides guidance for determining the significance of impacts to archaeological and historical resources. Demolition or material alteration of a historical resource, including archaeological sites, is generally considered a significant impact. Determining the CRHR eligibility of historic and prehistoric properties is guided by CCR §§15064.5(b) and Public Resources Code (PRC) §§21083.2 and 21084.1. NRHP eligibility is based on similar criteria outlined in Section 106 of the NHPA (16 U.S. Code [USC] 470).

CEQA also provides for the protection of Native American human remains (CCR §15064.5[d]). Native American human remains are also protected under the Native American Graves Protection and Repatriation Act of 1990 (25 USC 3001 et seq.), which requires federal agencies and certain recipients of federal funds to document Native American human remains and cultural items within their collections, notify Native American groups of their holdings, and provide an opportunity for repatriation of these materials. This act also requires plans for dealing with potential future collections of Native American human remains and associated funerary objects, sacred objects, and objects of cultural patrimony that might be uncovered as a result of development projects overseen or funded by the federal government.

Assembly Bill 978

In 2001, Assembly Bill (AB) 978 expanded the reach of Native American Graves Protection and Repatriation Act of 1990 and established a state commission with statutory powers to assure that federal and state laws regarding the repatriation of Native American human remains and items of patrimony are fully complied with. In addition, AB 978 also included non-federally recognized tribes for repatriation.

3.5.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project is considered to have a significant impact on cultural resources if it will:

- Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5;
- Cause a substantial adverse change in the significance of archaeological resource pursuant to CEQA Guidelines §15064.5;
- Directly or indirectly destroy a unique paleontological resource;
- Disturb any human remains, including those interred outside of formal cemeteries.

IMPACTS AND MITIGATION MEASURES

Impact 3.5-1: Project implementation may cause a substantial adverse change to a significant historical or archaeological resource, or directly or indirectly destroy or disturb a unique paleontological resource or human remains (Less than Significant with Mitigation)

As described above, there are no known cultural, historical, archaeological or paleontological resources on or within ¼ mile of the Holly Sugar Sports Park site. A field survey was completed by a qualified archeologist, and no cultural or other historical resources were discovered on the project site. Based on consultation with the Native American Heritage Commission and a comprehensive review of available cultural and historical resources, including a review of literature maintained by the Central California Information Center of the California Historical Resources Information System at California State University, Stanislaus it is not anticipated that site grading and preparation activities would result in impacts to cultural, historical, archaeological or paleontological resources.

However, as with most projects in California that involve ground disturbing activities, there is the potential for discovery of a previously unknown cultural and historical resource. This is considered a **potentially significant** impact.

MITIGATION MEASURES

Mitigation Measure 3.5-1*: If any prehistoric or historic artifacts, or other indications of archaeological resources are found during grading and construction activities, an archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards in prehistoric or historical archaeology, as appropriate, shall be consulted to evaluate the finds and recommend appropriate mitigation measures.*

- *If cultural resources or Native American resources are identified, every effort shall be made to avoid significant cultural resources, with preservation an important goal. If significant sites cannot feasibly be avoided, appropriate mitigation measures, such as data recovery*

excavations or photographic documentation of buildings, shall be undertaken consistent with applicable state and federal regulations.

- *If human remains are discovered, all work shall be halted immediately within 50 meters (165 feet) of the discovery, the County Coroner must be notified, according to Section 5097.98 of the State Public Resources Code and Section 7050.5 of California's Health and Safety Code. If the remains are determined to be Native American, the coroner will notify the Native American Heritage Commission, and the procedures outlined in CEQA Section 15064.5(d) and (e) shall be followed.*
- *If any fossils are encountered, there shall be no further disturbance of the area surrounding this find until the materials have been evaluated by a qualified paleontologist, and appropriate treatment measures have been identified.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.5-1 would reduce potential impacts to cultural and historical resources to less than significant.

The purpose of this section is to disclose and analyze the potential impacts associated with the geology of the project site and general vicinity, and to analyze issues such as the potential exposure of people and property to geologic hazards, landform alteration, and erosion.

Information in this section is derived primarily from the following:

- Preliminary Geotechnical Engineering and Geologic Hazards Report (Wallace and Kuhl, February 2009);
- City of Tracy General Plan EIR (City of Tracy, July 2006);
- Literature prepared by the California Division of Mines and Geology;
- Information from the U.S. Natural Resources Conservation Service; and
- Mapping published by the U.S. Geologic Survey

3.6.1 ENVIRONMENTAL SETTING

LOCAL GEOLOGY AND PROJECT SITE CONDITIONS

San Joaquin County is located near the geographic center of California in the San Joaquin Valley (Valley). The Valley is bordered on the east by the Sierra Nevada Mountain Range consisting chiefly of crystalline rocks, and on the west by the Diablo Range tier of the Coast Range Mountains consisting of sedimentary and metamorphosed sedimentary rocks. The Sierra Nevada block has been tilted westward, caused by faulting and uplifting of the eastern edge.

The western boundary of the Sierra Nevada block is overlain by sedimentary deposits of the valley. The Coast Ranges, forming a barrier between the Great Valley and the Pacific Ocean, evolved as a result of folding, faulting, and accretion of diverse geologic terrains, and are composed chiefly of sedimentary and metamorphic rocks that are sharply deformed into complex structures. They are broken by numerous faults, the San Andreas Fault being the most notable structural feature.

Small intermittent streams enter the valley from the semi-arid mountains of the Diablo Range, but soon are lost on alluvial fans. Perennial rivers flow from the more humid and larger drainage areas of the Sierra Nevada Range with many of these having been dammed for irrigation. Large coalescing alluvial fans have developed along each side of the valley. The larger and more gently sloping fans on the valley's east side are built up principally by deposits from granitic rock sources, whereas the smaller and more steeply sloping fans on the west are comprised of sediment originating as sedimentary rocks of the Coast Range. As a result, the valley floor consists mainly of two kinds of alluvial materials that differ widely in provenance and their respective engineering properties.

Wallace Kuhl and Associates (WKA) performed a site reconnaissance on January 29, 2009 as part of the work effort to complete the Preliminary Geotechnical Engineering and Geologic Hazards Report. On the date of the site reconnaissance the site was observed to be fallow and/or contain an agricultural crop(s). Several irrigation canals traversed the site that divided the site into six, approximate equal sized, rectangular-shaped fields. Several of the irrigation ditches were lined with concrete, while most of them were unlined. Two parallel irrigation ditches were located

along the southern boundary of the project site. Additionally, several unimproved access roads were observed parallel to some of the irrigation ditches. Several groundwater monitoring wells were observed near the southern boundary of the project site during our site reconnaissance.

Based upon the USGS *Topographic Map of the Union Island Quadrangle*, 1978, the ground surface elevation across the project site is approximately +5 feet relative to mean sea level (msl). A topographic map is included as Figure 3.6-1. The center of the project site is located at approximate latitude 37.7703ºN and longitude 121.4453ºW.

AERIAL PHOTOGRAPHIC REVIEW

WKA reviewed available aerial photographs dated 1963, 1975, 1987, and 1989. Based on these photographs the project site appears to have supported agricultural crops since 1963. Unimproved access roads and agricultural ditches are apparent in all the photographs. The 1963 and 1987 photographs suggest that flood irrigation was used to irrigate the crops.

PRELIMINARY SOIL DESCRIPTION

Review of the May 1988 U.S. Department of Agriculture, Soil Conservation Service (SCS) *Soil Survey of San Joaquin County, California,* indicates the near-surface soils on the project site include the Pescadero clay loam, partially drained, 0 to 2 percent slopes; and, Willows clay, partially drained, 0 to 2 percent slopes. See Figure 3.6-2 for the approximate distribution of these soils with respect to the project site.

The following is a summary of the soil description characteristics as described by the U.S. Department of Agriculture, SCS *Soil Survey of San Joaquin County, California*:

- The Pescadero clay loam typically consists of a surface layer of grayish brown clay loam about 10 inches thick. The subsoil is gray, mottled silty clay about 32 inches thick. The substratum is gray, mottled silty clay loam to a depth of 60 inches. Permeability is very slow.

- The Willows clay typically consists of a surface layer of gray clay about 20 inches thick. The subsoil is grayish brown, mottled clay to a depth of 60 inches. Permeability is very slow.

GROUNDWATER CONDITIONS

WKA reviewed groundwater elevation data obtained from a California Department of Water Resources (DWR) monitored well as identified as #02S05E08B001M. This well is reported by DWR to be located approximately 1800 feet north of the project site. Surface elevation at the well is indicated to be about +4 feet mean sea level (msl). DWR has periodically measured water elevations in this well from March 11, 1960 to at least February 25, 2008. Based on the available data, the lowest measured groundwater elevation in the well occurred on several dates in 1962, 1983, and 1987, at an elevation of approximately –6.7 feet msl (or 10.7 feet below existing grade at the well); the highest elevation of +2.8 feet msl occurred on March 5, 1962 (1.2 feet below

existing grade at the well). The most recent measurement on February 25, 2008, indicates water at an elevation of about –4.7 feet msl, or 8.7 feet below existing grade at the well.

GEOLOGY

The project site is located on the west side of the San Joaquin Valley within the Great Valley geomorphic province of California. The Great Valley geomorphic province is typified by thick sequences of sedimentary materials deposited in an elongate trough located between the Sierra Nevada and Coast Ranges geomorphic provinces.

The Geologic Map of the San Francisco-San Jose Quadrangle (California Department of Conservation, Division of Mines and Geology, Regional Geologic Map Series Map No. 5A, 1991) indicates two Holocene geologic units underlie the project site. Flood basin deposits of the Dos Palos Alluvium geologic unit underlie the northern portion of the project site, and alluvial fan deposits consisting of gravel, sand, silt and clay underlie the southern portion of the project site. A geologic map is presented as Figure 3.6-3.

GEOLOGIC STRUCTURE

The Great Valley of California is considered to be an elongated sedimentary trough, about 450 miles long and 50 miles wide, which has been filled by a thick sequence of Jurassic to Holocene continental and marine sediments. The sediments have been folded into an asymmetric syncline, the axis of which lies immediately east of the interior Coast Ranges (Bailey, 1966).

The Cenozoic deposits along the west side of the San Joaquin Valley are underlain by sedimentary and metamorphic rocks of the Coast Ranges geomorphic province. Near the Tracy area, these rocks typically consist of Cretaceous marine sandstone and shale, and a diverse assemblage of eugeosynclinal rocks of the Franciscan Complex that have been deformed into complex structures with numerous faults.

FAULTS AND SEISMICITY

No faults are shown as crossing the project site in the Safety Element of the City of Tracy General Plan or on the available geologic and fault maps WKA reviewed, and the project site is not located within a designated Alquist-Priolo Earthquake Fault Zone (Bryant and Hart, 2007). As shown on the *Fault Activity Map of California and Adjacent Areas* (Jennings, 1994), the nearest fault to the project site is the Stockton fault located within one mile of the project site to the west. The Stockton fault does not show evidence of displacement during the past 1.6 million years, and does not meet the definitions of the commonly used fault terms “active” or “potentially active”.

The nearest fault with evidence of displacement during the Quaternary (the last 1.6 million years) is the Vernalis fault located about one mile to the northeast. Other Quaternary faults near the project site include the Black Butte fault (7 miles south) and the Corral Hollow fault (11 miles southwest). The San Joaquin fault (9 miles to the south) and the Midway fault (7 miles southwest) show evidence of displacement during the late Quaternary (10,000 to 700,000 years ago). These faults could be designated as “potentially active”, based on accepted definitions of fault activity.

The nearest "active" fault with displacement during the Holocene (the last 10,000 years) is the Carnegie fault located about 11 miles southwest of the project site near the southern end of the Corral Hollow fault. Other nearby faults with Holocene displacement include the Greenville fault (13 miles southwest), Marsh Creek fault (16 miles west), Verona fault (22 miles southwest), Pleasanton fault (26 miles west), Calaveras fault (27 miles west), Hayward fault (31 miles west), and Concord fault (31 miles northwest).

Faults with historic surface displacement (during the last 200 years) include the Greenville fault (1980), the Hayward fault (1886), the Calaveras fault (1861), and the Concord fault, which shows evidence of active fault creep.

The California Geological Survey (CGS) publication *Probabilistic Seismic Hazard Assessment for the State of California* (Petersen, et al, 1996; Cao, et al., 2003) indicates the project site is located near several faults that are capable of generating earthquake ground motions. A regional fault map is included as Figure 3.6-4. A partial listing of CGS Class A and B fault sources with moment magnitudes (M_w) of 6.5 or greater located near the project site is presented in Table 3.6-1.

TABLE 3.6-1
FAULTS INFLUENTIAL TO HOLLY SUGAR SPORTS PARK

Fault Name	Distance		Seismology Parameters	
	Miles	Kilometers	Maximum Magnitude (M_w)	Fault Type
Great Valley 7	5	8	6.7	r
Greenville (GN)	13	21	6.7	rl-ss
Mount Diablo (MTD)	17	27	6.7	r
Calaveras (CS+CC+CN)	27	43	6.9	rl-ss
Great Valley 5	27	44	6.5	r
Great Valley 8	27	44	6.6	r
Hayward (HS+HN+RC)	31	50	7.3	rl-ss
Concord/GV (CON+GVS)	31	50	6.6	rl-ss

SOURCE: HOLLY SUGAR SPORTS PARK GEOTECHNICAL REPORT (WKA, 2009)

The nearest of these faults is Segment No. 7 of the Great Valley Fault System. The Great Valley Fault System consists of a series of low-angle faults or blind thrusts, the fault surfaces of which do not break the ground surface during sizeable earthquakes (Namson and Davis, 1988; Unruh and Moores, 1992; Wakabayashi and Smith, 1994).

Seismic hazards maps based on the *USGS/CGS Probabilistic Seismic Hazards Assessment Model, 2002 (revised April 2003)* shows the project site is located within a zone with peak ground accelerations between 0.3g and 0.4g for ground motions with a 10% probability of being exceeded in 50 years.

HISTORIC SEISMICITY

Data pertinent to the greatest historical earthquakes affecting the project site are contained within the database of the EQSEARCH computer program (Blake, 2000; database updated to June, 2008).

The EQSEARCH database was developed by extracting records of events greater than magnitude 4.0 from the CGS *Comprehensive Computerized Earthquake Catalog*, and supplemented by records from the USGS; University of California, Berkeley; the California Institute of Technology; and, the University of Nevada at Reno. A historic earthquake epicenter map is included as Figure 3.6-5.

An examination of the tabulated data suggests that the project site has experienced ground shaking equivalent to Modified Mercalli Intensity VIII[1]. According to this data, the most intense earthquake ground shaking in the vicinity of the project site resulted from the magnitude 8.25 San Francisco earthquake of April 18, 1906, with an epicenter located approximately 58 miles (93 kilometers) west of the project site. The closest earthquake to the project site is indicated to be a magnitude 4.0 earthquake that occurred on February 15, 1992, with an epicenter located approximately 10 miles (16 kilometers) southwesterly of the project site.

3.6.2 REGULATORY SETTING

STATE

The State of California has established a variety of regulations and requirements related to seismic safety and structural integrity, including the California Building Code, the Alquist-Priolo Earthquake Fault Zoning Act and the Seismic Hazards Mapping Act.

California Building Code

The California Building Code (CBC) is included in Title 24 of the California Code of Regulations and is a portion of the California Building Standards Code. Under state law, all building standards must be centralized in Title 24 or they are not enforceable. The CBC incorporates the Uniform Building Code, a widely adopted model building code in the United States. Through the CBC, the state provides a minimum standard for building design and construction. The CBC contains specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. It also regulates grading activities, including drainage and erosion control. The City adopted the CBC by reference as part of its Municipal Code pursuant to Government Code Section 50022.2 (Tracy Municipal Code Section 9.04.030).

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the hazard of surface faulting to structures for human occupancy. The main purpose of the Act is to prevent the construction of buildings used for human occupancy on active faults. As of May 1, 1999, the California Geologic Survey does not include the City on its list of cities affected by Alquist- Priolo Earthquake Fault Zones.

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[1] Damage slight in specially designed structures; considerable in ordinary substantial buildings with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, and walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving automobiles disturbed.

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act, passed in 1990, addresses non-surface fault rupture earthquake hazards, including liquefaction and seismically-induced landslides. Under the Act, seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The program and actions mandated by the Seismic Hazards Mapping Act closely resemble those of the Alquist-Priolo Earthquake Fault Zoning Act (which addresses only surface fault-rupture hazards) and are outlined below:

The State Geologist is required to delineate the various "seismic hazard zones."

- Cities and Counties, or other local permitting authority, must regulate certain development "projects" within the zones. They must withhold the development permits for a site within a zone until the geologic and soil conditions of the site are investigated and appropriate mitigation measures, if any, are incorporated into development plans.
- The State Mining and Geology Board provides additional regulations, policies, and criteria, to guide cities and counties in their implementation of the law. The Board also provides guidelines for preparation of the Seismic Hazard Zone Maps and for evaluating and mitigating seismic hazards.
- Sellers (and their agents) of real property within a mapped hazard zone must disclose that the property lies within such a zone at the time of sale.

As of April 2009, the San Joaquin area had not been mapped under the Seismic Hazards Mapping Act, because the state targeted higher risk areas, such as the San Francisco Bay area.[2]

LOCAL

City of Tracy General Plan

The Safety Element of the General Plan includes several goals, objectives and policies to reduce the risks to the community from earthquakes and other geologic hazards. In particular, the following policies would apply to the project site:

> **SA-1.1, Policy P1:** Underground utilities, particularly water and natural gas mains, shall be designed to withstand seismic forces.
>
> **SA-1.1, Policy P2:** Geotechnical reports shall be required for development in areas where potentially serious geologic risks exist. These reports should address the degree of hazard, design parameters for the project based on the hazard, and appropriate mitigation measures.

[2] California Geological Survey, Seismic Hazards Mapping Act website, http://gmw.consrv.ca.gov/shmp/MapProcessor.asp?Action=SHMP&Location=All&Version=5&Browser=Netscape&Platform=Win, accessed April 10, 2009.

SA-1.2, Policy P1: All construction in Tracy shall conform to the California Building Code and the Tracy Municipal Code including provisions addressing unreinforced masonry buildings.

3.6.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on geology and soils if it will:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
    - Strong seismic ground shaking; or
    - Seismic-related ground failure, including liquefaction;
- Result in substantial soil erosion or the loss of topsoil;
- 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; or
- Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

The IS/NOP prepared for this project in December, 2008 concluded that potential impacts associated with landslides and septic systems were less than significant. Therefore, these topics will not be further addressed in this Draft EIR.

IMPACTS AND MITIGATION MEASURES

Impact 3.6-1: The proposed project may expose people or structures to potential substantial adverse effects involving strong seismic ground shaking or seismic related ground failure (Less than Significant)

The project site is not located within an Earthquake Fault Zone, as defined by the State Geologist. The nearest mapped active fault (Carnegie/Corral Hollow) is located approximately 11 miles southwest of the project site. However, due to the proximity of the project site to numerous inactive and active faults in the surrounding region, the project site has the potential to experience groundshaking. The impact of groundshaking to people or property caused by seismic activity on nearby faults would be increased as a result of site development. The proposed project would include the construction and use of a multi-use sports stadium near the western boundary of the active sports park site, and the construction and use of several recreation and community facilities buildings within the future expansion area.

In order to minimize potential damage to the proposed structures caused by groundshaking, all construction would comply with the latest California Building Code standards, as required by the City of Tracy Municipal Code 9.04.030. Implementation of the California Building Code standards, which include provisions for seismic building designs, would ensure that impacts associated with groundshaking would be less than significant. Building new structures for human use would increase the number of people exposed to local and regional seismic hazards. Seismic hazards are a significant risk for most property in California. Implementation of the requirements of the California Building Code and the Tracy General Plan would ensure that impacts on humans associated with seismic hazards would be **less than significant**. No additional mitigation is required.

MITIGATION MEASURES

None required.

Impact 3.6-2: Implementation and construction of the proposed project may result in substantial soil erosion or the loss of topsoil (Less than Significant)

Construction and site preparation activities associated with development of the Holly Sugar Sports Park include clearing existing agricultural, native and non-native vegetative ground cover prior to extensive site grading for the installation of the proposed sports fields, roadways, parking lots and all supporting structures and facilities. During the construction preparation process, existing vegetation would be removed to grade and compact the project site, as necessary. As construction occurs, these exposed surfaces could be susceptible to erosion from wind and water. Effects from erosion include impacts on water quality and air quality. Exposed soils that are not properly contained or capped increase the potential for increased airborne dust and increased discharge of sediment and other pollutants into nearby surface water sources. Risks associated with erosive surface soils can be reduced by using appropriate controls during construction and properly revegetating exposed areas. Mitigation Measures 3.3-2 (refer to Section 3.3, *Air Quality*) requires the implementation of various dust control measures during site preparation and construction activities that would reduce the potential for soil erosion and the loss of topsoil. Additionally, Mitigation Measure 3.8-2 (refer to Section 3.8, *Hydrology, Drainage, and Water Quality)* would require the implementation of various best management practices (BMPs) that would reduce the potential for disturbed soils and ground surfaces to result in erosion and sediment discharge into adjacent surface waters during construction activities. The implementation of these required mitigation measures would reduce these impacts to a **less than significant** level and no additional mitigation is required.

MITIGATION MEASURES

None required.

Impact 3.6-3: The proposed project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of project implementation, and potentially result in liquefaction (Less than Significant with Mitigation)

Seismic settlement, or liquefaction, can occur in both saturated and unsaturated granular soils. Seismic settlement occurs as saturated and unsaturated granular soils rearrange resulting in a volume reduction and is a function of the relative density of the soil and the magnitude of cyclic shear stresses caused by seismic ground motion.

Available data indicates the groundwater table fluctuates between and elevation of +2.8 msl and -6.7 msl, or approximately 2 to 12 feet below the ground surface at the project site. The groundwater levels at the project site are considered to be relatively high, and the project site is underlain by Holocene alluvial and flood basin deposits, and is located within a seismically active area. These conditions indicate that a risk of seismic settlement and liquefaction exist.

The Safety Element of the General Plan includes Objective SA-1.1, Policy 1, which requires that geotechnical engineering studies be undertaken for any development in areas where potentially serious geologic risks exist. The implementation of this policy would reduce the potential risk of liquefaction. Given the soils types present on the project site and the relatively high groundwater table, the risk for seismic settlement and/or liquefaction is considered to be a **potentially significant** impact.

MITIGATION MEASURES

Mitigation Measure 3.6-1*: In accordance with the California Building Code (Title 24, Part 2) Section 18O4A.3 and A.5, and the requirements of Tracy General Plan Objective SA-1.1, Policy 1, liquefaction and seismic settlement potential shall be addressed in the design level geotechnical engineering investigations. The City's Building Division of the Development and Engineering Services Department shall ensure that all the pertinent sections of the California Building Code shall be adhered to in the construction of buildings and stadiums on site, and that all appropriate measures are implemented in order to reduce the risk of liquefaction and seismic settlement prior to the issuance of a Building Permit.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.6-1 will reduce this impact to **less than significant**.

Impact 3.6-4: The proposed project would be located on expansive soil creating substantial risks to life or property (Less than Significant with Mitigation)

Expansive soils are those that undergo volume changes as moisture content fluctuates; swelling substantially when wet or shrinking when dry. Soil expansion can damage structures by cracking foundations, causing settlement and distorting structural elements. Expansion is a typical characteristic of clay-type soils. Expansive soils shrink and swell in volume during changes in

moisture content, such as a result of seasonal rain events, and can cause damage to foundations, concrete slabs, roadway improvements, and pavement sections.

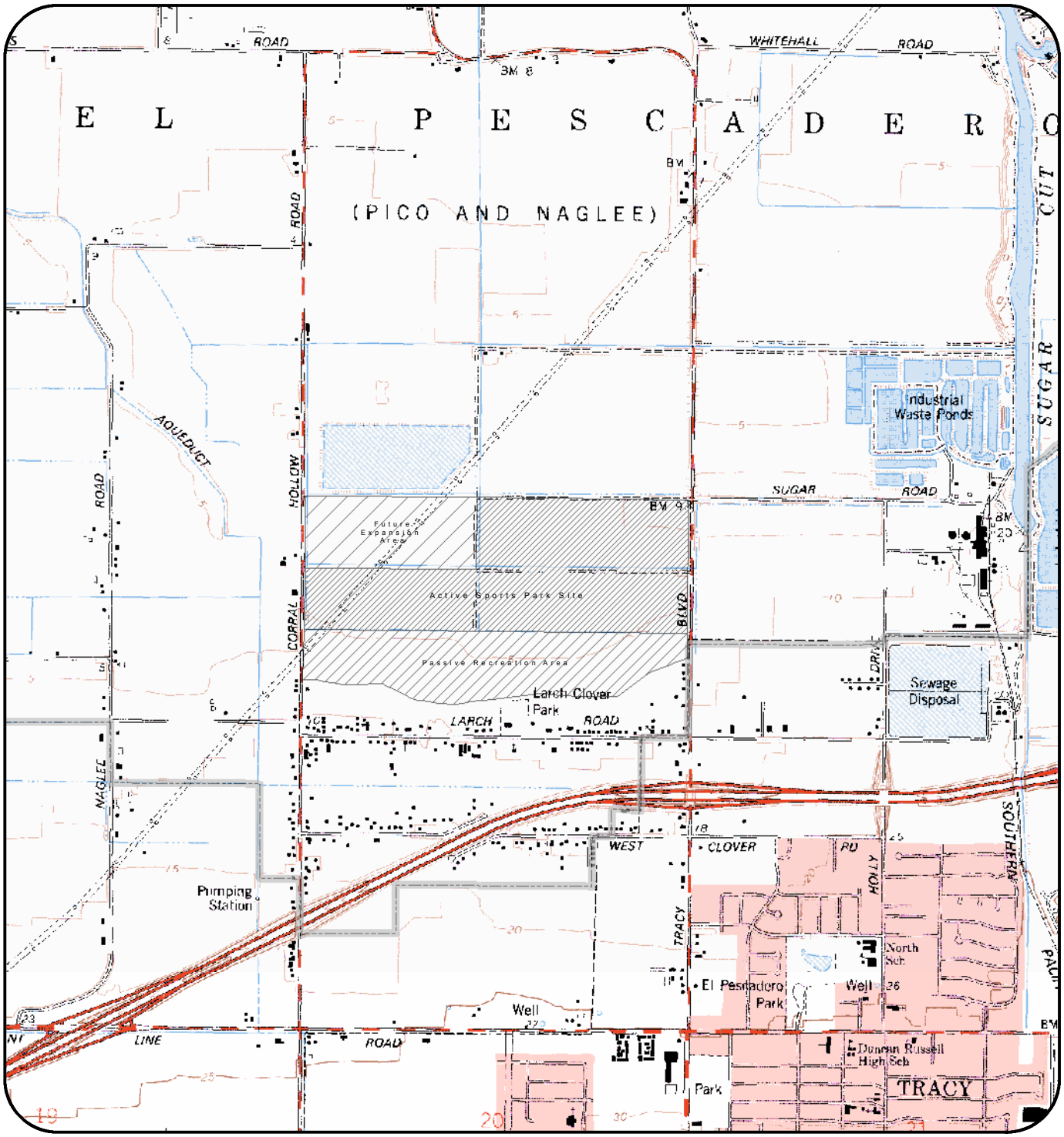
The surface and near-surface soils at the project site are variable and contain significant thickness of clays. Laboratory tests of collected surface soils indicate these clays possess a medium expansion potential that can develop swelling pressures with increases in soil moisture content. Special preparation during site grading and deepening of foundations, accompanied with presaturation of the soil subgrade prior to floor slab placement and reinforcement of floor slabs, may be required to help mitigate the effects of expansive soils. This is considered a **potentially significant** impact.

MITIGATION MEASURES

Mitigation Measure 3.6-2: *During excavation activities and prior to the placement of fill on the site, a certified geotechnical engineer shall be retained by the City to evaluate subgrade soils for the extent of their expansive potential in areas where buildings or stadium seating are proposed. For areas found to contain soft, potentially expansive clays, the soil shall be removed (i.e., over excavated) and/or stabilized prior to the placement and compaction of fill. Stabilization techniques include, but are not limited to, the placement of 18 inches of ½-inch to ¾-inch crushed rock over stabilization fabric (such as Mirafi 500X or equivalent), placement of larger, angular stabilization rock (1-inch to 3-inch, clean) and use of chemical treatments such as lime to reduce the soil's expansive potential. In addition, building construction alternatives, such as the use of alternative foundation types (i.e., post-tension, piles, etc.) versus end-bearing foundations, shall be considered and implemented where appropriate. Final techniques shall be (a) developed by a certified geotechnical engineer or engineering geologist and (b) reviewed and approved by the City prior to issuance of building permits for each stage of project construction.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.6-2 will reduce this impact to **less than significant**.



Tracy Sports Park

- Active Sports Park Site
- Passive Recreation Area
- Future Expansion Area
- City of Tracy

USGS Topographic Map of the Union Island Quadrangle, 1978
Acquired from the California Spatial Information Library, May 2009

Figure 3.6-1
USGS Topographical Map

N W E S

0 0.125 0.25 0.5 0.75 Miles

Scale 1:24,000

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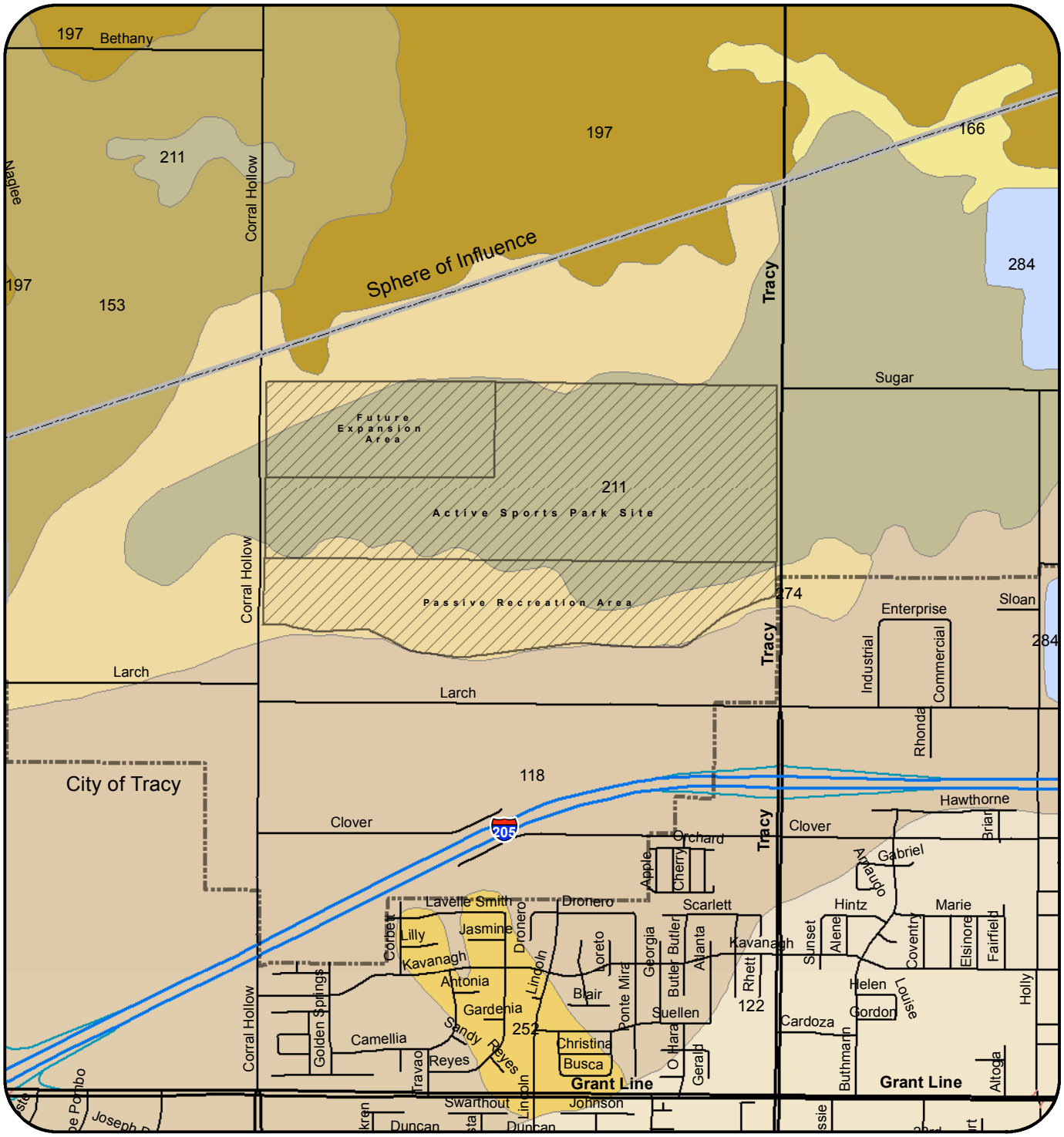

- 118, Capay clay, 0 to 2 percent slopes
- 122, Capay-Urban land complex, 0 to 2 percent slopes
- 153, Egbert silty clay loam, partially drained, 0 to 2 percent slopes
- 166, Grangeville fine sandy loam, partially drained, 0 to 2 percent slopes
- 197, Merritt silty clay loam, partially drained, 0 to 2 percent slopes
- 211, Pescadero clay loam, partially drained, 0 to 2 percent slopes
- 252, Stomar clay loam, 0 to 2 percent slopes
- 274, Willows clay, partially drained, 0 to 2 percent slopes
- 284, Water

Figure 3.6-2
Soils on Project Site

N
W E
S

0 750 1,500 3,000 Feet

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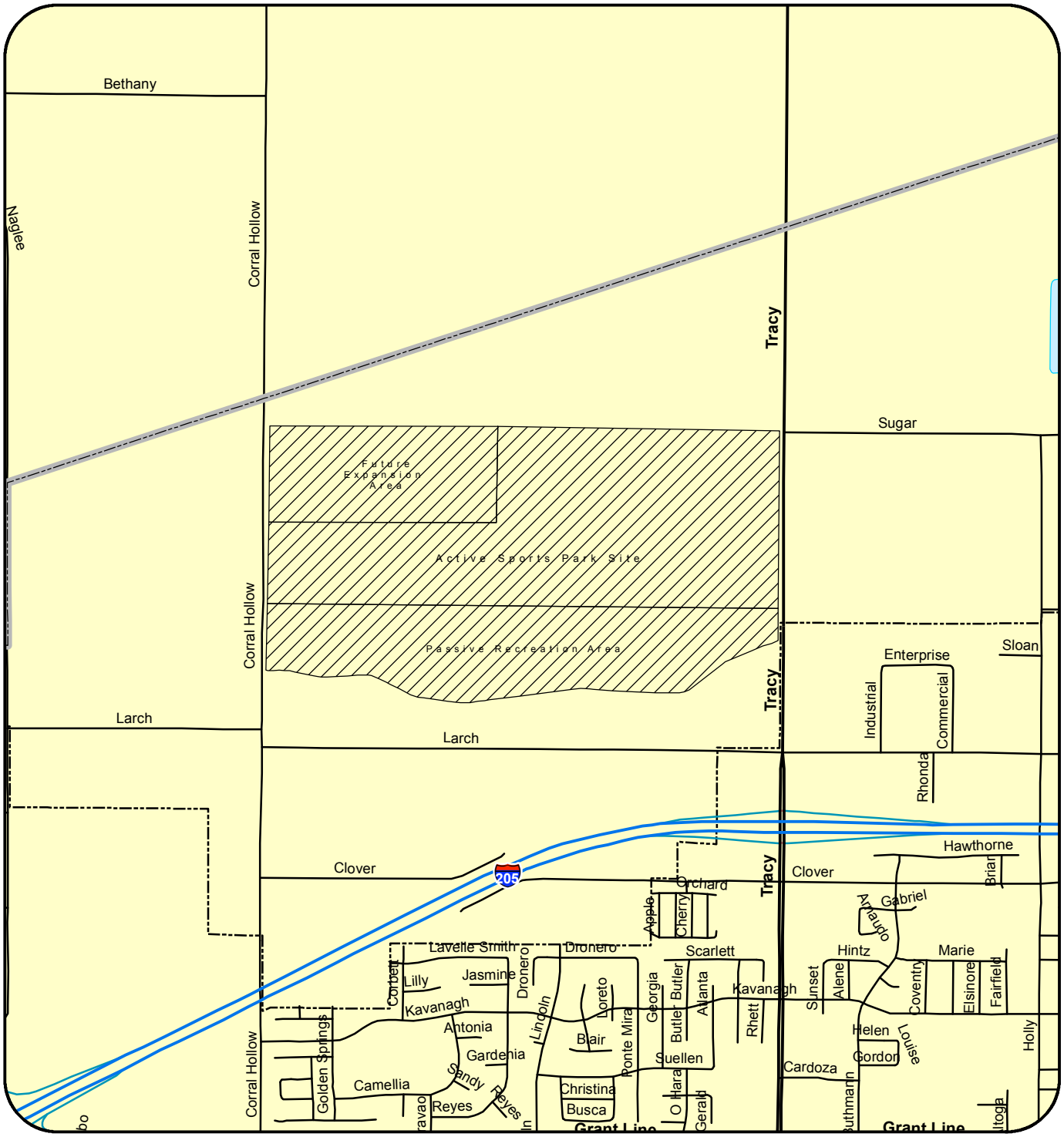

Cenozoic non-marine sedimentary rocks and alluvial deposits

Tracy Sports Park

Sphere of Influence

City of Tracy

Figure 3.6-3
Geologic Map

N
W E
S

0 250 500 1,000 1,500 2,000 2,500 3,000 Feet

Geologic Data Source: California Department of Conservation
Division of Mines and Geology
DMG CD 2000-07 (2000)

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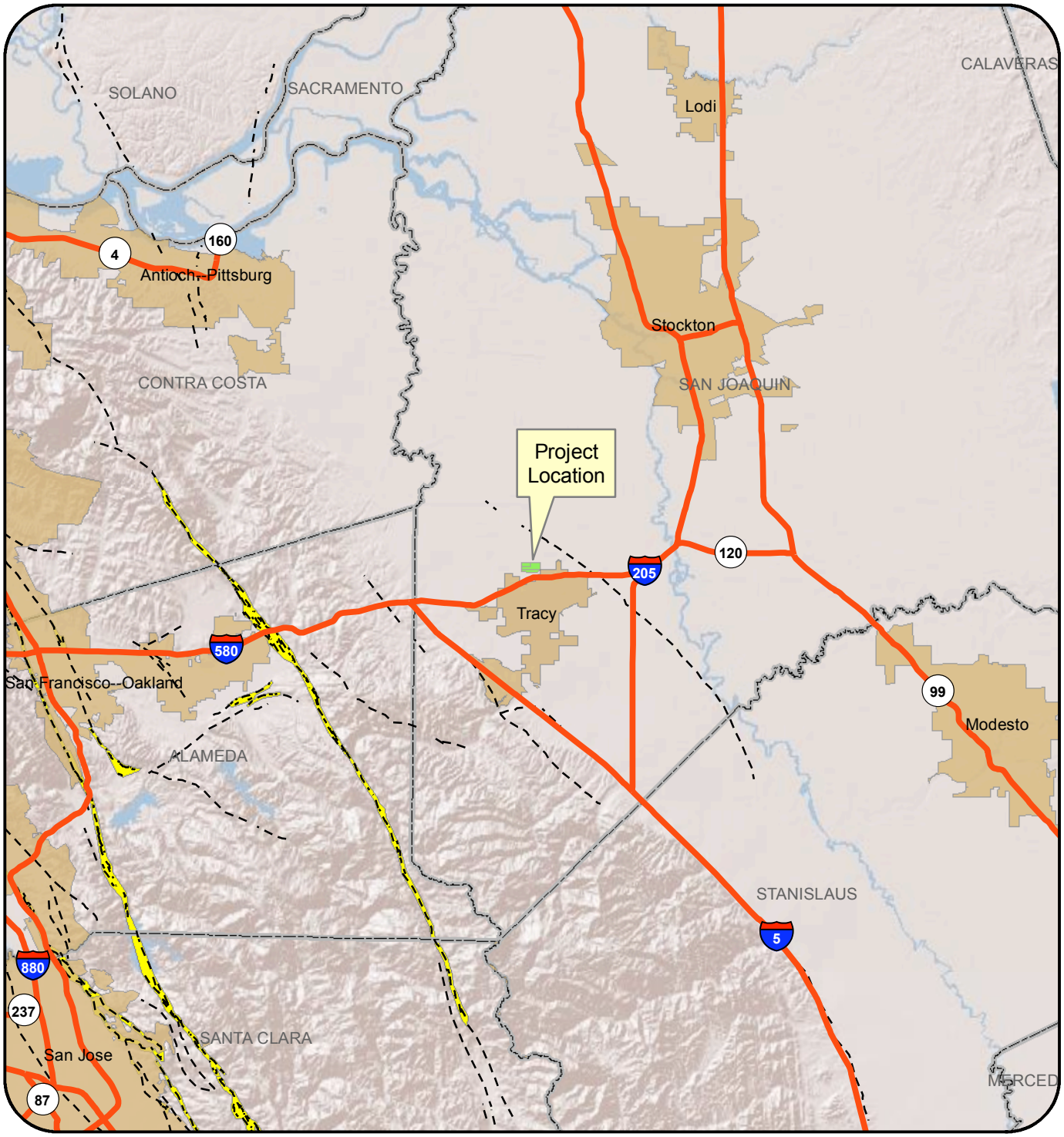

Figure 3.6-4
Regional Fault Map

Quaternary Fault

Alquist-Priolo Fault Zone

N
W E
S

0 2.5 5 10 15 20 Miles

Geologic Data Source: California Department of Conservation
Division of Mines and Geology
DMG CD 2000-07 (2000)

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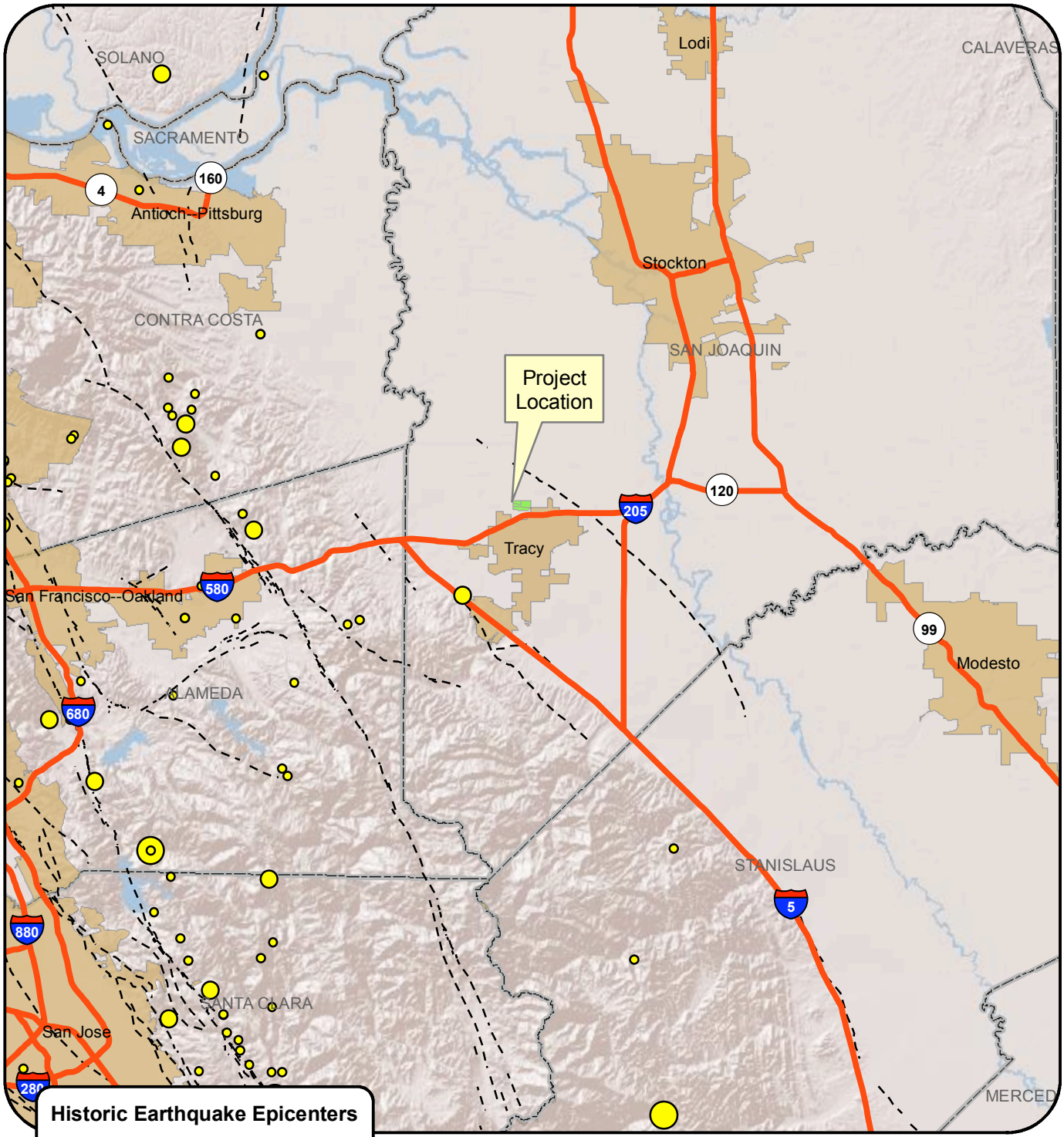

Historic Earthquake Epicenters

Magnitude

- 4.0-5.0
- 5.0-6.0
- 6.0-7.0
- >7.0
- Quaternary Fault

Figure 3.6-5
Historic Earthquake Epicenter Map

N W E S

0 2.5 5 10 15 20 Miles

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Earthquake information source: California Geological Survey
Updated Magnitude 4 and greater Earthquakes,
Compiled from Various Sources (1769-2000)

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The purpose of this section is to disclose and analyze the potential impacts associated with hazards and hazardous materials related to the project site and general vicinity, and to analyze the potential for exposure of people to hazards and hazardous materials as the project is built and operated in the future.

Information in this section is derived primarily from the following:

- Phase I Environmental Site Assessment Holly Sugar Sports Park (Wallace Kuhl, 2009);
- City of Tracy General Plan EIR (DC&E, 2005);
- City of Tracy General Plan (DC&E, 2006);
- City of Tracy Airport Master Plan (P&D Aviation, 1998)

3.7.1 ENVIRONMENTAL SETTING

SITE DESCRIPTION

Project Site and Vicinity Characteristics

The project site is located approximately 500 feet north of West Larch Road, between South Corral Hollow Road and South Tracy Road, just north of and outside the City of Tracy corporate boundary in San Joaquin County, California. The project site is comprised of the southern 298 acres of San Joaquin County Assessor's Parcel Number (APN) 212-150-01. Surrounding land uses consist of rural residential and agricultural land.

Site Reconnaissance

A visual site reconnaissance was conducted by Wallace Kuhl on January 29, 2009. On the date of the site reconnaissance the project site was observed to be fallow and/or to contain an agricultural crop(s). Several irrigation canals traversed the project site, which divided it into six, approximate equal sized, rectangular-shaped fields. Most of the irrigation ditches appeared to be unlined. Two parallel irrigation ditches were located along the southern boundary of the project site. The southern-most ditch was concrete lined. The project site contained unimproved access roads that were parallel to the on-site irrigation ditches.

A lift pump was located approximately 600 to 700 feet west of South Tracy Boulevard and approximately 700 feet south of the northern project boundary. Along the southern project boundary Wallace Kuhl observed several groundwater-monitoring wells. The steel well casings were marked "Spreckels Sugar-Tracy, Monitoring/Test Well."

Municipal Infrastructure and Utilities

No municipal or private provisions for potable water are currently known to be located on the project site. A City of Tracy water main is located southeast of the project site, near Larch Road.

Steel tower-mounted electrical power transmission lines are located on the western portion of the project site. The transmission lines traverse the project site in a southwest/northeast direction.

The transmission lines entered the project site approximately 500 feet north of the southwestern corner of the project site and exited approximately 1,400 feet east of the northwestern corner of the project site. Electrical distribution lines were observed on the eastern portion of the project site, which supplied power to the lift pump. Two pole-mounted transformers were located near the lift pump. Both were tagged as non-Polychlorinated biphenyl (PCB).

Wallace Kuhl observed markers indicating a buried pipeline beneath and parallel to the transmission lines. The transmission lines and buried pipeline are owned by Pacific Gas and Electric Company (PG&E). The PG&E pipeline is indicated to be a 12-inch diameter buried natural gas main.

Provisions for sanitary sewer service are not known to be located on the project site. A municipal sewer main is located within the South Tracy Boulevard right-of-way.

Stormwater is currently directed to the surrounding irrigation ditches. No municipal storm drain inlets were located on the project site.

Adjoining Properties

The project site is located within a largely agricultural area north of the City of Tracy. During the reconnaissance survey it was noted that land to the north of the project site was a similar-type of agricultural land, while land to the south includes rural residential properties. South Tracy Boulevard bounded the project site to the east, beyond which was agricultural land and an industrial area to the southeast. The Spreckels Sugar complex was located approximately 2,600 feet to the east of the project site. The project site is bounded to the west by South Corral Hollow Road, beyond which are rural residences and agricultural land.

INTERVIEWS

Interviews with various persons familiar with the site vicinity, including representatives of public agencies, were conducted for the purpose of identifying past and present uses, which may have contributed to Recognized Environmental Conditions on the project site. Results of those interviews are discussed in the following sections.

Owner or Key Site Manager

The City of Tracy was contacted concerning site history. According to an electronic mail received from Mr. Steve Bayley:

- The City has owned the site since July 2003.
- Corn, winter wheat, and alfalfa have been grown on the site.
- Holly Sugar applied washwater from the sugar refinery, located to the east of the site, to the site for crop irrigation water.

Occupants

The site was vacant agricultural land on the date of the site reconnaissance, therefore no occupants were interviewed.

State and/or Local Government Officials

Wallace Kuhl contacted the San Joaquin County Environmental Health Department regarding files related to the project site and Spreckels Sugar. Wallace Kuhl also contacted the San Joaquin County Agricultural Commissioner's Office (SJCAC) regarding crop history and pesticide use reports for the project site. The SJCAC had pesticide use reports for the site dating from December 2004 through November 2008. The pesticide use reports indicate alfalfa and oats were grown on the project site during that timeframe. The pesticide use reports indicate that the project site was fallow in 2004.

Abandoned Properties

As referenced in 40 CFR Part 312, in the case of inquiries conducted at "abandoned properties," as defined in §312.23(d), "where there is evidence of potential unauthorized uses of the site or evidence of uncontrolled access to the site, the environmental professional's inquiry must include interviewing one or more (as necessary) owners or occupants of neighboring or nearby properties from which it appears possible to have observed uses of, or releases at, such abandoned properties…" No evidence of potential unauthorized uses or evidence of uncontrolled access to the site was observed. Therefore, Wallace Kuhl did not interview owners or occupants of neighboring properties.

RECORDS REVIEW

The purpose of the records review is to obtain and review information concerning the current and historical use of the project site and adjoining properties that would help identify the presence of Recognized Environmental Conditions in connection with the project site. The records review included review and discussion of the following, as available:

- Physical Setting Source(s)
- Historical Use Information
- Environmental Record Sources

Physical Setting Source(s)

The project site is depicted on the 1987 United States Geological Survey (USGS) 7.5 Minute topographic map of the Union Island, California Quadrangle as agricultural land, as evident by irrigation canals mapped on the project site. The project site is located within Section 8, Township 2 South, Range 5 East, Mount Diablo Base and Meridian, at an elevation of approximately 5 feet above mean sea level (msl).

REGIONAL AND LOCAL GEOLOGY

The project site is located in the western edge of the Great Valley geomorphic province of California, a large, elongate, northwest-trending structural trough, generally constrained to the west by the Coast Ranges and to the east by the foothills of the Sierra Nevada Range. The Great Valley consists of two valleys lying end-to-end, with the Sacramento Valley to the north and the San Joaquin Valley to the south.

The Sacramento and San Joaquin Valleys have been filled to their present elevations with thick sequences of sediment derived from both marine and continental sources. The sedimentary deposits range in thickness from relatively thin deposits along the eastern valley edge to more than 25,000 feet in the south central portion of the Great Valley. The sedimentary geologic formations of the Great Valley province vary in age from Jurassic to Quaternary, with the older deposits being primarily marine in origin. Younger sediments are continentally derived and were typically deposited in lacustrine, fluvial, and alluvial environments with their main source being the Sierra Nevada Range.

The Geologic Map of the San Francisco-San Jose Quadrangle (California Department of Conservation, 1991) indicates two Holocene geologic units underlie the project site. Flood basin deposits of the Dos Palos Alluvium geologic unit underlie the northern portion of the project site, and alluvial fan deposits consisting of gravel, sand, silt and clay underlie the southern portion of the project site.

SOIL SURVEY

On February 2, 2009, Wallace Kuhl accessed the United States Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS) Web Soil Survey (WSS). The WSS "…provides soil data and information produced by the National Cooperative Soil Survey. It is operated by the USDA Natural Resources Conservation Service (NRCS) and provides access to the largest natural resource information system in the world…" (USDA, 2009).

According to the WWS the soils on the project site are comprised of Pescadero clay loam and Willows clay.

The NRCS describes the two soil types as follows:

- The Pescadero series consists of poorly drained silty clays in basins. Slopes are less than 1 percent. The soils formed in alluvium from sedimentary rocks. Elevation ranges from 5 to 100 feet. Annual temperature is 60° F., annual rainfall is 16 to 19 inches, and the frost-free season is about 280 days. Vegetation is saltgrass, pickleweed, and other plants that tolerate salt. Pescadero soils are associated principally with Capay and Willows soils.

  In a typical profile, the surface layer is light-gray silty clay loam about 3 inches thick. The subsoil is gray and mottled light olive-gray and pale-brown silty clay and silty clay loam about 64 inches thick. It is underlain by mottled pale-brown clay loam.

  Pescadero soils are used for irrigated row crops, field crops, and irrigated pasture where reclaimed, and for dryland pasture, wildlife habitat, and recreation (NRCS, 2009).

- The Willows series consists of poorly drained clays in basins. Slopes are less than 1 percent. The soils formed in alluvium from mixed sources. Elevation ranges from sea level to 100 feet above. The annual temperature is about 62° F., annual rainfall is 16 to 20 inches, and the frost-free season is about 280 days. In uncultivated areas the vegetation is

annual grasses and forbs. Willows soils are associated principally with Capay and Sacramento soils.

In a typical profile, the soil is mottled gray and olive-gray clay that extends to a depth of more than 60 inches.

Willows soils are used for row crops (sugar beets), field crops, pasture, dry farmed grain, wildlife habitat, and recreation (NRCS, 2009).

REGIONAL AND LOCAL GROUNDWATER

The project site is located within the San Joaquin River Hydrologic Basin, as defined by the California Department of Water Resources (DWR). The closest DWR-monitored well is located approximately 1,800 feet north of the project site at a rural residence.

Surface elevation at the well is indicated to be about 4 feet above msl. DWR has periodically measured water elevations in this well from March 11, 1960 to at least February 25, 2008. Based on the available data, the lowest measured groundwater elevation in the well occurred on several dates in 1962, 1983, and 1987, at an elevation of approximately 6.7 feet below msl (or 10.7 feet below existing grade at the well); the highest elevation of 2.8 feet above msl occurred on March 5, 1962 (1.2 feet below existing grade at the well). The most recent measurement on February 25, 2008, indicates water at an elevation of about 4.7 feet below msl, or approximately 8.7 feet below existing grade at the well.

Historical Use Information

Historical information was reviewed to develop a history of the previous uses of the project site and surrounding area, in order to evaluate the project site and adjoining properties for evidence of Recognized Environmental Conditions. Standard historical sources reviewed during the preparation of this report included the following, as available:

- Sanborn® Maps
- Topographic Maps
- Oil and Gas Well Maps
- Aerial Photographs
- Ownership Records
- Building Department Records
- Local Street Directories
- Zoning and Land Use Records
- Other Historical Sources
- Prior Assessments

Discussion of these historical sources is provided in the following sections.

SANBORN® MAPS

Sanborn® Maps with coverage of the project site were sought through Environmental Data Resources, Inc. (EDR®). EDR® is a national commercial provider of environmental database information. Sanborn® Maps are detailed drawings of site development, and were typically used by fire insurance companies to determine site fire insurability. According to EDR®, Sanborn® Map coverage of the project site is not available.

TOPOGRAPHIC MAPS

Historical USGS topographic maps with coverage of the project site and outlying land areas were reviewed. Topographic maps of the Union Island, California Quadrangle for years 1914, 1952, 1968, and 1978 were available for review. The maps are discussed individually below by year.

1914; Scale: 1:31,680

The project site is mapped as part of a much larger land area that is void of development. Tracy Boulevard (to the east of the project site) is mapped but not labeled. Grant Line Road is mapped, but not labeled, approximately one mile south of the project site.

1952; Scale: 1:24,000

The project site is mapped as part of a larger land area likely containing agriculture, given the canals mapped on the project site. PG&E electrical transmission lines are mapped on the project site in the same location that was previously discussed. Corral Hollow Road is mapped to the west of the project site and Tracy Boulevard is labeled as “Tracy Road.” Spreckels Sugar is mapped east of the project site and is labeled as “Sugar Refinery.”

1968; Scale: 1:24,000

No changes to the project site have been mapped on the 1968 map in relation to the 1952 map reviewed above.

1978; Scale: 1:24,000

No significant changes to the project site are mapped. A detention basin is mapped to the north of the project site. “Industrial waste ponds” are mapped near Spreckels Sugar, approximately 2,500 and 4,000 feet northeast and east of the project site respectively.

OIL AND GAS WELL MAPS

Review of California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR) Map W5-3, dated April 6, 2003, indicates the project site is not located in a designated natural gas field. No DOGGR wells are located on or within at least one mile of the project site (DOGGR, 2003).

AERIAL PHOTOGRAPHS

Historical aerial photographs of the project site and general vicinity were compiled by EDR®. Photographs covering the years 1957, 1972, 1982, 1993, 1998, and 2005 were available for review. The results of the review are discussed below by year.

1957; Scale: 1 inch = 555 feet

In the 1957 aerial photograph, the project site contains agricultural land. Irrigation canals are visible on the project site. The PG&E electrical transmission lines mentioned previously are visible on the western portion of the project site. A shadow is visible on the eastern portion of the project site in the general location of the lift pump observed on the date of the site reconnaissance. The object casting the shadow is not identifiable at this scale and resolution. Wallace Kuhl has no reason to conclude that it is something other than the lift pump. The roads to the west and east of the project site are visible.

1972; Scale: 1 inch = 600 feet

In the 1972 aerial photograph the project site contains agricultural crops. No significant change is visible on the project site.

1982; Scale: 1 inch = 690 feet

No significant changes are visible on the project site in relation to the 1972 aerial photograph discussed above.

1993; Scale: 1 inch = 666 feet

In the 1987 photograph, the project site and surrounding area is relatively unchanged from the 1982 photograph. A detention pond is visible to the north of project site.

1998; Scale: 1 inch = 666 feet

In the 1998 photograph, the project site remains relatively unchanged from the previous photographs.

2005; Scale: 1 inch = 484 feet

In the 2005 photograph, the project site remains relatively unchanged from the previous photographs.

OWNERSHIP RECORDS

Available ownership information was reviewed through ParcelQuest®. ParcelQuest® is an on-line distributor of “Assessor-Direct property information throughout the State of California.” According to ParcelQuest®, the owner of the project site is listed as “TRACY CITY OF” and site use is shown as “COMMERCIAL”.

BUILDING DEPARTMENT RECORDS

Given the lack of historical or recent development on the project site, it was not deemed warranted to inquire about building department records in order for the environmental professional to make a determination regarding Recognized Environmental Conditions on the project site.

LOCAL STREET DIRECTORIES

Local street directories with coverage of the vicinity were obtained from EDR®. These documents contain business and residential listings based on street number identifiers. The nearest site address of 19842 South Corral Hollow Road was not listed from 1959 to 1996. The address was first listed in 2000 as residences. Surrounding addresses along South Corral Hollow Road were listed as residences.

ZONING AND LAND USE RECORDS

Zoning information for the project site was retrieved from the San Joaquin County General Plan Land Use Map. According to the reviewed map, the project site is zoned as Agricultural land.

OTHER HISTORICAL SOURCES

Review of additional historical sources was not warranted in order for the Environmental Professional to make a determination as to evidence of potential Recognized Environmental Conditions on the project site.

PRIOR ASSESSMENTS

Wallace Kuhl reviewed the November 26, 2008 Holly Sugar Sports Park Notice of Preparation and Initial Study, prepared by De Novo Planning Group. Review of that report indicated a similar site use/history as presented herein.

Additionally, Wallace Kuhl reviewed the September 2008 Phase 1 ESA, Proposed Youth Sports Complex, Former Holly Sugar Complex Property, prepared by Wright Environmental Services. Review of that report indicated a similar site use/history and conclusions regarding past uses as presented herein.

Environmental Record Sources

EDR® was contacted to provide a summary of facilities listed on regulatory agency databases.

SITE-RELATED DATABASE SEARCH RESULTS

The project site itself does not appear to be listed on any agency databases. EDR® did map 20500 Holly Drive in the central portion of the project site. However, 20500 Holly Drive is located approximately 2,700 feet east of the project site. This is the location of Spreckels Sugar (a.k.a. Holly Sugar). Holly Sugar owned the project site prior to the City of Tracy acquiring it in 2003.

FEDERAL DATABASE SEARCH RESULTS

Holly Sugar is listed on the Federal Emergency Response Notification System database. Spreckels Sugar is also listed on several State databases and is discussed below in more detail.

STATE AND COUNTY DATABASE SEARCH RESULTS

Spreckels Sugar is listed on several Regional Water Quality Control Board databases including, but not limited, to the Leaking Underground Storage Tank (LUST) database and the Underground Storage Tank (UST) database. Given its proximity to the project site and the mapping by EDR® as discussed above, Wallace Kuhl preformed an agency file review for Spreckels Sugar with the San Joaquin County Environmental Health Department on February 20, 2009. Additionally, Wallace Kuhl reviewed the 2003 California Regional Water Quality Control Board (CRWQCB) Central Valley Region Monitoring and Reporting Program - Waste Discharge Requirements (WDRs) No. R5-2003-0050 for Spreckels Sugar. The reviewed files revealed the following:

- Spreckels Sugar is the location of a former sugar beet processing facility. The facility was used to produce sugar from sugar beets from 1917 until December 2000. Holly Sugar owned and operated the facility since 1927.
- After December 2000 the facility was a sugar packaging and distribution facility.
- The facility is located one half mile east of the project site.
- In 1990, 500 to 800 gallons of fuel spilled from a 420,000-gallon above ground fuel storage tank (AST).
- Total Petroleum Hydrocarbons (TPH) as fuel oil was reported in groundwater beneath the facility.
- The tank is no longer in operation.
- The project site was part of a larger land area that was irrigated with wastewater from the Spreckels Sugar facility.
- The primary wastewater streams were from non-contact cooling, boiler blowdown, cleaning of packaging equipment, and general site cleanup.
- The Spreckels facility was regulated under Waste Discharge Requirements (WDRs) Order No. 5-00-060. However, new WDRs were proposed due to the change in facility operations.
- The groundwater monitoring wells on-site are/were used to characterize background groundwater quality.
- The project site and on-site wells are reported to be up gradient from the Spreckels facility.
- No documentation was encountered indicating TPH as fuel oil contamination beneath the project site.
- Documentation from groundwater analysis conducted in 2000 by West Yost and Associates indicated high levels of sodium sulfate and overall salinity in groundwater along the southern portion of the project site.
- The CRWQCB stated in 2003: “available data indicates that current wastewater quality is similar to background groundwater quality for most constituents. Exceptions are

biochemical oxygen demand (BOD), and total organic carbon (TOC). These constituents do not pose a significant threat to water quality if the wastewater is applied to land at the proposed rate under an effluent limitation. This order places an effluent (TFDS) limitation on wastewater applied to land based on average concentration found in background groundwater."

Wallace Kuhl also reviewed documentation concerning the other State and County Database Search Results indicated by EDR® in the vicinity of the project site. None of the files reviewed for those facilities indicated a Recognized Environmental Condition in connection with the project site.

PRELIMINARY SCREEN FOR POTENTIAL VAPOR INTRUSION CONDITIONS

Wallace Kuhl conducted a preliminary screening for potential vapor intrusion conditions (pVIC) beneath the project site using a pVIC-screening matrix1. The matrix included performing a Search Distance Test to identify if there are any known or suspect contaminated sites surrounding or up gradient of the project site within specific search radii, a Chemicals of Concern (COC) Test (for those known or suspect contaminated sites identified within the Search Distance Test) to evaluate whether or not COC are likely to be present, and a Critical Distance Test to evaluate whether or not COC in a contaminated plume may be within the critical distance of the project site (100 feet for non-petroleum hydrocarbon contaminants, and 30 feet for petroleum hydrocarbon contaminants). The Potential Vapor Intrusion Screening Matrix is included in the Phase 1 Environmental Site Assessment in Appendix E.

Based on the completion of the pVIC-screening matrix, it is presumed unlikely that a pVIC currently exists beneath the project site.

ENVIRONMENTAL LIEN SEARCH

An environmental lien search for the project site was requested through EDR®. According to EDR® no environmental liens or AULs were found for the project site (EDR®, 2008). The EDR® Environmental Lien Search Report is included in the Phase 1 Environmental Site Assessment in the Appendix.

3.7.2 REGULATORY SETTING

FEDERAL

The primary federal agencies that are responsible for overseeing regulations and policies regarding hazardous materials are the Environmental Protection Agency (EPA), Department of Labor Occupational Safety and Health Administration (OSHA), and the Department of Transportation (DOT). Several laws governing the transport, storage, and use of hazardous materials are governed by these agencies as well as oversight for contaminated sites cleanup. Federal laws and regulations that are applicable to hazards and hazardous materials are presented below.

[1] The Preliminary Screen for Potential Vapor Intrusion Conditions was based on the guidelines presented in the ASTM *E 2600-08 Standard Practice for Assessment of Vapor Intrusion Into Structures on Property Involved in Real Estate Transactions*.

Resource Conservation and Recovery Act

The 1976 Federal Resource Conservation and Recovery Act (RCRA) and the 1984 RCRA Amendments regulate the treatment, storage, and disposal of hazardous and non-hazardous wastes. The legislation mandated that hazardous wastes be tracked from the point of generation to their ultimate fate in the environment. This includes detailed tracking of hazardous materials during transport and permitting of hazardous material handling facilities.

The 1984 RCRA amendments provided the framework for a regulatory program designed to prevent releases from USTs. The program establishes tank and leak detection standards, including spill and overflow protection devices for new tanks. The tanks must also meet performance standards to ensure that the stored material will not corrode the tanks. Owners and operators of USTs had until December 1998 to meet the new tank standards. As of 2001, an estimated 85 percent of USTs were in compliance with the required standards.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (the Act) introduced active federal involvement to emergency response, site remediation, and spill prevention, most notably the Superfund program. The Act was intended to be comprehensive in encompassing both the prevention of, and response to, uncontrolled hazardous substances releases. The Act deals with environmental response, providing mechanisms for reacting to emergencies and to chronic hazardous material releases. In addition to establishing procedures to prevent and remedy problems, it establishes a system for compensating appropriate individuals and assigning appropriate liability. It is designed to plan for and respond to failure in other regulatory programs and to remedy problems resulting from action taken before the era of comprehensive regulatory protection.

Natural Gas Pipeline Safety Act

The Natural Gas Pipeline Safety Act authorizes the U.S. Department of Transportation Office of Pipeline Safety to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas. The Office of Pipeline Safety regulates the design, construction, inspection, testing, operation, and maintenance of pipeline facilities. While the federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, the pipeline safety statutes provide for State assumption of the intrastate regulatory, inspection, and enforcement responsibilities under an annual certification. To qualify for certification, a state must adopt the minimum federal regulations and may adopt additional or more stringent regulations as long as they are not incompatible.

STATE

The primary state agencies that are responsible for overseeing regulations and policies regarding hazardous materials are the California Office of Emergency Services (OES), California Environmental Protection Agency (Cal-EPA), Department of Toxic Substances Control (DTSC), California Department of Transportation (Caltrans), California Highway Patrol (CHP), California Water Quality Control Board, and the California Air Resources Board. Several laws governing the

generation, transport, and disposal of hazardous materials are administered by these agencies. State laws and regulations that are applicable to hazards and hazardous materials are presented below.

California Health and Safety Code

Cal-EPA has established rules governing the use of hazardous materials and the management of hazardous wastes. Many of these regulations are embodied in the California Health and Safety Code. The code includes regulations that govern safe drinking water, substances control, land reuse and revitalization, remediation, restoration, and methamphetamine contaminated cleanups.

California Code of Regulations Title 22 and Title 26

The California Code of Regulations (CCR) Title 22 provides state regulations for hazardous materials, and CCR Title 26 provides regulation of hazardous materials management. In 1996, Cal/EPA established the "Unified Hazardous Waste and Hazardous Materials Management Regulatory Program" (Unified Program) which consolidated the six administrative components of hazardous waste and materials into one program.

DATABASES

There is a broad list of federal and state database that provide information for sites with varying potential for risk from the possible existence of hazardous materials. There are numerous redundancies among these various database listings. Below is a brief summary of each.

National Priorities List

The National Priorities List (NPL) of Superfund Sites is EPA's database of more than 1,200 sites designated for priority cleanup under the Superfund program. NPL sites may encompass relatively large areas.

RCRIS System

The Resource Conservation and Recovery Information System (RCRIS) is an EPA database that includes selective information on sites that generate, transport, store, treat, and/or dispose of hazardous waste as defined by RCRA. Identification on this list does not indicate that there has been an impact on the environment.

CERCLIS Data

Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) is an EPA database that contains information on potential hazardous waste sites that have been reported to EPA by states, municipalities, private companies, and individuals, pursuant to Section 103 of CERCLA. CERCLIS contains sites that are either proposed for or on the NPL, as well as sites that are in the screening and assessment phase for possible inclusion on the NPL.

CORRACTS

Corrective Action Report (CORRACTS) is an EPA database that identifies hazardous waste handlers with RCRA corrective action activity.

RAATS System

RCRA Administrative Action Tracking System (RAATS) is an EPA database that contains records based on enforcement actions issued under RCRA pertaining to major violators, and includes administrative and civil actions brought by EPA.

PADS System

PCB Activity Database System (PADS) is an EPA database that identifies generators, transporters, commercial storers, and/or brokers and disposers of polychlorinated biphynels (PCBs) who are required to notify EPA of such activities.

CHMIRS Data

The California Hazardous Material Incident Report System (CHMIRS) contains information on reported hazardous materials incidents (i.e., accidental releases or spills). The source of this information is the California Office of Emergency Services.

ERNS Sites

The Emergency Response Notification System (ERNS) provides records of reported releases of oil and hazardous substances. The source of this database is the U.S. EPA.

Cortese Database

The Cortese database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with underground storage tanks (USTs) having a reportable release, and all solid waste disposal facilities from which there is known hazardous substance migration. The source of this database is the California Environmental Protection Agency (CAL-EPA).

LUST Reports

The Leaking Underground Storage Tank (LUST) Incident Reports contain an inventory of reported leaking underground storage tank incidents. This information comes from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

UST Database

The Underground Storage Tank (UST) database lists registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The UST information comes from the State Water Resources Control Board's Hazardous Substance Storage Container Database.

HIST UST Sites

The Hazardous Substance Storage Container Database is a historical listing of UST sites. The data source is the State Water Resources Control Board.

CA FID Information

The Facility Inventory Database (CA FID) lists active and inactive underground storage tank locations. This database is maintained by the State Water Resources Control Board.

HAZNET Database

The Hazardous Waste Information System (HAZNET) includes data extracted from the copies of hazardous waste manifests each year by the State Department of Toxic Substances Control.

FINDS Data

The Facility Index System (FINDS) contains both facility information and "pointers" to other sources of information that contain more detail (e.g., RCRA Info, Permit Compliance System [PCS], Aerometric Information Retrieval System [AIRS]). The source of this information is the U.S. EPA.

FTTS Database

The Federal Toxics Tracking System (FTTS) tracks administrative cases and pesticide enforcement actions/compliance activities related to the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA), Toxic Substances Control Act (TSCA), and Emergency Planning and Community Right-to-Know Act (EPCRA). The source of this data is the Environmental Protection Agency (EPA) Office of Prevention, Pesticides, and Toxic Substances.

CA SLIC Database

The statewide Spills, Leaks, Investigations, and Cleanups (CA SLIC) database includes unauthorized discharges from spills and leaks, other than from underground storage tanks or other regulated sites. The data source is the State Water Resources Control Board.

Notify 65 Records

Proposition 65 Notification Records (Notify 65) contain facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk. The State Water Resources Control Board maintains this database.

EMI Data

Emissions Inventory Data (EMI) is comprised of toxics and criteria pollutant emissions data collected by the state Air Resources Board and local pollution agencies.

Manufactured Gas Plant Database

This database includes records of coal gas plants (manufactured gas plants), which were in operation in the U.S. until the 1950s. Due to common past practices, the potential for on-site hazardous by-products (such as coal tar, sludge, oils, and chemical compounds) remains on such

sites, which could result in soil or groundwater contamination. These records are maintained by EDR, Inc., as part of its proprietary database.

SWEEPS Records

The Statewide Environmental Evaluation and Planning System (SWEEPS) UST list, which is no longer maintained or updated, was under the purview of the State Water Resources Control Board. Other agencies (e.g., as identified above) now maintain UST records.

LOCAL

City of Tracy General Plan

The Safety Element of the General Plan includes several goals, objectives and policies to reduce the risks to the community from various hazards. In particular, the following policies would apply to the Holly Sugar Sports Park site:

SA-3.1, Policy P1. All development in areas of potential wildland fire hazards shall include the following:

- Clearance around structures.
- Fire-resistant ground cover.
- Fire-resistant roofing materials.

SA-3.1, Policy P3. New developments shall satisfy fire flow and hydrant requirements, street widths and design requirements as established by the City.

SA-3.1, Policy P4. The City shall incorporate drought-resistant and fire resistant plants in public works projects in areas subject to wildland fires.

SA-4.1, Policy P2. When reviewing applications for new development and redevelopment in areas historically used for commercial or industrial uses, developers shall conduct the necessary level of environmental investigation to ensure that soils, groundwater and buildings affected by hazardous material releases from prior land uses and lead or asbestos potentially present in building materials, will not have a negative impact on the natural environment or health and safety of future property owners or users.

SA-5.1, Policy P1. Ensure that new development shall be consistent with setbacks, height and land use restrictions as determined by the Federal Aviation Administration and the San Joaquin County Airport Land Use Commission, as well as the policies of the City's Airport Master Plan.

SA-6.1, Policy P1. Emergency access routes shall be kept free of traffic impediments.

3.7.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact from hazards and hazardous materials if it will:

- Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials.
- Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment.
- Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school.
- Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment.
- For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area.
- For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area.
- Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
- Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildands are adjacent to urbanized areas or where residences are intermixed with wildlands.

IMPACTS AND MITIGATION MEASURES

Impact 3.7-1: Project implementation could result in impacts from the transport, use, disposal, release, emission, or handling of hazardous materials, or from being included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 (Less than Significant with Mitigation)

A Phase 1 Environmental Site Assessment (ESA) was performed in conformance with the scope and limitations of ASTM Standard Practice E 1527-05 for the project site. The Phase 1 ESA (Appendix E) included a database search, historical land use research dating back to the early 1900s, and a pVIC screening matrix to determine the potential for presence of a contaminated plume under or near the project site.

The Phase 1 ESA revealed no evidence of historical or existing Recognized Environmental Conditions in connection with the project site. Furthermore, the proposed project would not result in the transportation, use, disposal, release, emission, or handling of hazardous or acutely

hazardous materials, substances, or waste and the project site is not located within one-quarter mile of an existing or proposed school.

The Phase 1 ESA indicated that there are wells located on the project site. There are procedures that have been established in San Joaquin County for well abandonment to ensure the health and safety of the public. The Phase 1 ESA also recommended soil sampling as a precautionary measure to ensure that there are no persistent pesticide residuals from past agricultural activities. Implementation of the following mitigation measure will ensure that the potential impact is reduced to a **less than significant** level.

MITIGATION MEASURES

Mitigation Measure 3.7-1*: All wells located on the project site shall be properly abandoned under the San Joaquin County guidelines if they will not be used any longer. Prior to any grading activities, the City shall sample and test the soils for possible persistent pesticide residuals.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.7-1 will reduce this impact to **less than significant**.

Impact 3.7-2: Project implementation could result in impacts to people residing or working on the project site as a result of public airport, public use airport, or private airstrip within two miles. (Less than Significant)

The Federal Aviation Administration (FAA) establishes distances of ground clearance for take-off and landing safety based on such items as the type of aircraft using the airport. The San Joaquin County Airport Land Use Commission (ALUC) is an advisory body that assists local agencies with ensuring the compatibility of land uses in the vicinity of airports. The County ALUC reviews proposed development projects for consistency with airport land use compatibility. The General Plan presents a policy that is designed to ensure that new development is consistent with setbacks, height and land use restrictions as determined by the Federal Aviation Administration and the San Joaquin County Airport Land Use Commission, as well as the policies of the City's Airport Master Plan.

The Tracy Municipal Airport is the closest airport to the project site. The Airport is a general aviation airport owned by the City and managed by the Parks and Community Services Department. The Tracy Airport Master Plan shows that the project site is not located within a flight zone and the proposed project is not considered an incompatible land use. Implementation of the proposed project would have a **less than significant** impact with regards to this environmental issue.

Impact 3.7-3: Project implementation could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (No Impact)

The General Plan includes policies that require the City to maintain emergency access routes that are free of traffic impediments (Objective SA-6.1, P1 and A2). The proposed project does not include any actions that would impair or physically interfere with an adopted emergency response plan or emergency evacuation plan. Furthermore, the proposed project would not result in population growth that would increase the demand for emergency services during disasters. Implementation of the proposed project would result in **no impact** on this environmental topic. The project site, once developed into a public park and open space area, may be an appropriate facility for the City to use as a community gathering location in the event of a disaster.

Impact 3.7-4: Project implementation may expose people or structures to a risk of loss, injury or death from wildland fires (Less than Significant with Mitigation)

The risk of wildfire is related to a variety of parameters, including fuel loading (vegetation), fire weather (winds, temperatures, humidity levels and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazard by intensifying the effects of wind and making fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point, while fuels such as trees have a lower surface area to mass ratio and require more heat to reach the ignition point.

The City has areas with an abundance of flashy fuels (i.e. grassland) in the outlying residential parcels and open lands that when combined with warm and dry summers with temperatures often exceeding 100 degrees Fahrenheit create a situation that results in higher risk of wildland fires. Most wildland fires are human caused, so areas with easy human access to land with the appropriate fire parameters generally result in an increased risk of fire.

The California Department of Forestry has designated the western and southern edge of the City as having a moderate wildland fire potential. This is predominately a result of the hills and grassland habitat that persists. The proposed project is located on the northern edge of the City in an area that is actively farmed. This area is considered lower risk to wildfires when compared to the hilly area on the south side of the City.

The General Plan includes a variety of policies that are designed to minimize wildfire risk. These standard policies include the use of fire-resistant plants, ground cover, and roofing materials, and clearing areas around structures of potential fuel (Objective SA-3.1, P1 and P4). The General Plan also establishes fire flow and hydrant standards to facilitate fire-fighting in the event of a fire (Objective SA-3.1, P3).

The Passive Recreation Area within the southern portion of the project site is proposed to remain in a generally natural state, and will not include ball fields or other grass playing surfaces. The potential exists for unmanaged vegetation to pose a risk of wildfires in the proximity of existing residences to the south of the project site. This is considered a **potentially significant** impact.

MITIGATION MEASURES

Mitigation Measure 3.7-2*: The City shall ensure that the Passive Recreation Area is mowed on a regular basis in order to maintain a 4-inch mow-height of the vegetation within 50 feet of the adjacent residential parcels to the south of the project site. The mowing schedule and maintenance of the fire break shall be coordinated with, and approved by the Tracy Fire Department. The City shall also ensure that the Passive Recreation Area remains accessible to emergency vehicles.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.7-2 will ensure that grasses and other fuels for wildland fires do not accumulate in the project area, and would reduce this impact to **less than significant**.

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This section describes watershed features within the project area, and addresses potential issues associated with storm drainage and flooding, groundwater extraction, site drainage design considerations, and storm water quality. Information for this section was derived from the following sources:

- City of Tracy General Plan EIR (2006)
- City of Tracy Storm Drainage Master Plan (1994)
- Water Supply Assessment for the Holly Sugar Sports Park Project (West Yost, 2009)
- Holly Sugar Sports Park Utilities, Draft Memorandum (Nolte, 2008)
- City of Tracy Manual of Stormwater Quality Standards for New Development and Redevelopment (Larry Walker Associates, 2008)

3.8.1 EXISTING SETTING

REGIONAL HYDROLOGY AND DRAINAGE

Tracy is located within the San Joaquin River drainage system and typically receives lower amounts of rainfall relative to other locations within the region. Typical annual precipitation in the Tracy area is about 10 inches, which occurs primarily from November to April.

With the exception of the area within the hills south of Tracy, the natural slope of the City is relatively flat with grades ranging between 0.2 percent and 0.6 percent. Stormwater generated within the portions of watersheds with relatively flat slopes generally drain from south to north as overland flow and as concentrated flow. Concentrated flow generally occurs within existing or proposed streets, storm drains, and drainage channels. Natural drainages and major man-made drainage and water conveyance facilities in the Tracy Planning Area include the Old River, Tom Paine Slough, Corral Hollow Creek, the California Aqueduct, Delta-Mendota Canal, and the Upper and Lower Main Canals. The natural streams and rivers are generally located on the north side of the City and outside the Sphere of Influence (SOI).

Storm drainage is conveyed via City storm drains, open channels, and West Side Irrigation District (WSID) closed conduits and open channels to six outfall systems that discharge to the Old River and ultimately to San Joaquin Delta. The outfalls consist of West Side Channel System, WSID main drain, East side channel system, I-205 Corridor Specific Plan system, Tracy Boulevard Sugar Cut system and MacArthur channel systems. A majority of the City storm water discharges are metered via detention basins prior to discharge into the Old River or Sugar Cut systems.

LOCAL HYDROLOGY AND DRAINAGE

Existing Site Drainage

According to the City of Tracy Storm Drainage Master Plan (1994) the southern portion of the project site is located within the Sugar Cut watershed. The Sugar Cut watershed is an isolated watershed located generally in an area bounded by the alignment of an existing canal located approximately 800 feet north of Larch Road on the north, I-205 to the south, Corral Hollow Road to the west, and Tracy Boulevard to the east. The Sugar Cut watershed encompasses approximately 0.5 square miles.

There are no City or County maintained drainage features on the project site or within the Sugar Cut watershed. The project site and surrounding area is generally flat, and water drains through natural sheetflow in a northerly direction.

100-Year Floodplain

The 100-year floodplain denotes an area that has a one percent chance of being inundated during any particular 12-month period. The risk of this area being flooded in any century is one percent but statistically the risk is almost 40 percent in any 50-year period.

Floodplain zones are determined by the Federal Emergency Management Agency (FEMA) and used to create Flood Insurance Rate Maps (FIRMs). These tools assist cities in mitigating flooding hazards through land use planning. FEMA also outlines specific regulations for any construction, whether residential, commercial, or industrial within 100-year floodplains.

The most recent FIRM in effect for the City of Tracy is dated June 18, 1987. FEMA has recently completed an update of the FIRM for the Tracy area, which will become effective on October 16, 2009. The project site's flood designation as Zone AE is the same on both the 1987 and the 2009 FIRMs. As shown in Figure 3.8-1, the majority of land within the City limits is outside of the 100-year floodplains (Zone X). The northern portion of the Tracy Planning Area falls within FIRM Zone AE, which indicates the 100-year flood plain. This area covers the northern portion of the proposed SOI, including the Holly Sugar area, parts of Larch Clover, the area just north of the Northeast Industrial Area and Urban Reserve 3, as well as a small part of the City limits in the vicinity of the I-205 Regional Commercial area. As shown in Figure 3.8-1, the entire Holly Sugar Sports Park site is located within Zone AE (the 100-year floodplain). The base flood elevation (BFE) at the project site is 11 feet.

Lands within the FEMA-designated 100-year floodplain or Zone A are subject to mandatory flood insurance purchase as required by FEMA. The insurance rating is based on the difference between the base flood elevation (BFE), the average depth of the flooding above the ground surface for a specific area, and the elevation of the lowest floor. Because Tracy participates in the National Flood Insurance Program, it must require development permits to ensure that construction materials and methods will mitigate future flood damage. New construction and substantial improvements of residential structures are also required to "have the lowest floor (including the

basement) elevated to or above the base flood level." Non-residential structures must have their utility systems above the BFE or be of flood-proof construction.

Groundwater Conditions

GROUNDWATER OVERVIEW

Information regarding groundwater conditions and use in the Tracy area is derived primarily from the Water Supply Assessment (WSA) prepared for the proposed project by West Yost Associates (May 2009). The WSA is attached as Appendix F.

The City overlies a portion of the San Joaquin Valley Groundwater Basin-Tracy Sub-basin (Tracy Sub-basin). The City operates eight groundwater wells, with a total extraction capacity of 15 mgd. Four wells (Production Wells 1, 2, 3 and 4) are located near the City's John Jones Water Treatment Plan (JJWTP) and pump directly into the JJWTP clearwells, where the groundwater is blended with treated surface water. The other wells (Lincoln Well, Lewis Manor Well (Well 5), Ball Park Well (Well 6), and Park and Ride Well (Well 7)) are located throughout the City and pump water directly into the distribution system after disinfection.

GROUNDWATER LEVEL TRENDS

The potentiometric surface in the confined aquifer located below the Corcoran Clay is located approximately 90 to 150 ft above mean sea level (msl). Review of hydrographs from wells throughout the sub-basin indicate that, except for seasonal variation resulting from recharge and pumping, water levels in most of these wells have remained stable over at least the last 10 years. As part of the City's Groundwater Management Policy, groundwater levels in the Tracy area are being monitored by the City on a semi-annual basis. These measurements indicate that groundwater levels in the City's wells have increased over the last few years, likely as a direct result of reduced groundwater pumpage by the City since 2005.

BASIN DESCRIPTION

The following section describes the Tracy Sub-basin, including its water-bearing formations, water levels, and water quality. Much of the following information has been incorporated from the City's Urban Water Management Plan (UWMP). Except where noted, the description of the sub-basin is based largely on information provided in the 2003 California DWR Bulletin 118, in which the groundwater basin description was last updated in January 2006 (see Appendix C of the attached WSA).

The sub-basin consists of unconsolidated to semi-consolidated sedimentary deposits that are bounded by the Diablo Range on the west, the Mokelumne and San Joaquin Rivers on the north, the San Joaquin River to the east, and the San Joaquin-Stanislaus County line on the south. Adjacent to the Tracy Sub-basin are the Eastern San Joaquin Sub-basin to the east, the Delta-Mendota Sub-basin to the south, and the Sacramento Valley Groundwater Basin to the north. The three sub-basins, not including the Sacramento Valley Groundwater Basin, are part of the San Joaquin Valley Groundwater Basin. The San Joaquin River and one of its major west side

tributaries, Corral Hollow Creek, provide drainage from the Tracy Sub-basin. The San Joaquin River flows northward into the Sacramento and San Joaquin Delta and discharges into San Francisco Bay.

The Tracy Sub-basin is comprised of continental deposits of Late Tertiary to Quaternary age. These deposits include the Tulare Formation, Older Alluvium, Flood Basin Deposits, and Younger Alluvium. The cumulative thickness of these deposits increases from a few hundred feet near the Coast Range foothills on the west to about 3,000 feet along the eastern margin of the sub-basin.

Each of these formations is described below.

- The Tulare Formation is exposed in the Coast Range foothills along the western margin of the sub-basin and dips eastward toward the axis of the San Joaquin Valley. The Tulare Formation is approximately 1,400 feet thick and consists of semi-consolidated, poorly sorted, discontinuous deposits of clay, silt, and gravel. The Corcoran Clay occurs near the top of the Tulare Formation and confines the underlying fresh water deposits. The eastern limit of the Corcoran Clay is near the eastern boundary of the sub-basin. The Tulare Formation is moderately permeable, with most of the larger agricultural, municipal, and industrial wells completed below the Corcoran Clay and capable of producing up to about 3,000 gallons per minute (gpm). Smaller, domestic wells are typically completed above the Corcoran Clay, where the groundwater is often of poor quality. Specific yield values for the Tulare Formation in the San Joaquin Valley and Delta area range from 7 to 10 percent.

- The Older Alluvium is approximately 150 feet thick and consists of loosely to moderately compacted sand, silt, and gravel deposited in alluvial fans during the Pliocene and Pleistocene eras. The Older Alluvium is widely exposed between the Coast Range foothills and the Delta and is moderately to locally highly permeable.

- The Flood Basin Deposits occur in the Delta portion of the sub-basin and are the distal equivalents of the Tulare Formation and Older and Younger alluvial units. The Flood Basin Deposits consist primarily of silts and clays with occasional interbeds of gravel along the present waterways. Because of their fine-grained nature, the Flood Basin Deposits have low permeability and generally yield low quantities of water to wells. Occasional zones of fresh water are found in the Flood Basin Deposits, but they generally contain poor quality groundwater. The maximum thickness of the Flood Basin Deposits is about 1,400 feet.

- The Younger Alluvium includes those deposits that are currently accumulating, including sediments deposited in the channels of active streams, as well as overbank deposits and terraces of these active streams. The Younger Alluvium, consisting of unconsolidated silt, fine- to medium-grained sand, and gravel, is present to depths of less than 100 ft below ground surface (bgs) along the channel of Corral Hollow Creek. Sand and gravel zones in the Younger Alluvium are highly permeable and, where saturated, yield significant quantities of water to wells.

The Tracy Sub-basin is primarily separated into two aquifers: unconfined and confined. The unconfined aquifer is primarily comprised of the alluvium and flood basin formations. The confined

aquifer is primarily comprised of the Tulare Formation and it is overlain by the Corcoran Clay. The City's production wells pump groundwater from the confined aquifer only.

GROUNDWATER YIELD

A 1990 Kennedy/Jenks/Chilton (K/J/C) study estimated a groundwater yield of 6,700 af/yr within the Tracy area. However, in 2001, to determine if additional groundwater resources were available in the Tracy area, the City conducted an updated groundwater analysis. The Estimated Groundwater Yield Study, prepared by Bookman-Edmonston Engineering (included as an appendix to the City's Groundwater Management Policy Mitigated Negative Declaration—see Appendix C of the attached WSA), provided an evaluation of potential groundwater yield and determined that a 2,300 af/yr increase of the average annual operational groundwater yield above the groundwater yield recommended in the 1990 K/J/C study could be provided within the estimated sustainable yield of the groundwater basin in the Tracy area, without adverse impact to groundwater resources or quality in the Tracy area over a 50-year timeframe. This expansion of groundwater usage to 9,000 af/yr would be within the City's estimated share of the aquifer's sustainable yield of 22,000 af/yr of the 28,000 af/yr total (which includes groundwater usage by West Side Irrigation District, Naglee-Burk Irrigation District, Plain View Water District (now part of the Byron Bethany Irrigation District), and Banta-Carbona Irrigation District). It was also estimated that this expansion of groundwater usage would result in a groundwater level drop of 10 feet, but would stabilize at this level.

HISTORICAL GROUNDWATER USE

As discussed previously, the City currently operates eight groundwater extraction wells:

- Well 1 (at JJWTP)
- Well 2 (at JJWTP)
- Well 3 (at JJWTP)
- Well 4 (at JJWTP)
- Lincoln Well
- Well 5 (Lewis Manor Well)
- Well 6 (Ball Park Well)
- Well 7 (Park & Ride Well)

The City constructed a new, ninth well in January 2004 (Well 8) that is ultimately intended for use with the City's future Aquifer Storage and Recovery Program; however this well is not yet equipped or operational.

Historically, groundwater has accounted for approximately 40 to 50 percent of the City's annual water supply. Prior to 2000, groundwater extraction by the City totaled less than 6,000 af/yr. Between 2000 and 2004, to meet increased demands for water, the City began extracting additional groundwater, with annual usage ranging from 6,548 to 7,717 af/yr. In 2005, groundwater extraction decreased to less than 6,000 af/yr primarily because: (1) the SCWSP was

completed and the City began receiving Stanislaus River water; and (2) rainfall was above normal, meaning that the City received a higher percentage of its DMC/CVP contractual entitlements. In 2006, groundwater extraction was only 3,034 af/yr. This was again due to the availability of the SCWSP surface water supplies and higher-than-normal winter precipitation. In 2007, groundwater extraction was 3,672 af/yr, and in 2008 groundwater production was 2,598 af/yr. A summary of total groundwater produced for the last eight years is provided in Table 3.8-1.

TABLE 3.8-1: CITY OF TRACY HISTORICAL GROUNDWATER PRODUCTION

	2001	*2002*	*2003*	*2004*	*2005*	*2006*	*2007*	*2008*
Total Groundwater Production (af/yf)	7,321	7,717	6,878	6,889	5,826	3,034	3,672	2,598

SOURCE: WATER SUPPLY ASSESSMENT FOR THE HOLLY SUGAR SPORTS PARK. WEST YOST, MAY 2009.

Other groundwater users in the Tracy area include the West Side Irrigation District, Naglee-Burk Irrigation District, Plain View Water District (now the Byron Bethany Irrigation District), Banta-Carbona Irrigation District. Although current groundwater pumpage by these users was not available for inclusion in the WSA prepared for the proposed project, the 2001 Estimated Groundwater Yield Study, which established the City's estimated groundwater yield of 9,000 af/yr, considered the cumulative groundwater usage in the study area by the City and other users.

GROUNDWATER SUFFICIENCY

The City's 2005 UWMP addressed the sufficiency of the City's groundwater supplies, in conjunction with the City's other existing and additional water supplies, to meet the City's existing and planned future uses. Based on the information provided above and that included in the City's 2005 UWMP, the City's groundwater supply is sufficient to meet the water demands of the proposed project, in addition to the City's existing and planned future uses. As discussed above, the City's use of groundwater over the last few years has declined, primarily due to the availability of new high-quality surface water supplies from the SCWSP. In the future, although the City can sustainably extract up to 9,000 af/yr of groundwater, the City's use of groundwater is anticipated to decrease even further, as additional high-quality surface water supplies become available. As shown in Table 13 of the attached Water Supply Assessment, in the future, assuming normal year hydrologic conditions, annual groundwater use is anticipated to be as low as 2,500 af/yr by 2015.

This anticipated future groundwater pumpage is significantly below the City's historical groundwater pumpage (see Table 3.8-1) and the average annual operational yield of 9,000 af/yr.

By reducing groundwater extraction on an average annual basis, the City will recharge the underlying aquifer, effectively increasing the availability of groundwater during a drought or emergency condition (i.e., the City will effectively be "banking" its groundwater); and increase the overall quality of its drinking water, thus increasing customer satisfaction and reducing system maintenance and repair caused by the lower-quality groundwater.

AQUIFER STORAGE AND RECOVERY

The City's proposed Aquifer Storage and Recovery (ASR) program would allow the City to optimize conjunctive use of its water supplies through injection of treated (potable) drinking water into selected aquifer zones within the groundwater sub-basin for storage when surplus supplies are available, and recovery of that potable water from the aquifer to optimize water quality, meet seasonal peak demands, during drought periods, or when emergency or disaster scenarios preclude the use of imported water supplies.

As discussed above, the City constructed a new well in January 2004 (Production Well 8) (CIP 7558) that was designed to allow for both injection and extraction of water supplies in conjunction with the City's proposed ASR Program. In early 2009, the City contracted to construct the above-ground well facilities (including the pump house, pump, motor, SCADA, electrical, telemetry, chemical feed systems, etc.) to have Well 8 operational by late 2009. In addition, the City has already installed a number of monitoring wells for use in the demonstration project monitoring and testing for the proposed ASR Program.

The City is continuing to pursue regulatory approval for the ASR demonstration program from the Central Valley Regional Water Quality Control Board (RWQCB). Once the City completes the demonstration program (pilot testing), prepares required environmental documentation, and secures the required permits to operate an ASR Well Program, it is estimated that as much as 685 to 915 af/yr of potable water could be injected into the aquifer, assuming a 5-month continuous injection rate of 1.5 to 2.0 mgd. The City anticipates that, under an ASR program, approximately 3,000 acre-feet of high-quality groundwater would be available in drought years, thereby increasing the reliability of the City's water supply, starting in about 2015.

GROUNDWATER AT THE PROJECT SITE

Information regarding groundwater elevation data beneath the project site was obtained from a California Department of Water Resources (DWR) monitored well identified as #02S05E0B001M (Preliminary Geotechnical Engineering and Geologic Hazards Report, Wallace and Kuhl, 2009). This well is reported by DWR to be located approximately 1,800 feet north of the project site. Surface elevation at this well is indicated to be about +4 feet mean sea level (msl). DWR has periodically measured water elevations in this well from March 11, 1960 to at least February 25, 2008. Based on the available data, the lowest measured groundwater elevation in the well occurred on several dates in 1962, 1983, and 1987, at an elevation of approximately -6.7 msl (or 10.7 feet below existing grade at the well); the highest elevation of +2.8 msl occurred on March 5, 1962 (1.2 feet below existing grade at the well). The most recent measurement on February 25, 2008, indicates water at an elevation of about -4.7 msl, or 8.7 feet below existing grade at the well. In general, the groundwater table fluctuates between an elevation of +2.8 msl and -6.7 msl, or approximately 2 to 12 feet below the ground surface at the project site. Excavations reaching depths close to the documented groundwater table may encounter saturated soils and possibly groundwater depending on the time of year that construction occurs.

Water Quality

The General Plan Draft EIR identified that Tracy's existing groundwater water supply is heavily mineralized and the surface water portion occasionally has taste and odor problems resulting from algae blooms in the Delta. To monitor these potential issues, the City of Tracy Utilities Division of Public Works has a regular program of water quality monitoring, system flushing and system inspection.

OLD RIVER WATER QUALITY

The State Water Resources Control Board (SWRCB) is required by the Clean Water Act (CWA) section 303(d) and Title 40, Code of Federal Regulations section 130.7 to develop a list of water quality limited segments (Section 303[d] list). Water bodies shown to not meet water quality standards, even after implementation of certain technology-based water quality controls, are placed on the section 303(d) list. In general, water bodies are listed due to deleterious impacts from a pollutant or pollutants, and delisted when evidence reveals that such impacts have ceased or never existed. Waters placed on the section 303(d) list are subject to development of Total Maximum Daily Loads (TMDLs), which define how much of a pollutant a water body can tolerate and meet water quality standards.

Water Quality Limited Segments (WQLSs) is one example of expressing water quality problems by water bodies. WQLSs are those sections of lakes, streams, rivers or other fresh water bodies where water quality does not meet (or is not expected to meet) water quality standards even after the application of appropriate effluent limitations for point sources (40 CFR 130, et seq.). The Old River is considered an impaired water quality limited segment for low dissolved oxygen between the San Joaquin River to the Delta Mendota Canal.

Dam Failure

As described in the Tracy General Plan (2006), some areas in the northern portion of the Tracy Planning Area, including the project site, have the potential to be affected by dam failure inundation such as from the San Luis Reservoir, New Melones and New Exchequer dams; refer to Figure 3.8-2*, Dam Inundation Risk Areas*. As shown in Figure 3.8-2, the project site is within the Dam Inundation Risk Area for San Luis Reservoir and New Melones Dam, as delineated by the Governor's Office of Emergency Services.

3.8.2 REGULATORY SETTING

FEDERAL AND STATE

Clean Water Act (CWA)

The CWA, initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the act establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by an NPDES permit. On

December 8, 1999, U.S. EPA circulated regulations requiring permits for stormwater discharges from Small Municipal Separate Storm Sewer System operators, which includes the City of Tracy. Permits for Small Municipal Storm Sewer systems (MS4s) generally fall under the "Phase II" permits program, which regulate non-point source pollutants. In California, the NPDES Program is administered by the State.

The SWRCB is responsible for implementing the Clean Water Act and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for storm water discharges (individual permits and general permits). The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0005-DWQ) for small MS4s covered under the CWA to efficiently regulate numerous storm water discharges under a single permit. Permittees must meet the requirements in Provision D of the General Permit, which require the development and implementation of a Storm Water Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable. The SWMP must include the following six minimum control measures:

1) Public Education and Outreach on Storm Water Impacts

2) Public Involvement/Participation

3) Illicit Discharge Detection and Elimination

4) Construction Site Storm Water Runoff Control

5) Post-Construction Storm Water Management in New Development

6) Redevelopment and Pollution Prevention/Good Housekeeping for Municipal Operations

The State has approved the City's SWMP dated September 30, 2003 and the City is now implementing the program outlined in the SWMP.

Federal Emergency Management Agency (FEMA)

The City and San Joaquin County are participants in the National Flood Insurance Program (NFIP), a Federal program administered by FEMA. Participants in the NFIP must satisfy certain mandated floodplain management criteria. The National Flood Insurance Act of 1968 has adopted as a desired level of protection, an expectation that developments should be protected from floodwater damage of the Intermediate Regional Flood (IRF). The IRF is defined as a flood that has an average frequency of occurrence on the order of once in 100 years, although such a flood may occur in any given year. Communities are occasionally audited by the Department of Water Resources to insure the proper implementation of FEMA floodplain management regulations.

Federal Clean Water Act

The Federal Clean Water Act places the primary responsibility for the control of surface water pollution and for planning the development and use of water resources with the states, although

this does establish certain guidelines for the states to follow in developing their programs and allows the EPA to withdraw control from states with inadequate implementation mechanisms.

California Water Code

California's primary statute governing water quality and water pollution issues with respect to both surface waters and groundwater is the Porter-Cologne Water Quality Control Act of 1970 (Division 7 of the California Water Code) (Porter-Cologne Act). The Porter-Cologne Act grants the State Water Resource Control Board (SWRCB) and each of the RWQCBs power to protect water quality, and is the primary vehicle for implementation of California's responsibilities under the Federal Clean Water Act. The Porter-Cologne Act grants the SWRCB and the RWQCBs authority and responsibility to adopt plans and policies, to regulate discharges to surface and groundwater, to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a Water Quality Control Plan (Basin Plan) for its region. The regional plans are to conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its State water policy. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

National Pollutant Discharge Elimination System (NPDES)

National Pollutant Discharge Elimination System (NPDES) permits are required for discharges of pollutants to navigable waters of the United States, which includes any discharge to surface waters, including lakes, rivers, streams, bays, the ocean, dry stream beds, wetlands, and storm sewers that are tributary to any surface water body. NPDES permits are issued under the Federal Clean Water Act, Title IV, Permits and Licenses, Section 402 (33 USC 466 et seq.)

The RWQCB issues these permits in lieu of direct issuance by the Environmental Protection Agency, subject to review and approval by the Environmental Protection Agency Regional Administrator (EPA Region 5). The terms of these NPDES permits implement pertinent provisions of the Federal Clean Water Act and the Act's implementing regulations, including pre-treatment, sludge management, effluent limitations for specific industries, and anti- degradation. In general, the discharge of pollutants is to be eliminated or reduced as much as practicable so as to achieve the Clean Water Act's goal of "fishable and swimmable" navigable (surface) waters. Technically, all NPDES permits issued by the RWQCB are also Waste Discharge Requirements issued under the authority of the CWC.

These NPDES permits regulate discharges from publicly owned treatment works, industrial discharges, stormwater runoff, dewatering operations, and groundwater cleanup discharges. NPDES permits are issued for five years or less, and are therefore to be updated regularly. The rapid and dramatic population and urban growth in the Central Valley Region has caused a significant increase in NPDES permit applications for new waste discharges. To expedite the permit issuance process, the RWQCB has adopted several general NPDES permits, each of which

regulates numerous discharges of similar types of wastes. The SWRCB has issues general permits for stormwater runoff from construction sites statewide. Stormwater discharges from industrial and construction activities in the Central Valley Region can be covered under these general permits, which are administered jointly by the SWRCB and RWQCB.

REGIONAL AND LOCAL

Water Quality Control Plan for the Central Valley Region

The Water Quality Control Plan for the Central Valley Region (Basin Plan) includes a summary of beneficial water uses, water quality objectives needed to protect the identified beneficial uses, and implementation measures. The Basin Plan establishes water quality standards for all the ground and surface waters of the region. The term "water quality standards," as used in the Federal Clean Water Act, includes both the beneficial uses of specific water bodies and the levels of quality that must be met and maintained to protect those uses. The Basin Plan includes an implementation plan describing the actions by the RWQCB and others that are necessary to achieve and maintain the water quality standards.

The RWQCB regulates waste discharges to minimize and control their effects on the quality of the region's ground and surface water. Permits are issued under a number of programs and authorities. The terms and conditions of these discharge permits are enforced through a variety of technical, administrative, and legal means. Water quality problems in the region are listed in the Basin Plan, along with the causes, where they are known. For water bodies with quality below the levels necessary to allow all the beneficial uses of the water to be met, plans for improving water quality are included. The Basin Plan reflects, incorporates, and implements applicable portions of a number of national and statewide water quality plans and policies, including the California Water Code and the Clean Water Act.

City of Tracy General Plan

To minimize the risk of exposing people or property to flood hazards, the City of Tracy General Plan includes a goal and an objective, supported by several policies and actions, to minimize risks to development related to flooding and inundation.

Goal SA-2: *A reduction of hazards related to flooding or inundation*

The objective of Goal SA-2 is to minimize flood risks to development.

> **Policy P1**: Development shall only be allowed on lands within the 100-year flood zone, if it will not:
>
> - Create danger to life and property due to increased flood heights or velocities caused by excavation, fill, roads and intended use;
> - Create difficult emergency vehicle access in times of flood;
> - Create a safety hazard due to the unexpected heights, velocity, duration, rate of rise and sediment transport of the flood waters expected at the site;

- Create excessive costs in providing governmental services during and after flood conditions, including maintenance and repair of public facilities;
- Interfere with the existing water flow capacity of the floodway;
- Substantially increase erosion and/or sedimentation; and
- Contribute to the deterioration of any watercourse or the quality of water in any body of water.

Policy P2: Public facilities in the 100-year flood zones shall be flood-proofed to a point at or above the base flood level elevation.

Policy P3: The City shall prevent the construction of flood barriers within the 100-year flood zone that divert flood water or increase flooding in other areas.

Policy P4: Property owners within the 100-year floodplain are encouraged to purchase National Flood Insurance, which reduces the financial risk from flooding and mudflows.

Goal PF-8. *Protect property from flooding.*

One objective of Goal PF-8 is to collect, convey, store and dispose of stormwater in ways that provide an appropriate level of protection against flooding, account for future development and address applicable environmental concerns.

Policy P1: Stormwater infrastructure shall be maintained in good condition.

Policy P2: Stormwater infrastructure shall minimize local flooding by attaining capacity that conforms with the Storm Drainage Master Plan and City Design Standards.

Policy P3: New permanent stormwater infrastructure shall be designed to serve dual purposes to the extent possible. This includes the following:

- Drainage facilities integrated into recreation corridors with bike paths, sidewalks and landscaping.
- Drainage channels integrated with transportation and environmental corridors.
- Stormwater detention basins shall incorporate active and passive recreation areas where feasible. These areas shall not count towards parks dedication requirements.

Policy P4: When temporary retention or detention facilities are no longer needed after an outfall system is constructed, the sites shall be backfilled and disconnected from the storm drainage system.

Policy P5: The City shall ensure a fair and equitable distribution of costs for stormwater system upgrades, expansion and maintenance.

Policy P6: Design of storm drainage facilities shall be consistent with State and federal requirements, including NPDES requirements.

Policy P7: Planning for stormwater facilities should consider possible future retrofitting needs associated with changing regulations pertaining to stormwater quality, including NPDES requirements.

City of Tracy Groundwater Management Policy

The City adopted a Groundwater Management Policy (GMP) in 2001, which established the City's maximum annual groundwater extraction rate of 9,000 acre-feet per year (af/yr). As stated in the Mitigation Monitoring Report (January 21, 2006) for the GMP, there is no indication that pumping by the City is significantly or adversely affecting groundwater levels or water quality at this time. The long-term objectives of the City are to utilize groundwater for emergency and peak demand needs and to utilize the aquifer for water storage to improve water quality and increase water system reliability for the City's water customers (Tracy GP EIR, Page 4.10-6).

City of Tracy Stormwater Management Program 2003

The Stormwater Management Program (SWMP) was developed to meet the terms of General Permit Number CAS000004, Water Quality Order No. 2003-00005-DWQ issue April 30, 2003 and consists of the six minimum control measures (MCM) identified by SWRCB for Phase II stormwater discharges. Implementation of these MCMs is expected to result in significant reductions of pollutants discharged into receiving water bodies. Each MCM contains Best Management Practices (BMPs) necessary for proper stormwater management. The BMPs contain specific tasks to meet the objective of that MCM. A total of 41 BMPs are contained in the SWMP. The SWMP is intended to be a living document, with BMPs added and deleted as new management practices arise and as management practices are found to not be effective.

City of Tracy Municipal Code

Chapter 11.34, Stormwater Management and Discharge Control

The purpose of Chapter 11.34 of the Tracy Municipal Code – Stormwater Management and Discharge Control – is to *"Protect and promote the health, safety and general welfare of the citizens of the City by controlling non-stormwater discharges to the stormwater conveyance system, by eliminating discharges to the stormwater conveyance system from spills, dumping, or disposal of materials other than stormwater, and by reducing pollutants in urban stormwater discharges to the maximum extent practicable."*

This chapter is intended to assist in the protection and enhancement of the water quality of watercourses, water bodies, and wetlands in a manner pursuant to and consistent with the Federal Water Pollution Control Act (Clean Water Act, 33 USC Section 1251 et seq.), Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.) and National Pollutant Discharge Elimination System ("NPDES") Permit No. CAS000004, as such permit is amended and/or renewed.

Chapter 9.52, Floodplain Regulations

The purpose of Chapter 9.52 of the Tracy Municipal Code –Floodplain Regulations – is to: *"Promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed: (a) To protect human life and health; (b) To minimize expenditure of public money for costly flood control projects; (c) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public; (d) To minimize prolonged business interruptions; (e) To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets and bridges located in areas of special flood hazard; (f) To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas; (g) To ensure that potential buyers are notified that property is in an area of special flood hazard; and (h) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions."* (Prior code Section 9-13.03)

The chapter includes methods and provisions for restricting or prohibiting uses which are dangerous to health, safety, and property due to water hazard or which result in damaging increases in flood height or velocities; requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters; controlling filling, grading, dredging, and other development which may increase flood damage; and preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas. This chapter applies to all areas of special flood hazards within the jurisdiction of the City, and includes areas of special flood hazards as identified by the FEMA Flood Insurance Study of the City of Tracy, dated June 18, 1987.

3.8.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with hydrology and water quality if it will:

1. Violate any water quality standards or waste discharge requirements;
2. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of preexisting nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted;
3. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion, siltation, run-off or flooding on- or off-site;

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

The IS/NOP concluded that there are no significant bodies of water near the project site that could result in the occurrence of a seiche or tsunami. Additionally, the project site and the surrounding areas are essentially flat, which precludes the possibility of mudflows occurring on the project site. This impact was determined to be less than significant in the IS/NOP, and therefore, item 10 will not be addressed in the Draft EIR.

IMPACTS AND MITIGATION MEASURES

Impact 3.8-1: Implementation of the project may significantly increase storm water runoff rates generated within the project site when compared with existing conditions (Less than Significant with Mitigation Incorporated)

When land is in a natural or undeveloped condition, soils, mulch, vegetation, and plant roots absorb rainwater. This absorption process is called infiltration or percolation. Much of the rainwater that falls on natural or undeveloped land slowly infiltrates the soil and is stored either temporarily or permanently in underground layers of soil. When the soil becomes completely soaked or saturated with water or the rate of rainfall exceeds the infiltration capacity of the soil, the rainwater begins to flow on the surface of land to low lying areas, ditches, channels, streams, and rivers. Rainwater that flows off of a site is defined as storm water runoff. When a site is in a natural condition or is undeveloped, a larger percentage of rainwater infiltrates into the soil and a smaller percentage flows off the site as storm water runoff.

The infiltration and runoff process is altered when a site is developed with urban uses. Houses, buildings, roads, and parking lots introduce asphalt, concrete, and roofing materials to the landscape. These materials are relatively impervious, which means that they absorb less rainwater. As impervious surfaces are added to the ground conditions, the natural infiltration process is reduced. As a result, the volume and rate of storm water runoff increases. The increased volumes and rates of storm water runoff may result in flooding if adequate storm drainage facilities are not provided.

Development of the project site would replace essentially "undeveloped" site conditions with a combination of buildings and temporary structures, parking areas, baseball and softball fields, football fields, soccer fields, playgrounds, picnic areas, spectator seating areas, and landscaping elements. These types of impervious surfaces would be added to the 166-acre active sports park site and the 46-acre future expansion area. The 86-acre passive recreation area in the southern portion of the project site would not result in the introduction of impervious surfaces, and drainage and stormwater runoff would not change within this area as a result of project implementation.

The turf areas composing the various recreational and sports fields and local landscape areas would not produce any significant increases in storm runoff production when compared with existing site conditions. However, parking facilities, buildings, and spectator seating areas would produce significant increases in storm runoff production when compared with existing site conditions.

As described previously in this section, the project site is located in an area (which includes portions of the Sugar Cut watershed) that does not contain any existing stormwater detention or conveyance facilities. The development and operation of the proposed project would result in increases in stormwater generation, which is considered a **potentially significant** impact.

MITIGATION MEASURES

Mitigation Measure 3.8-1*: Prior to ground disturbing activities, the City of Tracy shall prepare a detailed site drainage and stormwater detention plan. The Plan shall include calculations regarding the anticipated volume of stormwater runoff generated by the project, and shall include plans for the retention/detention of stormwater runoff on the project site. Calculations shall be consistent with the current version of the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment. The stormwater detention facilities shall be designed with adequate capacity to ensure that that stormwater generated on the project site during a peak storm event is retained at a rate that will ensure that discharges from the site do not exceed pre-construction levels. All detention facilities shall be developed in conformance with the City's standards, including the standards identified in the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment. The Plans and Specifications of the proposed retention facilities should meet the standards of the City of Tracy Development and Engineering Services Department as an adequate engineering product.*

The construction of stormwater detention facilities may be phased to correspond with development of the project site over time, provided that adequate detention is provided at all times to ensure that runoff from the site does not exceed pre-construction levels.

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.8-1 would reduce stormwater and drainage runoff rates and associated impacts to a **less than significant** level.

Impact 3.8-2: Implementation of the project would introduce constituents and pollutants typically associated with urban development into storm water runoff generated within the project site, which may impact surface water quality in the project area (Less than Significant with Mitigation)

Development of the project site would potentially increase local runoff production, and would introduce constituents into storm water that are typically associated with urban runoff. These constituents include heavy metals (such as lead, zinc, and copper), petroleum hydrocarbons, pesticides and fertilizers. Best management practices (BMPs) will be applied to the proposed site development to limit the concentrations of these constituents in any site runoff that is discharged into downstream facilities to acceptable levels.

Given the absence of downstream storm drainage facilities to serve the proposed site development, one or more on-site retention basins would be required to intercept and store storm runoff generated by the project site, as required by MM 3.8-1. At a minimum, the on-site temporary retention basins would capture all "first flush" runoff generated by the project site and accompanying pollutants (to the extent that they are present). The sediment that accumulates in these on-site temporary retention basins will be periodically monitored and will be removed prior to the occurrence of any toxic concentrations of deleterious constituents. In addition, site construction and maintenance practices will adhere to any and all applicable provisions and ordinances resulting from the City's implementation of their SWMP, to the extent to which they exist at the time of construction and/or maintenance activities.

The introduction of pollutants generated from project site runoff into surface water resources in the project vicinity is considered a **potentially significant** impact.

MITIGATION MEASURES

***Mitigation Measure 3.8-2**: **Construction**: The City shall ensure that the development of the project site shall incorporate the construction of one or more on-site retention basins to capture site runoff in conformance with City Design Standards as described in MM 3.8-1. In addition, site construction and maintenance practices shall adhere to any and all applicable provisions and ordinances resulting from the City's implementation of its SWMP, to the extent to which they exist at the time of construction and/or maintenance activities. The following list is intended as an outline summary and the City may impose additional requirements:*

Non-Structural BMPs

- *Minimizing Disturbance*
- *Preserving Natural Vegetation (where possible)*
- *Good Housekeeping, e.g., daily clean-up of construction site*

Structural BMPs

Erosion Controls

- *Mulch*
- *Grass*

- *Stockpile Covers*

Sediment Controls

- *Silt Fence*
- *Inlet Protection*
- *Check Dams*
- *Stabilized Construction Entrances*
- *Sediment Traps*

***Mitigation Measure 3.8-3**: **Post-Construction**: The project shall prepare a Storm Water Pollution Prevention Plan (SWPPP) that includes specific types and sources of stormwater pollutants, determine the location and nature of potential impacts, and specify appropriate control measures to eliminate any potentially significant impacts on receiving water quality from stormwater runoff. The SWPPP shall require treatment BMPs that incorporate, at a minimum, the required hydraulic sizing design criteria for volume and flow to treat projected stormwater runoff. The SWPPP shall comply with the most current standards established by the Central Valley RWQCB. Best Management Practices shall be selected from the City's Manual of Stormwater Quality Control Standards for New Development and Redevelopment according to site requirements and shall be subject to approval by the City Engineer and Central Valley RWQCB.*

At least 85 to 90 percent of annual average stormwater runoff from the site shall be treated per the standards in the 1003 California Stormwater Best Management Practice New Development and Redevelopment Handbook. Drainage from all paved surfaces, including streets, parking lots, driveways, and roofs shall be routed either through swales, buffer strips, or sand filters or treated with a filtering system prior to discharge to the storm drain system. Landscaping shall be designed to effect some treatment, along with the use of a Stormwater Management filter to permanently sequester hydrocarbons, if necessary. Roofs shall be designed with down spouting into landscaped areas, bubbleups, or trenches. Driveways shall be curbed into landscaping so runoff drains first into the landscaping. Permeable pavers and pavement shall be utilized to construct the facilities, where appropriate.

***Mitigation Measure 3.8-4**: Post-Construction: :After project completion, the City or successor shall properly maintain parking lots and other paved areas, by sweeping or other appropriate means, to prevent the majority of litter from washing into storm drains.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.8-2, MM 3.8-3, and MM 3.8-4 would reduce stormwater runoff pollution and surface water quality impacts to a **less than significant** level.

Impact 3.8-3: Implementation of the project would place new structures within the 100-year floodplain (Less than Significant with Mitigation)

As described previously in this section, the entire Holly Sugar Sports Park project site is located within flood zone AE at an elevation of approximately 11 feet (based upon FEMA FIRM Map No. FM0602990570C). The existing ground elevations at the site, based upon USGS mapping are approximately 4 to 5 feet. During significant rainfall events, it is anticipated that the project site will become inundated with surface water flows.

The 86-acre passive recreation area, located in the southern portion of the project site does not include any structures or facilities that may be damaged during a flood event. The passive recreation area may include natural trails, landscaping features, an arboretum, and other passive features that will not impeded or redirect water flows during a flood event. During and after a major storm event in the project vicinity, this area may be unusable to the public until surface waters have drained from the site or have flowed into nearby existing drainages and retention basins proposed for the active sports park site. Flood related impacts to the passive recreation area are, therefore, considered to be **less than significant**.

The 166-acre active sports park site will include permanent and temporary structures (restrooms, concession buildings, bleachers, the stadium, etc.) that may experience water damage during a significant rainfall event which causes water to inundate the 100-year floodplain. There are no homes or residences proposed for the project site, and therefore, no residences would be impacted as a result of project implementation. The majority of the groundcover within the 166-acre active sports park site would consist of grass ballfields, parking areas and landscaping areas. During a significant storm event, these areas may become inundated with surface water, however, due to the lack of structures within the areas, water flows will not be significantly impeded or redirected, and these surfaces would not experience significant damage as a result of water inundation. However, the permanent and temporary structures proposed for the active sports park site may experience water damage during a flood event if they are not elevated above 100-year flood plain levels. This is considered a **potentially significant** impact.

The 46-acre future expansion area may include several permanent structures that may be damaged during a flood event if not elevated above the 100-year floodplain levels. This is considered a **potentially significant** impact.

The proposed project would not impact or impede the flow of any surface water resources (rivers or streams) during a flood event. While the project site and the associated structures may be subject to water damage during a flood event, project implementation would not increase the risk of flooding offsite during a storm event. The implementation of Mitigation Measure MM 3.8-1, as outlined above, would ensure that adequate onsite stormwater retention facilities are constructed, which will reduce the risk of offsite flooding as a result of project implementation.

MITIGATION MEASURES

Mitigation Measure 3.8-5*: Design of the project shall be consistent with the requirements of Chapter 9.52, Floodplain Regulations, of the Municipal Ordinance. Project design is anticipated to include the following:*

- *All structures are required to be one foot above the base flood as determined by the appropriate FEMA FIRM Map.*
- *Soils suitable for building pad construction (as determined by a qualified engineer), shall be imported to the project site as-needed in order to ensure that all building and structure pads are elevated to levels necessary to meet City requirements.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.8-5 would reduce flood-related impacts to a **less than significant** level.

Impact 3.8.4: Implementation of the project may result in impacts to groundwater supplies or interfere with groundwater recharge (Less than Significant)

Groundwater recharge occurs primarily through percolation of surface waters through the soil and into the groundwater basin. The addition of significant areas of impervious surfaces (such as roads, parking lots, buildings, etc) can interfere with this natural groundwater recharge process. Upon full project buildout, the majority of the Holly Sugar Sports Park site will be covered with grass and natural fields, which will not interfere with groundwater recharge. The project will include areas of impervious surfaces, such as the proposed roadways, parking lots and various structures. However, given the relatively large size of the groundwater basin in the Tracy area, the areas of impervious surfaces added as a result of project implementation will not adversely affect the recharge capabilities of the local groundwater basin.

As described in the WSA (Appendix F), the primary water demand at the proposed project will be for turf and landscape irrigation, and will be met using non-potable water supplies. The estimated total non-potable water demand for the proposed project is 482 af/yr. The recommended water supply to meet this non-potable water demand will initially be untreated surface water diverted from Sugar Cut Slough (which has historically and is currently being used to irrigate the agricultural crop being grown at the project site), and, in the future, tertiary-treated recycled water delivered from the City's wastewater treatment plant. The use of non-potable water supplies for landscape and turf irrigation will not result in increased groundwater pumping or extraction as a result of project implementation.

As described in the WSA, the estimated total potable water demand for the proposed project is approximately 47 af/yr. This potable water demand will be met using potable water supplies from the City's water system and could include the following uses:

- Active Sports Park Site: proposed concession and restroom buildings.
- Passive Recreation Area: potential restroom building.
- Future Expansion Area: interior water uses at the potential future recreation center and library, potential concession and restroom buildings, and the water supply for the potential future children's "spray park".

Based on the analysis described in the attached Water Supply Assessment, the City's existing and additional (future, not yet firmly assured) potable water supplies are sufficient to meet the City's existing and projected future potable water demands, including the potable water demands associated with the proposed project, to the year 2030 under all hydrologic conditions. Also, the Water Supply Assessment demonstrates that available existing and additional (future, not yet firmly assured) non-potable water supplies will be sufficient to meet the non-potable water demands associated with the proposed project to the year 2030 under all hydrologic conditions.

As shown in Table 3.8-1, the City's historical rate of groundwater pumping has been declining steadily over the past 7 years. The demand for potable and non-potable water supplies to serve the proposed Holly Sugar Sports Park project will not result in additional groundwater pumping. Therefore, the proposed project would have a **less than significant** impact on groundwater supplies and resources. No mitigation is required.

Impact 3.8.5: Implementation of the project may expose people or structures at risk as a result of dam failure (Less than Significant)

As shown in Figure 3.8-2, the project site is located within the inundation risk area for San Luis Reservoir and New Melones Dam. The safety of dams in California is stringently monitored by the California Department of Water Resources, Division of Safety of Dams. In the unlikely event of a dam failure, there is the potential that the project site could become inundated with water. However, there are no residences proposed within the project site that would place people or residential structures at risk of dam failure. As described above, the project site is located within the 100-year flood zone, and mitigation measures have been included in the Draft EIR that would ensure that the elevations of all on-site building pads are elevated above flood levels. The Tracy General Plan EIR (2006) concluded that the risk associated with dam failure within the planning area was less than significant. Implementation of the proposed project would not increase the risk of exposure to dam failure, place new residences within a dam failure inundation zone, nor would it expose people to significant risk of dam failure. This is a **less than significant** impact and no mitigation is required.

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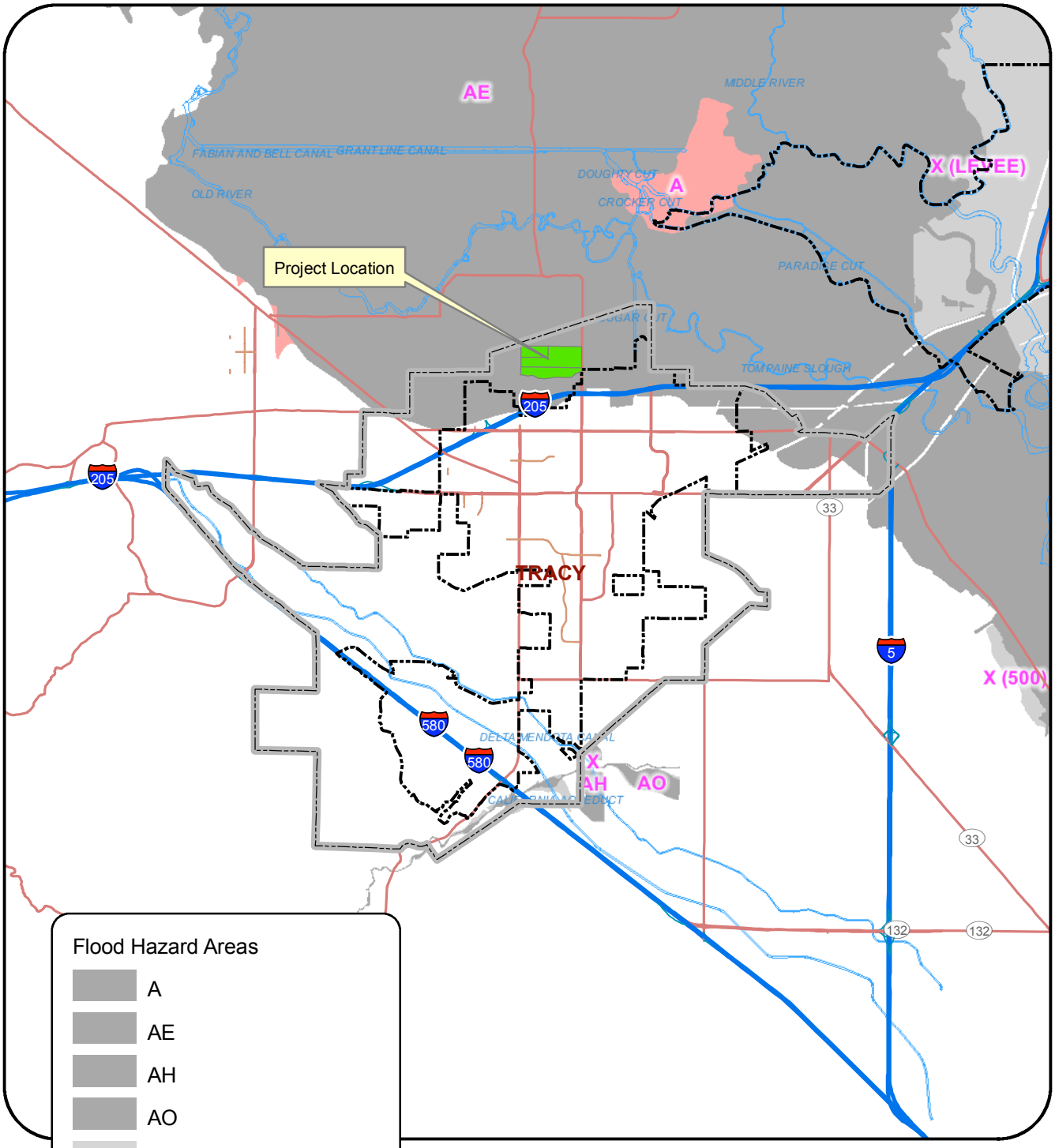

Flood Hazard Areas

- A
- AE
- AH
- AO
- X (500)
- X (LEVEE)
- X
- New Zone A Flood Areas
- Sphere of Influence
- City of Tracy

Fig. 3.8-1
City of Tracy 100-Year Flood Plain Map

N
W E
S

0 2.5 5 10 15 Miles

Flood zone information provided by United States Department of Homeland Security, Federal Emergency Managment Agency, and is made available by the San Joaquin County Department of Public Works.

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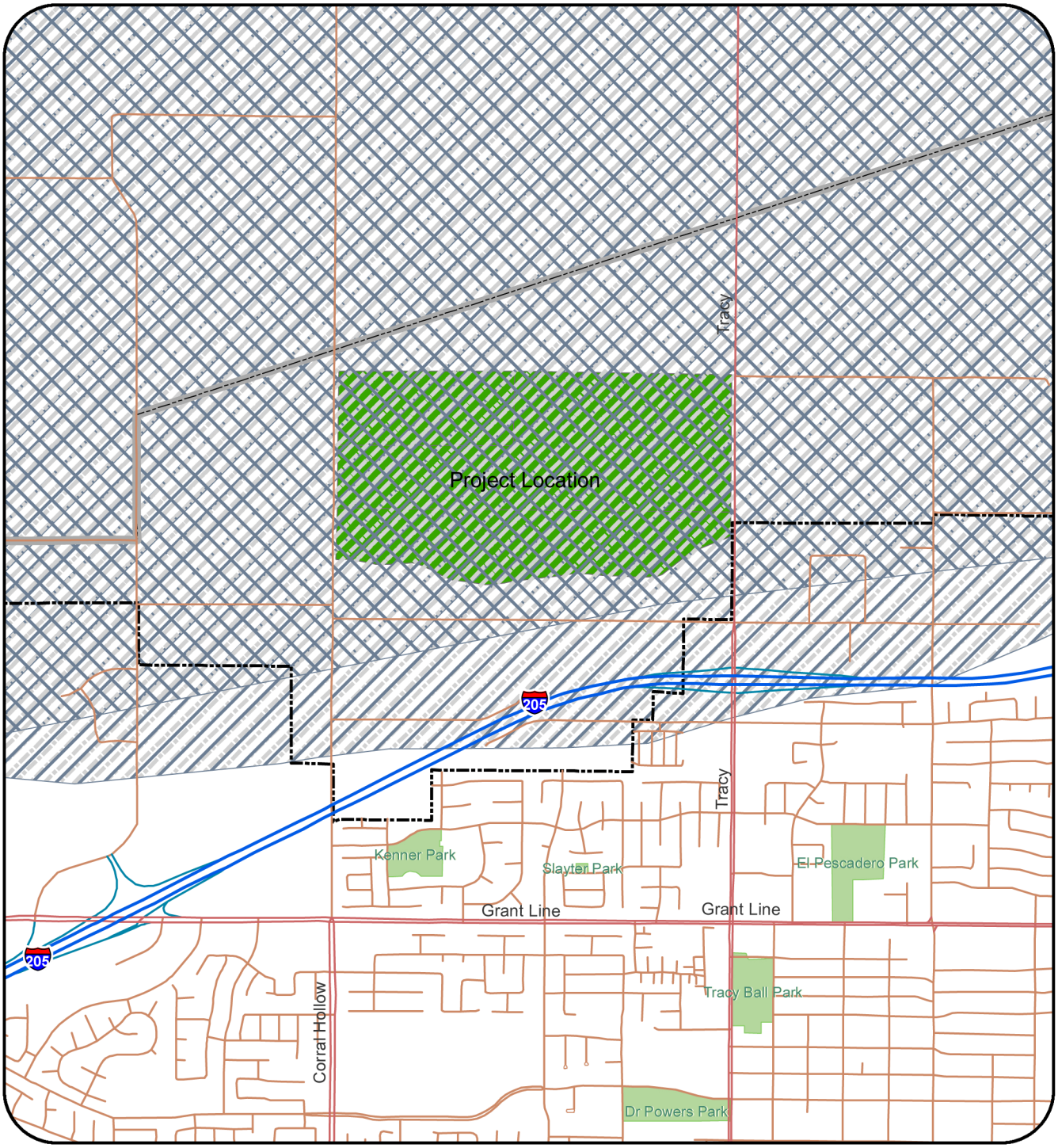

Fig. 3.8-3
Dam Inundation Areas

New Melones Dam Inundation Area
San Luis Reservoir Inundation Area
City of Tracy
Sphere of Influence

N
W
E
S

0 0.5 1 2 3 4 Miles

Dam Inundation information from the
California Governor's Office of Emergency Services
Version - DVD2, November 2007

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The purpose of this EIR section is to identify the existing land use conditions on the Holly Sugar Project site and the surrounding areas, analyze the project's compatibility with existing land uses and consistency with relevant planning policies, and recommend mitigation measures to avoid or minimize the significance of potential impacts.

Information in this section is based on site surveys conducted by De Novo Planning Group in 2009. De Novo Planning Group also utilized ground and aerial photographs for the onsite and surrounding land use analysis, as well as the City of Tracy General Plan (General Plan) (Adopted July 2006), the City of Tracy General Plan EIR (July 2006), and San Joaquin Local Agency Formation Commission (LAFCO) Annexation Policies and Procedures.

3.9.1 ENVIRONMENTAL SETTING

PROJECT SITE

The 298-acre project site is located within the City of Tracy Sphere of Influence (SOI), north of the City limits. The project site is bordered by Corral Hollow Road to the west, Tracy Boulevard to the East, agricultural lands to the north, and rural residences, which are accessed primarily from Larch Road, to the south.

The project site is designated as Agricultural (AG) land by both the City of Tracy General Plan Land Use Designations Map and the San Joaquin County General Plan Land Use Designations Map. The County zoning designation for the project site is Agriculture (AG-40). The project site does not have an assigned zoning designation from the City of Tracy, as the project site is currently located outside of the City limits. The project site is owned by the City of Tracy.

The project site is currently undeveloped and is used for agricultural purposes. There are several irrigation canals that traverse the project site which are currently used to convey non-potable water to the site and the surrounding properties. Currently, the site is farmed. Alfalfa is being grown on the site to naturalize the soils. Irrigation for this agricultural operation is pumped from Tom Paine Slough and then flows on and through the site via drainage ditches.

The western portion of the project site is traversed by PG&E power transmission lines with towers, and a 12-inch diameter underground gas pipeline. The project site is essentially flat, and is void of native vegetation, landscaping, and trees. There are no homes or buildings located on the project site.

SURROUNDING LAND USES

The City of Tracy General Plan land use designations for the project site and the surrounding area are shown in Figure 3.9-1. As shown in Figure 3.9-1, land to the north and east of the project site are designated as Agricultural. Land to the south of the project site is designated as Commercial, however, these parcels have been previously developed with rural residences. Land to the west of

the site is designated as Residential-Very Low and is currently developed with rural residences. Industrial designated lands are located to the southeast of the project site.

3.9.2 REGULATORY SETTING

CITY OF TRACY GENERAL PLAN

The General Plan is a long-range "blueprint" for the City of Tracy. It defines the framework by which the City's physical and economic resources are to be managed and used in the future. The General Plan is a comprehensive document that includes seven mandatory elements in accordance with State law. These elements are Land Use, Circulation, Noise, Safety, Conservation and Open Space, and Housing. The City of Tracy adopted a new General Plan in July 2006. In addition to the seven mandatory elements, the General Plan includes the following elements: Community Character, Economic Development, Public Facilities and Services, and Air Quality.

Sphere of Influence (SOI) and Planning Area

The General Plan identifies a Sphere of Influence (SOI) and Planning Area. The SOI is the area that lies outside the Tracy City limits that the City expects to annex, grow into, and provide urban services to in the future. The Local Agency Formation Commission (LAFCO) of the County determines the City's SOI at the request of the City. The Tracy Planning Area is the portion of county land outside the City's SOI where development could have an impact on the City's planning efforts. Tracy's Planning Area is larger than its SOI, as it extends well beyond the area that the City expects to grow into in the future. San Joaquin County is responsible for assigning land use designations to parcels that are outside of Tracy's SOI, but are inside of the City's Planning Area.

Land Use Element

The Land Use Element is part of the General Plan and provides policy direction for each land use designation, and also provides overall land use policies for the City. According to the General Plan, the purpose of the Land Use Element is to: *shape the future physical development of the City of Tracy and to preserve, protect, and enhance Tracy's current quality of life*. The Land Use Element sets forth specific goals, objectives, policies, and actions to guide land use for the City of Tracy and the Sphere of Influence.

As described above, the project site is currently designated as Agriculture (Ag) by the City of Tracy General Plan Land Use Map. Land use designations for the project site and surrounding lands are described below.

PROJECT SITE

Agriculture

Lands designated Agriculture are not anticipated for any use other than agriculture during the life of the General Plan. Allowable land uses within this general agricultural designation include livestock ranges, animal husbandry, field crops, tree crops, nurseries, greenhouses, agricultural

related residences and structures, public parks and recreational areas, farm employee residences and agricultural offices. Application of treated effluent is also allowed on land with this designation.

ADJACENT SITES

Agriculture

See previous description.

Residential Very Low (RVL)

Single-family dwelling units are the principal type of housing stock allowed in this area. Attached units, zero lot line and clustered housing are also permissible and are encouraged within the overall framework of each community. These housing types can help to meet the City's desire to create unique neighborhoods and enhance the character of the community. Allowable densities are from 0.1 to 2.0 dwelling units per gross acre in the Residential Very Low designation.

Commercial (C)

The Commercial designation allows for a relatively wide range of uses but focuses primarily on retail and consumer service activities that meet the needs of Tracy residents and employees as well as passthrough travelers. Office uses are allowed in commercially designated areas. Appropriately scaled and designed residential development in the density ranges permitted in Residential High (RH) may be allowed. Regardless of configuration, there should be an attempt in both locational criteria and design criteria to be as accessible and appealing to the pedestrian as possible to encourage walking and biking. Commercially designated land may have a maximum FAR of 1.0. Specific categories of commercial activity within this designation include general commercial, regional commercial and highway commercial.

Industrial (I)

Specific uses allowed in the industrial category range from flex/office space to manufacturing to warehousing and distribution. Industrial parcels should have a maximum FAR of 0.5. Ancillary uses, such as restaurants and consumer services, may be allowed to serve the daily needs of the workers. Industrial uses are located to provide proper truck access, buffering from incompatible uses and proximity with rail corridors and transit links.

PARKS

This designation provides for current and future locations for public parks of all sizes in the City. Examples of specific land uses that are appropriate within this designation include active playing fields, parks and recreation facilities, urban parks and plazas, bicycle and walking trails, fountains, landscaped areas and corridors, natural open space and wildlife areas, and water recharge and detention facilities (that are also used as public parks when they are not flooded). Park facilities and open space are also allowed in areas with Public Facilities and Residential designations.

The location of park uses within these other designations occurs only after specific site design when additional entitlements are required to support the larger project aims and to begin

development. However, it is expected that all residential neighborhoods will be located within ¼- to ½-mile walking distance to one or more parks.

AREAS OF SPECIAL CONSIDERATION

In addition to land use designations and goals, objectives, policies and actions, the General Plan identifies numerous Areas of Special Consideration. These are specific areas of the city where more detailed design and development guidance shall be applied. The Holly Sugar site is an Area of Special Consideration as shown in Figure 2-4 of the General Plan.

Holly Sugar Agricultural Area

The Holly Sugar site was purchased by the City in 2003 and consists of approximately 1,200 acres. The site was purchased for the land application of treated effluent, effluent cooling, and public facility uses. The General Plan identifies the following uses as being appropriate for this Area of Special Consideration

- Activities related to the application of treated effluent are allowed on this parcel.
- Farming is allowed on the site.
- The portion of the site with existing structures may be used for public facilities uses such as service yards.
- The City shall consider using part of this site as a publicly accessible open space area, as long as public access does not negatively affect adjacent properties, such as levees that support farming operations.
- This site shall not be developed with commercial or residential uses.

POLICIES RELEVANT TO THE PROPOSED PROJECT

The Land Use Element contains many goals, objectives, policies, and actions related to the balanced and orderly pattern of growth, the maintenance of the small-town character, and the planned growth within the SOI that apply to the proposed Holly Sugar Sports Park. The following are the most relevant of these policies:

Objective-LU 1.3

Policy P3. Schools and parks should have full frontage on at least two streets.

Community Character Element

The Community Character Element is part of the General Plan and expands on the Land Use Element by providing policy direction for the type, location, and character for new and existing developments. According to the General Plan, the purpose of the Community Character Element is to: *preserve and enhance Tracy's "hometown feel" and to incorporate that feel in new growth and development*. The Community Character Element includes principals, goals, objectives, policies,

actions, and concepts to maintain and enhance the City of Tracy's unique character as it relates to both the physical design of the City and quality of life.

POLICIES RELEVANT TO THE PROPOSED PROJECT

The Community Character Element contains many goals, objectives, policies, and actions related to the balanced and orderly pattern of growth, the maintenance of the small-town character, and the planned growth within the SOI that apply to the proposed Holly Sugar Sports Park. The following are the most relevant of these policies:

Objective CC-1.1

Policy P4. Lighting on private and public property should be designed to provide safe and adequate lighting, while minimizing light spillage to adjacent properties.

Objective CC-4.1

Policy P3. To the extent feasible, the City shall use land use designations and open space preservation techniques to create a soft edge to the city. A variety of techniques can be used to create the soft or hard edges to the City including the following:

o Buffer Zone. Soft edges can be created with buffer zones such as natural open space, large setbacks and landscaped areas, as a means to separate urban from rural uses. Buffer areas shall be planted and maintained by the property owner, tenants or homeowners association and may include passive and active recreation areas such as picnic areas, bridle, and walking trails. Golf course development may also be an option in areas where a soft edge is desired.

o Cluster Development. Clustered development is a method of site planning in which structures are clustered on a given site in the interest of preserving open space or creating a buffer. Areas with clustered development typically have low gross residential densities and high minimum open space requirements to encourage the clustering of structures.

o Feathering of Density. A gradual reduction in residential density can be used to establish a smooth transition between urban and rural uses.

Policy P5. The City shall encourage the location of new parks around the edge of the SOI to help create and support a soft edge to the city.

Open Space and Conservation Element

The purpose of the Open Space and Conservation Element is to ensure the comprehensive and long-range preservation and management of open space lands in and around the City for the protection of natural resources, for economic uses, for outdoor recreation and as a scenic resource. The Open Space and Conservation Element seeks to maintain the City of Tracy's character and economic stability by encouraging the preservation of viable agricultural lands,

natural habitats for endangered and threatened species and mineral resources and improving the quality of life for residents by providing recreational opportunities throughout the City.

POLICIES RELEVANT TO THE PROPOSED PROJECT

The Open Space and Conservation Element contains many goals, objectives, policies, and actions related to the long-range preservation and management of open space lands in and around the City that apply to the proposed Holly Sugar Sports Park. The following are the most relevant of these policies:

Objective OSC-2.2

Policy P1. Development projects shall have buffer zones, such as roads, setbacks and other physical boundaries, between agricultural uses and urban development. These buffer zones shall be of sufficient size to protect the agriculture operations from the impacts of incompatible development and shall be established based on the proposed land use, site conditions and anticipated agricultural practices. Buffers shall be located on the land where the use is being changed, and shall not become the maintenance responsibility of the City.

Policy P2. Land uses allowed near agricultural operations should be limited to those not negatively impacted by dust, noise and odors.

Policy P3. The City shall review, maintain and update, as necessary, its Right-to-Farm Ordinance.

Objective OSC-4.1

Policy P1. To the extent feasible, the City's park system shall include the following types of parks:

- Mini-Parks
    - Definition – Small sized parks that provide recreation activities for a specific neighborhood.
    - Service Area – 1/2 mile radius
    - Size – Typically 1 to 5 acres (no smaller than 1 acre)
- Neighborhood Parks
    - Definition – Medium sized parks that provide basic recreational activities for one or more neighborhoods. Typical neighborhood park facilities may be included as a portion of a larger community park.
    - Service Area – 1/2 to 3/4 mile radius
    - Size – Typically 5 to 15 acres
- Community Parks

  - Definition – Large parks that include a mix of passive and active recreation areas that serve the entire city or a large portion of the City. A community park should include, but not be limited to, the facilities that are typically found at neighborhood and mini parks as well as specialized facilities such as amphitheaters and skate parks.
  - Service Area – Minimum 2 mile radius
  - Size – Generally 15 acres or larger

- Regional Parks
  - Definition – A large park that serves the open space and recreation needs for all users of the City and the Planning Area. Regional parks contain active and passive recreation areas and may also include natural open space.
  - Service Area – Entire city
  - Size – Greater than 50 acres

Policy P2. The City shall provide a diversity of passive and active recreational amenities that are geographically distributed throughout the City.

Policy P3. The City of Tracy shall continue to expand recreational facilities such as athletic fields and build new recreational facilities, such as swimming pools, skate parks and recreation centers.

Policy P4. The City should provide non-traditional features in parks to address specialized needs and interests. Non-traditional features, which include activities that appeal to a smaller segment of the community, should be determined on a neighborhood- or community-wide basis. Examples of non-traditional features include bocce ball courts and cricket fields, whereas traditional features include baseball fields and picnic tables.

Policy P7. Additional or expanded parks in already developed areas shall be encouraged.

Policy P8. The City shall create a system of recreational corridors, such as linear parks and bike and pedestrian trails, that link key destinations in the City including parks and recreational facilities, the Downtown, the multimodal transit station, Village Centers and the ACE train station.

Policy P9. The City shall seek opportunities to expand existing parks or build new parks in already developed areas of the City.

Policy P10. The City of Tracy shall pursue joint planning, design and operation of parks with other public facilities, such as schools.

SAN JOAQUIN LOCAL AGENCY FORMATION COMMISSION

The San Joaquin Local Agency Formation Commission (LAFCO) is a state-mandated local agency responsible for: the oversight of boundary changes to cities and special districts; the formation of new agencies, including incorporation of new cities; and the consolidation of existing agencies. The broad goals of LAFCO are to ensure the orderly formation of local government agencies, to preserve agricultural and open space lands, and to discourage urban sprawl.

Annexation Policies and Procedures

LAFCo uses the following standards to govern annexations:

Spheres and Municipal Service Reviews: The annexation must be consistent with the internal planning horizon of the SOI and shall normally lie within the first planning increment boundary. The MSR and SOI Plan must demonstrate that adequate services can be provided.

If the annexation involves land outside the first planning horizon, a SOI amendment must be approved prior to the annexation proposal. An exception may occur with Master Plan and Specific Plan developments where annexation of the entire project area is desirable to comprehensively plan and finance infrastructure.

Plan for Services: Every proposal must include a plan for services consistent with Section 56653 of Government code and the Municipal Services Review demonstrating that the need for services can be met.

Contiguity: Territory proposed to be annexed must be contiguous to the annexing city or district unless specifically allowed by statute. Territory is not contiguous if the only connection is a strip of land more than 300 feet long and less than 200 wide, that width to be exclusive of highways. A proposed annexation must not result in areas that are difficult to serve.

Development Within Jurisdiction: Development of vacant or non-prime agricultural lands within the existing City or SOI is encouraged before approval of any proposal which would lead to development outside the SOI of existing open space lands for non-open space uses.

Progressive Urban Pattern: Annexations shall be progressive steps toward filling in the territory designated by the SOI with growth from inner toward outer areas.

Piecemeal Annexation Prohibited: Annexations must be consistent with the schedule for annexation that is contained in the agency's Sphere of Influence Plan. LAFCo will modify small piece-meal or irregular annexations, to include additional territory in order to promote orderly annexation and logical boundaries, while maintaining a viable proposal. In such cases, detailed development plans may not be required for those additional areas but compliance with CEQA is required.

Service Requirements: An annexation shall not be approved merely to facilitate the delivery of one or a few services to the determent of the delivery of a larger number of services or service more basic to public health and welfare.

Adverse Impact of Annexation on the Other Agencies: LAFCo will consider any significant adverse effects upon other service recipients or other agencies serving the area and may condition any approval to mitigate such impacts.

Annexations that Create Islands: An annexation must not result in the creation of an island of unincorporated territory or otherwise distort existing boundaries. LAFCO may approve such an annexation if the application of this policy would be detrimental to the orderly development of the community and a reasonable effort has been made to include the island in the annexation but that inclusion is not feasible.

Substantially Surrounded: The subject territory of an annexation proposal shall be deemed "substantially surrounded" if it is within the sphere of influence of the affected city and two-thirds (66-2/3%) of its boundary is surrounded by the affected city.

Definite and Certain Boundaries: All boundaries shall be definite and certain and conform to lines of assessment or ownership.

CITY ANNEXATIONS

Annexation of Streets: Annexations shall reflect the logical allocation of streets and rights of way so that a city provides adequate roads to the property to be annexed.

Pre-zoning Required: The city shall pre-zone territory to be annexed and subsequent changes to the General Plan and /or pre- zoning designations are prohibited for a period of two years after completion of the annexation, unless the city council makes a finding at a public hearing consistent with the provisions of Governments Code Section 56375(e).

SAN JOAQUIN COUNTY GENERAL PLAN

The San Joaquin County General Plan, adopted in July 1992, includes policies addressing community development and land use. The Holly Sugar Sports Park site is currently located within San Joaquin County. This EIR analyzes the project's consistency with the City of Tracy General Plan, pursuant to CEQA Guidelines Section 15125 (d). Environmental impacts associated with inconsistency with General Plan policies are addressed under the impact discussions of this Draft EIR.

Implementation of the Holly Sugar Sports Park project is conditioned on the project site being annexed into the City of Tracy. Once that occurs, the County of San Joaquin General Plan would no longer govern the Specific Plan site.

The City of Tracy will be initiating proceedings by petition with the San Joaquin County Local Agency Formation Commission (LAFCO) for the reorganization of the City of Tracy's boundary and

service districts to include the Holly Sugar Sports Park site, which is currently in the City's Sphere of Influence (SOI). The proposed reorganization consists of annexation of territory to the City of Tracy and detachment of the same territory from San Joaquin County.

As a condition to annexation, LAFCO requires that a city prezone the subject area. The prezoning process must comply with California Environmental Quality Act (CEQA) and follow the same procedures as a change in zone. Therefore, this EIR must be certified by the City Council prior to the City initiating proceedings for reorganization of the City's boundary and affected districts.

SAN JOAQUIN COUNTY MULTI-SPECIES HABITAT CONSERVATION AND OPEN SPACE PLAN

The Holly Sugar Sports Park project site is located within the jurisdiction of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan ("Plan" or "SJMSCP") and is located within the Central/Southwest Transition Zone of the SJMSCP. The San Joaquin Council of Governments (SJCOG) prepared the Plan pursuant to a Memorandum of Understanding adopted by SJCOG, San Joaquin County, the United States Fish and Wildlife Service (USFWS), the California Department of Fish and Game (CDFG), Caltrans, and the cities of Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy in October 1994. On February 27, 2001, the Plan was unanimously adopted in its entirety by SJCOG. The City of Tracy adopted the Plan on November 6, 2001.

According to Chapter 1 of the SJMSCP, its key purpose is to "provide a strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses, while protecting the region's agricultural economy; preserving landowner property rights; providing for the long-term management of plant, fish and wildlife species, especially those that are currently listed, or may be listed in the future, under the Federal Endangered Species Act (ESA) or the California Endangered Species Act (CESA); providing and maintaining multiple use Open Spaces which contribute to the quality of life of the residents of San Joaquin County; and, accommodating a growing population while minimizing costs to project proponents and society at large."

In addition, the goals and principles of the SJMSCP include the following:

- Provide a County-wide strategy for balancing the need to conserve open space and the need to convert open space to non-open space uses, while protecting the region's agricultural economy.
- Preserve landowner property rights.
- Provide for the long-term management of plant, fish, and wildlife species, especially those that are currently listed, or may be listed in the future, under the ESA or the CESA.
- Provide and maintain multiple-use open spaces, which contribute to the quality of life of the residents of San Joaquin County.

- Accommodate a growing population while minimizing costs to project proponents and society at large.

In addition to providing compensation for conversion of open space to non open space uses, which affect plant and animal species covered by the SJMSCP, the SJMSCP also provides some compensation to offset impacts of open space conversions on non-wildlife related resources such as recreation, agriculture, scenic values and other beneficial open space uses. Specifically, the SJMSCP compensates for conversions of open space to urban development and the expansion of existing urban boundaries, among other activities, for public and private activities throughout the County and within Escalon, Lathrop, Lodi, Manteca, Ripon, Stockton, and Tracy.

Participation in the SJMSCP is voluntary for both local jurisdictions and project applicants. Only agencies adopting the SJMSCP would be covered by the SJMSCP. Individual project applicants have two options if their project is located in a jurisdiction participating in the SJMSCP: mitigating under the SJMSCP or negotiating directly with the state and/or federal permitting agencies. If a project applicant opts for SJMSCP coverage in a jurisdiction that is participating under the SJMSCP, the following options are available, unless their activities are otherwise exempted: pay the appropriate fee; dedicate, as conservation easements or fee title, habitat lands; purchase approved mitigation bank credits; or, propose an alternative mitigation plan.

Responsibilities of permittees covered by the SJMSCP include, collection of fees, maintenance of implementing ordinances/resolutions, conditioning permits (if applicable), and coordinating with the Joint Powers Authority (JPA) for Annual Report accounting. Funds collected for the SJMSCP are to be used for the following: acquiring Preserve lands, enhancing Preserve lands, monitoring and management of Preserve lands in perpetuity, and the administration of the SJMSCP. Because the primary goal of SJMSCP to preserve productive agricultural use that is compatible with SJMSCP's biological goals, most of the SJMSCP's Preserve lands would be acquired through the purchase of easements in which landowners retain ownership of the land and continue to farm the land. These functions are managed by San Joaquin Council of Governments (SJCOG).

3.9.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on land use and planning and population and housing if it will:

- Physically divide an established community;
- Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect; and/or
- Conflict with any applicable habitat conservation plan or natural community conservation plan.

The Initial Study/Notice of Preparation prepared for this project determined that implementation of the proposed project would not result in the physical division of an established community. Therefore, this item will not be addressed further in this Draft EIR.

IMPACTS AND MITIGATION MEASURES

Impact 3.9-1: Implementation of the proposed project may conflict with and applicable land use plan, policy, or regulation adopted to avoid or mitigate an environmental effect (Less than Significant)

PROJECT CONSISTENCY WITH THE CITY OF TRACY GENERAL PLAN AND ZONING CODE

Implementation of the proposed Holly Sugar Sports Park project would require annexation of the project site into the City of Tracy, a General Plan Amendment (GPA) to designate the site as Parks (P), a zoning ordinance amendment to create a Park (P) zone district, and prezoning of the project site to Park (P) to accommodate the proposed park uses. As stated in the Regulatory Setting section above, the first action that the City of Tracy will take with respect to consideration of the proposed project would be to annex the site into the City limits, approve the GPA and prezone the site to Park (P). Prior to any land use changes, the project site would be under the City's jurisdiction. Therefore, the proposed project is not reviewed for consistency with the policies and objectives of the San Joaquin County General Plan.

The General Plan Amendment would redesignate the project site from Agriculture to Park. The City of Tracy General Plan Land Use Element states that sites that are designated as Park provide for current and future locations for public parks of all sizes in the City. Examples of specific land uses that are appropriate within this designation include active playing fields, parks and recreation facilities, urban parks and plazas, bicycle and walking trails, fountains, landscaped areas and corridors, natural open space and wildlife areas, and water recharge and detention facilities (that are also used as public parks when they are not flooded). All of the proposed uses at the Holly Sugar Sports Park site, which are described in detail in Section 2.0, Project Description, and the proposed Park zoning are consistent with the General Plan's intent for land uses within the land use designation.

The City's General Plan designates the project site as an Area of Special Interest and identifies allowed uses for the site which include farming, public facilities such as service yards in the portion of the site with existing structures, and publicly accessible open space as long as adjacent properties are not negatively affected. The proposed sports park facility would be a more intensive use than that envisioned for the project site in the General Plan, as it would not limit uses to passive open space and would include active sports facilities on the portion of the project site that does not contain any structures. However, the project would be consistent with the overall intent of the General Plan to provide a "soft edge" to the City.

Policy 3 under Objective CC-4.1 of the General Plan Community Character Element states that: *To the extent feasible, the City shall use land use designations and open space preservation techniques to create a soft edge to the city.* Upon annexation to the City, the Holly Sugar Sports Park site will constitute the northern boundary of the City limits. Use of the site as a regional park will comply with this policy in that it will provide additional separation between the rural residences currently located to the south of the site, and the existing agricultural operations located to the north of the project site. Additionally, in order to ensure that any land use conflicts between the proposed project and the existing rural residences to the south of the site are minimized, that Holly Sugar Sport Park has been designed to include a passive recreation area along the entire southern boundary of the project site. This passive recreation area will receive considerably less use than the active sports park site and the future expansion area, which will result in few people recreating in the vicinity of the existing rural residences to the south of the project site.

Additionally, the proposed project is consistent with the policies listed under Objective OSC-4.1 in the Open Space and Conservation Element of the General Plan in that it would provide for the implementation of the following policies under this objective:

P2. The City shall provide a diversity of passive and active recreational amenities that are geographically distributed throughout the City.

P3. The City of Tracy shall continue to expand recreational facilities such as athletic fields and build new recreational facilities, such as swimming pools, skate parks and recreation centers.

P4. The City should provide non-traditional features in parks to address specialized needs and interests. Non-traditional features, which include activities that appeal to a smaller segment of the community, should be determined on a neighborhood- or community-wide basis. Examples of non-traditional features include bocce ball courts and cricket fields, whereas traditional features include baseball fields and picnic tables.

The change in land use of the site from agricultural uses to park uses would result in potential adverse impacts related to traffic, noise, water quality, biological resources, drainage and water quality, air quality, hazards, geology/soils, and cultural resources, which are evaluated in the appropriate chapters of this EIR. Conversion of the project site from Agriculture to Parks use and consistency with the Areas of Special Interest requirements are policy decisions that will be determined by the City Council.

Upon approval of the proposed GPA to Parks (P) and prezoning of the site to Park, the proposed project will be consistent with the City of Tracy General Plan. This is considered a **less than significant** impact and no mitigation is required.

PROJECT CONSISTENCY WITH LAFCO ANNEXATION POLICIES

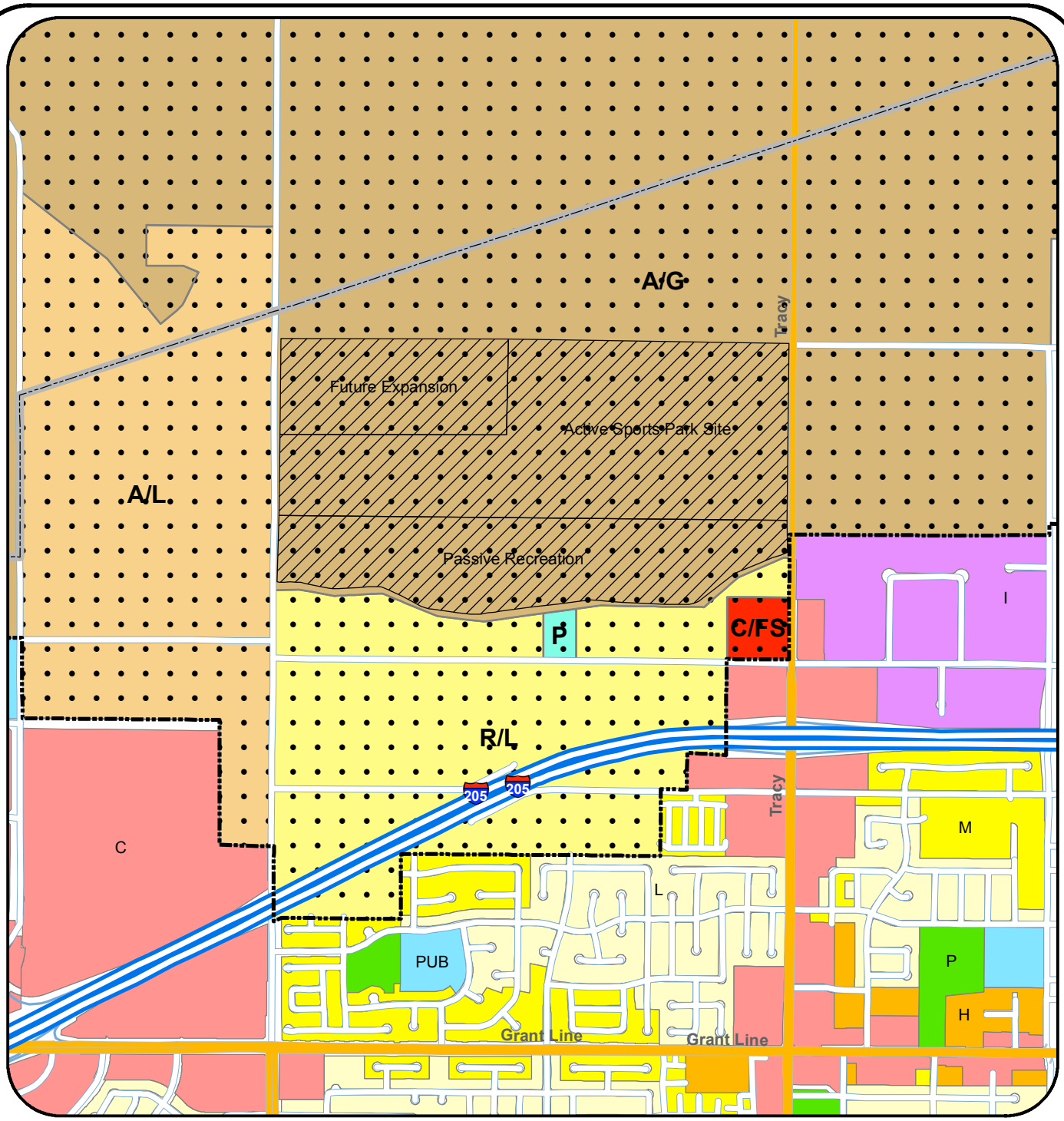
As described above, the City of Tracy is proposing to annex the Holly Sugar Sports Park site into the City limits. The potential environmental impacts of this proposed annexation are addressed throughout this Draft EIR. Prior to approving an annexation, LAFCO requires the preparation and

submittal of a Plan for Services that addresses the requirements of Section 56653 of the Government Code. The City of Tracy will prepare and submit the Plan for Services prior to LAFCO consideration of the annexation application. As described in Section 3.11- Public Services, the provision of police, fire, and emergency services to the project site would not result in significant environmental impacts, nor would it result in significantly decreased service levels for these services. As described in Section 3.13- Utilities, there are adequate water, wastewater and stormwater infrastructure services available to adequately serve the project and the provision of these services would not result in adverse environmental impacts. The proposed annexation is consistent with the LAFCO annexation policies and requirements, which are described under the Regulatory Setting section above. The project site has over 200 feet of contiguous border with the existing City limits, and the proposed annexation would not result in the creation of an "island". City staff has met with LAFCO to discuss the proposed annexation, and LAFCO staff has indicated that the proposed annexation is consistent with LAFCO policies regulating annexations. The project site is within the City's SOI and constitutes a logical boundary expansion. Annexation of the project site would not result in adverse environmental impacts, and this impact is considered **less than significant**.

Impact 3.9-2: Implementation of the proposed project may conflict with an applicable habitat conservation plan or natural community conservation plan (Less than Significant)

As described in greater detail under Impact 3.4-10 in Section 3.4- Biological Resources, the proposed project is subject to the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP). The proposed project is an annexation of land into an existing incorporated city limits and is located immediately adjacent to the boundaries of the defined community, which falls into the category of "Unmapped Land Use Project" under the SJMSCP. Projects in this category are subject to a case-by-case review by a Technical Advisory Committee (TAC) to ensure that the biological impacts of the proposed project are within the parameters established by the SJMSCP and the Biological Opinion.

"Unmapped Land Use Projects" that seek coverage under the SJMSCP are required to complete the "*Section 8.2.1(10) Checklist for Unmapped SJMSCP Projects*" with supporting documentation for SJCOG to review and confirm that the proposed project is consistent with the SJMSCP and the Biological Opinion. If the TAC confirms that the proposed project is consistent with the SJMSCP, they will recommend to the Joint Powers Authority that the project receive coverage under the SJMSCP. In March 2009, the City of Tracy submitted a Biological Assessment and SJMSCP Coverage Application to the San Joaquin Council of Governments (SJCOG) to include the project site in the SJMSCP. On July 23, 2009, SJCOG approved the SJMSCP Coverage Application by Minute Resolution Number 09-01, which brings the proposed project into consistency with the SJMSCP. Therefore, the project would not conflict with an applicable habitat conservation plan, and this impact is **less than significant**. Mitigation measures to reduce any potential impacts to biological resources are included in Section 3.4 of this Draft EIR. No further mitigation is required.



Legend

- Holly Sugar Sports Park
- City of Tracy
- Sphere of Influence

County General Plan Land Use

- General Agriculture
- Limited Agriculture
- Freeway Commercial
- Public
- Low Density Residential

Tracy General Plan Land Use

- Agriculture
- Commercial
- Industrial
- High Density Residential
- Medium Density Residential
- Low Density Residential
- Park
- Public Facilities

Data Sources:
County General Plan data from San Joaquin County, sjcmap.org
City General Plan Data from City of Tracy, I.S. Department
Street data from ESRI StreetMap North America

Figure 3.9-1. General Plan Designations

N
W E
S

0 0.125 0.25 0.5 0.75 Miles

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

June 9, 2009

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This EIR section describes the existing noise environment in the project vicinity and identifies potential noise impacts associated with the proposed project. Project impacts are evaluated relative to applicable noise level criteria and to the existing ambient noise environment. Mitigation measures have been identified for significant noise-related impacts. The information in this section was derived from the Noise Impact Assessment for the Holly Sugar Sports Park (Ambient, June 2009), which is attached as Appendix G.

3.10.1 ACOUSTIC FUNDAMENTALS

Noise is generally defined as sound that is loud, disagreeable, or unexpected. Sound is mechanical energy transmitted in the form of a wave because of a disturbance or vibration. Sound levels are described in terms of both amplitude and frequency.

Amplitude

Amplitude is defined as the difference between ambient air pressure and the peak pressure of the sound wave. Amplitude is measured in decibels (dB) on a logarithmic scale. For example, a 65 dB source of sound, such as a truck, when joined by another 65 dB source results in a sound amplitude of 68 dB, not 130 dB (i.e., doubling the source strength increases the sound pressure by 3 dB). Amplitude is interpreted by the ear as corresponding to different degrees of loudness. Laboratory measurements correlate a 10 dB increase in amplitude with a perceived doubling of loudness and establish a 3 dB change in amplitude as the minimum audible difference perceptible to the average person.

Frequency

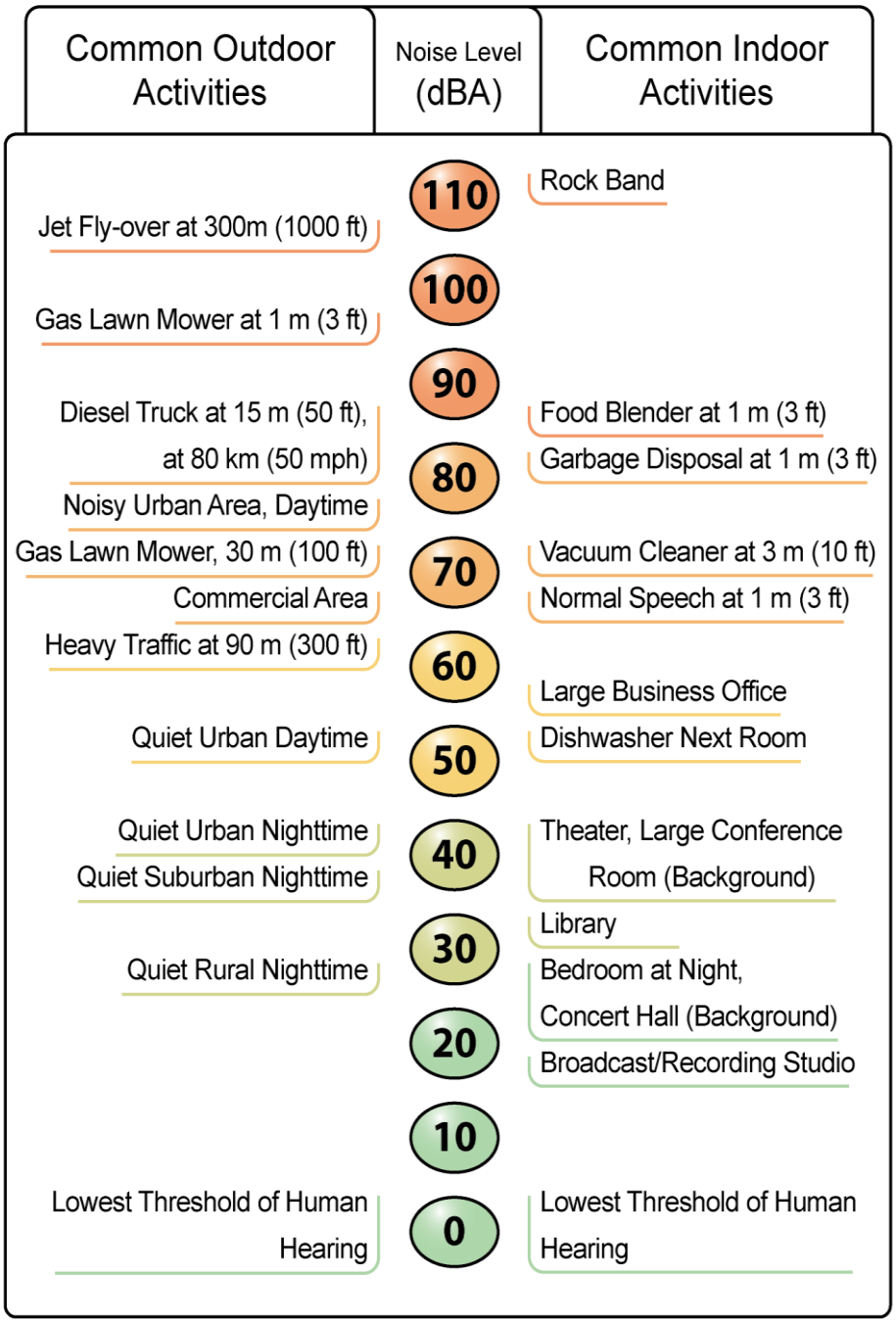
The frequency of a sound is defined as the number of fluctuations of the pressure wave per second. The unit of frequency is the Hertz (Hz). One Hz equals one cycle per second. The human ear is not equally sensitive to sound of different frequencies. For instance, the human ear is more sensitive to sound in the higher portion of this range than in the lower and sound waves below 16 Hz or above 20,000 Hz cannot be heard at all. To approximate the sensitivity of the human ear to changes in frequency, environmental sound is usually measured in what is referred to as "A-weighted decibels" (dBA). On this scale, the normal range of human hearing extends from about 10 dBA to about 140 dBA. Common community noise sources and associated noise levels, in dBA, are depicted in Exhibit 3.10-1.

Addition of Decibels

Because decibels are logarithmic units, sound levels cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3-dB increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dB higher than one source under the same conditions. For example, if one automobile produces a sound level of 70 dB when it passes an observer, two cars passing simultaneously would not produce 140 dB; rather, they

would combine to produce 73 dB. Under the decibel scale, three sources of equal loudness together would produce an increase of 5 dB.

Exhibit 3.10- 1 Common Noise Levels



SOURCE: CALTRANS 2009

Sound Propagation & Attenuation

GEOMETRIC SPREADING

Sound from a localized source (i.e., a point source) propagates uniformly outward in a spherical pattern. The sound level decreases (attenuates) at a rate of approximately 6 decibels for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path, and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 decibels for each doubling of distance from a line source, depending on ground surface characteristics. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water,), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between a line source and the receiver, such as soft dirt, grass, or scattered bushes and trees), an excess ground-attenuation value of 1.5 decibels per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation for soft surfaces results in an overall attenuation rate of 4.5 decibels per doubling of distance from a line source.

ATMOSPHERIC EFFECTS

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) from the highway due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

SHIELDING BY NATURAL OR HUMAN-MADE FEATURES

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Natural terrain features (e.g., hills and dense woods) and human-made features (e.g., buildings and walls) can substantially reduce noise levels. Walls are often constructed between a source and a receiver specifically to reduce noise. A barrier that breaks the line of sight between a source and a receiver will typically result in minimum 5 dB of noise reduction. Taller barriers provide increased noise reduction.

Noise Descriptors

The decibel scale alone does not adequately characterize how humans perceive noise. The dominant frequencies of a sound have a substantial effect on the human response to that sound. Although the intensity (energy per unit area) of the sound is a purely physical quantity, the loudness or human response is determined by the characteristics of the human ear.

Human hearing is limited in the range of audible frequencies as well as in the way it perceives the sound-pressure level in that range. In general, people are most sensitive to the frequency range of 1,000–8,000 Hz, and perceive sounds within that range better than sounds of the same amplitude in higher or lower frequencies. To approximate the response of the human ear, sound levels of individual frequency bands are weighted, depending on the human sensitivity to those frequencies, which is referred to as the "A-weighted" sound level (expressed in units of dBA). The A-weighting network approximates the frequency response of the average young ear when listening to most ordinary sounds. When people make judgments of the relative loudness or annoyance of a sound, their judgments correlate well with the A-weighted noise scale. Other weighting networks have been devised to address high noise levels or other special problems (e.g., B-, C-, and D-scales), but these scales are rarely used in conjunction with environmental noise.

The intensity of environmental noise fluctuates over time, and several descriptors of time-averaged noise levels are typically used. For the evaluation of environmental noise, the most commonly used descriptors are L_{eq}, L_{dn}, CNEL and SEL. The energy-equivalent noise level, L_{eq}, is a measure of the average energy content (intensity) of noise over any given period. Many communities use 24-hour descriptors of noise levels to regulate noise. The day-night average noise level, L_{dn}, is the 24-hour average of the noise intensity, with a 10-dBA "penalty" added for nighttime noise (10 p.m. to 7 a.m.) to account for the greater sensitivity to noise during this period. CNEL, the community equivalent noise level, is similar to L_{dn} but adds an additional 5-dBA penalty for evening noise (7 p.m. to 10 p.m.) Another descriptor that is commonly discussed is the single-event noise exposure level, also referred to as the sound-exposure level, expressed as SEL. The SEL describes a receiver's cumulative noise exposure from a single noise event, which is defined as an acoustical event of short duration (0.5 second), such as a backup beeper, the sound of an airplane traveling overhead, or a train whistle. Common noise level descriptors are summarized in Table 3.10-1.

Table 3.10-1 Common Acoustical Descriptors	
Descriptor	**Definition**
Energy Equivalent Noise Level (L_{eq})	The energy mean (average) noise level. The instantaneous noise levels during a specific period of time in dBA are converted to relative energy values. From the sum of the relative energy values, an average energy value (in dBA) is calculated.
Minimum Noise Level (L_{min})	The minimum instantaneous noise level during a specific period of time.
Maximum Noise Level (L_{max})	The maximum instantaneous noise level during a specific period of time.
Day-Night Average Noise Level (DNL or L_{dn})	The DNL was first recommended by the U.S. EPA in 1974 as a "simple, uniform and appropriate way" of measuring long term environmental noise. DNL takes into account both the frequency of occurrence and duration of all noise events during a 24-hour period with a 10 dBA "penalty" for noise events that occur between the more noise-sensitive hours of 10:00 p.m. and 7:00 a.m. In other words, 10 dBA is "added" to noise events that occur in the nighttime hours to account for increases sensitivity to noise during these hours.
Community Noise Equivalent Level (CNEL)	The CNEL is similar to the Ldn described above, but with an additional 5 dBA "penalty" added to noise events that occur between the hours of 7:00 p.m. to 10:00 p.m. The calculated CNEL is typically approximately 0.5 dBA higher than the calculated Ldn.
Single Event Level (SEL)	The level of sound accumulated over a given time interval or event. Technically, the sound exposure level is the level of the time-integrated mean square A-weighted sound for a stated time interval or event, with a reference time of one second.

Human Response to Noise

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

public well-being are the basis for land use planning policies preventing exposure to excessive community noise levels.

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

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

3.10.2 EXISTING SETTING

Sensitive Land Uses

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

Noise-sensitive land uses located near the project site consist predominantly of residential land uses. The nearest existing residential uses are located west of the project site, across Corral Hollow Road and south of the project site along Larch Road and N. Tracy Boulevard. In addition to residential land uses, various places of worship are also located south of the project site along Larch Road.

Ambient Noise Levels

To document the existing noise environment, ambient noise surveys were conducted by AMBIENT Air Quality & Noise Consulting at various locations in the project area. Short-term (10-minute)

noise measurements were conducted on March 16, 2009 using a Larson Davis model 820 sound-level meter placed at a height of approximately 5 feet above the ground surface. Based on the measurements conducted, ambient noise levels are predominantly influenced by vehicle traffic on area roadways. Measured average daytime noise levels (in dBA L_{eq}) in the project area generally range from the low 50's to mid 60's, dependent primarily on distance from area roadways. Average nighttime noise levels are typically approximately 5 to 10 dBA less than daytime noise levels. Intermittent noise levels in the project area associated with vehicle traffic on area roadways and can reach levels of approximately 80 dBA L_{max} along area roadway corridors. Measurement survey results are summarized in Table 3.10-2 and depicted in Figure 3.10-1.

Table 3.10-2
Ambient Daytime Noise Levels

	Monitoring Location	Monitoring Period	Noise Level (dBA)	
			L_{eq}	L_{max}
1	Tracy Boulevard at Sugar Road, Eastern Project Site Boundary 50 feet from near travel-lane centerline.	09:20-09:30	64.4	80.4
2	Larch Clover Community Park, Southern Project Site Boundary	09:55-10:05	51.9	56.1
3	Corral Hollow Road, Western Project Site Boundary. 50 feet from near travel-lane centerline.	10:30-10:40	60.6	78.2

Noise measurements were conducted on March 16, 2009 using a Larson Davis Laboratories Model 820 Type I integrating sound meter positioned at a height of approximately 5 feet above ground surface.

Roadway Traffic Noise

The dominant noise source in the project area is vehicular traffic on area roadways. Table 3.10-3 summarizes the existing traffic noise levels (in dBA CNEL/L_{dn}) for existing roadways located in the project area. Existing roadway traffic noise levels were calculated for weekday and Saturday operational conditions using the Federal Highway Administration (FHWA) roadway noise prediction model (FHWA-RD-77-108) based on California vehicle reference noise levels and traffic data obtained from the traffic analysis prepared for this project. Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths. As depicted in Table 3.10-3, predicted weekday noise levels (in dBA CNEL/L_{dn}) at approximately 50 feet from area roadways range from the mid to upper 60's. Existing traffic noise levels on Saturdays are slightly lower, approximately 1-3 dBA less, than weekday noise levels.

Table 3.10-3 Existing Traffic Noise Levels		
Roadway Segment	**Predicted Noise Level (dBA CNEL/L_{dn}) 50 ft from Centerline of Near Travel Lane**	
	Weekday	**Saturdays**
Corral Hollow Road, North of Larch Road	58.0	56.6
Corral Hollow Road, South of Larch Road	58.2	57.2
Larch Road, West of Corral Hollow Road	56.0	53.5
Larch Road, East of Corral Hollow Road	55.2	54.5
N. Tracy Boulevard, North of Larch Road	59.9	59.2
N. Tracy Boulevard, South of Larch Road	60.6	59.7
Larch Road, West of N. Tracy Boulevard	55.3	54.8
Larch Road, East of N. Tracy Boulevard	57.0	54.9
Traffic noise levels were predicted using the FHWA roadway noise prediction model based on traffic information obtained from the traffic analysis prepared for this project. Modeled traffic noise levels assume no natural or man-made shielding (e.g., vegetation, berms, walls, buildings).		

3.10.3 REGULATORY SETTING

STATE OF CALIFORNIA

California General Plan Guidelines

The State of California regulates vehicular and freeway noise affecting classrooms, sets standards for sound transmission and occupational noise control, and identifies noise insulation standards and airport noise/land-use compatibility criteria. The *State of California General Plan Guidelines* (State of California 1998), published by the Governor's Office of Planning and Research (OPR), also provides guidance for the acceptability of projects within specific CNEL contours. The guidelines also present adjustment factors that may be used in order to arrive at noise acceptability standards that reflect the noise control goals of the community, the particular community's sensitivity to noise, and the community's assessment of the relative importance of noise pollution.

CITY OF TRACY

City of Tracy General Plan

The Noise Element of the City of Tracy General Plan contains policies designed to protect the community from the harmful and annoying effects of exposure to excessive noise. The City's General Plan identifies maximum allowable noise standards for determination of land use

compatibility. Noise compatibility of proposed development is determined in comparison to these standards. The City's noise criteria for land use compatibility are summarized in Table 3.10-4.

As depicted in Table 3.10-4, the City's "normally acceptable" exterior noise standard for outdoor recreational land uses is 65 dBA L_{dn}. Outdoor recreational land uses are considered "conditionally acceptable" between 65 and 80 dBA L_{dn} and "unacceptable" at levels in excess of 80 dBA L_{dn} (City of Tracy 2006).

Table 3.10-4
City of Tracy
Land Use Compatibility Noise Standards

Land Use Category	Exterior Noise Exposure (Ldn)		
	Normally Acceptable	Conditionally Acceptable	Unacceptable
Single-Family Residential	<60	60-75	>75
Multi-Family Residential, Motels, Hotels	<65[(a)]	65-75	>75
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches	<60	60-75	>75
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds	<65	65-80	>80
Office Buildings, Business Commercial and Professional	<70	70-80	>80
Auditoriums, Concert Halls, Amphitheaters		<75	>75

Normally Acceptable
Specified land use is satisfactory based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.
Conditionally Acceptable
Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.
Unacceptable
New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

Source: City of Tracy 2006

General Plan Objective N-1.2: Control sources of excessive noise.

Policy P2. Mitigation measures shall be required for new development projects that exceed the following criteria:

- Cause the Ldn at noise-sensitive uses to increase by 3 dB or more and exceed the "normally acceptable" level;
- Cause the Ldn at noise-sensitive uses to increase 5 dB or more and remain "normally acceptable";
- Cause new noise levels to exceed the City of Tracy Noise Ordinance limits.

Policy P4. All construction in the vicinity of noise-sensitive land uses, such as residences, hospitals, or convalescent homes, shall be limited to daylight hours or 7:00 AM to 7:00 PM. In addition, the following construction noise control measures shall be included as requirements at construction sites to minimize construction noise impacts.

- Equip all internal combustion engine-driven equipment with intake and exhaust mufflers that are in good condition and appropriate for the equipment.
- Locate stationary noise-generating equipment as far as possible from sensitive receptors when sensitive receptors adjoin or are near a construction area.
- Utilize "quiet" air compressors and other stationary equipment where technology exists.

Policy P5. Site design techniques shall be considered as the primary means to minimize noise impacts as long as they do not conflict with the goals of the Community Character Element. Techniques include:

- Designing landscaped building setbacks to serve as a buffer between the noise source and receptor.
- Placing noise-tolerant land uses, such as parking lots, maintenance facilities, and utility areas between the noise source, such as highways and railroad tracks, and receptor.
- Orienting buildings to shield noise sensitive outdoor spaces from a noise source.
- Locating bedrooms or balconies on the sides of buildings facing away from noise sources.
- Utilizing noise barriers (e.g., fencing, walls, or landscaped berms) to reduce adverse noise levels in noise-sensitive outdoor activity areas.

City of Tracy Municipal Code

The City's Noise Control Ordinance is contained in Title 4.12, Article 9, of the City's Municipal Code. Section 4.12.750 of the Noise Control Ordinance establishes noise limits for various land use

districts, including residential, commercial, industrial, agricultural, and aggregate mineral overlay districts. The City's noise ordinance standards for land use districts are summarized in Table 3.10-5. The noise limits are based on hourly-average noise levels measured at the boundary of the property. The Noise Control Ordinance does not establish noise limits pertaining to recreational zone districts. However, Section 4.12.830, exempts "sounds emanating from a sporting, entertainment, or public event except that it shall be unlawful to exceed those sound level limits set fourth in Section 4.12.750 when measured at the property lines of any property which is used for residential purposes." As noted in Table 3.10-5, the city's noise standard for residential districts is 55 dBA L_{eq}. These standards do not apply to noise sources associated with minor maintenance (lawn mowers, power-brushes, leaf blowers, etc.) used for residential or nonresidential purposes provided said activities take place between the hours of 7:00 a.m. and 10:00 p.m. (City of Tracy 2009).

Table 3.10-5
Noise Limits for District Zones

Base District Zone	Hourly Average Noise Level (dBA L_{eq})
Residential Districts	55
Commercial Districts	65
Industrial Districts	75
Agricultural	75
Aggregate Mineral Overlay Zone	75

Noise levels are to be applied at the boundary of the property.
Source: City of Tracy 2009

Groundborne Vibration

There are no federal, state, or local regulatory standards for ground-borne vibration. However, various criteria have been established to assist in the evaluation of vibration impacts. For instance, the California Department of Transportation (Caltrans) has developed vibration criteria based on potential structural damage risks and human annoyance. Caltrans-recommended criteria for the evaluation of groundborne vibration levels, with regard to structural damage and human annoyance, are summarized in Table 3.10-6 and Table 3.10-7, respectively. The criteria differentiate between transient and continuous/frequent sources. Transient sources of ground-borne vibration include intermittent events, such as blasting; whereas, continuous and frequent events would include the operations of equipment, including construction equipment, and vehicle traffic on roadways (Caltrans 2002, 2004).

The ground-borne vibration criteria recommended by Caltrans for evaluation of potential structural damage is based on building classifications, which take into account the age and condition of the building. For residential structures and newer buildings, Caltrans considers a minimum peak-particle velocity (ppv) threshold of 0.25 inches per second (in/sec) for transient

sources and 0.04 in/sec for continuous/frequent sources to be sufficient to protect against building damage. Continuous ground-borne vibration levels below approximately 0.02 in/sec ppv are unlikely to cause damage to any structure. In terms of human annoyance, continuous vibrations in excess of 0.04 in/sec ppv and transient sources in excess of 0.25 in/sec ppv are identified by Caltrans as the minimum perceptible level for ground vibration. Short periods of ground vibration in excess of 2.0 in/sec ppv can be expected to result in severe annoyance to people. Short periods of ground vibration in excess of 0.1 in/sec ppv (0.2 in/sec ppv within buildings) can be expected to result in increased levels of annoyance (Caltrans 2002, 2004).

Table 3.10-6
Damage Potential to Buildings at Various Groundborne Vibration Levels

Structure and Condition	Vibration Level (in/sec ppv)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Extremely Fragile Historic Buildings, Ruins, Ancient Monuments	0.12	0.08
Fragile Buildings	0.2	0.1
Historic and Some Old Buildings	0.5	0.25
Older Residential Structures	0.5	0.3
New Residential Structures	1.0	0.5
Modern Industrial/Commercial Buildings	2.0	0.5

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
Source: Caltrans 2002, 2004

Table 3.10-7
Annoyance Potential to People at Various Groundborne Vibration Levels

Human Response	Vibration Level (in/sec ppv)	
	Transient Sources	Continuous/Frequent Intermittent Sources
Barely Perceptible	0.04	0.01
Distinctly Perceptible	0.25	0.04
Strongly Perceptible	0.9	0.10
Severe	2.0	0.4

Note: Transient sources create a single isolated vibration event, such as blasting or drop balls. Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.
Source: Caltrans 2002, 2004

3.10.4 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Criteria for determining the significance of noise impacts were developed based on information contained in the California Environmental Quality Act Guidelines (CEQA Guidelines, Appendix G). According to those guidelines, a project may have a significant effect on the environment if it would result in the following conditions:

a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or of applicable standards of other agencies.

b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels.

c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project.

d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project.

e) For a project located within an airport land use plan area or, where such a plan has not been adopted, within two miles of a public airport or a public use airport, would the project expose people residing or working in the project area to excessive noise levels.

f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels.

The nearest airport/airstrip is the Tracy Municipal Airport, which is located approximately 4 miles south of the project site. Implementation of the proposed project would not affect airport operations, nor would implementation of the proposed project result in the development or relocation of any noise-sensitive land uses within two miles of any airport or airstrip. As a result, implementation of the proposed project would not result in increased exposure of individuals to excessive aircraft noise levels associated with the existing airport. There are no existing private airstrips within two miles of the project area. For these reasons, noise impacts associated with existing airports and airstrips were identified as being less than significant or having no impact and will not be further discussed in this section.

Temporary noise impacts associated with the proposed project would be associated with short-term construction-related activities. Long-term permanent increases in noise levels would occur associated with onsite operational activities, as well as, potential increases in traffic noise levels along area roadways. Potential increases in groundborne vibration levels would be primarily associated with short-term construction-related activities. For purposes of this analysis and where applicable, the City of Tracy noise standards were used for evaluation of project-related noise impacts.

- **Short-term Exposure to Project-Generated Noise** — Construction noise impacts would be considered significant if activities were to occur during the more noise-sensitive nighttime hours, in violation of the City's General Plan requirements. The City's General Plan Noise Element, Objective N-1.2, Policy 4 restricts nuisance-related noise-generating construction activities to between the hours of 7:00 a.m. and 7:00 p.m.

- **Long-term Exposure to Project-Generated Noise** — Long-term operational noise impacts would be considered significant if the proposed project would result in a significant increase in ambient noise levels that would exceed applicable City noise standards (Tables 3.10-4 and 3.10-5) at nearby noise-sensitive land uses. As depicted in Table 5, the City's noise standard for residential land uses is 55 dBA Leq. The City's municipal code does not specify noise standards applicable to places of worship or libraries. To ensure a conservative analysis, the City's minimum noise standard of 55 dBA Leq was also relied upon for the evaluation of potential noise impacts to existing nearby places of worship; as well as, the potential future library. In accordance with the City General Plan Noise Policy N-1.2, P2, significant increases in ambient noise levels would be defined as an increase of 3 dBA at levels in excess of 60 dBA CNEL, and an increase of 5 dBA at levels below 60 dBA CNEL.

- **Exposure to Groundborne Vibration** — Groundborne vibration levels would be considered significant if predicted short-term construction or long-term operational groundborne vibration levels attributable to the proposed project would exceed recommended criteria (Tables 3.10-6 and 3.10-7) at nearby existing structures.

METHODOLOGY

Short-term construction-generated noise and groundborne vibration impacts were evaluated based on levels commonly associated with construction individual construction equipment and construction-related activities. Predicted noise levels at nearby noise-sensitive land uses were calculated based on distance from the source and assuming an average noise attenuation rate of 6 dB per doubling of distance from the source.

A combination of existing literature, noise level measurements, and application of accepted noise prediction and sound propagation algorithms were used for the prediction of long-term stationary and transportation source noise levels. Predicted noise levels at nearby noise-sensitive land uses were calculated based on distance from the source and assuming an average noise attenuation rate of 6 dB per doubling of distance from the source. Traffic noise levels were calculated using the Federal Highway Administration (FHWA) roadway noise prediction model (FHWA-RD-77-108) based on California vehicle reference noise levels and traffic data obtained from the traffic analysis prepared for this project. Additional input data included day/night percentages of autos, medium and heavy trucks, vehicle speeds, ground attenuation factors, and roadway widths. Predicted noise levels were calculated at a distance of 50 feet from the near-travel-lane centerline, as well as distances to the predicted 60 and 65 dBA CNEL noise contours. Increases in traffic noise levels

attributable to the proposed project were determined based on a comparison of predicted noise levels, with and without project implementation. The compatibility of proposed land uses were evaluated based on a comparison of projected future onsite noise levels with the City's corresponding land use compatibility noise criteria (Table 3.10-4).

IMPACTS AND MITIGATION MEASURES

Impact 3.10-1: Short-term construction-generated noise levels associated with the proposed project could result in a substantial temporary increase in ambient noise levels at nearby noise-sensitive land uses. Short-term increases in ambient noise levels may result in increased levels of annoyance and activity interference at nearby noise-sensitive land uses (Less than Significant with Mitigation)

The proposed project consists of the construction and operation of an approximately 298-acre park, which would include an approximately 166-acre active sports park facility, approximately 86 acres of land south of the active sports park for passive recreational uses and an approximately 46-acre area to the northwest of the active sports park site as a future expansion area. A detailed phasing plan for the proposed park has not yet been developed. However, for the purposes of this Environmental Impact Report, it is assumed that the entire 166-acre active sports park site and the 86-acre passive recreation area would be developed within 5-10 years, and that the future expansion area will be developed within 25 years.

Construction noise in any one particular area would be temporary and would include noise from activities such as excavations, site preparation, truck hauling of material, pouring of concrete, and use of power hand tools. Construction noise typically occurs intermittently and varies depending on the nature of the construction activities being performed. Noise generated by construction equipment, including excavation equipment, material handlers, and portable generators, can reach high levels for brief periods. The U.S. EPA has found that the average noise levels associated with construction activities typically range from approximately 76 dBA to 84 dBA L_{eq}, with intermittent individual equipment noise levels ranging from approximately 74 dBA to more than 88 dBA for brief periods (U.S. EPA 1971.) Table 3.10-8 lists typical uncontrolled noise levels generated by individual pieces of representative construction equipment likely to be used during construction.

Noise from localized point sources, such as construction sites, typically decreases by approximately 6 dBA with each doubling of distance from source to receptor. Given this noise attenuation rate and based on the noise levels presented in Table 3.10-8, predicted noise levels at the nearest residential land uses could reach levels of up to approximately 84 dBA L_{eq}, when construction activities occur near the western and southern boundaries of the project site.

Table 3.10-8 Typical Construction Equipment Noise Levels	
Equipment	**Typical Noise Level (dBA Lmax) 50 feet from Source**
Air Compressor	81
Backhoe	80
Compactor	82
Dozer/Grader/Front-End Loader	85
Concrete Mixer	85
Concrete Pump	82
Crane, Mobile	83
Generator	81
Jack Hammer	88
Paver	89
Roller	74
Saw	76
Sources: FTA 2006	

With regard to residential land uses, noise levels associated with construction activities occurring during the more noise-sensitive nighttime hours (i.e., 10 p.m. to 7 a.m.) are of increased concern. Because exterior ambient noise levels typically decrease during the nighttime hours as community activities (e.g., commercial activities, vehicle traffic) decrease, construction activities performed during these more noise-sensitive periods of the day can result in increased annoyance and potential sleep disruption for occupants of nearby residential dwellings. The proposed project does not include restrictions on the hours during which construction activities would occur. As a result, construction activities occurring during the more noise-sensitive nighttime hours could result in increased levels of annoyance and potential sleep disruption for occupants of nearby residential land uses. For this reason, short-term noise-generating construction activities associated with the proposed project would be considered to have a **potentially significant** impact.

MITIGATION MEASURES

***Mitigation Measure 3.10-1**: The following mitigation measures shall be implemented:*

a) *Construction activities (excluding activities that would result in a safety concern to the public or construction workers) shall be limited to between the hours of 7:00 a.m. and 7:00 p.m. Construction activities shall be prohibited on Sundays and federal holidays.*

b) *Construction equipment shall be properly maintained and equipped with noise-reduction intake and exhaust mufflers and engine shrouds, in accordance with manufacturers' recommendations.*

c) *Construction equipment staging areas shall be located at the furthest distance possible from nearby noise-sensitive land uses.*

SIGNIFICANCE AFTER MITIGATION

Implementation of the above mitigation measures would limit construction activities to the less noise-sensitive periods of the day. Use of mufflers would reduce individual equipment noise levels by approximately 10 dBA. With implementation of the above mitigation measures, noise-generating construction activities would comply with the City's Municipal Code and General Plan requirements and would be considered **less than significant**.

Impact 3.10-2: Noise associated with the proposed onsite recreational uses would exceed applicable noise standards at nearby residential land uses (Significant and Unavoidable)

As noted earlier in this section, the proposed project consists of the construction and operation of an approximately 298-acre park, which would include an approximately 166-acre active sports park facility, approximately 86 acres of land south of the active sports park for passive recreational uses and an approximately 46-acre area to the northwest of the active sports park site as a future expansion area.

Noise generated by onsite uses would be largely associated with the use of recreational facilities, as well as, noise generated by vehicles within parking areas and landscape maintenance activities. Although the specific hours of operation for proposed recreational facilities have not yet been identified, it is anticipated that recreational facilities would be used primarily during the daytime hours; though some recreational activities, including use of the proposed stadium, could extend into the evening hours. The more noise-intensive recreational uses would be located within the Active Sports Park, as well as, within the proposed future expansion area. The Passive Recreation Area would serve as a buffer between the more developed active park uses and noise-sensitive land uses located south of the park site. Noise levels associated with proposed Active Sports Park, Future Expansion Area, and Passive Recreation Area and resultant impacts to nearby noise-sensitive land uses are discussed in more detail, as follows:

Active Sports Park

The 166-acre active sports park may ultimately include up to 14 soccer fields, 18 baseball fields, five softball fields, four football fields, and one football/soccer stadium. In addition, the project would include up to four children's play areas, restroom facilities, concession facilities, bleachers, and parking areas. Noise generated by recreational uses located within the proposed Active Sports Park would be primarily associated with the use of onsite recreational facilities (i.e., stadium, ball fields, and play areas), vehicle parking areas, and landscape maintenance activities. Noise levels and impacts associated with these primary noise sources are discussed in more detail, as follows:

STADIUM

The proposed stadium would have an estimated capacity of approximately 3,500 seats and would be located near the western boundary of the project site, adjacent to Corral Hollow Road. The nearest existing noise-sensitive receptors include residential dwellings located adjacent to and west of Corral Hollow Road, approximately 145 feet from the proposed stadium. Residential land uses and various places of worship are located south of the project site, along Larch Road, the nearest of which are located approximately 975 south of the proposed stadium along the southern boundary of the proposed Passive Recreation Area. It is also important to note that the proposed Future Expansion Area could include a future library, which would also be considered a noise-sensitive receptor.

Predicted noise levels at stadiums are dependent on various factors including stadium design and orientation, the activities conducted, spectator crowd size, type of public address (PA) amplification system installed, as well as speaker placement. The design of the proposed stadium has not yet been completed. However, events associated with stadiums, particularly events involving large spectator crowds and the use of amplified sound systems, such as competitive football games and pregame/half-time shows, can result in substantial increases in ambient noise levels. Based on measurements conducted at stadiums of similar size, events that include the use of an amplified sound system can generate noise levels of approximately 54 to 76 dBA L_{eq} at 500 feet (IUSD 2008). Based on these noise levels, the predicted 55 dBA L_{eq} noise contour for the proposed stadium would extend to distances ranging from approximately 475 to 3,300 feet. Actual noise levels would be dependent on various factors, including the specific activities conducted and final stadium design.

Based on the noise levels discussed above, predicted noise levels at the nearest existing residential dwellings located adjacent to and west of Corral Hollow Road, approximately 145 feet from the proposed stadium, would range from approximately 65 to 87 dBA L_{eq}. Predicted noise levels at existing noise-sensitive land uses located along the southern boundary of the proposed passive use recreational area, approximately 975 feet south of the proposed stadium, would range from approximately 48 to 70 dBA L_{eq}. Depending on final site design and assuming that the potential future library were to be located near the southern boundary of the proposed expansion area, predicted noise levels at the future library could reach levels of up to 75 dBA L_{eq} as a result of

exposure to existing and planned land uses in the project vicinity. Predicted noise levels at nearby noise-sensitive receptors could potentially exceed the City's noise standard of 55 dBA L_{eq}.

PLAY AREAS, HARD COURTS AND BALL FIELDS

Noise sources generally associated with play areas, hard courts, and ball fields typically include the sound of voices, play-area activities (e.g., impulsive sound caused by contact between basketballs and hard-surface courts). Noise levels associated with such events can vary widely depending on various factors, including the type and number of outdoor events being conducted, whether a public address system is used, and the number of spectators in attendance. In general, noise from PA systems at recreational events tends to dominate the noise environment and occurs on a more frequent basis then noise generated by spectators. Noise associated with smaller recreational events that do not involve spectator crowds, such as the use of hard courts, disc golf, and children's play areas, typically generate noise levels of less than 55 dBA L_{eq} at 50 feet. Noise levels at ball fields that involve spectator crowds, such as competitive baseball, softball, and soccer events, generally range from approximately 60 to 65 dBA L_{eq} at 50 feet from the spectator area, without the use of a PA system. Ball fields involving the use of a PA system, such as baseball and softball games, generate higher noise levels. Noise levels associated with spectator crowds and PA systems are highly directional and can vary from approximately 80 to 95 dBA L_{eq} at 50 feet from the spectator stands.

The nearest offsite noise-sensitive receptors in relation to the proposed onsite ball fields and play areas consist of residential land uses and places of worship located along the southern boundary of the proposed Passive Recreational Area at distances ranging from approximately 375 feet to 800 feet from the nearest onsite ball fields. Based on the noise levels discussed above, onsite hard courts, disc golf facilities, and general recreational use areas that do not involve large spectator crowds would not be anticipated to result in a significant increase in ambient noise levels or exceed 55 dBA L_{eq} at offsite receptors. Assuming a maximum noise level of 65 dBA L_{eq} without the use of a PA system, the predicted 55 dBA L_{eq} noise contour for onsite ball fields, such as the proposed soccer fields, would extend to approximately 165 feet from the spectator area. Assuming that multiple soccer events were to occur simultaneously, resultant noise levels at the nearest noise-sensitive land uses would not exceed the City's noise standard of 55 dBA Leq. With the use of a PA system, the predicted 55 dBA L_{eq} noise contours for onsite ball fields would range from distances of approximately 820 to 2,800 feet from the spectator area. Depending on the directional aspects of the field, spectator crowd size, and the number of events occurring simultaneously, predicted noise levels at the nearest noise-sensitive land uses would range from approximately 56 to 71 dBA L_{eq}.

During typical daily usage, excluding organized competitive events, noise levels at nearby existing noise-sensitive land uses would be largely masked by vehicle traffic on area roadways. Noise generated by proposed onsite uses that do not typically involve large spectator crowds and the use of PA systems, such as hard courts, play areas, and soccer fields would not exceed the City's noise standard of 55 dBA L_{eq} at nearby noise-sensitive land uses. However, competitive events involving

PA systems, such as baseball and softball events, would exceed the City's noise standard of 55 dBA L_{eq}. Depending on final site design, predicted noise levels at the potential future library could also exceed 55 dBA L_{eq}.

PARKING LOTS

Based on the traffic analysis prepared for this project, the Saturday peak-hour for the soccer season is expected to generate the largest number of trips. The Saturday peak-hour parking demand during the soccer season would be 448 parking spaces. In accordance with City Code requirements, the proposed stadium would be required to provide a total of 700 parking spaces, which would be distributed to the south and east of the proposed stadium. The total peak hour parking demand for the active sports area would be 1,148 spaces (Fehr & Peers 2009).

Noise levels commonly associated with vehicle parking areas are often associated with the starting of vehicles, the opening and closing of vehicle doors, playing of amplified music, and the occasional sound of vehicle alarms and horns. Noise levels associated with parking lots can reach intermittent levels of approximately 92 dBA SEL at 50 feet (FTA 2006.) Predicted noise levels at nearby receptors associated with proposed parking lots were calculated based on the Saturday peak-hour parking demand, as discussed above. To ensure a conservative analysis, it was assumed that onsite activities would utilize parking spaces located within the western portion of the project site, nearest the existing noise-sensitive receptors and the potential future library.

Based on the modeling conducted, predicted peak-hour noise levels associated with proposed onsite parking areas would be approximately 40 dBA L_{eq} at the nearest residential uses located west of the projects site and approximately 29 dBA L_{eq} at the nearest land uses located to the south, along the southern boundary of the proposed Passive Recreation Area. Predicted peak-hour noise levels at the potential future library, assuming the library were to be located near the northern boundary of the Active Recreation Area, would be approximately 46 dBA L_{eq}. Predicted parking-related noise levels at offsite locations would be largely masked by existing ambient noise levels, would not result in an increase in ambient noise levels, and would not exceed the City's applicable noise standard of 55 dBA L_{eq}.

LANDSCAPE MAINTENANCE

Landscape maintenance activities often result in sporadic and intermittent increases in ambient noise levels. Equipment used for landscape maintenance often includes the use of power mowers and leaf blowers. Landscape maintenance equipment, such as leaf blowers and gasoline-powered lawn mowers, can result in noise levels of up to approximately 100 dBA at 3 feet (EPA 1971). Based on this noise levels and assuming landscape maintenance activities were to occur near the project site boundaries, predicted noise levels at nearby noise-sensitive land uses could reach levels of up to approximately 75 dBA L_{eq}. Because landscape maintenance activities typically occur over a large area, noise levels at any given receptor would not be sustained for extended periods of time (i.e., periods greater than approximately one hour). Landscape maintenance activities occurring between the daytime hours of 7:00 a.m. and 10:00 p.m. are exempt from the City's municipal code noise standards (City of Tracy 2009). However, landscape maintenance activities

occurring during the more noise-sensitive nighttime hours (i.e., 10:00 p.m. to 7:00 a.m.) could result in increased levels of annoyance and potential sleep disruption to occupants of nearby residential dwellings.

Future Expansion Area

The 46-acre future expansion area is located northwest of the 166-acre active sports park. A specific site plan for this area has not been developed; however, the City is currently contemplating several amenities and features that may be suitable for future development within the future expansion area. For purposes of this analysis, it is assumed that the following uses may be developed within the future expansion area.

- Skate park and/or BMX park (up to 11,000 square feet maximum)
- Paintball course (2.5 acres)
- Shuffle Board and/or Bocce ball courts (4 total courts)
- Hard courts (basketball) and/or additional athletic fields (up to 23,000 square feet maximum)
- Recreation Center (including gymnasium, meeting rooms, community rooms and multipurpose rooms- totaling up to 45,000 square feet maximum)
- Library (up to 25,000 square feet maximum)
- "Spray Park" (children's park with small water features, sprinklers, etc.)
- Class 1 Bike Path

Noise generated by recreational uses located within the proposed Future Expansion Area would be primarily associated with the use of onsite recreational facilities, including the skate park, BMX track, and paintball course, as well as additional hard courts and ball fields. As with the Active Recreation Area, noise would also be generated by onsite vehicle parking areas and landscape maintenance activities, as well as building mechanical equipment associated with the proposed onsite structures (i.e., library and recreation center). Noise levels and impacts associated with these primary noise sources are discussed in more detail, as follows:

SKATE PARK

Noise associated with skate parks is most commonly associated with children's voices and sounds generated by skateboard wheel travel on park surfaces. Skateboards also produce intermittent noise associated with the 'popping' of the board tails, and the 'grinding' of the aluminum trucks (the skateboard axle) on the steel rails. Based on measurements conducted at similar facilities, noise levels during non-competitive events average approximately 55 to 60 dBA L_{eq} at approximately 50 feet from the park, with an average of approximately 15 to 20 skaters utilizing the park (AMBIENT 2009). During competitive organized events, higher noise levels could

potentially occur due to the increased number of skaters, as well as, noise generated by event announcers and spectators. Noise levels associated with organized skating events, with a total of 40 to 60 skaters, have measured up to approximately 71 dBA L_{eq} at 50 feet (Van Orden 2006).

Based on the noise levels discussed above, the predicted 55 dBA L_{eq} noise contour for typical daily use of the skate park would extend to approximately 94 feet from the park. In the event that competitive organized events were to occur at the skate park, the predicted 55 dBA L_{eq} noise contour would extend to approximately 295 feet from the skate park/spectator area. Assuming that the proposed skate park would be located near the western boundary of the proposed expansion area, nearest the existing residential land uses, predicted noise levels at the nearest existing residential land uses would be approximately 58 and 69 dBA L_{eq}, for non-competitive and organized competitive events, respectively. During typical daily usage, excluding organized competitive events, noise levels at nearby existing residential land uses would be largely masked by vehicle traffic on Corral Hollow Road. Nonetheless, predicted noise levels would exceed the City's noise standard of 55 dBA L_{eq}, particularly in the event that larger organized events were to occur at this facility. Depending on final site design, predicted noise levels at the potential future library could also exceed 55 dBA L_{eq}.

BMX TRACK

Noise associated with BMX tracks consists predominantly of voices of BMX participants and spectators and, to a lesser extent, bicycle travel on unpaved track surfaces. Based on measurements conducted at the Cummings Family Skate and Bike Park in Folsom, CA, noise levels at the BMX track measured less than 55 dBA L_{eq} at the park edge, with approximately 10 cyclists utilizing the course. During competitive organized events, higher noise levels could potentially occur due to the increased number of cyclists, as well as, noise generated by event announcers and spectators. Noise levels associated with organized BMX events would be similar to levels generated by organized skating events, as discussed above, resulting in noise levels of up to approximately 71 dBA L_{eq} at 50 feet.

Based on the noise levels discussed above, the predicted 55 dBA L_{eq} noise contour for typical daily use of the BMX track would extend to approximately 50 feet from the track. In the event that competitive organized events were to occur at the track, the predicted 55 dBA L_{eq} noise contour would extend to approximately 295 feet from the track/spectator area. Assuming that the proposed BMX track would be located near the western boundary of the proposed expansion area, nearest the existing residential land uses, predicted noise levels at the nearest existing residential land uses would be approximately 53 and 69 dBA L_{eq}, for non-organized and organized events, respectively. During typical daily usage, excluding organized competitive events, noise levels at nearby existing residential land uses would be largely masked by vehicle traffic on Corral Hollow Road and would not exceed the City's noise standard of 55 dBA L_{eq}. However, in the event that organized competitive events were to be held at the track, predicted noise levels at the nearest existing residential land use could potentially exceed the City's noise standard and result in a significant increase in ambient noise levels.

PAINTBALL COURSE

Noise levels associated with paintball courses are typically associated with the intermittent yelling of participants and firing of paintball guns. Based on measurements conducted at similar facilities, average-hourly noise levels ranged from approximately 64 to 70 dBA L_{eq} at approximately 50 feet from the course. Based on this noise level, the predicted 55 dBA L_{eq} noise contour for the proposed paintball course would extend up to approximately 295 feet from the course. Assuming that the proposed paintball course would be located near the western boundary of the proposed Future Expansion Area, predicted noise levels at the nearest existing residential land uses could reach levels of approximately 68 dBA L_{eq}. Predicted noise levels at the nearest existing residential land use could potentially exceed the City's noise standard and result in a significant increase in ambient noise levels.

PLAY AREAS, HARD COURTS AND BALL FIELDS

The nearest offsite noise-sensitive receptors consist of residential land uses located approximately west of the site, across Corral Hollow Road. As with the proposed Active Sports Area, onsite hard courts and general recreational use areas that do not involve large spectator crowds, including children's play areas, shuffle board and bocce ball courts, would not be anticipated to result in a significant increase in ambient noise levels or exceed 55 dBA Leq at the nearest offsite receptors.

Assuming that proposed ball fields were to be located near the western boundary of the site and assuming a noise level of 65 dBA L_{eq} without the use of a PA system, noise levels at the nearest residence would be approximately 63 dBA L_{eq}. In the event that proposed ball fields were to be equipped with PA systems and depending on the directional aspects of the fields, predicted noise levels at the nearest residence would range from approximately 78 to 83 dBA L_{eq}. Depending on final site design, predicted noise levels at the nearest residence, as well as at the proposed onsite library, could exceed 55 dBA L_{eq}. During normally daily use, resultant noise levels at the nearest residential dwellings would be largely masked by ambient traffic noise levels. However events involving the use of PA systems could result in a significant increase in ambient noise levels that could exceed the City's noise standard of 55 dBA L_{eq}.

PARKING LOTS

Noise levels commonly associated with vehicle parking areas are often associated with the starting of vehicles, the opening and closing of vehicle doors, playing of amplified music, and the occasional sound of vehicle alarms and horns. Noise levels associated with parking lots can reach intermittent levels of approximately 92 dBA SEL at 50 feet (FTA 2006.) As noted earlier in this section, predicted peak-hour noise levels associated with proposed onsite parking areas would be approximately 40 dBA L_{eq} at the nearest residential uses located west of the project site and would not exceed the City's applicable noise standard of 55 dBA L_{eq}. Resultant noise levels associated with onsite parking areas would be intermittent and would be largely masked by vehicle traffic on Corral Hollow Road.

LANDSCAPE MAINTENANCE

As discussed earlier in this section, landscape maintenance activities often result in sporadic and intermittent increases in ambient noise levels. Equipment used for landscape maintenance often include the use of power mowers and leaf blowers, which can result in noise levels of up to approximately 100 dBA at 3 feet (EPA 1971). Depending on the activities conducted, predicted noise levels at the nearest residential land use could reach levels of approximately 75 dBA L_{eq}. Landscape maintenance activities occurring during the more noise-sensitive nighttime hours could result in increased levels of annoyance and potential sleep disruption to occupants of nearby residential land uses.

LIBRARY AND RECREATION CENTER

Mechanical building equipment (e.g., heating, ventilation, and air conditioning systems, and boilers) associated with the potential future library and recreation building could generate noise levels of approximately 70 to 80 dBA L_{eq} at 3 feet from the source. The specific design and location of onsite mechanical equipment associated with the proposed structures has not yet been determined. However, mechanical equipment systems would typically be shielded from direct public exposure and usually housed on rooftops, within equipment rooms, or within exterior enclosures (U.S. EPA 1971). Assuming an operational noise level of 80 dBA L_{eq} at 3 feet, predicted noise levels at the nearest residential land use would be approximately 53 dBA L_{eq}, which would not exceed the City's noise standard of 55 dBA L_{eq}. The use of building mechanical systems is typically intermittent, would likely be limited to the daytime hours of operation, and would be largely masked by ambient traffic noise levels.

In addition to building mechanical equipment, the proposed recreation center would include various noise-generating interior recreational uses, including gymnasiums, exercise rooms, and multi-purpose rooms. In general, noise generated by interior recreational activities would typically not be detectable within approximately 50 feet of the exterior of the structure. Predicted noise levels at the nearest noise-sensitive land uses would be largely masked by ambient traffic noise levels and would not be anticipated result in a significant increase in ambient noise levels that would exceed the City's noise standard of 55 dBA L_{eq}.

Passive Recreation Area

The Passive Recreation Area would serve as a buffer between the more noise-intensive active park uses and land uses located south of the park site. The Passive Recreation Area would not include intensive recreational uses that would be anticipated to result in a significant increase in ambient noise levels. Passive recreational activities would potentially include walking and biking trails, bocce ball, disc golf, or an arboretum. As discussed earlier in this section, noise levels associated with these types of uses would not result in a significant increase in ambient noise levels that would exceed the City's noise standard of 55 dBA L_{eq}. However, as discussed above, onsite landscape maintenance activities could result in a significant increase in ambient noise levels at nearby noise-sensitive land uses. Increases in ambient noise levels occurring during the more

noise-sensitive nighttime hours would be of particular concern due to the increased potential for annoyance and sleep disruption to occupants of nearby residential land uses.

Impact Summary

Recreational uses associated with the proposed active sports park, including the proposed stadium, baseball, and softball facilities would result in significant increases in ambient noise levels at nearby noise-sensitive land uses that could exceed the City's noise standard of 55 dBA L_{eq}. Depending on final site design, the proposed skate park, BMX track, paintball course, and ball fields developed as part of the future expansion area could also result in significant increases in ambient noise levels at nearby noise-sensitive land uses, particularly if multiple events were to occur simultaneously, and could also exceed the City's noise standard of 55 dBA L_{eq}. In addition to recreational uses, landscape maintenance activities occurring throughout the project area could also result in a significant increase in ambient noise levels at nearby noise-sensitive land uses. Landscape maintenance activities occurring during the more noise-sensitive nighttime hours could result in increased levels of annoyance and potential sleep disruption to occupants of nearby residential land uses. For these reasons, noise generated by these proposed recreational uses would be considered to have a **potentially significant** impact. Noise generated by other onsite activities, including children's play areas, hard courts, bocce ball courts, shuffle board courts, soccer fields, trails, and parking areas would not be anticipated to result in a significant increase in ambient noise levels that would exceed the City's noise standard of 55 dBA L_{eq} at nearby receptors.

MITIGATION MEASURES

Mitigation Measure 3.10-2*: The following mitigation measures shall be implemented:*

a) *Prior to the issuance of an electrical permit for any public address systems proposed for playing fields within the project site, the City of Tracy shall test the sound system to ensure that it does not generate noise levels in excess of 75dB Leq at the property lines.*

b) *Onsite exterior recreational activities shall be limited to between the hours of 7:00 a.m. and 10:00 p.m.*

c) *Landscape maintenance activities shall be limited to between the hours of 7:00 a.m. and 10:00 p.m., Monday through Saturday. Landscape maintenance activities shall be prohibited on Sundays and federal holidays.*

SIGNIFICANCE AFTER MITIGATION

Implementation of the above mitigation measure would require that an acoustical assessment be prepared to identify noise-reduction measures necessary to reduce noise impacts at nearby noise-sensitive land uses. Restrictions on hours of use for onsite exterior recreational facilities and landscape maintenance activities would reduce potential levels of annoyance and activity interference at nearby noise-sensitive land uses. However, even with implementation of available mitigation measures, noise levels associated with some onsite land uses, such as the proposed stadium, would still be anticipated to result in a significant increase in ambient noise levels that

would exceed the City's noise standard of 55 dBA L_{eq} at the nearest noise-sensitive land uses. As a result, this impact would be considered **significant and unavoidable**.

Impact 3.10-3: Implementation of the proposed project would result in a significant increase in traffic noise levels (Significant and Unavoidable)

Implementation of the proposed project would result in increased traffic volumes on some area roadways. The increase in traffic volumes resulting from implementation of the proposed project would, therefore, contribute to predicted increases in traffic noise levels. The FHWA roadway noise prediction model was used to predict traffic noise levels along primarily affected roadway segments, with and without implementation of the proposed project. Modeling was conducted based on predicted traffic volumes obtained from the traffic analysis prepared for this project for near-term weekday and Saturday traffic conditions. Predicted traffic noise levels and increases attributable to the proposed project for weekday and Saturday traffic conditions are summarized in Table 3.10-9 and Table 3.10-10, respectively. The project's contribution to traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without project-generated traffic.

Table 3.10-9 Predicted Increases in Traffic Noise Levels Near-Term Conditions - Weekday				
Roadway	**Predicted CNEL, 50 Feet from Near-Travel Lane Centerline**		**Predicted Increase**	**Significant Increase?**
	Without Project	**With Project**		
Corral Hollow Road, North of Larch Road	58.6	60.2	1.5	No
Corral Hollow Road, South of Larch Road	58.6	60.2	1.6	No
Larch Road, West of Corral Hollow Road	56.4	56.4	0.0	No
Larch Road, East of Corral Hollow Road	55.5	56.9	1.4	No
N. Tracy Boulevard, North of Larch Road	60.2	62.7	2.5	No
N. Tracy Boulevard, South of Larch Road	60.8	61.9	1.1	No
Larch Road, West of N. Tracy Boulevard	55.6	55.8	0.1	No
Larch Road, East of N. Tracy Boulevard	57.4	57.7	0.4	No
Traffic noise levels were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108), based on data obtained from the traffic analysis prepared for this project (Fehr & Peers 2009). Assumes no natural or man-made shielding (e.g., vegetation, berms, walls, buildings).				

Table 3.10-10 Predicted Increases in Traffic Noise Levels Near-Term Conditions - Saturday				
Roadway	**Predicted CNEL, 50 Feet from Near-Travel Lane Centerline**		**Predicted Increase**	**Significant Increase?**
	Without Project	**With Project**		
Corral Hollow Road, North of Larch Road	57.7	64.3	6.7	Yes
Corral Hollow Road, South of Larch Road	57.6	59.5	1.8	No
Larch Road, West of Corral Hollow Road	54.6	54.6	0.0	No
Larch Road, East of Corral Hollow Road	54.9	59.0	4.1	Yes
N. Tracy Boulevard, North of Larch Road	59.6	67.3	7.8	Yes
N. Tracy Boulevard, South of Larch Road	59.9	65.8	5.9	Yes
Larch Road, West of N. Tracy Boulevard	55.2	59.2	4.0	Yes
Larch Road, East of N. Tracy Boulevard	55.4	56.6	1.3	No
Traffic noise levels were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108), based on data obtained from the traffic analysis prepared for this project (Fehr & Peers 2009). Assumes no natural or man-made shielding (e.g., vegetation, berms, walls, buildings).				

Based on the traffic noise modeling conducted, implementation of the proposed project would result in near-term increases in weekday traffic noise levels of approximately 2.5 dBA, or less,

along primarily affected area roadway segments. During weekday operations, near-term implementation of the proposed project would not result in a significant increase (i.e., 3 dBA or greater) in traffic noise levels. During near-term Saturday traffic conditions, implementation of the proposed project would not result in increased traffic noise levels of up to approximately 8 dBA CNEL/L_{dn}. Significant increases in traffic noise levels would be projected to occur along Corral Hollow Road, north of Larch Road; Larch Road, between Corral Hollow Road and N. Tracy Boulevard; as well as, portions of N. Tracy Boulevard to the north and south of Larch Road. Predicted noise levels at residential land uses located adjacent to N. Tracy Boulevard would exceed the City of Tracy's General Plan noise criteria of 60 dBA CNEL/L_{dn} for land use compatibility. As a result, predicted increases in traffic noise levels associated with the proposed project would be considered **significant**.

MITIGATION MEASURES

Implement MM 3.10-2c.

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure 3.10-2c would limit hours of operation to between the daytime hours of 7:00 a.m. and 10:00 p.m. With implementation, increases in vehicle traffic and associated noise levels along primarily affected roadway segments would be limited to the daytime hours, which would reduce potential levels of annoyance and sleep disruption to occupants of nearby residential land uses. However, significant increases in ambient noise levels at receptors located along primarily affected roadway segments would still be anticipated to occur. Because access to noise-sensitive land uses located adjacent to N. Tracy Boulevard would need to be maintained from this same roadway segment, construction of a sound barrier along this roadway segment would not be practical. No additional mitigation measures have been identified that would reduce this impact to a less-than-significant level. As a result, this impact would be considered **significant and unavoidable**.

Impact 3.10-4: Exposure to ground-borne vibration levels would not exceed applicable groundborne vibration criterion at nearby existing or proposed land uses (Less than Significant)

No major stationary sources of groundborne vibration were identified in the project area that would result in the long-term exposure of proposed onsite land uses to unacceptable levels of ground vibration. In addition, the proposed project would not involve the use of any major equipment or processes that would result in potentially significant levels of ground vibration that would exceed these standards at nearby existing land uses. However, construction activities associated with the proposed project would require the use of various tractors, trucks, and jackhammers that could result in intermittent increases in groundborne vibration levels. The use of major groundborne vibration-generating construction equipment/processes (i.e., blasting, pile driving) is not anticipated to be required for construction of future onsite land uses.

Groundborne vibration levels commonly associated with construction equipment are summarized in Table 3.10-11. Based on the levels presented in Table 3.10-11, groundborne vibration generated by construction equipment would not be anticipated to exceed approximately 0.09 inches per second ppv at 25 feet. Predicted vibration levels would not be anticipated to exceed recommended criteria for structural damage and human annoyance (0.2 and 0.1 in/sec ppv, respectively) at nearby land uses. As a result, short-term groundborne vibration impacts would be considered **less than significant** and no mitigation is required**.**

Table 3.10-11
Representative Vibration Source Levels for Construction Equipment

Equipment	Peak Particle Velocity at 25 Feet (In/Sec)
Large Bulldozers	0.089
Loaded Trucks	0.076
Jackhammer	0.035
Small Bulldozers	0.003
Source: FTA 2006, Caltrans 2004	

Impact 3.10-5: Projected on-site transportation noise levels at proposed on-site recreational uses would not exceed the City's "normally acceptable" noise exposure standards for land use compatibility. However, depending on final site design of the proposed future expansion area, it is conceivable that noise sensitive land uses, such as a potential library, could be located within the projected future 60 dBA CNEL/L_{dn} noise contour of Corral Hollow Road, which would exceed the City's "normally acceptable" noise criteria for land use compatibility. (Less than Significant with Mitigation)

As previously discussed, the proposed project would include construction and operation of various recreational uses. In addition, the proposed future expansion area could also include construction and operation of a library. For exterior recreational uses, the City's "normally acceptable" noise standard is 65 dBA CNEL/L_{dn}. Libraries are considered "normally acceptable" within areas of 60 dBA CNEL/L_{dn}, or less. Exterior recreational uses and libraries would be considered "conditionally acceptable" at levels up to 75 dBA CNEL/L_{dn}, provided needed noise insulation features are included in the project design.

Ambient noise levels within the project area are primarily influenced by vehicle traffic on area roadways. Therefore, for determination of land use compatibility, predicted traffic noise contours for adjacent roadways were modeled for future cumulative conditions, with implementation of the

proposed project. Predicted distances to future cumulative traffic noise contours are summarized in Table 3.10-12.

Table 3.10-12
Predicted Future Cumulative Traffic Noise Contours

Roadway Segment	Distances from Roadway Centerline to Predicted CNEL/L_{dn} Noise Contours (feet)1	
	60	65
Corral Hollow Road, North of Larch Road	70	WR
N. Tracy Boulevard, North of Larch Road	111	52

Traffic noise levels were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108), based on data obtained from the traffic analysis prepared for this project (Fehr & Peers 2009). Assumes no natural or man-made shielding (e.g., vegetation, berms, walls, buildings).
WR=Within Roadway Right-of-Way

Traffic noise contours were modeled based on data obtained from the traffic analysis prepared for this project. Based on the modeling conducted, the projected future cumulative 60 dBA CNEL/L_{dn} noise contour, with project implementation, would extend to a distance of approximately 70 feet from the roadway centerline of Corral Hollow Road. The projected future 65 dBA CNEL/L_{dn} noise contour for Corral Hollow Road would not extend beyond the roadway right-of-way. Under these same future cumulative conditions, the projected 60 and 65 dBA CNEL/L_{dn} noise contours for the adjacent segment of N. Tracy Boulevard would extend to distances of approximately 111 and 52 feet, respectively, from the roadway centerline.

Based on the projected future cumulative traffic noise contours identified above, onsite recreational participants and spectators would not be exposed to exterior noise levels in excess of the City's "normally acceptable" noise level of 65 dBA CNEL/L_{dn}. However, depending on final site design of the proposed future expansion area, it is conceivable that noise sensitive land uses, such as a library, could be located within the projected future 60 dBA CNEL/L_{dn} noise contour of Corral Hollow Road, which would exceed the City's "normally acceptable" noise criteria for land use compatibility. As a result, this impact is considered **potentially significant**.

MITIGATION MEASURES

Mitigation Measure 3.10-5*: The following mitigation measures shall be implemented:*

a. *Noise sensitive uses, such as a library, shall be located in excess of 70 feet from the roadway centerline of Corral Hollow Road; or,*

b. *Future noise sensitive land uses, such as a library, shall be designed to ensure that predicted background interior noise levels would not exceed a "normally acceptable" interior noise level of 45 dBA CNEL/L_{dn}.*

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure 3.10-5 would ensure that interior noise levels of the future noise sensitive land uses would remain within "normally acceptable" levels. With mitigation, this impact would be considered **less than significant**.

Impact 3.10-6: Implementation of the proposed project would result in a significant contribution to cumulative noise levels at nearby land uses (Significant and Unavoidable)

The geographic extent of the cumulative setting for noise consists of the project area and the surrounding areas within the City. Cumulative development conditions would result in increased cumulative roadway noise levels, and would also result in increased noise associated with future development. As noted earlier in this section, ambient noise levels in the project area are influenced primarily by traffic noise emanating from area roadways. No major stationary sources of noise have been identified in the project area. The primary factor for cumulative noise impact analysis is, therefore, the consideration of future traffic noise levels.

Future cumulative traffic noise levels, with and without implementation of the proposed project, were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108) based on California vehicle reference noise levels and traffic data obtained from the traffic analysis prepared for this project. Modeling was conducted for future cumulative weekday and Saturday traffic conditions (Tables 3.10-13 and 3.10-14, respectively). The project's contribution to the cumulative traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without project-generated traffic. Based on the modeling conducted, implementation of the proposed project would result in a significant increase in future cumulative weekday traffic noise levels of approximately 3.6 dBA CNEL along N. Tracy Boulevard, north of Larch Road. During future cumulative Saturday traffic conditions, implementation of the proposed project would result in significant increases in traffic noise levels along Corral Hollow Road, north of Larch Road, and N. Tracy Boulevard, to the north and south of Larch Road. This impact would be considered **significant**.

Table 3.10-13 Predicted Increases in Traffic Noise Levels Cumulative Conditions - Weekday				
Roadway	Predicted CNEL, 50 Feet from Near-Travel Lane Centerline		Predicted Increase	Significant Increase?
	Without Project	With Project		
Corral Hollow Road, North of Larch Road	59.0	61.4	2.4	No
Corral Hollow Road, South of Larch Road	66.0	66.2	0.3	No
Larch Road, West of Corral Hollow Road	67.2	67.2	0.0	No
Larch Road, East of Corral Hollow Road	64.0	64.0	0.0	No
N. Tracy Boulevard, North of Larch Road	60.9	64.5	3.6	Yes
N. Tracy Boulevard, South of Larch Road	65.5	66.3	0.8	No
Larch Road, West of N. Tracy Boulevard	64.0	64.0	0.0	No
Larch Road, East of N. Tracy Boulevard	61.4	61.7	0.3	No
Traffic noise levels were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108), based on data obtained from the traffic analysis prepared for this project (Fehr & Peers 2009). Assumes no natural or man-made shielding (e.g., vegetation, berms, walls, buildings).				

Table 3.10-14 Predicted Increases in Traffic Noise Levels Cumulative Conditions - Saturday				
Roadway	Predicted CNEL, 50 Feet from Near-Travel Lane Centerline		Predicted Increase	Significant Increase?
	Without Project	With Project		
Corral Hollow Road, North of Larch Road	61.1	65.7	4.7	Yes
Corral Hollow Road, South of Larch Road	65.8	66.3	0.5	No
Larch Road, West of Corral Hollow Road	67.1	67.1	0.0	No
Larch Road, East of Corral Hollow Road	64.2	64.9	0.8	No
N. Tracy Boulevard, North of Larch Road	62.5	68.6	6.1	Yes
N. Tracy Boulevard, South of Larch Road	66.0	68.6	2.6	Yes
Larch Road, West of N. Tracy Boulevard	64.2	65.0	0.8	No
Larch Road, East of N. Tracy Boulevard	60.8	61.4	0.6	No
Traffic noise levels were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108), based on data obtained from the traffic analysis prepared for this project (Fehr & Peers 2009). Assumes no natural or man-made shielding (e.g., vegetation, berms, walls, buildings).				

MITIGATION MEASURES

Implement Mitigation Measure 3.10-2c

SIGNIFICANCE AFTER MITIGATION

Implementation of Mitigation Measure 3.10-2c would limit hours of operation to between the daytime hours of 7:00 a.m. and 10:00 p.m. With implementation, increases in vehicle traffic and associated noise levels along primarily affected roadway segments would be limited to the daytime hours, which would reduce potential levels of annoyance and sleep disruption to occupants of nearby residential land uses. However, significant increases in ambient noise levels at receptors located along primarily affected roadway segments would still be anticipated to occur. Because access to adjacent noise-sensitive land uses from primarily affected roadway segments would need to be maintained, construction of sound barriers along primarily affected roadway segments would not be practical. No additional mitigation measures have been identified that would reduce this impact to a less-than-significant level. As a result, this impact would be considered **significant and unavoidable**.

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Insert Figure 3.10-1

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This section describes and evaluates potential project impacts associated with the provision of police and fire protection services for the proposed project. The information in this section is derived from the City of Tracy General Plan (July 2006), the Tracy General Plan EIR (July 2006), the City of Tracy Fire Department and the City of Tracy Police Department.

3.11.1 EXISTING CONDITIONS

FIRE PROTECTION AND EMERGENCY SERVICES

The Tracy Fire Department (TFD) operates seven fire stations and an administration headquarters, which provide comprehensive fire prevention and fire code enforcement, fire suppression, emergency medical services, hazardous materials response, and community emergency preparedness to the City of Tracy. The TFD covers approximately 23 square miles in the city limits, and 167 square miles in the southern part of San Joaquin County. The TFD provides mutual aid with the fire departments of Manteca, Lathrop-Manteca, California Department of Forestry (CALFIRE), Alameda County, Stanislaus County, Tracy Defense Depot, and Livermore Lab. [1]

TFD staff includes one fire chief, three division chiefs, one fire marshal, two fire inspectors, three clerical staff, 69 firefighters (spread out over three shifts), and 12 reserve firefighters. As of 2009, the TFD had seven frontline engines, one frontline ladder truck, two reserve engines and a 3,000 gallon water tender. In Fiscal Year 2007/2008, the TFD responded to 6,166 calls, including 592 fires, 3,312 medical emergencies and 2,262 other incidents.

During 2008 the Tracy Fire Department modified its response objective within the City of Tracy to mirror the National Fire Protection Association's recommended standard which is: The first-due unit shall arrive at all critical emergencies.[2,3] within 6.5 minutes of the time the call is received at the primary Public Safety Answering Point (PSAP) 90% of the time within urban and suburban areas. The Department also adopted the following objective in an effort to track its ability to confine structure fires to the room of origin. The second objective is: To confine all "moderate risk" structure fires to the room of origin or less 75% of the time within the City. The TFD's response time compliance remains constant in spite of the fact that call volume in the City has risen by approximately 69% over the past ten years while the urban population increased by approximately 64% during the same time period.

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1 City of Tracy Fire Department, 2008. http://www.ci.tracy.ca.us/departments/fire/ accessed on May 4, 2008.

2 Steve Hanlon, City of Tracy Fire Department. Personal communication with PBS&J, June 18, 2007.

3. South County Fire Authority, 2007. Standards of Response Coverage.

The closest fire station to the Holly Sugar Sports Park site is Station 96, located at 301 West Grantline Road, approximately one mile from the southeast corner of the project site. Refer to Figure 3.11-1, *Tracy Fire Stations*. Station 96 is equipped with Engine 96, a 2000 Peirce Dash 1500 gpm pumper and Haz-Mat 9, a 1980 GMC Kurbmaster. According to the TFD, the project site is within the 6.5 minute total reflex response time of Station 96. TFD staff is currently in the planning phase to potentially relocate Station 96 approximately one mile west of its current location on West Grantline Road.

POLICE PROTECTION

The Tracy Police Department provides police protection services to the City of Tracy. Its headquarters are located at 1000 Civic Center Drive, and there are no satellite offices or plans to construct any in the near future (General Plan Draft EIR, 2006). The Department currently employs 91 officers, and responded to over 72,500 calls for service in 2008. The Department also has 43 non-sworn positions, which include both full- and part-time administrators, communications dispatchers, community services personnel, animal control, crime scene technicians, and a records superintendent. The City has a goal of a 5-minute response time for Priority 1 calls (life threatening situations).

The police station is located approximately 2.25 miles from the project site. The Department divides calls for service into three categories:

- Priority 1 calls are defined as life threatening situations.
- Priority 2 calls are not life threatening, but require immediate response.
- Priority 3 calls cover all other calls received by the police.

The average response time for Priority 1 calls within the City limits is approximately seven to nine minutes. Response time for Priority 2 and 3 calls is, on average, between 20 and 30 minutes. The Tracy Police Department provides mutual aid to the San Joaquin County Sheriff's office, and vice versa, when a situation exceeds the capabilities of either department. Mutual aid is coordinated through the San Joaquin County Sheriff.

3.11.2 REGULATORY SETTING

STATE

Fire Protection

The Uniform Fire Code contains regulations relating to construction and maintenance of buildings and the use of premises. Topics addressed in the Code include fire department access, fire hydrants, automatic sprinkler systems, fire alarm systems, fire and explosion hazards safety, hazardous materials storage and use, provisions to protect and assist first responders, industrial processes, and many other general and specialized fire safety requirements for new existing

buildings and premises. The Bureau of Fire Prevention in the Fire Authority enforces the Uniform Fire Code.

3.11.3 IMPACTS AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on public services if it would result in:

- Substantial adverse physical impacts associated with the provisions of new or physically altered government facilities, and/or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:
    - Fire Protection
    - Police Protection
    - Schools
    - Parks
    - Other public facilities

The IS/NOP prepared for this project determined that the proposed project would not result in an increase in population growth, and therefore, no impact to schools or "other public facilities" would occur as a result of project implementation. The proposed project is a regional park that would serve the recreational needs of Tracy residents and residents of nearby areas. The potential environmental impacts associated with the provision of a new park are addressed throughout this Draft EIR. Therefore, the analysis below focuses on potential project impacts related to fire protection and police protection.

IMPACTS AND MITIGATION MEASURES

Impact 3.11-1: Implementation of the proposed project would not result in impacts to fire protection services and would not require the construction of new fire protection facilities (Less than Significant with Mitigation)

As described above, the closest fire station to the Holly Sugar Sports Park site is Station 96, located at 301 West Grantline Road, approximately one mile from the southeast corner of the project site. Implementation of the proposed project would not require the construction of a new fire station to serve the project site, and therefore, no environmental impacts associated with the construction of new fire protection facilities would occur.

As shown in Figure 3.11-1, the eastern half of the Holly Sugar Sports Park site is currently located within the Tracy Fire Department's five minute response time zone. As described in greater detail

in Section 2.0- Project Description, the proposed park is anticipated to be developed in phases, with construction beginning in the eastern portion of the project site in the area within the existing five minute response time zone. There are a limited number of structures within the park that would be at risk for a fire. The Tracy Fire Department has indicated that they have historically received calls at existing City park facilities to respond to small bathroom fires that were likely started intentionally. It is anticipated that the greatest demand for fire protection services at the project site would be for emergency responses for minor sports injuries that may occur during practices and sporting events. The Tracy Fire Department has indicated that implementation of the proposed project would not result in impacts to their existing service levels or capabilities.

Section 3.7- Hazards and Hazardous Materials, includes a discussion and analysis of the risk of wildland fires that may result from project implementation. Mitigation measures have been included in this Draft EIR that would reduce the risk of wildland fires to a less than significant level.

Implementation of the proposed project would not adversely impact existing fire and emergency services within the City, and would not require the construction of new fire protection facilities.

In order to provide adequate fire protection and suppression services to the project site, the Tracy Fire Department must have access to adequate onsite hydrants with adequate fire-flow pressure available to meet the needs of fire suppression units. The preliminary site plans developed for the proposed project do not yet include the location and design specifications of the fire hydrants that will be required within the project site.

MITIGATION MEASURES

Mitigation Measure 3.11-1: *Prior to City approval of the final infrastructure plans and construction documents for the Holly Sugar Sports Park, the City shall include the location and specifications of all fire hydrants, to the satisfaction of the Tracy Fire Department. The final infrastructure plans and construction documents for the project shall include hydrants with adequate fire-flow that are spaced appropriately throughout the project site, to the satisfaction of the Tracy Fire Department.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.11-1 would ensure adequate fire fighting resources would be present on the project site. Implementation of this measure would reduce this impact to less than significant. No further mitigation is required.

Impact 3.11-2: Implementation of the proposed project would not result in impacts to police protection services and would not require the construction of new police protection facilities (Less than Significant)

Calls for police services at the project site would receive a response from an officer serving Beat 2 within the City of Tracy. According to Sergeant Sheneman with the Tracy Police Department (phone interview May 28, 2009), the average response times for non-emergencies in the project

area are approximately six to nine minutes. It is not anticipated that implementation of the proposed project would result in significant new demand for police services. Project implementation would not require the construction of new police facilities to serve the project site, nor would it result in impacts to the existing response times and existing police protection service levels. This is a **less than significant** impact, and no mitigation is required.

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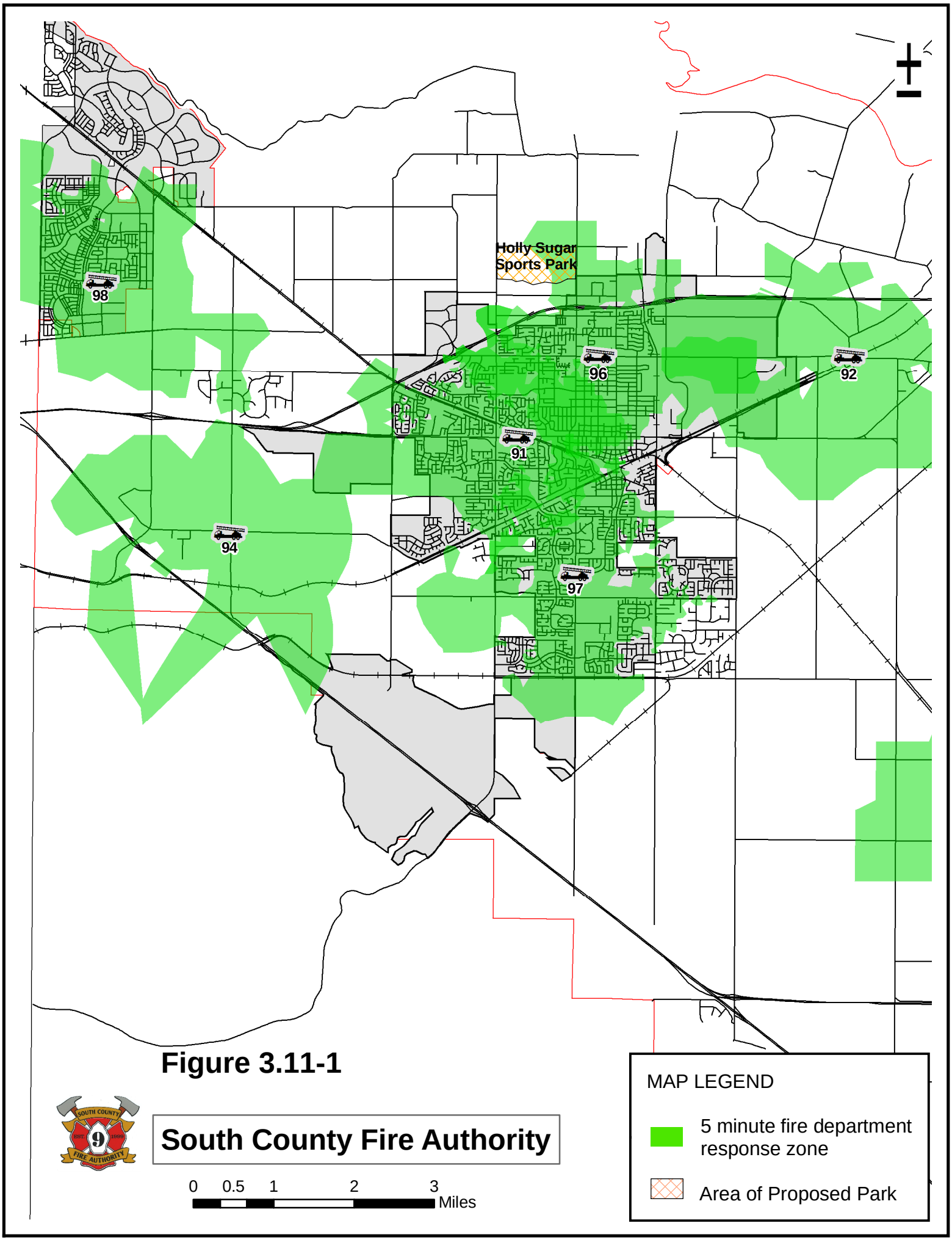
Holly Sugar
Sports Park
98
96
92
91
94
97
MAP LEGEND
5 minute fire department response zone
Area of Proposed Park
South County Fire Authority
0 0.5 1 2 3
Miles

Figure 3.11-1

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The purpose of this EIR section is to identify impacts related to traffic operations, parking, and site access and recommend mitigation measures to avoid or minimize the significance of potential impacts.

Information in this section is based on the Traffic Impact Analysis Report for the Holly Sugar Sports Park (Fehr and Peers, 2009).

3.12.1 ENVIRONMENTAL SETTING

PROJECT LOCATION

The proposed project is located just north of the City limits of Tracy, California. The City of Tracy is located in southwest San Joaquin County, east of the San Francisco Bay Area and west of the cities of Manteca and Lathrop. The project site is located between Tracy Boulevard and Corral Hollow Road north of Larch Road, and south of Sugar Road. The project site is bounded by Corral Hollow Road to the west, Tracy Boulevard to the east, rural residential developments to the south, and agricultural land to the north.

STUDY AREA ROADWAYS

Regional access to the study area is provided by I-205 while local access to the project site is provided via Corral Hollow Road and Tracy Boulevard. Other roadways in the study area include Grant Line Road, Eleventh Street, Larch Road and Holly Drive. The roadways in the study area are described below and their locations in relation to the site are shown on Figure 3.12-1.

Interstate 205 provides regional access to Tracy. This freeway extends between I-580 and I-5 and runs east-west through the northern portion of the City of Tracy. Interchanges are provided at West Eleventh Street, Grant Line Road, Tracy Boulevard and MacArthur Drive. West of Eleventh Street, I-205 has six lanes (three lanes in each direction). The remaining sections of I-205 have two lanes in each direction. Construction is currently underway to widen I-205 to three lanes in each direction east of Eleventh Street. The posted speed limit on I-205 is 70 miles per hour east of Tracy and 65 miles per hour through Tracy and to the west.

Tracy Boulevard is a north-south arterial that extends from State Route 4 in the north to I-580 in the south. In the study area, Tracy Boulevard is a two-lane roadway north of Larch Road and a four-lane roadway south of Larch Road, with a posted speed limit that varies between 30 and 45 miles per hour. I-205 access is provided by a diamond interchange at Tracy Boulevard. This roadway also intersects Larch Road, Grant Line Road, Schulte Road and Eleventh Street.

Corral Hollow Road is a north-south arterial that extends from the San Joaquin/Alameda County border south of I-580 to north of I-205. In the study area, Corral Hollow Road is a two-lane roadway north of Grant Line Road and a four-lane roadway south of Grant Line Road, with a posted speed limit that varies between 35 and 40 miles per hour.

Grant Line Road is an east-west arterial with posted speed limit varying between 35 and 40 miles per hour through the study area. To the west, it crosses the San Joaquin/Alameda County line into Alameda County. In the study area, it intersects with Corral Hollow Road, Tracy Boulevard and Holly Drive. To the east, it terminates at Eleventh Street. In the study area, Grant Line Road has two lanes in each direction east of Corral Hollow Road and three lanes in each direction between Corral Hollow Road and Naglee Road. I-205 access is provided by an interchange at Grant Line Road.

Eleventh Street is a four- to six-lane east-west expressway/arterial that originates from I-205 in the west, passes through the City of Tracy, and terminates at I-5 south of the I-205/I-5 junction. Eleventh Street provides direct access to the City of Tracy from Alameda County and the San Francisco Bay Area. In the study area, Eleventh Street intersects Corral Hollow Road, Tracy Boulevard and Holly Drive. The posted speed limit varies between 30 and 55 miles per hour.

Larch Road is an east-west two-lane rural road that extends between Holly Drive to the east and Naglee Road to the west. In the study area, it intersects with Corral Hollow Road, Tracy Boulevard and Holly Drive. The posted speed limit varies between 25 and 35 miles per hour on Larch Road.

Holly Drive is a two-lane north-south collector that extends from Sugar Road in the north to Eleventh Street in the South and continues as Central Avenue south of Eleventh Street. In the study area, it intersects with Larch Road, Grant Line Road and Eleventh Street. The posted speed limit on Holly Drive is 25 miles per hour.

Existing Pedestrian and Bicycle Facilities

This section describes the existing pedestrian and bicycle facilities in the study area.

PEDESTRIAN FACILITIES

Pedestrian facilities, such as sidewalks, crosswalks, and pedestrian signals, are absent in the areas surrounding the project site. In the study area, crosswalks and pedestrian signals are provided at all signalized study intersections except for the intersection of Corral Hollow Road and the West Valley Mall driveway. Sidewalks are provided at all study intersections except the intersections along Corral Hollow Road at Larch Road and the West Valley Mall driveway.

BICYCLE FACILITIES

Bicycle facilities include the following:

- Bike paths (Class I) – Paved trails that are separated from roadways.
- Bike lanes (Class II) – Lanes on roadways designated for use by bicycles through striping, pavement legends, and signs.
- Bike routes (Class III) – Designated roadways for bicycle use by signs only; may or may not include additional pavement width for cyclists.

Currently, there are no bicycle facilities provided in the areas surrounding the immediate project site. The rural nature of the project site area roadways generally requires that bicycles share the roadways with motor vehicles.

Within the City limits, some Class I bikeway facilities exist. The longest continuous Class I bike path is located east of Corral Hollow Road and extends from West Eleventh Street to south of Valpico Road. A second Class I facility runs parallel to North MacArthur Drive and extends from East Eleventh Street to I-205. Class II bike lanes exist along portions of Corral Hollow Road, Tracy Boulevard, Grant Line Road and North MacArthur Drive. Class III bike routes exist along portions of Larch Road and Holly Drive. While bicycle facilities are located throughout the City, gaps in the existing bicycle network make it difficult to travel east-west or north-south through the City. Figure 3.12-2 displays the existing bicycle facilities within the City of Tracy.

Existing Transit Service

The public transit system includes both bus and rail passenger components. The bus and rail system provides local and regional connectivity to residents of Tracy. Figure 3.12-3 displays the existing transit system within the City of Tracy. Currently, there is no public transit system that serves the project site.

The bus system operating within the City of Tracy includes the following services:

- Local fixed-route bus service operated by the City of Tracy (Tracer)
- Local commuter-route bus service operated by the City of Tracy (Tracer)
- Regional intercity fixed-route bus service operated by the San Joaquin Regional Transit District (SJRTD)
- Flexible fixed-route service operated by SJRTD
- Commuter express bus service operated by SJRTD
- Regional passenger rail service operated by Altamont Commuter Express (ACE)

Fixed-route services are those that adhere to a strict route and timetable with scheduled stop locations. Flexible-route service is demand-responsive, whereby a driver may deviate from the route to pick up and drop off passengers. Some transit agencies, such as SJRTD, also operate flexible fixed-route service, whereby fixed-route services may temporarily deviate from the designated route for elderly and disabled passengers.

LOCAL FIXED-ROUTE BUS SERVICE

The City of Tracy operates a fixed-route bus system within the City, called Tracer. Tracer operates Monday through Saturday, except on holidays, and provides the following three routes within the City of Tracy:

- **Route A** runs along Grant Line Road, MacArthur Drive, Tracy Boulevard, Corral Hollow Road and East Street. Destinations served include the Prime Outlets, City Hall and the West Valley Mall. Service is currently provided on 60-minute headways with operations from approximately 7:00 AM to 7:00 PM on weekdays and from 9:00 AM to 5:00 PM on Saturdays.

- **Route B** runs along Grant Line Road, Naglee Road, Tracy Boulevard, Corral Hollow Road, Lowell Avenue, Eaton Avenue and Holly Drive. Destinations served include City Hall, Sutter Tracy Community Hospital and the West Valley Mall. Service is currently provided on 60-minute headways with operations from approximately 7:00 AM to 7:00 PM on weekdays and from 9:00 AM to 5:00 PM on Saturdays.

- **Route C** runs along Tenth Street, Eleventh Street, Corral Hollow Road, Schulte Road, Tracy Boulevard and Central Avenue. Destinations served include City Hall and the Post Office. Service is currently provided on 60-minute headways with operations from approximately 7:00 AM to 7:00 PM on weekdays and from 9:00 AM to 5:00 PM on Saturdays.

LOCAL COMMUTER-ROUTE BUS SERVICE

Tracer also provides two commuter routes (Route D and Route E) that follow a loop within the existing city limits on roadways that include Grant Line Road, Corral Hollow Road, Tracy Boulevard, Lowell Avenue, East Street, Central Avenue, Schulte Road and Sycamore Parkway. Destinations served on the route include City Hall and many of the schools in Tracy. Both commuter routes travel the same roadways, but in opposite directions. Routes D and E operate two buses in the morning and in the afternoon from 6:50 to 8:00 AM and 3:00 to 4:00 PM, respectively.

REGIONAL INTERCITY FIXED-ROUTE BUS SERVICE

The SJRTD operates one fixed-route bus line (Route 26) that serves the City of Tracy. This line connects the City of Tracy to Stockton and Lathrop along Interstate 5. Within the City of Tracy, Route 26 extends along Grant Line Road and East Street and provides service to locations such as Downtown Tracy on weekdays as well as Wal-Mart (south of Grant Line Road) and the West Valley Mall on the weekends. From Monday through Friday this route operates from 5:00 am to 9:30 pm with headways ranging between 120 and 145 minutes. On the weekends and holidays this route operates from 8:00 am to 6:00 pm on 150-minute headways.

SJRTD FLEXIBLE FIXED-ROUTE SERVICE

SJRTD also operates Route 90, which is a flexible fixed-route line. Within the City of Tracy, this route extends along Grant Line Road with stops at major locations such as Wal-Mart, West Valley Mall, the Naglee Park-and-Ride Facility (on Naglee Road at Grant Line Road), and the Prime Outlets on Pescadero Avenue. Route 90 operates Monday through Friday between 5:30 AM and 7:30 PM on 105-minute and 2-hour headways.

SJRTD COMMUTER BUS SERVICE

The SJRTD operates a number of commuter bus lines that connect cities in San Joaquin County with major employment locations in the San Francisco Bay Area including Pleasanton, Dublin, Livermore, Mountain View, Palo Alto, and Sunnyvale. These routes pick up and drop off passengers at the Tracy Naglee Park-and-Ride facility. Pick-up times vary between 4:00 am and 6:00 am and drop-off times vary between 4:00 pm and 6:00 pm.

ALTAMONT COMMUTER EXPRESS

Altamont Commuter Express (ACE) is a passenger rail service connecting Stockton to San Jose. Trains operate Monday through Friday, excluding holidays. The ACE station for Tracy is located on Tracy Boulevard at Linne Road. Four westbound ACE trains per day arrive in Tracy between 4:50 am and 10:00 am. Four eastbound trains return to Tracy between 1:40 pm and 7:10 pm.

Existing Freight Rail

The Union Pacific Railroad (UPRR) has two tracks that traverse Tracy in an east-west direction – one in the north (north of Valpico Road) and another in the south (north of Linne Road). UPRR is the largest railroad in North America with service in over 23 states. The freight lines through Tracy provide connectivity from the West Coast, including major ports such as Oakland, to all other areas of operation.

The main line runs through south Tracy along Linne Road. This line is used as both an industrial (10 freights per day) and commuter (via ACE train service) rail. The ACE station is also located on this line at the corner of Tracy Boulevard and Linne Road. The north line, with tracks that stop at the San Joaquin/Alameda County line, is no longer in service and is currently used only for storage.

Existing Truck Routes

The City of Tracy has a specific City ordinance relating to truck routes. This ordinance defines weight restrictions, specifies the circumstances under which trucks may enter areas not designated as truck routes, and defines the truck routes within the City.

The weight restrictions that apply to trucks are specified in Section 3.08.300 of the Tracy Municipal Code. This section of the code states that trucks larger than five tons must stay on designated truck routes. Passenger buses under the jurisdiction of the Public Utilities Commission are exempt from this restriction.

Section 3.08.300 also provides that trucks are allowed to temporarily deviate from the designated truck routes for purposes of loading and unloading. Otherwise, trucks should remain on the designated routes specified in Section 3.08.310 of the Tracy Municipal Code.

The designated truck routes in the City of Tracy are shown in Figure 3.12-4.

I-205, I-580, and I-5 are also designated as truck routes by the State of California.

3.12.2 ANALYSIS METHODS

The operational performance of a roadway network is commonly described with the term level of service or LOS. LOS is a qualitative description of operating conditions, ranging from LOS A (free-flow traffic conditions with little or no delay) to LOS F (oversaturated conditions where traffic flows exceed design capacity, resulting in long queues and delays). The LOS analysis methods outlined in the *Highway Capacity Manual* (Transportation Research Board, 2000) were used in this study. The HCM methods for calculating LOS for signalized intersections, unsignalized intersections, and freeway segments are described below.

Signalized Intersections

Traffic operations at signalized intersections are evaluated using the LOS method described in Chapter 16 of the 2000 *Highway Capacity Manual*. A signalized intersection's LOS is based on the weighted average control delay measured in seconds per vehicle. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration. Table 3.12-1 summarizes the relationship between the control delay and LOS for signalized intersections.

Table 3.12-1
Signalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay (Seconds)
A	Operations with very low delay occurring with favorable traffic signal progression and/or short cycle lengths.	≤ 10.0
B	Operations with low delay occurring with good progression and/or short cycle lengths.	> 10.0 to 20.0
C	Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	> 20.0 to 35.0
D	Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	> 35.0 to 55.0
E	Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	> 55.0 to 80.0
F	Operations with delays unacceptable to most drivers occurring due to over-saturation, poor progression, or very long cycle lengths.	> 80.0

Source: *Highway Capacity Manual*, Transportation Research Board, 2000.

Unsignalized Intersections

In Chapter 17 of the Transportation Research Board's 2000 *Highway Capacity Manual*, the LOS for unsignalized intersections (side-street or all-way stop controlled intersections) is also defined by the average control delay per vehicle (measured in seconds). The control delay incorporates delay associated with deceleration, acceleration, stopping, and moving up in the queue. For side-street stop-controlled intersections, delay is calculated for each stop-controlled movement and for the uncontrolled left turns, if any, from the main street. The delay and LOS for the intersection as a whole and for the worst movement are reported for side-street stop intersections. The intersection average delay is reported for all-way stop intersections. Table 3.12-2 summarizes the relationship between delay and LOS for unsignalized intersections. The delay ranges for unsignalized intersections are lower than for signalized intersections as drivers expect less delay at unsignalized intersections.

Table 3.12-2
Unsignalized Intersection LOS Criteria

Level of Service	Description	Average Control Delay Per Vehicle (Seconds)
A	Little or no delays	≤ 10.0
B	Short traffic delays	> 10.0 to 15.0
C	Average traffic delays	> 15.0 to 25.0
D	Long traffic delays	> 25.0 to 35.0
E	Very long traffic delays	> 35.0 to 50.0
F	Extreme traffic delays with intersection capacity exceeded	> 50.0

Source: *Highway Capacity Manual* (Transportation Research Board, 2000).

Freeway Segments

Similar to intersection operations, freeway levels of service range from LOS A (the best operating conditions) to LOS F (the worst). LOS E represents "at-capacity" operation. When the volume exceeds capacity, stop-and-go conditions result, and operations are designated as LOS F. The HCM method calculates a density for a freeway segment using input data such as the traffic volume, the number of lanes, the percentage of trucks and the free-flow speed. Based on the calculated density, each segment of the freeway can be assigned a level of service. The LOS for a freeway segment is based on the vehicle density (passenger cars/lane/mile) as shown in Table 3.12-3.

Table 3.12-3
Freeway Mainline Level of Service Definitions

Level of Service[1]	Maximum Density (Passenger Cars/Lane/Mile)
A	11
B	18
C	26
D	35
E	45
F	> 45

Notes:
1. Freeway mainline LOS based on a 65 mph free-flow speed.
Source: *Highway Capacity Manual* (Transportation Research Board, 2000).

ANALYSIS SCENARIOS

The operations of the study intersections and freeway segments were evaluated for the following five scenarios:

Scenario 1: Existing Conditions – Existing Conditions were established using traffic counts collected in 2008 and 2009.

Scenario 2: Near-Term No Project Conditions – This scenario contains growth generated from approved City of Tracy development projects. The Tracy General Plan traffic model was used to estimate the increment of added traffic generated by these projects, which was added to the existing volumes to develop Near-Term No Project traffic forecasts.

Scenario 3: Near-Term Plus Project Conditions – Near-term plus Project traffic forecasts were developed by adding the project-generated traffic to traffic forecasts for Scenario 2.

Scenario 4: Cumulative No Project Conditions – Cumulative No Project traffic forecasts were developed using the Tracy General Plan Traffic Model. For this scenario, growth to year 2030 in the City of Tracy was assumed to occur consistent with General Plan policies.

Scenario 5: Cumulative Plus Project Conditions – Cumulative plus Project traffic forecasts were developed by adding the project-generated traffic to traffic forecasts for Scenario 4.

EXISTING DATA COLLECTION

Figure 3.12-1 shows the location of the proposed Project site and the study intersections. These intersections were selected in consultation with City of Tracy staff and are the locations that would most likely be affected by the proposed project.

Intersection turning movement and vehicle classification counts were collected from 4:00 to 6:00 pm on Thursday, December 4, 2008 and from 1:00 to 5:00 pm on Saturday, December 6, 2008 at study intersections 1 through 9. For the study intersections along Eleventh Street (10-12) turning movement and vehicle classification counts were collected from 4:00 to 6:00 pm on Tuesday, February 24, 2009 and from 1:00 to 5:00 pm on Saturday, February 21, 2009.

Mainline vehicle counts were also collected on I-205 at the Holly Drive over-crossing during the same days and peak periods as the intersection counts conducted in December 2008. Mainline volumes at other locations along I-205 were estimated by subtracting off-ramp volumes and adding on-ramp volumes. Based on the overall count volumes, it was determined that the global peak hour for the intersections and mainline occurred between 5:00 and 6:00 PM during the week, and between 3:30 and 4:30 PM on Saturday.

Field reconnaissance was also performed in which lane configurations, turn pocket lengths, speed limits, and signal phasing were collected. In addition, traffic signal timing data were collected for the signalized intersection from the City of Tracy and Caltrans. Intersection lane configurations and peak hour volumes are shown on Figure 3.12-4.

EXISTING INTERSECTION OPERATIONS

Existing operations were evaluated for the weekday PM and Saturday peak hours at the study intersections. Table 3.12-4 summarizes the intersection analysis results. As shown, all study intersections currently operate at acceptable service levels during the weekday PM and Saturday peak hours, except the following:

- Grant Line Road/Tracy Boulevard operates at LOS D during the PM and Saturday peak hours
- Eleventh Street/Corral Hollow Road operates at LOS D during the PM and Saturday peak hours
- Eleventh Street/Tracy Boulevard operates at LOS D during the PM peak hour

Detailed intersection LOS calculation worksheets are presented in Appendix H.

Table 3.12-4
Existing Peak Hour Intersection Levels of Service

Intersection		Control[1]	Peak Hour	Delay (in seconds)[2]	LOS	LOS Standard
1.	Larch Road/Corral Hollow Road	SSSC	PM SAT	7 (14) 6 (11)	A (B) A (B)	D
2.	West Valley Mall/Corral Hollow Road	Signal	PM SAT	13 16	B B	D
3.	Grant Line Road/Corral Hollow Road	Signal	PM SAT	48 29	D C	D
4.	Larch Road/Tracy Boulevard	AWS	PM SAT	12 10	B B	D
5.	I-205 Westbound Ramps/Tracy Boulevard	Signal	PM SAT	16 18	B B	D
6.	I-205 Eastbound Ramps/Tracy Boulevard	Signal	PM SAT	10 10	A B	D
7.	Grant Line Road/Tracy Boulevard	Signal	PM SAT	**38** **36**	**D** **D**	C
8.	Larch Road/Holly Drive	SSSC	PM SAT	6 (11) 6 (10)	A (B) A (A)	D
9.	Grant Line Road/Holly Drive	Signal	PM SAT	18 16	B B	C
10.	Eleventh Street/Corral Hollow Road	Signal	PM SAT	**40** **38**	**D** **D**	C
11.	Eleventh Street/Tracy Boulevard	Signal	PM SAT	**36** 24	**D** C	C
12.	Eleventh Street/Holly Drive	Signal	PM SAT	26 16	C B	C

Note: Results in **bold** represent unacceptable levels of service.
1. Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop-controlled intersection
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach).

Source: Fehr & Peers, 2009.

EXISTING PEAK HOUR TRAFFIC SIGNAL WARRANTS

To assess consideration for signalization of stop-controlled intersections, the *Manual of Uniform Traffic Control Devices* (MUTCD) (Federal Highway Administration, 2000), presents eight signal warrants. Generally, meeting one of the signal warrants could justify signalization of an intersection. However, an evaluation of all applicable warrants should be conducted and additional factors (e.g., congestion, approach conditions, driver confusion) should be considered before the decision to install a signal is made. The peak hour volume warrant (Warrant 3) for rural conditions was evaluated using the available data. The results of the traffic signal warrant analysis

are shown in Table 3.12-5. Detailed signal warrant assessments are provided in Appendix H. As shown in Table 3.12-5, the rural peak hour volume traffic signal warrant is currently not satisfied at any of the unsignalized study intersections.

Table 3.12-5
Existing Peak Hour Signal Warrant Analysis

Intersection		Control[1]	Peak Hour Warrant Met?
1.	Larch Road/Corral Hollow Road	SSC	NO
4.	Larch Road/Tracy Boulevard	AWS	NO
12.	Larch Road/Holly Drive	SSC	NO

Note:
1. SSSC = side-street stop-controlled intersection, AWSC = all-way stop-controlled intersection

Source: Fehr & Peers, 2009.

EXISTING FREEWAY LEVEL OF SERVICE

Existing freeway operations were evaluated for the weekday PM and Saturday peak hours for the study segments of I-205. The freeway segment LOS results are summarized in Table 3.12-6. All study freeway segments operate at LOS D or better. The HCM calculation worksheets can be found in Appendix H.

Table 3.12-6
Existing Freeway Segment Level of Service

Segment	Direction of Travel	Peak Hour	# of Lanes	Volume	Density[1]	LOS
I-205: West of Tracy Boulevard	Eastbound	PM SAT	2	2,867 2,865	24.3 23.8	C C
I-205: West of Tracy Boulevard	Westbound	PM SAT	2	2,362 3,088	20.0 26.1	C D
I-205: East of Tracy Boulevard	Eastbound	PM SAT	2	3,018 2,983	25.6 24.8	C C
I-205: East of Tracy Boulevard	Westbound	PM SAT	2	2,627 3,227	22.2 27.4	C D

Note:
1. Density measured in passenger cars per mile per lane

Source: Fehr & Peers, 2009.

3.12.3 PROJECT CHARACTERISTICS

TRIP GENERATION

Trip Generation Assumptions

Project trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the surrounding roadway system. Estimates of the total amount of traffic entering and exiting the project driveways are made for the two analysis time periods: a typical weekday PM peak hour (5:00 to 6:00 pm) and Saturday peak hour (3:30 to 4:30 pm). The project is expected to be constructed in phases. The active sports park is assumed to be constructed by 2015; the passive recreation and future expansion areas are assumed to be constructed by 2030. Therefore trip generation for Near-Term (2015) Conditions includes only traffic associated with the active sports parks and trip generation for Cumulative (2030) Conditions contains traffic for the entire sports park including the future expansion area.

Trip generation estimates are typically developed using trip generation rates contained in the Institute of Transportation Engineers (ITE), *Trip Generation,* (8th Edition). However, ITE rates are not available for many of the uses and facilities that are planned on the project site; therefore, rates were developed based on anticipated usage/attendance for those uses/facilities. The assumptions and trip generation rates that were used for each use are described in detail in Appendix H.

In consultation with City of Tracy staff, it was assumed that football season would occur during the Fall months, soccer season would occur during the Winter months, and baseball as well as softball season would occur during the Spring months, therefore no overlaps of sport seasons were assumed. The trip generation estimates for the various seasons are shown in Table E-1 in Appendix H. Given the project description and assumed trip generation rates, the project is anticipated to generate the largest number of vehicular trips during the soccer season. Therefore, project traffic estimates during soccer season were used to provide a conservative estimate of project impacts.

NEAR-TERM TRIP GENERATION

The active sports park area is the only portion of the project assumed to be constructed by 2015, the passive recreation and future expansion areas are assumed to be constructed by 2030.

It is anticipated that the active sports park will be used for practices during the weekday evenings and that games will be held throughout the day on weekends. The near-term (2015) peak hour trip generation estimates are presented in Appendix E and summarized in Table 3.12-7. Overall, the project would generate 310 new weekday PM peak hour trips and 1,820 new Saturday peak hour trips.

Table 3.12-7
Peak Hour Trip Generation for Near-Term Conditions

Individual Use	Amount	Weekday PM[1]			Saturday[1]		
		In	Out	Total	In	Out	Total
Soccer Facilities	14 Fields	199	90	289	448	448	896
Soccer/Football Stadium	1 Field	14	7	21	840	84	924
Total	**15 Fields**	**213**	**97**	**310**	**1,288**	**532**	**1,820**

Notes:
1. Refer to Appendix H for trip generation rates and assumptions

Source: *Trip Generation (8th Edition),* ITE, 2008; and Fehr & Peers, 2009.

Cumulative Trip Generation

The passive recreation area and the future expansion area are anticipated to be constructed by 2030, in addition to the active sports park area. According to the project description, the 86-acre passive recreation area would serve as a buffer between the more developed active park uses and the residential community to the south of the project site; vehicular access is not proposed to the area. Because the passive recreation area would mainly serve as a buffer, it is not expected to generate additional project trips; instead it is assumed that visitors to the active sports park and future expansion areas would make use of the facilities provided on the passive recreation area.

A specific site plan for the future expansion area has not yet been developed; however, for the purposes of this analysis the following uses and sizes, developed in coordination with City of Tracy staff, were used:

- 45,000-square foot recreational center
- 25,000-square foot library
- 11,000-square foot skate park
- 2.5-acre paintball course
- 4 bocce ball courts
- 23 acres of park area that includes hard courts, grass fields, and a spray park
- 11,000-square foot BMX park

Table 3.12-8 summarizes the trip generation estimates for the project during cumulative (2030) conditions. (See Appendix H for detailed information.) Overall, the project would generate 594 new weekday PM peak hour trips and 2,162 new Saturday peak hour trips.

Table 3.12-8
Peak Hour Trip Generation for Cumulative Conditions

Individual Use	Amount	Weekday PM[1]			Saturday[1]		
		In	Out	Total	In	Out	Total
Soccer Facilities	14 Fields	199	90	289	448	448	896
Soccer/Football Stadium	1 Field	14	7	21	840	84	924
Recreation Center	45 ksf	31	52	83	26	22	48
Library	25 ksf	88	95	183	90	79	169
Skate Park	11 ksf	4	4	8	22	12	34
BMX Park	11 ksf	4	4	8	22	12	34
Park Area[2]	26 acres	1	1	2	34	23	57
Total	**--**	**341**	**253**	**594**	**1,482**	**680**	**2,162**

Notes:
1. Refer to Appendix E for trip generation rates and assumptions
2. Park area includes the paintball course, bocce ball courts, basketball courts, spray park, and the unmarked grass fields.

Source: *Trip Generation (*8th Edition*),* ITE, 2008; and Fehr & Peers, 2009.

Based on discussions with City staff, it is expected that the project site will generate local and regional trips. Table 3.12-9 presents the local and regional distribution of total trips being generated for each use for the weekday PM and Saturday afternoon peak hours. As shown in Table 3.12-9, it is estimated that the majority of weekday PM trips will be generated locally within the City of Tracy and the majority of Saturday trips will be generated regionally for the active sports park and locally for the future expansion area.

Table 3.12-9
Local And Regional Trip Generation By Day Of Week

Individual Use	Amount	Weekday PM [1]		Saturday [2]	
		Local	Regional	Local	Regional
Soccer Facilities	14 Fields	90%	10%	40%	60%
Soccer/Football Stadium	1 Field	90%	10%	30%	70%
Recreation Center	45 ksf	90%	10%	90%	10%
Library	25 ksf	90%	10%	90%	10%
Skate Park	11 ksf	90%	10%	80%	20%
BMX Park	11 ksf	90%	10%	80%	20%
Park Area[3]	26 acres	90%	10%	80%	20%

Notes: Percentage of total trips by land use type.
1. Weekday assumes local practices.
2. Saturday assumes regional games and events.
3. Park area includes the paintball course, bocce ball courts, basketball courts, spray park, and the unmarked grass fields.

Source: Fehr & Peers, 2009.

TRIP DISTRIBUTION AND ASSIGNMENT

The distribution of the near-term and cumulative project traffic varies by day of the week. For weekday practices and weekend trips to the library and future expansion area, it was assumed that most the trips would be from within Tracy (local distribution), while the active sports park and stadium would have a larger draw from outside of Tracy (regional distribution).

Based on discussions with City staff, it is anticipated that a majority of the activities occurring at the project site will be focused on youth between the ages of 5 and 17. The locational distribution of people within this age range based on 2000 Census data is shown on Figure 3.12-5 and is the basis of the local trip distribution. Similarly, the regional distribution of population between the ages of 5 and 17 shown on Figure 3.12-6 is the basis of the regional trip distribution.

Trips generated by the proposed project were assigned to the roadway system based on the distributions shown on Figures 3.12-5 and 3.12-6. The near-term peak hour project trip assignments are shown on Figure 3.12-7. The cumulative peak hour project trip assignments are shown on Figure 3.12-8.

3.12.4 REGULATORY SETTING

As described previously, level of service is a measure of the level of congestion ranging from LOS A to LOS F. Most cities and counties in California have established LOS standards of significance for intersections and other roadway facilities within their limits. Caltrans also has LOS standards for their facilities. The applicable city, county, and Caltrans policies for this analysis are:

City of Tracy General Plan

Policy 1. To the extent feasible, the City shall strive for LOS C on all streets and intersections, except as follows:

- LOS D shall be allowed on streets and at intersections within one-quarter (1/4) mile of any freeway. This lower standard is intended to discourage inter-regional traffic from using Tracy streets.
- LOS E shall be allowed in the Downtown and Bowtie area of Tracy.

Policy 2. The City may allow individual locations to fall below the City's LOS standards in instances where the construction of physical improvements would be infeasible, prohibitively expensive, significantly impact adjacent properties or the environment, or have a significant adverse effect on the character of the community.

Policy 3. Intersections may be permitted to fall below their adopted LOS standard on a temporary basis when the improvements necessary to preserve the LOS standard are in the process of construction or have been designed and funded but not yet constructed.

Policy 5. For project-specific development approvals, the LOS at major street intersections shall be determined based on the direct estimation of peak hour conditions and should reflect the average condition prevailing throughout the peak hour of a typical weekday for all traffic using the intersection.

The City of Tracy General Plan also includes the following policies regarding pedestrian and bicycle facilities:

Policy 6. New development shall include pedestrian and bicycle facilities internal to the development and that connect to city-wide facilities, such as parks, schools and recreational corridors.

Policy 7. New development sites for commercial, employment, educational, recreational and park-and-ride land uses shall provide bicycle parking and/or storage facilities.

San Joaquin County

The San Joaquin County Congestion Management Plan (CMP), a state-mandated program, is a mechanism employing growth management techniques, including traffic level of service requirements, development mitigation programs, transportation systems management, and capital improvement programming, for the purpose of controlling and/or reducing the cumulative regional impacts of development. The following provisions of the CMP are relevant to the proposed project:

- The CMP system includes Interstate 205, Interstate 580, Interstate 5, Eleventh Street, Corral Hollow Road and Tracy Boulevard.
- LOS thresholds for local freeways are set at "D," except that on I-580/I-205 between the Alameda County Line and Tracy Boulevard, LOS "F" is permissible, and on I-205 between Tracy Boulevard and I-5, LOS "E" is permissible.

The service level standard for intersections in unincorporated areas of San Joaquin County is LOS D.

Caltrans

According to Caltrans' *Guide for the Preparation of Traffic Impact Studies,* Caltrans attempts to maintain a target LOS at the transition between LOS C and LOS D on State highway facilities. In areas where the LOS C or D standard is not feasible, the lead agency in that area should consult with Caltrans to determine the appropriate LOS target. For existing State highway facilities that operate at a less than appropriate target service level, the existing measure of effectiveness (i.e. density for freeways) should be maintained.

3.12.5 THRESHOLDS OF SIGNIFICANCE

Near-term project impacts were evaluated by comparing the results of Scenario 3 to Scenario 2, and Cumulative project impacts were evaluated by comparing the results of Scenario 5 to

Scenario 4. A traffic and circulation impact is considered significant if implementation of the Project would cause:

- Freeway segment operations to degrade from an acceptable level (LOS D or better) to an unacceptable level (LOS E or F) using CMP standards or an increase in volume greater than 5 percent for a freeway segment operating at an unacceptable level.[1]
- Signalized intersection operations to degrade from an acceptable level based on City of Tracy standards (LOS C or better for intersections more than ¼ mile from a freeway or LOS D or better for those within ¼ mile of a freeway) to an unacceptable level, or a delay increase of more than 4 seconds for an intersection operating at an unacceptable level.
- Unsignalized Tracy intersection operations to:
    - degrade from an acceptable level based on City of Tracy standards (LOS C or better for intersections more than ¼ mile from a freeway or LOS D or better for those within ¼ mile of a freeway) to an unacceptable level, and a traffic signal warrant to be met, or
    - a volume increase of more than 10 percent to an intersection operating at an unacceptable level and meeting a traffic signal warrant
- Unsignalized County intersection operations to:
    - degrade from an acceptable level based on County of San Joaquin standards (LOS D or better) to an unacceptable level (LOS E or F), and a traffic signal warrant to be met, or
    - a volume increase of more than 5 percent to an intersection operating at an unacceptable level and meeting a traffic signal warrant
- An inadequate parking capacity
- Inadequate emergency access
- Any conflicts with adopted policies, plans or programs supporting alternative transportation

[1] Freeway LOS thresholds for determining CEQA impacts may be based on locally adopted standards, such as CMP standards, or Caltrans standards. The Caltrans LOS standard is LOS C, or the existing density if current operations are worse than LOS C. The study segments of I-205 have CMP thresholds of LOS E and LOS F, based on their operations when the CMP legislation was adopted. However, this segment is currently being widened. Therefore, the overall CMP standard of LOS D is the threshold used for this analysis.

3.12.6 IMPACTS AND MITIGATION MEASURES

NEAR-TERM (2015) TRAFFIC IMPACT ANALYSIS

A Near-Term Conditions analysis was performed to identify potential impacts in year 2015.

Near-Term (2015) Roadway Assumptions

The roadway network for Near-Term Conditions is the existing roadway system plus planned and funded roadway improvements. The only major improvement assumed under Near-Term Conditions was the widening of I-205 from four to six lanes east of Eleventh Street, which has recently completed construction. All study intersections were evaluated with the same lane configurations as Existing Conditions.

Near-Term (2015) Forecasts

Traffic forecasts for the study locations were prepared using the City of Tracy General Plan Traffic Model. The process of developing forecasts followed a series of commonly-used quantitative steps in which the amount of growth projected by the model is added to the existing counts in order to estimate future year traffic volumes. The specific steps used to develop traffic forecasts from the City model are presented below.

NEAR-TERM WITHOUT PROJECT TRAFFIC

Traffic volumes for Near-term Conditions comprise existing traffic plus traffic generated by the approved Ellis Specific Plan development project. (The Ellis Specific Plan land use is assumed to be built out under Near-term Conditions, even though it is not likely that the project would actually reach full buildout within this timeframe. This approach was taken in order to conservatively account for vehicle trips generated by the Ellis Specific Plan under the near-term analysis scenario.) The near-term model was developed by adjusting the base year land use to include the Ellis Specific Plan land use. Traffic generated from the Ellis Specific Plan development represents the growth between the base year traffic model and the near-term model. Near-Term No Project intersection forecasts were developed by adding the model growth between the base year model and the near-term model to the existing intersection counts. Near-term No Project weekday PM and Saturday peak hour turning movement volumes were developed using the following three-step process:

- **Step 1** - The city model was executed with the base year roadway network assumptions and near-term land use assumptions to determine the “raw” (i.e., unadjusted) peak hour demand forecasts for the study intersections.

- **Step 2** - The weekday PM peak hour turning movement demand forecasts were developed using the “delta” method to account for model deviation according to the following formula:

Near-Term Weekday PM Adjusted Turning Movement Forecast =
(Near-Term Weekday PM Model Turning Movement Forecast – Base Year Weekday PM Model Turning Movement Forecast) + Existing Weekday PM Turning Movement Volume

- **Step 3** – The City of Tracy General Plan Traffic Model was designed for weekday AM, PM, and daily forecasts, but not for weekend forecasts. Saturday peak hour turning movement forecasts were developed according to the following formula:

  Near-Term Saturday Adjusted Turning Movement Forecast =
  (Existing Saturday Turning Movement Volume – Existing Weekday PM Turning Movement Volume) + Near-Term Weekday PM Adjusted Turning Movement Forecast

Near-term weekday PM and Saturday peak hour freeway demand forecasts were developed using the following three-step process.

- **Step 1** – Near-term weekday PM peak hour freeway demand forecasts on I-205 between Tracy Boulevard and MacArthur Drive were adjusted using the delta method to account for model deviation according to the following formula:

  Near-Term Weekday PM Adjusted Freeway Demand Forecast = (Near-Term Weekday PM Model Freeway Forecast – Base Year Weekday PM Model Freeway Forecast) + Existing Freeway Weekday PM Volume

- **Step 2** – The City of Tracy General Plan Traffic Model was designed for weekday AM, PM, and daily forecasts, but not for weekend forecasts. Saturday peak hour freeway demand forecasts were developed according to the following formula:

  Near-Term Saturday Adjusted Freeway Demand Forecast =
  (Existing Saturday Freeway Volume – Existing Weekday PM Freeway Volume) + Near-Term Weekday PM Adjusted Freeway Forecast

- **Step 3** - Demand forecasts at other locations along I-205 were estimated by balancing the volumes using the intersection forecasts discussed above to calculate on and off-ramp volumes. Starting at I-205 between Tracy Boulevard and MacArthur Drive, off-ramp volumes were subtracted and on-ramp volumes were added to the mainline volume to estimate mainline volumes along the other segments of I-205.

The forecasted Near-Term No Project intersection and freeway peak hour demand volumes are presented on Figure 3.12-9.

NEAR-TERM PLUS PROJECT TRAFFIC

Based on the trip generation and distribution assumptions, trips expected to be generated by the Project under Near-term Conditions were assigned through the study intersections. The near-term project peak hour trip assignment for each study intersection is shown on Figure 3.12-7. Near-Term Plus Project peak hour traffic forecasts were developed by adding the assigned project trips at each study intersection to the Near-Term No Project forecasts. Near-Term Plus Project peak hour traffic forecasts are shown on Figure 3.12-10

Analysis of Near-Term (2015) Conditions

The Near-Term (2015) Conditions analysis was performed using the same methodologies discussed previously.

INTERSECTION OPERATIONS

The Near-Term intersection analysis results are presented in Table 3.12-10. As shown, all study intersections are projected to operate at acceptable service levels under the near-term no project scenario except the following:

- Grant Line Road/Tracy Boulevard operates at LOS D during the PM and Saturday peak hours
- Eleventh Street/Corral Hollow Road operates at LOS D during the PM and Saturday peak hours
- Eleventh Street/Tracy Boulevard operates at LOS D during the PM peak hour

With the addition of project traffic, the following intersections operate unacceptably in addition to the three intersections mentioned above:

- Larch Road/Corral Hollow Road operates unacceptably with 43 seconds of average delay (LOS E) on the westbound approach during the Saturday peak hour
- Larch Road/Tracy Boulevard operates at LOS F during the Saturday peak hour

The project driveways are projected to operate at good levels with stop sign control under Near-term Conditions. The LOS calculation worksheets for the Near-Term No Project and Plus Project scenarios are provided in Appendix H.

Table 3.12-10
Near-Term (2015) Peak Hour Intersection Levels of Service

Intersection		Control[1]	Peak Hour	No Project		Plus Project	
				Delay [2] (in seconds)	LOS	Delay [2] (in seconds)	LOS
1.	Larch Road/Corral Hollow Road	SSSC	PM SAT	8 (15) 7 (12)	A (C) A (B)	8 (18) 22 **(43)**	A (C) C **(E)**
2.	West Valley Mall/Corral Hollow Road	Signal	PM SAT	13 17	B B	14 18	B B
3.	Grant Line Road/Corral Hollow Road	Signal	PM SAT	52 31	D C	52 32	D C
4.	Larch Road/Tracy Boulevard	AWS	PM SAT	13 11	B B	17 **>50**	C **F**
5.	I-205 Westbound Ramps/Tracy Boulevard	Signal	PM SAT	17 17	B B	17 53	B D
6.	I-205 Eastbound Ramps/Tracy Boulevard	Signal	PM SAT	10 10	A B	10 25	B C
7.	Grant Line Road/Tracy Boulevard	Signal	PM SAT	**39** **37**	**D** **D**	**40** **37**	**D** **D**
8.	Larch Road/Holly Drive	SSSC	PM SAT	7 (11) 6 (10)	A (B) A (B)	7 (12) 7 (11)	A (B) A (B)
9.	Grant Line Road/Holly Drive	Signal	PM SAT	19 16	B B	20 17	C B
10.	Eleventh Street/Corral Hollow Road	Signal	PM SAT	**41** **43**	**D** **D**	**41** **45**	**D** **D**
11.	Eleventh Street/Tracy Boulevard	Signal	PM SAT	**36** 24	**D** C	**36** 25	**D** C
12.	Eleventh Street/Holly Drive	Signal	PM SAT	27 17	C B	27 19	C B
13.	Project Driveway/Tracy Boulevard	SSSC	PM SAT	n/a	--	4 (9) 10 (12)	A (A) A (B)
14.	Project Driveway/Corral Hollow Road	SSSC	PM SAT	n/a	--	1 (10) 3 (14)	A (B) A (B)

Note: Results in **bold** represent unacceptable levels of service.

1. Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop-controlled intersection
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach).

Source: Fehr & Peers, 2009.

PEAK HOUR TRAFFIC SIGNAL WARRANT ANALYSIS

The peak hour volume traffic signal warrant (Warrant 3) for rural conditions, found in the *Manual of Uniform Traffic Control Devices* (MUTCD) (Federal Highway Administration, 2000), was evaluated for the unsignalized intersections in the study area, as shown in Table 3.12-11. None of the unsignalized study intersections meet the peak hour signal warrant under Near-Term No Project Conditions. With the addition of project traffic, the following intersections meet the peak hour signal warrant:

- Larch Road/Corral Hollow Road
- Larch Road/Tracy Boulevard
- Project Driveway/Tracy Boulevard

The intersections along Larch Road at Corral Hollow Road and Tracy Boulevard are projected to operate unacceptably during the Saturday peak hour with the addition of project traffic. Even though the project driveway intersection at Tracy Boulevard meets the peak hour signal warrant, it is expected to operate at an acceptable level of service during the PM and Saturday peak hours. An evaluation of all applicable warrants should be conducted and additional factors (e.g., congestion, approach conditions, driver confusion) should be considered before the decision to install a signal is made. Detailed signal warrant calculations are provided in Appendix H.

Table 3.12-11
Near-Term (2015) Peak Hour Signal Warrant Analysis

Intersection		Control[1]	No Project	Plus Project
			Peak Hour Warrant Met?	Peak Hour Warrant Met?
1.	Larch Road/Corral Hollow Road	SSSC	NO	**YES**
4.	Larch Road/Tracy Boulevard	AWS	NO	**YES**
8.	Larch Road/Holly Drive	SSSC	NO	NO
13.	Project Driveway/Tracy Boulevard	SSSC	--	**YES**
14.	Project Driveway/Corral Hollow Road	SSSC	--	NO

Note:
1. SSSC = side-street stop-controlled intersection, AWSC = all-way stop-controlled intersection

Source: Fehr & Peers, 2009.

FREEWAY ANALYSIS

Near-Term No Project and Plus Project freeway operations were evaluated for the weekday PM and Saturday peak hours. I-205 widening to six lanes was recently completed and was included in the Near-Term analysis. Freeway segment LOSs are summarized in Table 3.12-12. As shown, all

study freeway segments are anticipated to operate acceptably under Near-term No Project and Plus Project Conditions. The HCM calculation worksheets can be found in Appendix H.

Table 3.12-12
Near-Term (2015) Freeway Segment Level of Service

Segment	Direction of Travel	Peak Hour	# of Lanes	No Project			Plus Project		
				Volume	Density[1]	LOS	Volume	Density[1]	LOS
I-80: West of Tracy Boulevard	Eastbound	PM SAT	3	2,870 2,870	15.8 15.5	B B	2,874 3,024	15.8 16.4	B B
I-80: West of Tracy Boulevard	Westbound	PM SAT	3	2,370 3,090	13.1 17.0	B B	2,372 3,149	13.1 17.3	B B
I-80: East of Tracy Boulevard	Eastbound	PM SAT	3	3,020 2,990	16.7 16.2	B B	3,028 3,259	16.7 17.6	B B
I-80: East of Tracy Boulevard	Westbound	PM SAT	3	2,640 3,230	14.6 17.7	B B	2,657 3,933	14.7 21.6	B C

Note:
1. Density measured in passenger cars per mile per lane
Source: Fehr & Peers, 2009.

Impact 3.12-1: Project implementation would result in unacceptable levels of service at the intersection of Larch Road/Corral Hollow Road (Intersection #1) (Significant and Unavoidable)

The addition of project traffic would cause the westbound approach of the Larch Road/Corral Hollow Road intersection to degrade from LOS B to LOS E, as well as cause the intersection to meet the peak hour signal warrant. This is a **significant impact**.

MITIGATION MEASURES

Mitigation Measure 3.12-1*: The following mitigation measures would improve operations at the Larch Road/Corral Hollow Road intersection to an acceptable level:*

- *Widen the westbound approach to provide a shared left-turn/through lane and a right-turn lane. Or*
- *Install traffic signal. Optimize signal timings to allow for split eastbound and westbound signal phasing. An evaluation of all applicable signal traffic warrants should be conducted and additional factors (e.g., congestion, approach conditions, driver confusion) should be considered before the decision to install a signal is made.*

The study intersection is under San Joaquin County jurisdiction. The City of Tracy would be responsible for the intersection improvement, acquisition of right-of-way, , and the construction. However, the County of San Joaquin would need to approve the design and construction of proposed intersection improvements.

SIGNIFICANCE AFTER MITIGATION

If the County approves the proposed improvements identified above, then this would be a less than significant impact. The intersection would operate at LOS C with 16 seconds of delay for the westbound approach during the PM peak hour and at LOS D with 25 seconds of delay for the eastbound approach during the Saturday peak hour as a side-street stop controlled intersection. If the intersection becomes signalized, it would operate at LOS B during the PM and Saturday peak hours, with 13 and 17 seconds of delay, respectively. However, at the time of preparation of this EIR, it is not known if the County would approve the intersection improvements identified above. Due to the fact that implementation of these measures is beyond the control of the City of Tracy, this impact is considered to be **significant and unavoidable**.

Impact 3.12-2: Project implementation would result in unacceptable levels of service at the intersection of Larch Road/Tracy Boulevard (Intersection #4) (Significant and Unavoidable)

The addition of project traffic would cause the intersection of Larch Road/Tracy Boulevard to degrade from LOS B to LOS F during the Saturday peak hour, as well as cause the intersection to meet the peak hour signal warrant. This is a **significant impact.**

MITIGATION MEASURES

Mitigation Measure 3.12-2*: The following mitigation measures would improve operations at the Larch Road/Tracy Boulevard intersection to an acceptable level:*

- *Install traffic signal and optimize signal timings during the PM and Saturday peak hour. Optimization of traffic signal timings shall include determination of green time allocation for each intersection approach relative to the approach traffic volumes.*

The study intersection is partially under San Joaquin County jurisdiction. The City of Tracy would be responsible for the intersection improvement, acquisition of right-of-way, and the construction. However, the County of San Joaquin would need to approve the design and construction of proposed intersection improvements.

SIGNIFICANCE AFTER MITIGATION

If the County approves the proposed improvements identified above, then this would be a less than significant impact. The intersection would operate at LOS B with 14 seconds of average delay during the PM peak hour and at LOS D with 42 seconds of average delay during the Saturday peak hour. However, at the time of preparation of this EIR, it is not known if the County would approve the intersection improvements identified above. Due to the fact that implementation of these

measures is beyond the control of the City of Tracy, this impact is considered to be **significant and unavoidable**.

Impact 3.12-3: Project implementation would add traffic to three intersections currently operating at unacceptable levels of service (Less than Significant)

The following three intersections operate unacceptably with and without the project:

- Grant Line Road/Tracy Boulevard (Intersection #7) would operate at LOS D during the PM and Saturday peak hours
- Eleventh Street/Corral Hollow Road (Intersection #10) would operate at LOS D during the PM and Saturday peak hours
- Eleventh Street/Tracy Boulevard (Intersection #11) would operate at LOS D during the PM peak hour

The project would add traffic to these two intersections during the PM and Saturday peak hours and would slightly increase the delay. Even so, the added project traffic would not increase any of the intersections' overall average delay by more then four seconds; therefore, project impacts at these three intersections would be **less than significant.**

TRAFFIC IMPROVEMENTS TRIGGERS ANALYSIS

Impact 3.12-4: Project phasing may result in operational impacts to the surrounding roadway network under near-term (2015) conditions (Less than Significant)

A project phasing analysis was performed to determine the amount of development that can be built on the active sports park area with only one driveway on Tracy Boulevard and without creating significant impacts on the surrounding roadway network under Near-term (2015) Conditions. The project is anticipated to generate the largest number of trips during the Saturday peak hour; therefore the phasing analysis was only performed for near-term (2015) Saturday peak hour conditions. It was determined that the following number of fields could be built on the active sports park area without resulting in significant impacts at any study locations:

- Up to 11 soccer fields
- Any combination of baseball and softball fields that total up to 11 fields
- Up to 4 football fields

The trips generated by the amount of land use mentioned above are summarized in Table 3.12-13. As shown in Table 3.12-13, soccer season and baseball/softball season would generate a total of

704 Saturday peak hour trips with 11 operating fields; football season would generate 512 Saturday peak hour trips with 4 operating fields. The trip distribution assumptions discussed previously in this section were used to assign the trips generated by 11 soccer fields (or 11 baseball/softball fields) throughout the study intersections.

Table 3.12-13
Phasing Analysis Trip Generation

Individual Use	Amount	Saturday[1]		
		In	Out	Total
Soccer Season	11 Fields	352	352	704
Baseball/Softball Season	11 Fields	352	352	704
Football Season	4 Fields	256	256	512

Notes:
1. Refer to Appendix E for trip generation rates and assumptions

Source: *Trip Generation (8th Edition),* ITE, 2008; and Fehr & Peers, 2009.

Intersection LOS results for the project trips generated by building up to 11 soccer fields, 11 baseball and softball fields, and 4 football fields are shown in Table 3.12-13.

Table 3.12-14
Phasing Analysis Peak Hour Intersection Levels of Service

Intersection		Control[1]	Peak Hour	Delay [2] (in seconds)	LOS
1.	Larch Road/Corral Hollow Road	SSSC	SAT	7 (14)	A (B)
2.	West Valley Mall/Corral Hollow Road	Signal	SAT	18	B
3.	Grant Line Road/Corral Hollow Road	Signal	SAT	32	C
4.	Larch Road/Tracy Boulevard	AWS	SAT	28	D
5.	I-205 Westbound Ramps/Tracy Boulevard	Signal	SAT	20	B
6.	I-205 Eastbound Ramps/Tracy Boulevard	Signal	SAT	15	B
7.	Grant Line Road/Tracy Boulevard	Signal	SAT	**37**	**D**
8.	Larch Road/Holly Drive	SSSC	SAT	6 (11)	A (B)
9.	Grant Line Road/Holly Drive	Signal	SAT	17	B
10.	Eleventh Street/Corral Hollow Road	Signal	SAT	**44**	**D**
11.	Eleventh Street/Tracy Boulevard	Signal	SAT	25	C
12.	Eleventh Street/Holly Drive	Signal	SAT	18	B
13.	Project Driveway/Tracy Boulevard	SSSC	SAT	7 (12)	A (B)

Note: Results in **bold** represent unacceptable levels of service.
1. Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop-controlled intersection
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach).

Source: Fehr & Peers, 2009.

Building additional soccer fields (and/or baseball/softball fields) beyond those identified in Table 3.12-13, would result in unacceptable operations at the all-way stop controlled intersection of Larch Road and Tracy Boulevard, thus resulting in a need for intersection improvements. The following two intersections operate unacceptably with and without the project during the Saturday peak hour:

- Grant Line Road/Tracy Boulevard (intersection #7) would operate at LOS D
- Eleventh Street/Corral Hollow Road (intersection #10) would operate at LOS D

The project would add traffic to these two intersections during the Saturday peak hour and would slightly increase the delay. Even so, the added project traffic would not increase either of the intersections overall average delay by more then four seconds; therefore, project impacts at these intersections would be **less then significant**.

CUMULATIVE (2030) TRAFFIC IMPACT ANALYSIS

A Cumulative Conditions analysis was performed to identify potential impacts in year 2030. The analysis period corresponds to City of Tracy General Plan build out. Roadway assumptions and associated traffic forecasts plus the results of the intersection and freeway segment operations analysis, both with and without the project, are presented in this chapter.

Cumulative (2030) Roadway Assumptions

The future cumulative roadway network includes certain roadway improvements, consistent with the City's General Plan, that support the level of development anticipated to be in place in 2030. Major improvements included as complete under Cumulative Conditions are:

- *I-205:* Widen to 8 lanes between I-580 and I-5.
- *I*-580: Widen to 8 lanes from Mountain House Parkway to Alameda County line.
- *Corral Hollow Road:* Widen to 4 lanes south of Schulte Road and between Kavanagh Avenue and Larch Road; and to 6 lanes between Schulte Road and Kavanagh Avenue.
- *Larch Road:* Widen to 4 lanes west of Tracy Boulevard.
- *Tracy Boulevard:* Widen to 4 lanes between Valpico Road and Linne Road.
- *Grant Line Road:* Widen to 6 lanes west of Tracy Boulevard.
- *Eleventh Street:* Widen to 6 lanes west of Lammers Road.
- *Lammers Road:* Extend south to new interchange with I-580; widen to 6 lanes; realign north of Eleventh Street to new interchange with I-205.
- *MacArthur Drive:* Widen to 4 lanes between Schulte Road and Valpico Road.

- *Valpico Road:* Widen to 4 lanes between Lammers Road and MacArthur Drive.
- *Schulte Road:* Extend west on new alignment to Mountain House Parkway; widen to 6 lanes between Corral Hollow Road and Tracy Boulevard.

I-205 widening to eight lanes is a "Tier I" project in SJCOG's 2007 Regional Transportation Plan. The other major improvements listed above are elements of the City's Roadway Master Plan that are projected to be necessary to support the level of development assumed to be in place under future 2030 conditions. The new I-205/Lammers Road interchange design and supporting network is currently under study and review by Caltrans. Similar to the Tracy General Plan EIR traffic analysis, this analysis assumes Alternative 5A, as defined in the I-205/Lammers Road Interchange Project Study Report (PSR)[2], will be constructed.

Cumulative Intersection Improvements

Selected intersection improvements were assumed to occur by 2030 as summarized in Table 3.12-15. The intersection improvements at Grant Line Road/Corral Hollow Road and Eleventh Street/Corral Hollow Road were identified baseline improvements in the transportation impact analysis report for the Ellis Specific Plan, which is an approved City of Tracy project. The intersection of West Valley Mall/Corral Hollow Road was assumed to be widened to provide an additional northbound and southbound through lane to be consistent with the Corral Hollow Road widening currently being planned. No improvements over existing lane configurations and traffic controls were assumed at the remaining study intersections. Cumulative intersection operating conditions were assessed with improvements at the intersections listed in Table 3.12-15 and the existing lane configurations for the remaining study intersections. Cumulative intersection lane configurations and traffic controls are shown on Figure 3.12-11.

[2] Project Study Report – Route 205/Lammers Road Interchange (Caltrans, January 2006).

Table 3.12-15
Cumulative Intersection Improvements

Study Intersection	Added Signal?	Lane Geometry Changes
2. West Valley Mall/Corral Hollow Road	No (already signalized)	• Widen NB approach to add NB thru lane • Widen SB approach to add SB thru lane
3. Grant Line Road/Corral Hollow Road	No (already signalized)	• Widen EB approach to add 1 LT & 1 Thru lane • Widen WB approach to provide 2 LT, 3 Thru, & 1 RT lane • Reduce NB LT lanes from 3 to 2, and add 1 Thru lane • Widen SB approach to provide 2 LT, 3 Thru, & 1 RT lane • Convert EB RT lane from permitted to free
10. Eleventh Street/Corral Hollow Road	No (already signalized)	• Widen NB approach to add 1 Thru lane • Widen SB approach to add 1 Thru lane • Convert WB RT lane from permitted to free

Notes:
EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound
LT = Left-turn; RT = Right-turn; TR = Through-Right; TL = Through-Left
Source: Fehr & Peers, 2009

Cumulative (2030) Forecasts

The cumulative land use scenario was developed in consultation with City staff. Within the Tracy Planning Area, the development assumptions used are consistent with the City's General Plan envisioned development through 2030. Outside of the Tracy Planning Area, the development assumptions used in preparing the traffic forecasts are consistent with the 2030 scenario of the SJCOG traffic model, as updated for the 2007 Regional Transportation Plan. With City direction, motor sport race tracks that potentially may be developed on City property just north to the project site were included in the cumulative scenario. The assumptions and trip generation rates used for the motor sport race tracks are described in Appendix H. Trip generation and distribution assumptions for the race tracks were based on very limited development description, therefore it is recommended that more detailed estimates be used for future studies, as more detailed information becomes available.

CUMULATIVE NO PROJECT TRAFFIC

Cumulative No Project intersection forecasts were developed by adding the model growth between the base year City of Tracy General Plan Traffic Model and the adjusted 2030 model to the existing intersection counts. Cumulative No Project weekday PM and Saturday peak hour

turning movement and freeway volumes were developed using the three-step process used for the Near-Term No Project forecasts. Cumulative No Project forecasts are shown on Figure 3.12-12.

CUMULATIVE PLUS PROJECT TRAFFIC

Based on the trip generation and distribution assumptions, trips expected to be generated by the Project under Cumulative Conditions were assigned through the study intersections. The cumulative project peak hour trip assignment for each study intersection is shown on Figure 3.12-8. Cumulative Plus Project peak hour traffic forecasts were developed by adding the assigned project trips at each study intersection to the Cumulative No Project forecasts. Cumulative Plus Project peak hour traffic forecasts are shown on Figure 3.12-13.

Analysis of Cumulative (2030) Conditions

The intersection and freeway segment operation analyses for Cumulative (2030) Conditions were performed using the same methodologies discussed previously.

INTERSECTION OPERATIONS

Cumulative intersection operations were evaluated using the lane configurations and traffic controls shown on Figure 3.12-11. The cumulative intersection analysis results are presented in Table 3.12-16. As shown, all study intersections are projected to operate at acceptable service levels under Cumulative No Project Conditions except the following:

- Larch Road/Corral Hollow Road operates at LOS F during the PM and Saturday peak hours
- Larch Road/Tracy Boulevard operates at LOS F during the PM and Saturday peak hours
- I-205 Westbound Ramps/Tracy Boulevard operates at LOS E during the PM and Saturday peak hours
- I-205 Eastbound Ramps/Tracy Boulevard operates at LOS F during the PM and Saturday peak hours
- Grant Line Road/Tracy Boulevard operates at LOS D during the PM and Saturday peak hours
- Eleventh Street/Corral Hollow Road operates at LOS E during the PM and Saturday peak hours
- Eleventh Street/Tracy Boulevard operates at LOS E during the PM peak hour

With the addition of project traffic, the intersection of Larch Road/Holly Drive operates unacceptably in addition to the seven intersections mentioned above. Under Cumulative Plus Project Conditions, this intersection operates at an overall LOS E (and the eastbound approach operates at LOS F) during the PM and Saturday peak hours. The project driveways are projected to operate at good levels with stop sign control under Cumulative Conditions. The LOS calculation

worksheets for the Cumulative No Project and Cumulative Plus Project scenarios are provided in Appendix H.

Table 3.12-16
Cumulative (2030) Peak Hour Intersection Levels of Service

Intersection		Control[1]	Peak Hour	No Project		Plus Project	
				Delay [2] (in seconds)	LOS	Delay [2] (in seconds)	LOS
1.	Larch Road/Corral Hollow Road	SSSC	PM SAT	**>50 (>50)** **>50 (>50)**	**F (F)** **F (F)**	**>50 (>50)** **>50 (>50)**	**F (F)** **F (F)**
2.	West Valley Mall/Corral Hollow Road	Signal	PM SAT	20 29	B C	21 33	C C
3.	Grant Line Road/Corral Hollow Road	Signal	PM SAT	33 32	C C	33 34	C C
4.	Larch Road/Tracy Boulevard	AWS	PM SAT	**>50** **>50**	**F** **F**	**>50** **>50**	**F** **F**
5.	I-205 Westbound Ramps/Tracy Boulevard	Signal	PM SAT	**55** **64**	**E** **E**	**71** **>100**	**E** **F**
6.	I-205 Eastbound Ramps/Tracy Boulevard	Signal	PM SAT	**>100** **>100**	**F** **F**	**>100** **>100**	**F** **F**
7.	Grant Line Road/Tracy Boulevard	Signal	PM SAT	**47** **44**	**D** **D**	**51** **46**	**D** **D**
8.	Larch Road/Holly Drive	SSSC	PM SAT	22 (28) 16 (20)	C (D) C (C)	**38 (>50)** **38 (>50)**	**E (F)** **E (F)**
9.	Grant Line Road/Holly Drive	Signal	PM SAT	26 22	C C	27 23	C C
10.	Eleventh Street/Corral Hollow Road	Signal	PM SAT	**59** **61**	**E** **E**	**60** **65**	**E** **E**
11.	Eleventh Street/Tracy Boulevard	Signal	PM SAT	**56** 32	**E** C	**58** 33	**E** C
12.	Eleventh Street/Holly Drive	Signal	PM SAT	29 21	C C	30 22	C C
13.	Project Driveway/Tracy Boulevard	SSSC	PM SAT	n/a	--	5 (10) 11 (14)	A (B) B (B)
14.	Project Driveway/Corral Hollow Road	SSSC	PM SAT	n/a	--	2 (11) 5 (21)	A (B) A (C)

Note: Results in **bold** represent unacceptable levels of service.

1. Signal = signalized intersection, SSSC = side street stop controlled intersection, AWSC = all-way stop-controlled intersection
2. For side-street stop-controlled intersections, delay is reported as: Intersection average (worst case approach).

Source: Fehr & Peers, 2009.

PEAK HOUR TRAFFIC SIGNAL WARRANT ANALYSIS

The peak hour volume traffic signal warrant (Warrant 3) for urban conditions, found in the *Manual of Uniform Traffic Control Devices* (MUTCD) (Federal Highway Administration, 2000), was evaluated for the unsignalized intersections in the study area, as shown in Table 3.12-17. The urban conditions peak hour traffic signal warrant was evaluated because the areas surrounding the three unsignalized intersections along Larch Road are expected to be developed by 2030. As shown in Table 3.12-17, all three study intersections along Larch Road meet the peak hour signal warrant under Cumulative No Project Conditions. With the addition of project traffic, all unsignalized study intersections except the project driveway intersection at Corral Hollow Road meet the peak hour signal warrant.

The intersections along Larch Road at Corral Hollow Road and Tracy Boulevard are projected to operate unacceptably during the Saturday peak hour with the addition of project traffic. Even though the project driveway intersection at Tracy Boulevard meets the peak hour signal warrant, it is expected to operate at an acceptable level of service during the PM and Saturday peak hours. An evaluation of all applicable warrants should be conducted and additional factors (e.g., congestion, approach conditions, driver confusion) should be considered before the decision to install a signal is made. Detailed signal warrant calculations are provided in Appendix H.

Table 3.12-17
Cumulative (2030) Peak Hour Signal Warrant Analysis

Intersection		Control[1]	Without Project	Plus Project
			Peak Hour Warrant Met?	Peak Hour Warrant Met?
1.	Larch Road/Corral Hollow Road	SSSC	**YES**	**YES**
4.	Larch Road/Tracy Boulevard	AWS	**YES**	**YES**
8.	Larch Road/Holly Drive	SSSC	**YES**	**YES**
13.	Project Driveway/Tracy Boulevard	SSSC	--	**YES**
14.	Project Driveway/Corral Hollow Road	SSSC	--	NO

Note:
1. SSSC = side-street stop-controlled intersection, AWSC = all-way stop-controlled intersection

Source: Fehr & Peers, 2009.

BASELINE CUMULATIVE IMPROVEMENTS

As shown in Table 3.12-16, several of the study intersections would not be able to accommodate cumulative traffic growth consistent with build out of the General Plan prior to the addition of project traffic. Only the three study intersections along Holly Drive are expected to accommodate anticipated baseline Cumulative growth with existing lane configuration and traffic controls. Fehr & Peers identified improvements for six of the twelve study intersections to accommodate additional traffic volumes associated with cumulative growth; these improvements are

summarized in Table 3.12-18. Improvements were not identified for the other intersections as they are built out and adding lanes would not be feasible.

Table 3.12-18
Intersection Improvements to Support Cumulative Traffic Growth

Study Intersection	Added Signal?	Lane Geometry and Traffic Control Changes[1]
1. Larch Road/Corral Hollow Road	Yes	• Widen EB approach to provide 1 LT, 2 Thru, & 1 RT lane • Widen WB approach to provide 1 LT, 1 Thru, & 1 TR lane • Widen NB approach to provide 2 LT, 1 Thru, & 1 RT lane • Widen SB approach to provide 1 LT & 1 TR lane • Optimize signal timings
4. Larch Road/Tracy Boulevard	Yes	• Widen EB approach to provide 1 LT, 1 Thru, & 1 free RT • Widen WB approach to provide 1 LT and 1 TR lane • Widen NB approach to add a second LT lane • Optimize signal timings
5. I-205 WB Ramps/Tracy Boulevard	No (already signalized)	• Widen NB approach to add second LT lane • Widen WB approach to provide 1 LT, 1 LTR, & 1 RT lane • Optimize signal timings
6. I-205 EB Ramps/Tracy Boulevard	No (already signalized)	• Widen SB approach to add second LT lane • Optimize signal timings
7. Grant Line Rd/Tracy Boulevard	No (already signalized)	• Widen NB approach to add second LT lane • Widen SB approach to add second LT lane • Widen EB approach to provide 1 LT, 2 Thru, & 1 free RT lane
11. Eleventh Street/Tracy Boulevard[2]	No (already signalized)	• Convert SB RT lane from permitted to free • Convert EB RT lane from permitted to free • Optimize signal timings

Notes:
1. EB = Eastbound; WB = Westbound; NB = Northbound; SB = Southbound LT = Left-turn; RT = Right-turn; TR = Through-Right; TL = Through-Left; LTR = Left-Through-Right
2. Improvements listed only achieve LOS D operations. At-grade intersection improvements resulting in LOS C operations are not feasible due to physical constraints that preclude it from further widening. The required Cumulative configuration of this intersection to operate at an acceptable LOS C is a grade-separated urban interchange.

Source: Fehr & Peers, 2009

FREEWAY ANALYSIS

Cumulative No Project and Cumulative Plus Project freeway operations were evaluated for the weekday PM and Saturday peak hours. I-205 was assumed to be widened to eight lanes by 2030. Freeway segment LOS is summarized in Table 3.12-19. As shown, all study freeway segments are anticipated to operate acceptably under Cumulative No Project Conditions, except the following:

- Eastbound I-205 west of Tracy Boulevard operates at LOS E during the PM and Saturday peak hours
- Eastbound I-205 east of Tracy Boulevard operates at LOS E during the PM and Saturday peak hours

With the addition of project traffic, the westbound I-205 study segments would continue to operate acceptably and the eastbound study segments would also continue to operate at LOS E. The HCM calculation worksheets can be found in Appendix H.

Table 3.12-19
Cumulative (2030) Freeway Segment Level of Service

Segment	Direction of Travel	Peak Hour	# of Lanes	Without Project			Plus Project		
				Volume	Density[1]	LOS	Volume	Density[1]	LOS
I-205: West of Tracy Boulevard	Eastbound	PM SAT	4	8,060 8,100	**36.5** **35.5**	**E** **E**	**8,066** **8,259**	**36.5** **36.8**	**E** **E**
I-205: West of Tracy Boulevard	Westbound	PM SAT	4	4,740 5,480	19.2 22.1	C C	4,745 5,543	19.2 22.3	C C
I-205: East of Tracy Boulevard	Eastbound	PM SAT	4	8,630 8,610	**42.2** **40.2**	**E** **E**	**8,651** **8,895**	**42.5** **43.4**	**E** **E**
I-205: East of Tracy Boulevard	Westbound	PM SAT	4	5,140 5,950	20.8 24.0	C C	5,168 6,676	20.9 27.3	C D

Note:
1. Density measured in passenger cars per mile per lane
Source: Fehr & Peers, 2009.

Impact 3.12-5: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of Larch Road/Corral Hollow Road (Intersection #1) (Significant and Unavoidable)

The intersection of Larch Road/Corral Hollow Road would operate at LOS F during the PM and Saturday peak hours under both Cumulative No Project and Cumulative Plus Project Conditions. This is a **significant impact** because the project would increase the overall intersection volume by more then five percent during the Saturday peak hour, in addition to meeting the peak hour traffic signal warrant.

MITIGATION MEASURES

Mitigation Measure 3.12-5*: The following mitigation measures would improve operations at the Larch Road/Corral Hollow Road intersection to an acceptable level:*

- *Provide intersection improvements needed to accommodate cumulative background growth; these improvements are listed in Table 3.12-18. The addition of project traffic would not require additional improvements, aside from those listed in Table 3.12-18, to meet the LOS D standard.*

SIGNIFICANCE AFTER MITIGATION

The study intersection is under San Joaquin County jurisdiction. The City of Tracy would be responsible for the project's fair share of the intersection improvement, acquisition of right-of-way, and the construction. However, the County of San Joaquin would need to approve the design and construction of proposed intersection improvements. The weekday PM and Saturday peak hour project traffic volume contributions at this intersection are:

	PM Peak Hour	Saturday Peak Hour
Existing Traffic	515	387
Project Traffic	162	677
Cumulative Background Growth	3,195	3,353

If the County approves the proposed improvements, the intersection would operate at an acceptable LOS D during the PM and at Saturday peak hours with 42 and 43 seconds of average delay, respectively with the implementation of the mitigation measures. If the County does not approve the proposed improvements, then the intersection would continue to operate at an unacceptable level of service, and the project's contribution to this impact would be **cumulatively considerable.** Due to the fact that implementation of these measures is beyond the control of the City of Tracy, this impact is considered to be **significant and unavoidable**.

Impact 3.12-6: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of Larch Road/Tracy Boulevard (Intersection #4) (Significant and Unavoidable)

The intersection of Larch Road/Tracy Boulevard would operate at LOS F during the PM and Saturday peak hours under Cumulative No Project and Plus Project Conditions. This is a **significant impact** because the project would increase the overall intersection volume by more then ten percent during the weekday PM and Saturday peak hours, in addition to meeting the peak hour traffic signal warrant.

MITIGATION MEASURES

Mitigation Measure 3.12-6*: The following mitigation measures would improve operations at the Larch Road/Tracy Boulevard intersection to an acceptable level:*

- *Provide intersection improvements needed to accommodate cumulative background growth; these improvements are listed in Table 3.12-17. The addition of project traffic would require additional improvements, aside from those listed in Table 3.12-17, to meet the LOS D standard:*
    - *Widen the eastbound approach to provide one left-turn lane, two through lanes with a 400 foot receiving/acceleration lane on eastbound Larch Road, and a free-right turn lane.*
    - *Widen the northbound approach to provide two left-turn lanes, two through lanes with a 400 foot receiving/acceleration lane on northbound Tracy Boulevard, and a right-turn lane.*
    - *Optimize signal timings.*

SIGNIFICANCE AFTER MITIGATION

The weekday PM and Saturday peak hour project traffic volume contributions at this intersection are:

	PM Peak Hour	Saturday Peak Hour
Existing Traffic	809	628
Project Traffic	454	1,920
Cumulative Background Growth	1,981	2,322

The study intersection is partially under San Joaquin County jurisdiction. The City of Tracy would be responsible for the intersection improvement, acquisition of right-of-way, and the construction.

However, the County of San Joaquin would need to approve the design and construction of proposed intersection improvements.

If the County approves the proposed improvements identified above, then this would be a less than significant impact. The intersection would operate at LOS C with 28 seconds of average delay during the PM peak hour and at LOS D with 51 seconds of average delay during the Saturday peak hour. However, at the time of preparation of this EIR, it is not known if the County would approve the intersection improvements identified above. Due to the fact that implementation of these measures is beyond the control of the City of Tracy, this impact is considered to be **significant and unavoidable**.

Impact 3.12-7: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of I-205 Westbound Ramps/Tracy Boulevard (Intersection #5) (Less than Significant with Mitigation)

The intersection of I-205 westbound Ramps/Tracy Boulevard would operate at LOS E during the PM and Saturday peak hour under Cumulative No Project Conditions. With the addition of project traffic, the intersection would continue to operate at LOS E during the PM peak hour and would degrade to LOS F during the Saturday peak hour. This is a **significant impact** because the project would increase the average intersection control delay by more then four seconds during the PM and Saturday peak hours.

MITIGATION MEASURES

Mitigation Measure 3.12-7*: The following mitigation measures would improve operations at the I-205 westbound Ramps/Tracy Boulevard intersection to an acceptable level:*

- *Widen northbound approach to provide a second left-turn lane*
- *Widen westbound approach to provide one left-turn lane, one shared through/left-turn lane, and one free right-turn lane*

SIGNIFICANCE AFTER MITIGATION

The proposed project would fund its fair share of the improvements. The City of Tracy would be responsible for determining fair-share responsibilities and administering a Finance and Implementation Plan. The weekday PM and Saturday peak hour project traffic volume contributions at this intersection are:

	PM Peak Hour	Saturday Peak Hour
Existing Traffic	1,343	1,310
Project Traffic	371	1,775
Cumulative Background Growth	1,647	1,970

The intersection would operate at LOS B with 20 seconds of average delay during the PM peak hour and at LOS C with 33 seconds of average delay during the Saturday peak hour. The implementation of MM 3.12-7 would reduce this cumulative impact to **less than significant**.

Impact 3.12-8: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the I-205 Eastbound Ramps/Tracy Boulevard (Intersection #6*)* (Less than Significant with Mitigation)

The intersection of I-205 eastbound Ramps/Tracy Boulevard would operate would operate at LOS F during the PM and Saturday peak hours under Cumulative No Project and Cumulative Plus Project Conditions. This is a **significant** impact because the project would increase the average intersection control delay by more then four seconds during the PM and Saturday peak hours.

MITIGATION MEASURES

Mitigation Measure 3.12-8*: The following mitigation measures would improve operations at the I-205 eastbound Ramps/Tracy Boulevard intersection to an acceptable level:*

- *Widen northbound approach to provide a two through lanes and a right-turn lane*
- *Widen southbound approach to provide two through lanes and two left-turn lanes*
- *Widen eastbound approach to provide one left-turn lane, one shared right-through lane, and one right-turn lane*

SIGNIFICANCE AFTER MITIGATION

The proposed project would fund its fair share of the improvements. The City of Tracy would be responsible for determining fair-share responsibilities and administering a Finance and Implementation Plan. The weekday PM and Saturday peak hour project traffic volume contributions at this intersection are:

	PM Peak Hour	Saturday Peak Hour
Existing Traffic	1,557	1,577
Project Traffic	339	985
Cumulative Background Growth	1,793	1,903

The intersection would operate at LOS C with 20 seconds of average delay during the PM peak hour and at LOS D with 45 seconds of average delay during the Saturday peak hour. The implementation of MM 3.12-8 would reduce this cumulative impact to **less than significant**.

Impact 3.12-9: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of Larch Road/Holly Drive (Intersection #8)(Less than Significant with Mitigation)

The eastbound approach of the intersection of Larch Road/Holly Drive would operate at LOS D during the PM peak hour and at LOS C during the Saturday peak hour under Cumulative No Project Conditions. With the addition of project traffic, the eastbound approach operates at LOS F. This is a **significant impact** because the project would degrade the service level from LOS D to LOS F in the PM peak hour and LOS C to LOS F during the Saturday peak hour. The intersection also satisfies the peak hour signal warrant under Cumulative No Project and Plus Project Conditions.

MITIGATION MEASURES

Mitigation Measure 3.12-9*: The following mitigation measures would improve operations at the Larch Road/Holly Drive intersection to an acceptable level:*

- *Install traffic signal and optimize signal timings during the PM and Saturday peak hour. Optimization of traffic signal timings shall include determination of green time allocation for each intersection approach relative to the approach traffic volumes.*

SIGNIFICANCE AFTER MITIGATION

The proposed project would fund its fair share of the improvements. The City of Tracy would be responsible for determining fair-share responsibilities. The weekday PM and Saturday peak hour project traffic volume contributions at this intersection are:

	PM Peak Hour	Saturday Peak Hour
Existing Traffic	341	207
Project Traffic	83	145
Cumulative Background Growth	719	743

The intersection would operate at LOS A during the PM and at Saturday peak hours with 9 and 10 seconds of average delay, respectively. The implementation of MM 3.12-9 would reduce this cumulative impact to **less than significant**.

Impact 3.12-10: Under cumulative conditions project implementation would contribute to unacceptable levels of service at three additional intersections (Less than Significant)

The following three intersections also operate unacceptably with and without the project:

- Grant Line Road/Tracy Boulevard (Intersection #7) would operate at LOS D during the PM and Saturday peak hours
- Eleventh Street/Corral Hollow Road (Intersection #10) would operate at LOS E during the PM and Saturday peak hours
- Eleventh Street/Tracy Boulevard (Intersection #11) would operate at LOS E during the PM peak hour

The project would add traffic to these three intersections during the PM and Saturday peak hours and would slightly increase the delay. Even so, the added project traffic would not increase either of the intersections overall average delay by more then four seconds; therefore, project impacts at these three intersections would be **less than significant**.

Impact 3.12-11: Under cumulative conditions project implementation would contribute to unacceptable levels of service on two freeway segments (Less than Significant)

The following two freeway segments also operate unacceptably with and without the project:

- Eastbound I-205 west of Tracy Boulevard operates at LOS E during the PM and Saturday peak hours
- Eastbound I-205 east of Tracy Boulevard operates at LOS E during the PM and Saturday peak hours

Even though the project would add traffic to the eastbound I-205 study segments, the added project traffic would not increase the baseline volume by more then five percent; therefore, project impacts at the eastbound freeway study segments would be **less than significant**.

SITE ACCESS, CIRCULATION AND PARKING ANALYSIS

Impact 3.12-12: The proposed site access alignment would not result in significant vehicular hazards or unacceptable intersection operations (Less than Significant)

Site access encompasses the intersections of the project site roadways/driveways to the public street system. A safe intersection has adequate sight distance, width and corner radii so drivers can safely maneuver through the intersection. Appropriate intersection traffic control is also a component of a safe intersection taking into account vehicle, pedestrian and bicycle traffic. Specialty treatments such as decorative pavers, curb extensions, safety lighting, pedestrian flashers or signing are also components that enhance safety and operational needs of the intersection.

The project has one vehicle access point to Tracy Boulevard and another (future) to Corral Hollow Road. According to the site plan, a northbound left-turn lane and southbound right-turn lane is provided at the Tracy Boulevard driveway. The driveway does meet the peak hour traffic signal warrant under Near-Term and Cumulative Conditions, however it does operate acceptably under all future analysis scenarios.

Consultant Recommendation 6-1:

The project applicant should consider designing the project driveway intersection at Tracy Boulevard to accommodate future traffic signal installation

According to the site plan, no turn pocket lanes are provided on the southbound and northbound approaches of Corral Hollow Road at the project driveway. The project driveway operates acceptably and does not meet the peak hour traffic signal warrant under all future study scenarios.

Consultant Recommendation 6-2:

The project applicant should consider designing the project driveway intersection at Corral Hollow Road to accommodate one through lane and one right-turn lane at the northbound approach to allow more efficient access into the site from Corral Hollow Road.

Landscaping is shown on the site plan adjacent to each driveway. Improperly maintained landscaping adjacent to project driveways could limit driver visibility. Both driveways are connected via an east-west major internal circulation roadway that provides access to the parking aisles throughout the project site. All driveways would provide for unrestricted access in and out of the project site, and all are shown as side-street stop-controlled on the conceptual site plan.

Consultant Recommendation 6-3:

Maintain landscaping in areas near driveways to a height of less than 2 feet and tree braches trimmed to heights greater than 6 feet to provide sight distance visibility for drivers.

SUMMARY

The site access, as currently designed, will provide for safe access to the project site. The recommendations provided above should be considered by the City of Tracy, are not required in order to reduce the significance of an identified impact. This is a **less than significant impact**, and no mitigation is required.

Impact 3.12-13: The proposed site access alignment would provide for adequate emergency vehicle access (Less than Significant)

Factors such as proximity to fire stations, number of access points, and roadway width determine whether a project provides sufficient emergency access. Two fire stations are located near the project site. The first is located at 301 Grant Line Road, which is approximately 1 ¼ miles away and the second is located at 1701 Eleventh Street, which is approximately 2 ½ miles away from the

project site. The proposed project provides two primary emergency vehicle access points, one at the Tracy Boulevard driveway and the other at the Corral Hollow driveway (future alignment). No details for the future expansion area are provided on the conceptual, but it is recommended that direct emergency vehicle access to the potential building and facilities on the future expansion area be provided. The Tracy Fire Department was consulted during preparation of this Draft EIR, and it was determined that the proposed site access points shown in the conceptual plan were adequate for emergency vehicle access (Hanlon, 4/1/09). The internal project roadways provide at least 26-feet of roadway width, adequate for emergency vehicle access. Given these considerations, the project provides sufficient emergency access.

This is considered a **less than significant** impact, and no mitigation is required.

Consultant Recommendation 6-4:

The project applicant should consider providing an additional emergency vehicle access point on Corral Hollow Road adjacent to the future expansion area when that area is ultimately developed.

Impact 3.12-14: The proposed project does not include plans for pedestrian and bicycle access (Less than Significant with Mitigation)

Pedestrian facilities are non-existent in the areas adjacent to the project site. The conceptual site plan provides no sidewalks along the project site frontage on Tracy Boulevard and Corral Hollow Road. The lack of sidewalks on Tracy Boulevard and Corral Hollow Road make it difficult for pedestrians to access the project site from neighborhoods south of the site. This is considered a **potentially significant** impact.

Bicycle facilities are also non-existent in the areas adjacent to the project site. The conceptual site plan provides no bicycle facilities along the project site frontage on Tracy Boulevard and Corral Hollow Road. Neither the City nor County have developed plans that would potentially provide bicycle facilities on the segments of Tracy Boulevard and Corral Hollow Road adjacent to the project site. According to the City of Tracy 2005 *Bikeways Master Plan*, a Class III bicycle route is planned near the project site on Tracy Boulevard between Twelfth Street and Clover Road, but would not extend north of I-205. This is considered a **potentially significant** impact.

MITIGATION MEASURES

Mitigation Measure 3.12-14*: The following mitigation measures would improve pedestrian and bicycle access to the project site:*

- *When roadway improvements are made to the frontage on Tracy Boulevard and Corral Hollow that extend to Larch Road, the City shall provide sidewalks along project site as funding becomes available. In addition, pedestrian access points that provide direct access to the active sports park, future expansion area, and the passive-recreation area should be provided on Tracy Boulevard and Corral Hollow Road.*

- *The City shall provide a Class III bike route along Tracy Boulevard that would connect to the planned Class III bike route at Clover Road when that bike route is constructed in the future. The recommended Class III route would also provide access to the existing Class III route on Larch Road, east of Tracy Boulevard.*

- *The City shall provide bicycle parking spaces at each of the surface parking lots that equate to five percent of the number of provided vehicle parking spaces. Overall, the site should provide a total of at least 147 bicycle parking spaces. Bicycle parking stalls should conform to City Code design standards and should be located near the sport field facilities.*

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.12-14 would provide for adequate pedestrian and bicycle access to the project site and would reduce this impact to a **less than significant** level.

Impact 3.12-15: The proposed project includes adequate parking to meet projected peak Saturday demand (Less than Significant)

A total of 2,931 on-site parking spaces are shown on the conceptual site plan for the project. The proposed on-site parking supply was compared to both City of Tracy Municipal Code parking requirements and ITE parking demand rates.

Parking demand estimates are typically developed using parking demand rates contained in the ITE *Parking Generation*, (3rd Edition). As was the case for the trip generation estimates, ITE parking demand rates are not available for many of the uses and facilities that are planned on the project site; therefore, engineering judgment was used to develop parking demand estimates.

The parking demand was analyzed during the Saturday peak hour for the soccer season, which is the season expected to generate the largest number of trips. According to City Code parking requirements, the project would have to provide a total of 700 parking stalls for the 3,500-seat capacity stadium. The estimated trip generation rate per soccer field was 64 trips (32 incoming, 32 outgoing) during the Saturday peak hour. Based on the trip generation estimates, it is expected that the peak hour parking demand per soccer field would be 32 parking spaces. Hence, the 14 soccer fields proposed on the site would generate a Saturday peak hour parking demand of 448 parking spaces. The total peak hour parking demand for the active sports area would be 1,148 parking stalls, which includes the demand for the football/soccer stadium and the 14 soccer fields. The project provides 2,931 parking stalls, which is more then enough to accommodate the estimated Saturday peak hour parking demand. This is a **less than significant** impact, and no mitigation is required.

CONSTRUCTION TRAFFIC IMPACTS

Impact 3.12-16: Construction traffic may result in temporary impacts to roadway and intersection operations (Less than Significant with Mitigation)

Construction work will include two types of activities – site preparation and construction. Building construction can only take place after site preparation.

Site preparation includes all of the activities required to allow construction on the individual parcels of the future developments. Major components of site preparation can include removal of soil material, deposition of fill, grading of the site, and construction of necessary infrastructure. The final phase of site preparation is the installation of infrastructure which will include water lines and other utilities. A variety of construction equipment will be required for the site preparation phase, including bull-dozers, grading machines, and dump trucks.

Construction involves the assembly of the actual buildings and structures. Major elements of construction can include driving piles to support the building foundation, constructing the building frame, pouring concrete, completing the interior of each building on the project site.

Due to the size and amount of work that will be required to construct this development, it is expected that construction related traffic could negatively impact vehicular flow along Tracy Boulevard and Corral Hollow Road. Creating adequate storage and staging areas for equipment, materials, and vehicles will potentially cause additional construction impacts. Given the level of anticipated construction activity, this is considered a **potentially significant** impact.

MITIGATION MEASURES

Mitigation Measure 3.12-16*: The following mitigation measures would reduce impacts from construction related traffic:*

The City shall require the preparation and implementation of construction traffic management plans for the proposed project. The construction traffic management plans should include the following items:

- *A map documenting material and equipment staging and storage locations for all phases of construction*
- *A map documenting worker parking locations for all phases of construction*
- *A construction schedule that outlines days and hours of construction to limit noise impacts*
- *Signage plans relating to any temporary lane closures on public streets*

- *Notification procedures for adjacent businesses, residents, and public safety personnel for all major deliveries, detours, and street closures that will affect traffic in the vicinity of the development*
- *Provisions for monitoring surface streets designated as truck routes so that any damage and debris attributed to the trucks can be identified and corrected*
- *Signage plans documenting any detours for bicycle and pedestrian traffic*

Additionally, all staging and parking related to construction shall take place on-site. The City should also water down the site to reduce dust due to construction vehicles. The City will develop a construction management plan prior to any construction activities on-site.

SIGNIFICANCE AFTER MITIGATION

Implementation of MM 3.12-16 would reduce construction related traffic to a **less than significant** level.

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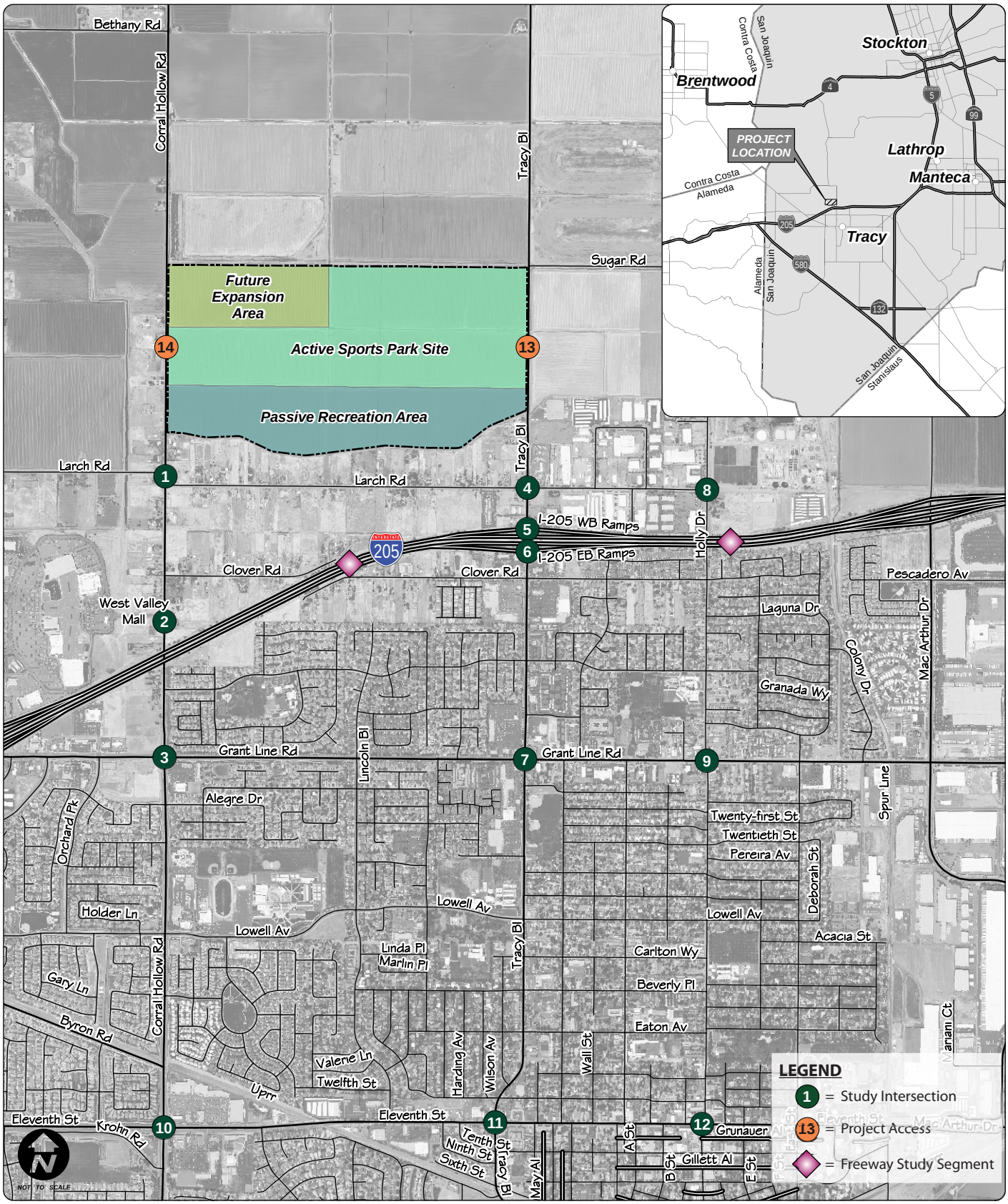

Holly Sugar Sports Park EIR

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TRANSPORTATION CONSULTANTS

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PROJECT SITE VICINITY AND STUDY LOCATIONS

FIGURE 3.12-1

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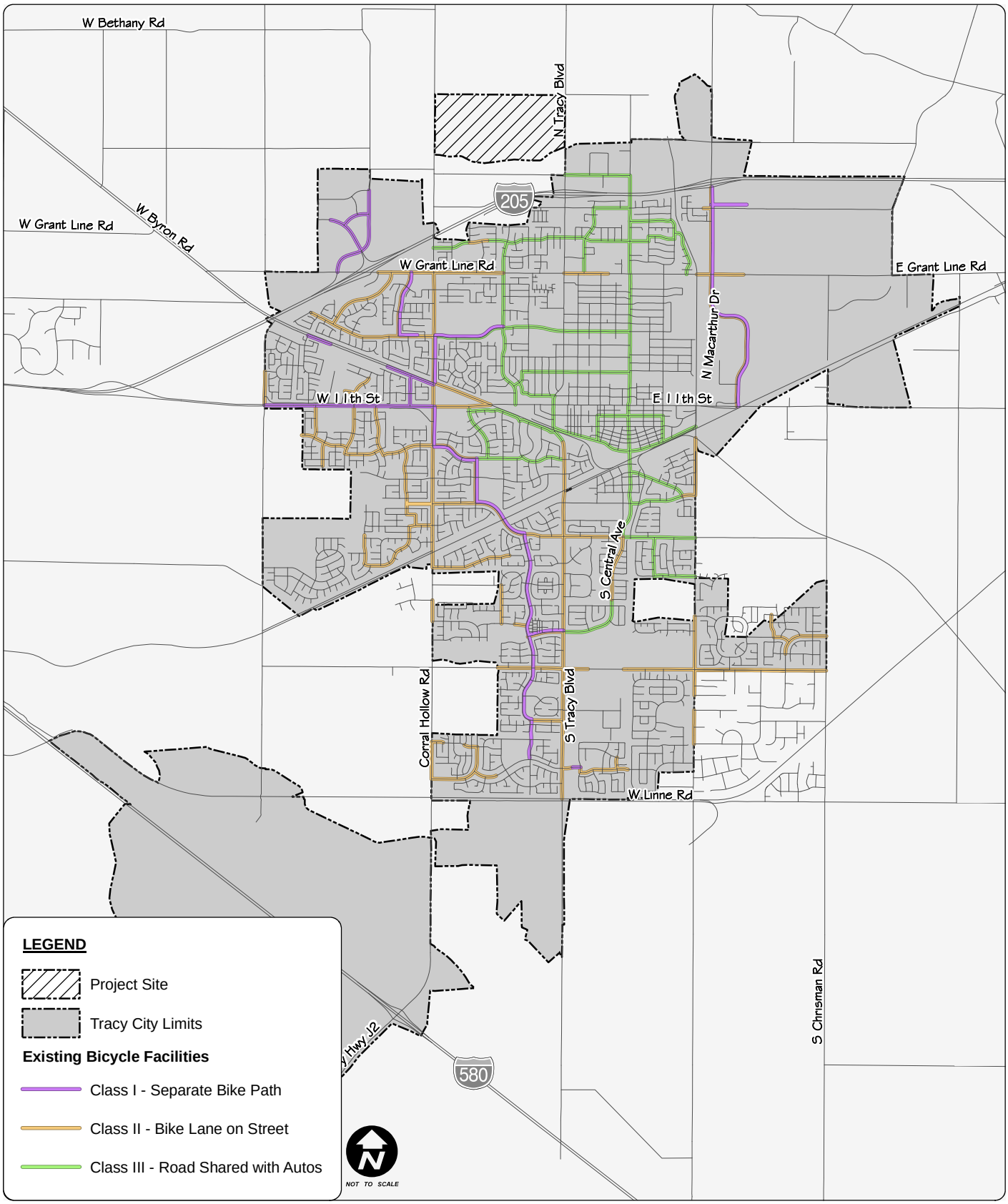

Holly Sugar Sports Park EIR

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EXISTING BICYCLE FACILITIES

FIGURE 3.12-2

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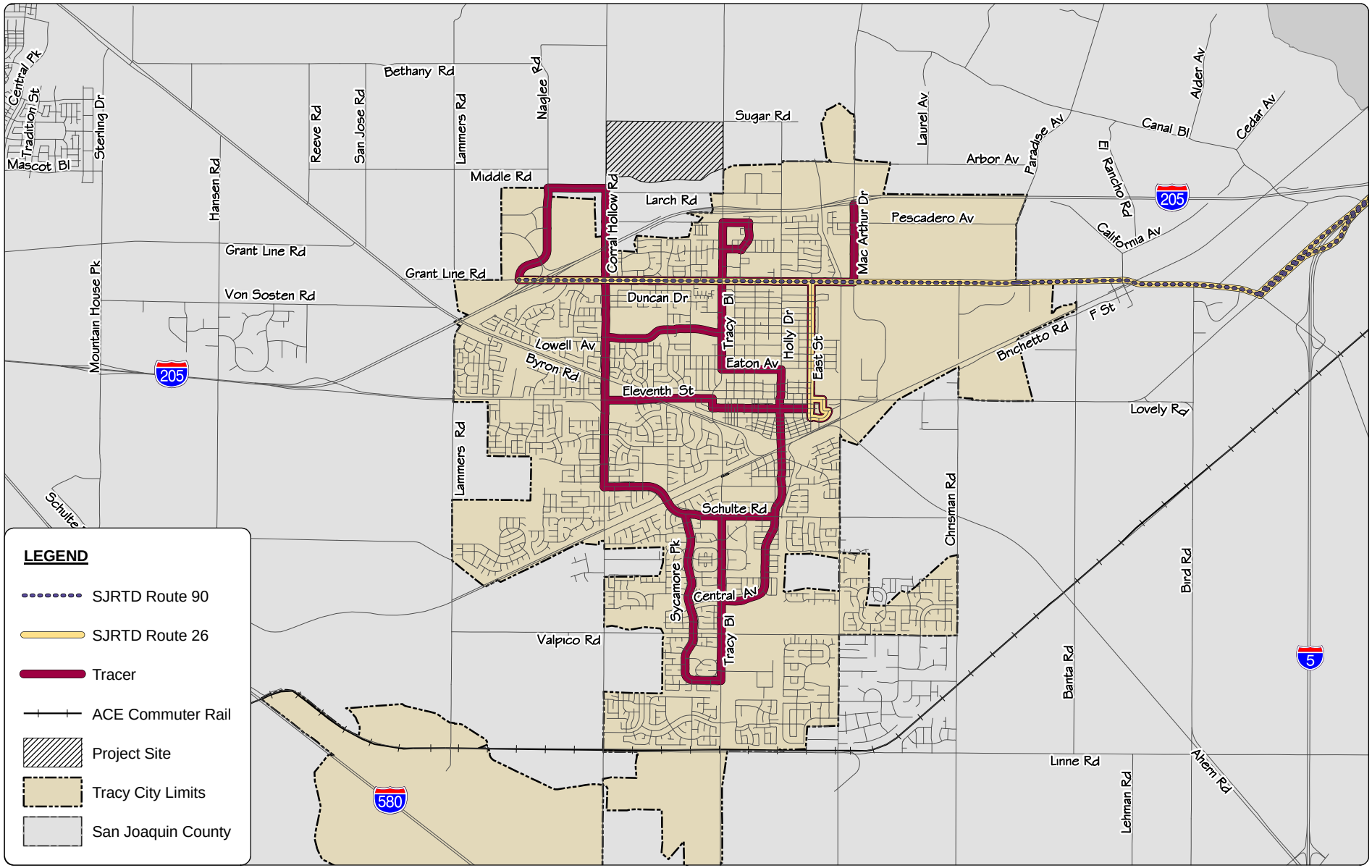

Holly Sugar Sports Park EIR

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EXISTING TRANSIT ROUTES

FIGURE 3.12-3

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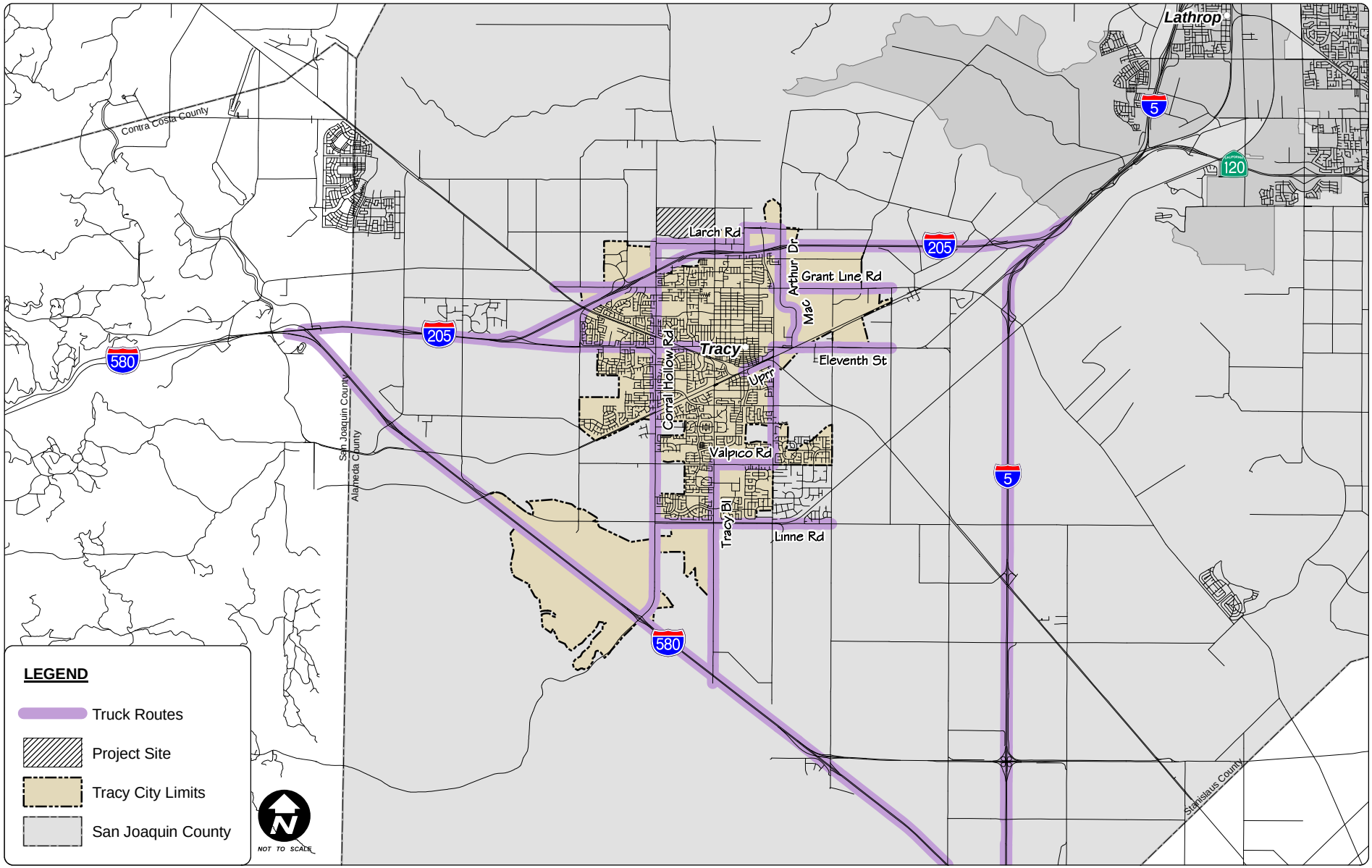

Holly Sugar Sports Park EIR

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WC08-2605_TruckRoutes

EXISTING TRUCK ROUTES

FIGURE 3.12-4

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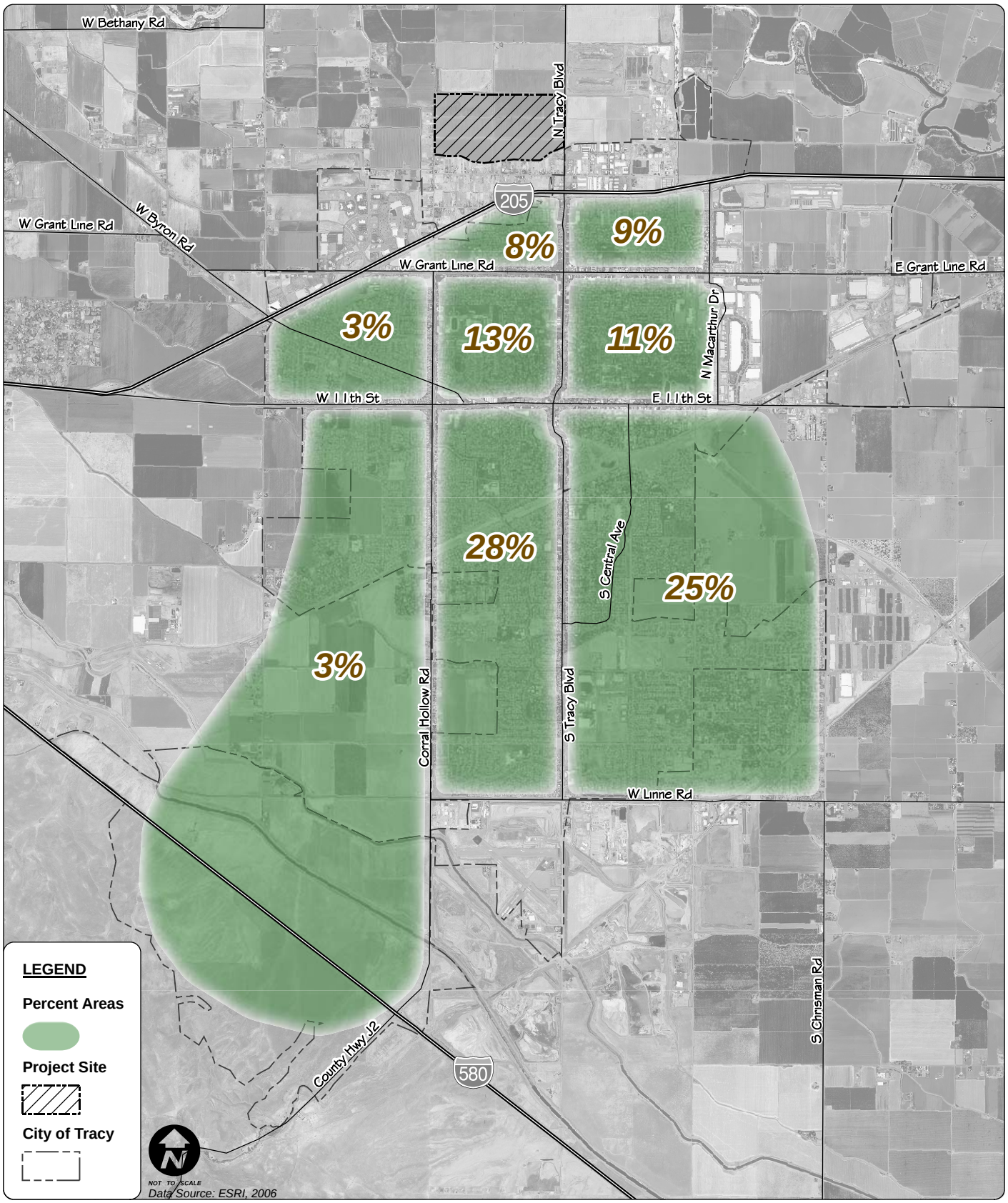

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CITY OF TRACY
POPULATION DISTRIBUTION
OF YOUTH AGES 5-17

FIGURE 3.12-5

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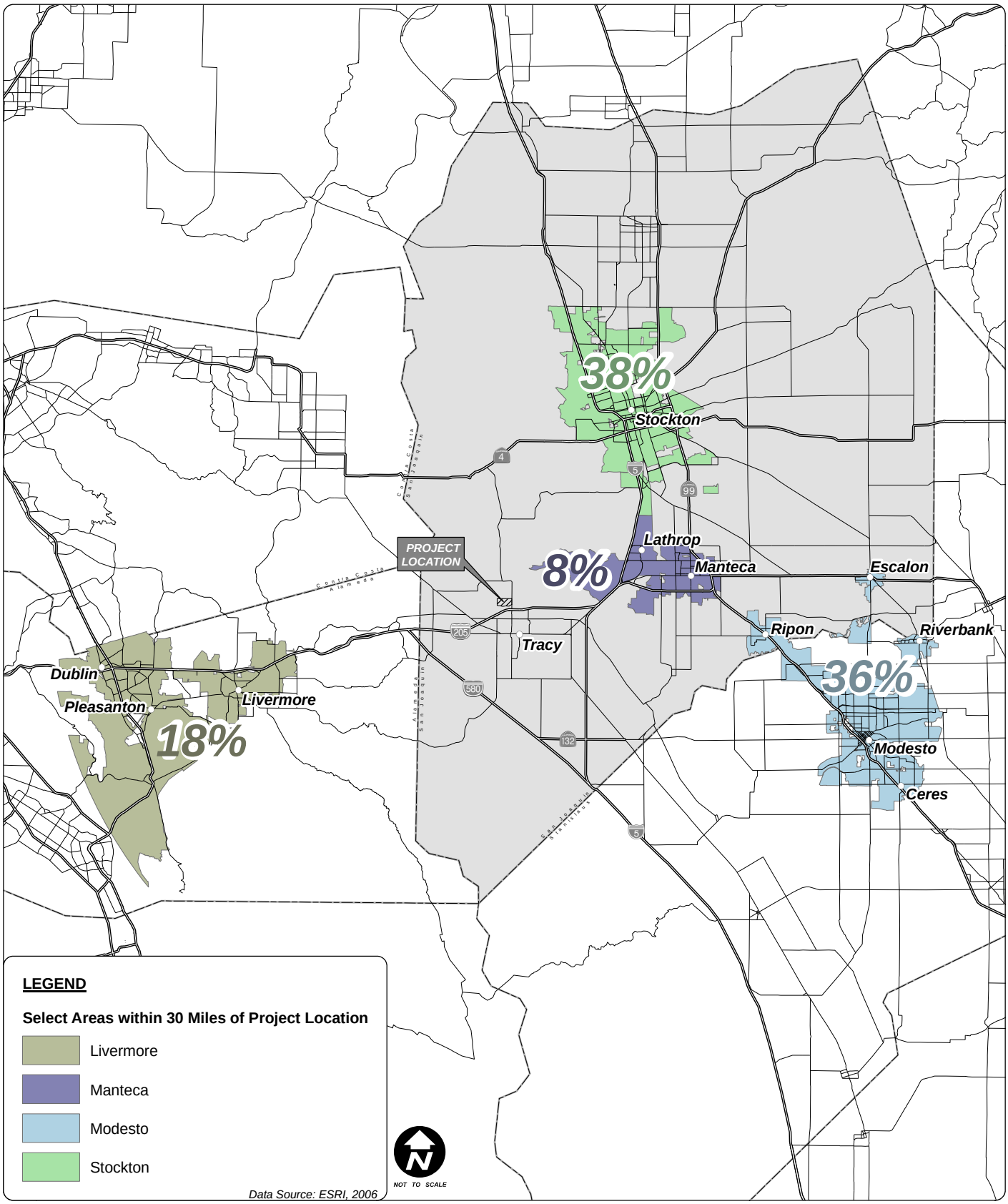

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REGIONAL POPULATION DISTRIBUTION OF YOUTH AGES 5-17

FIGURE 3.12-6

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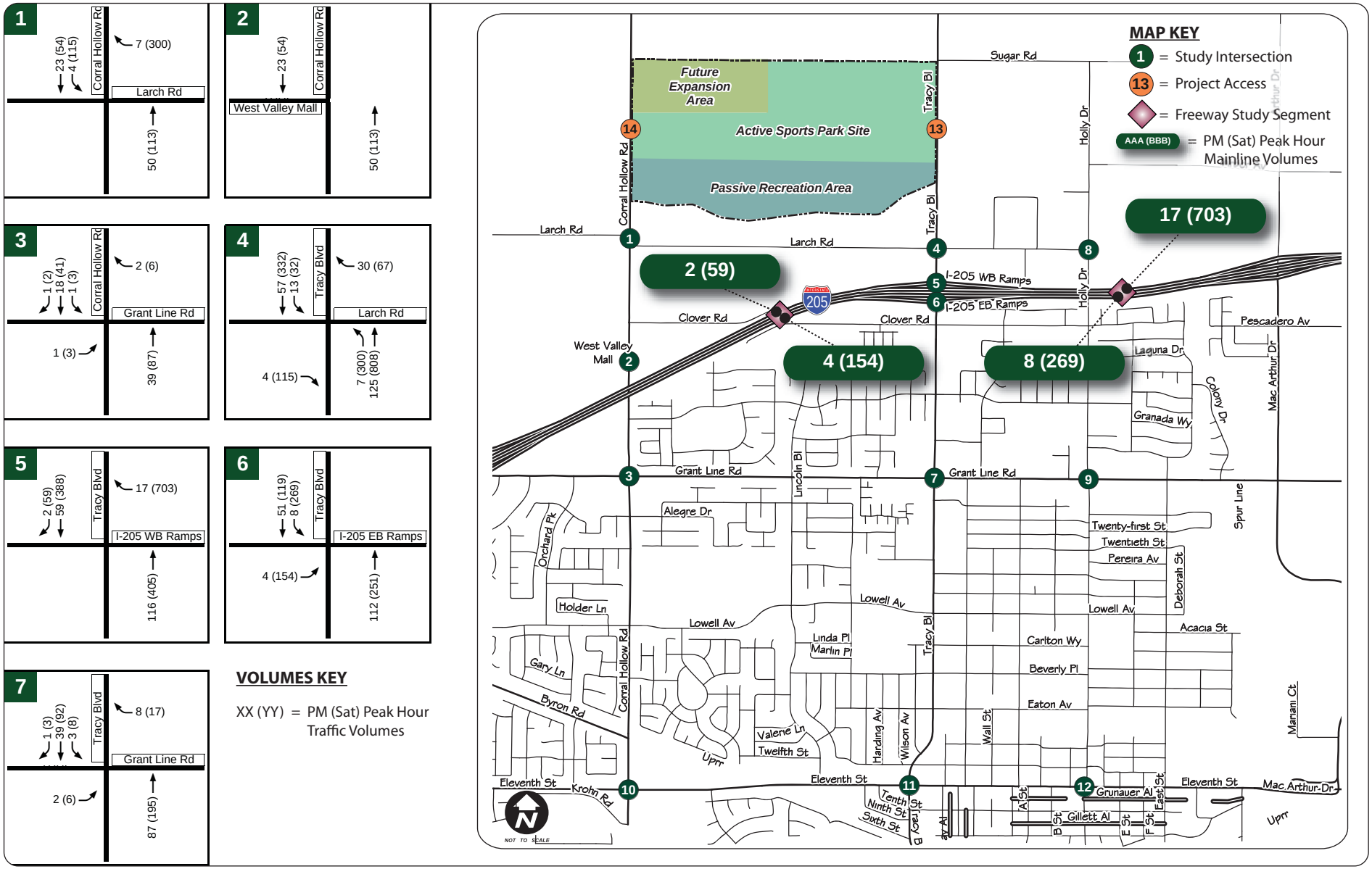

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NEAR-TERM PEAK HOUR PROJECT TRIP ASSIGNMENT

FIGURE 3.12-7A

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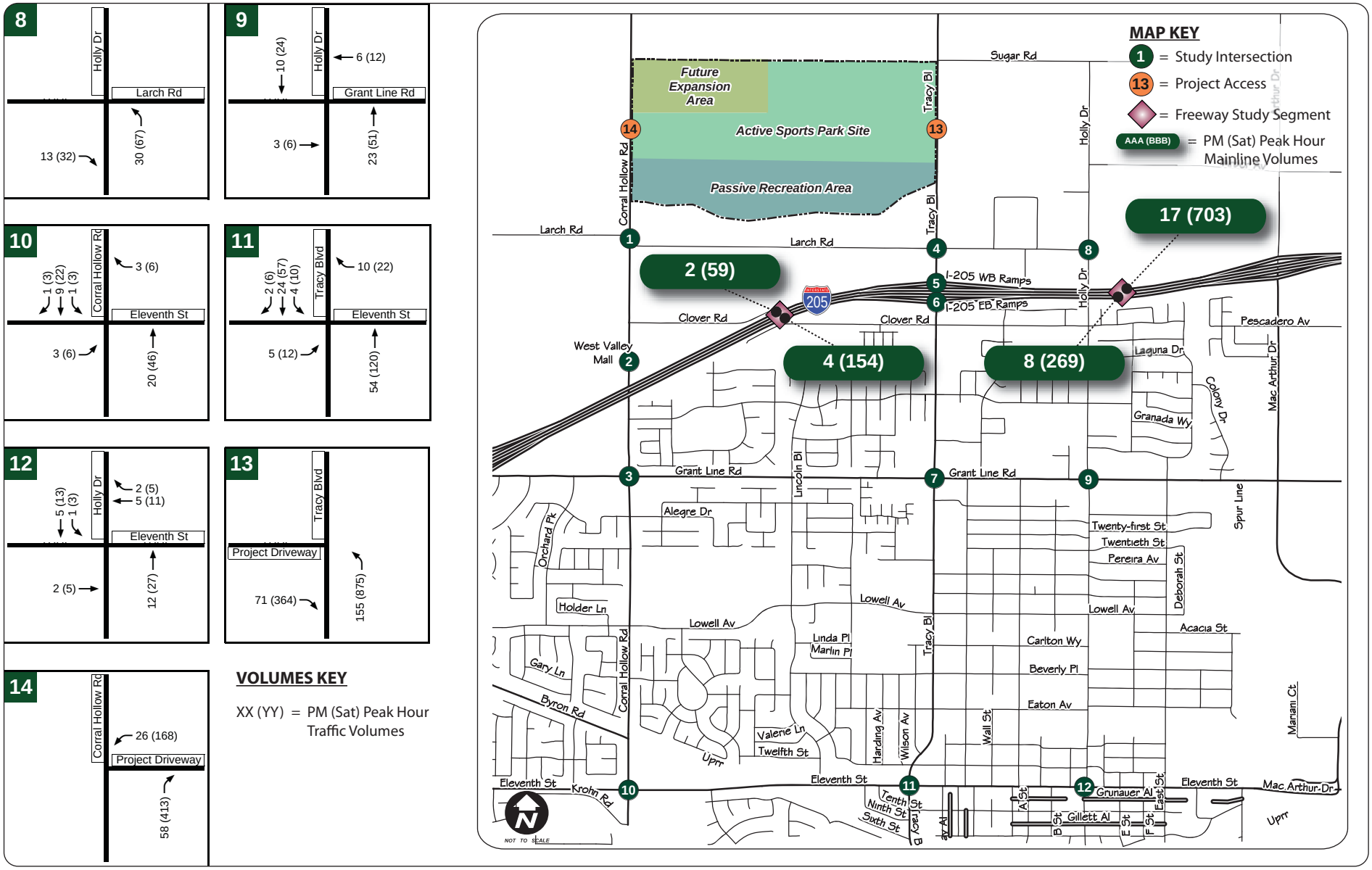

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NEAR-TERM PEAK HOUR PROJECT TRIP ASSIGNMENT

FIGURE 3.12-7B

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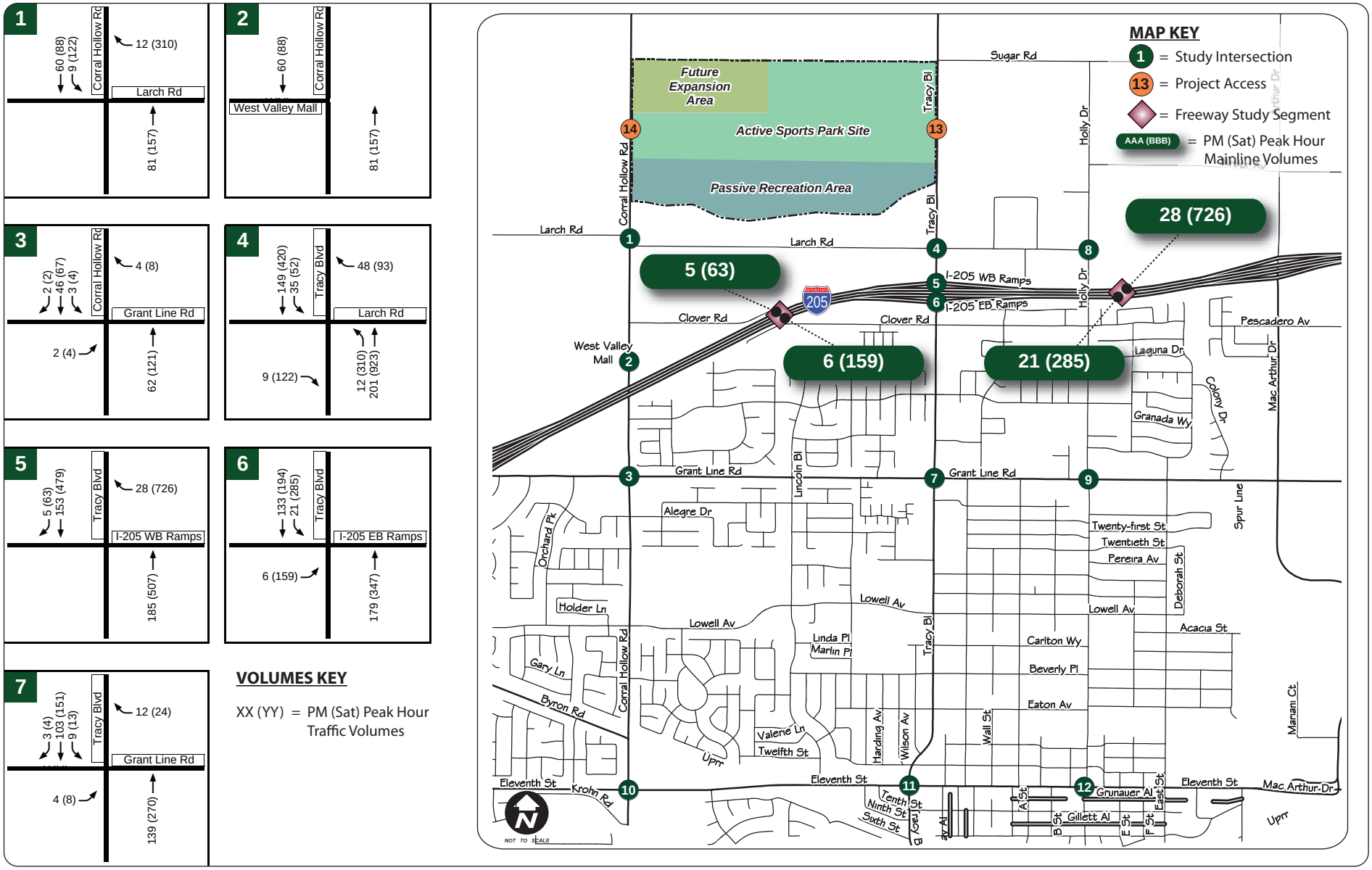

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CUMULATIVE PEAK HOUR PROJECT TRIP ASSIGNMENT

FIGURE 3.12-8A

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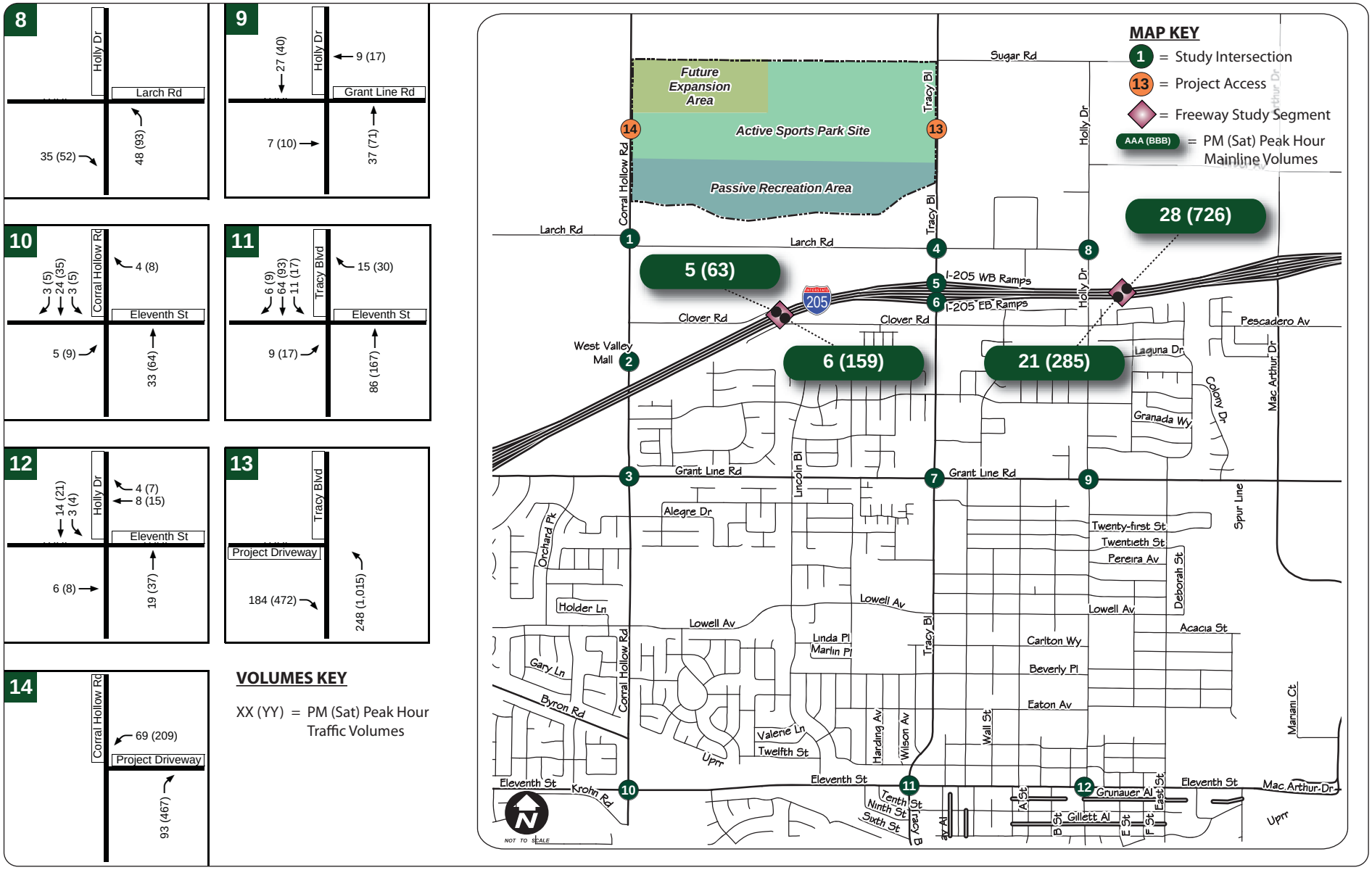

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CUMULATIVE PEAK HOUR PROJECT TRIP ASSIGNMENT

FIGURE 3.12-8B

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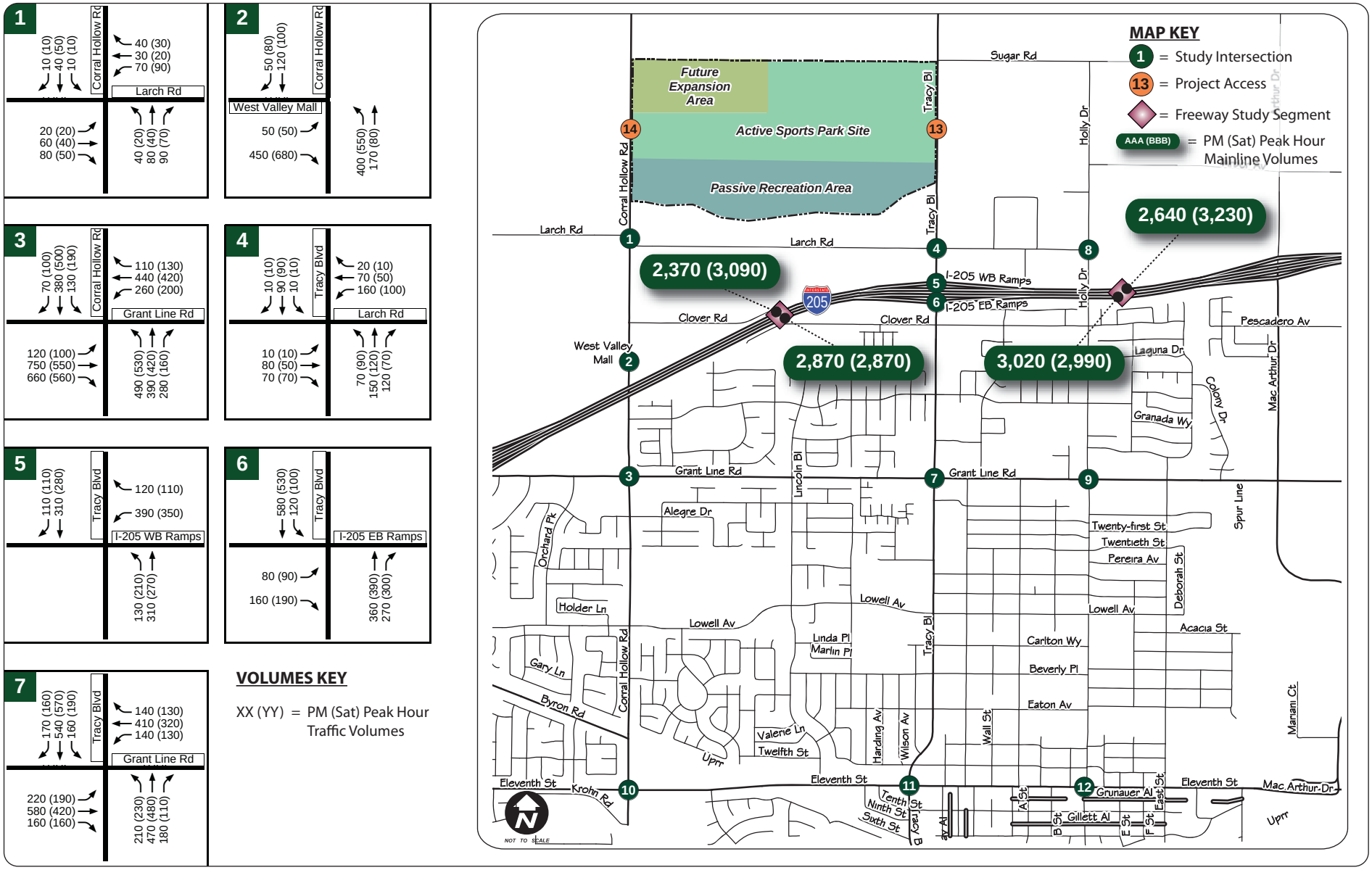

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NEAR-TERM NO PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 3.12-9A

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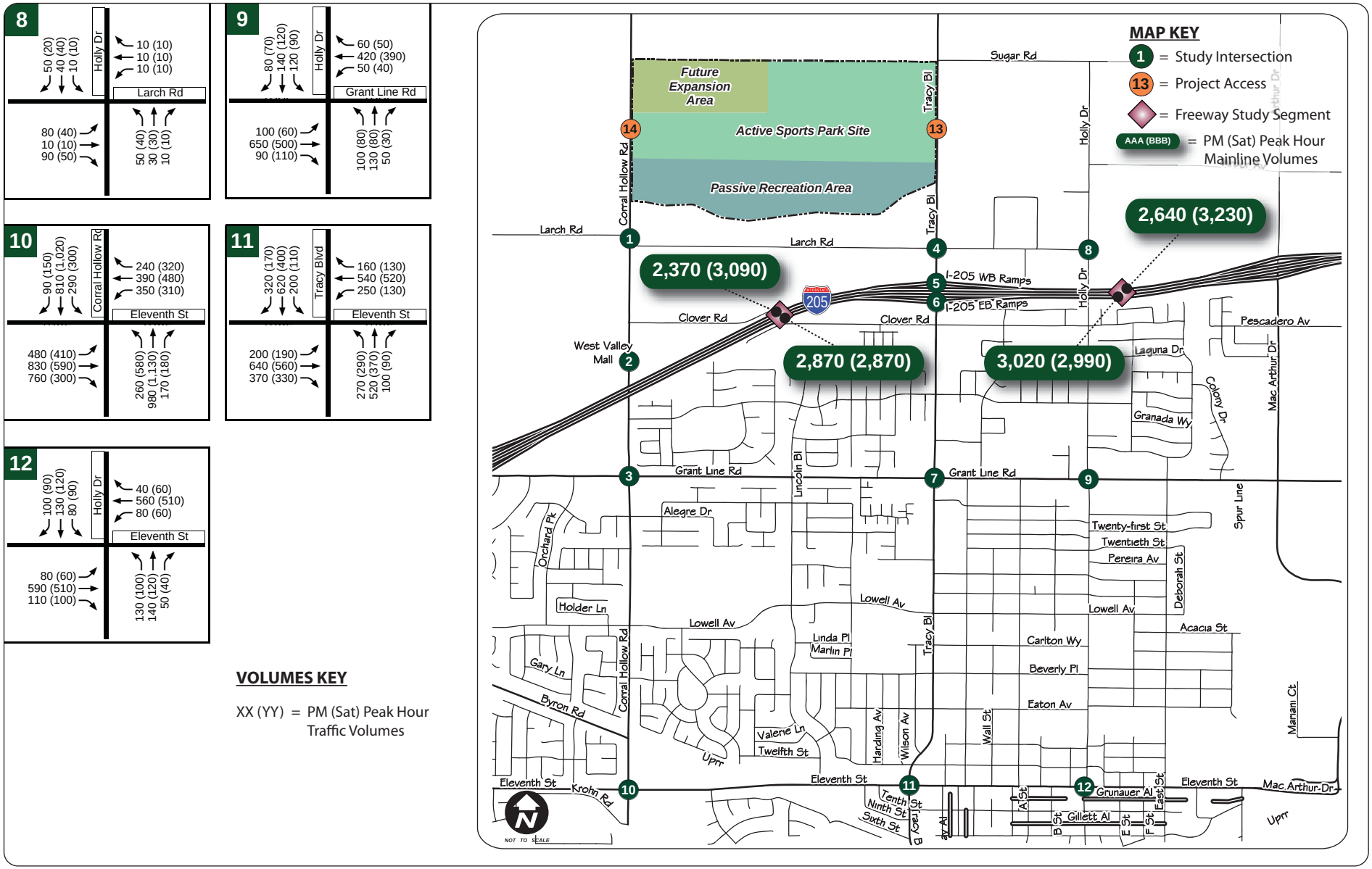

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NEAR-TERM NO PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 3.12-9B

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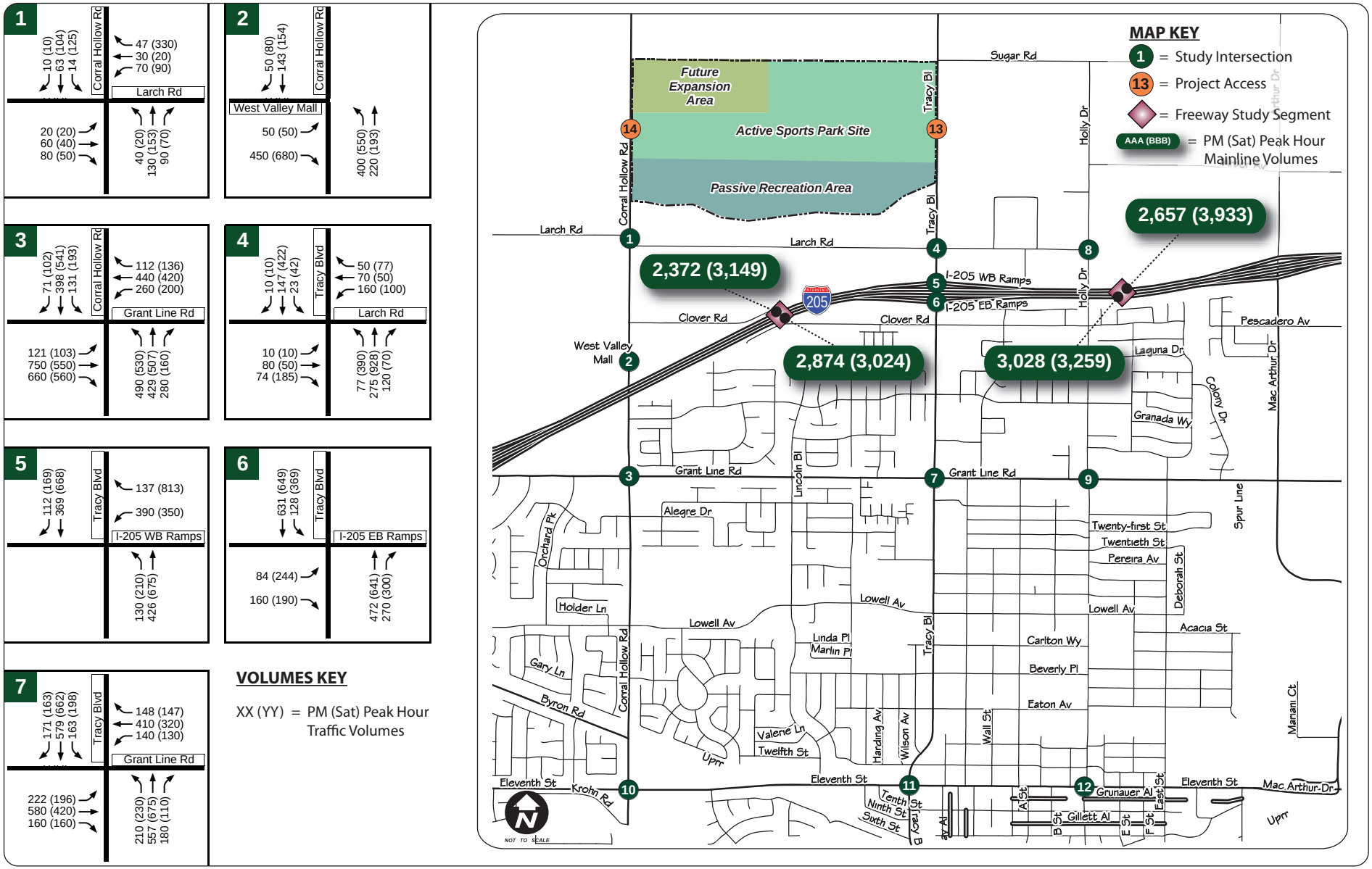

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NEAR-TERM PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 3.12-10A

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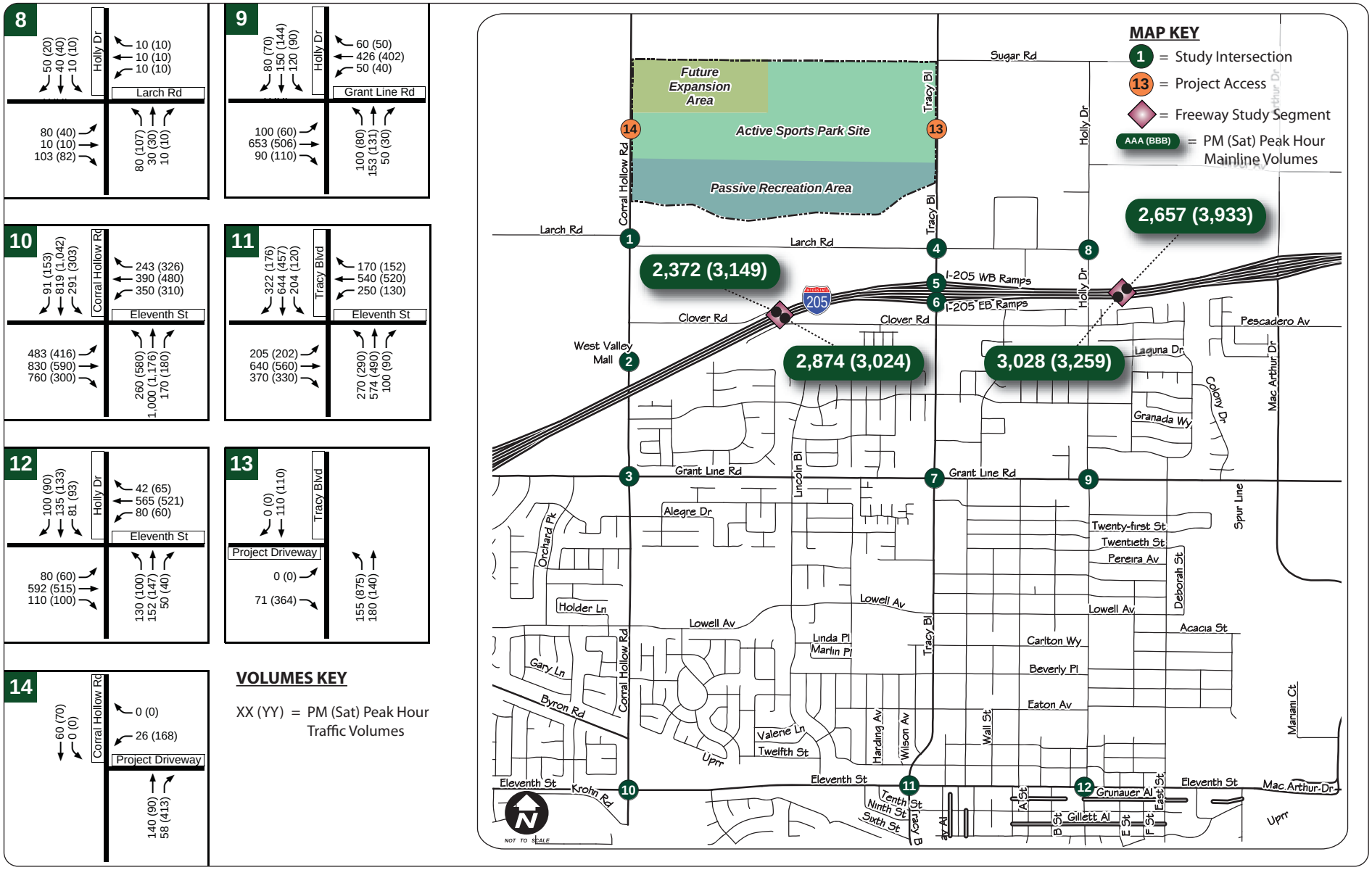

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NEAR-TERM PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 3.12-10B

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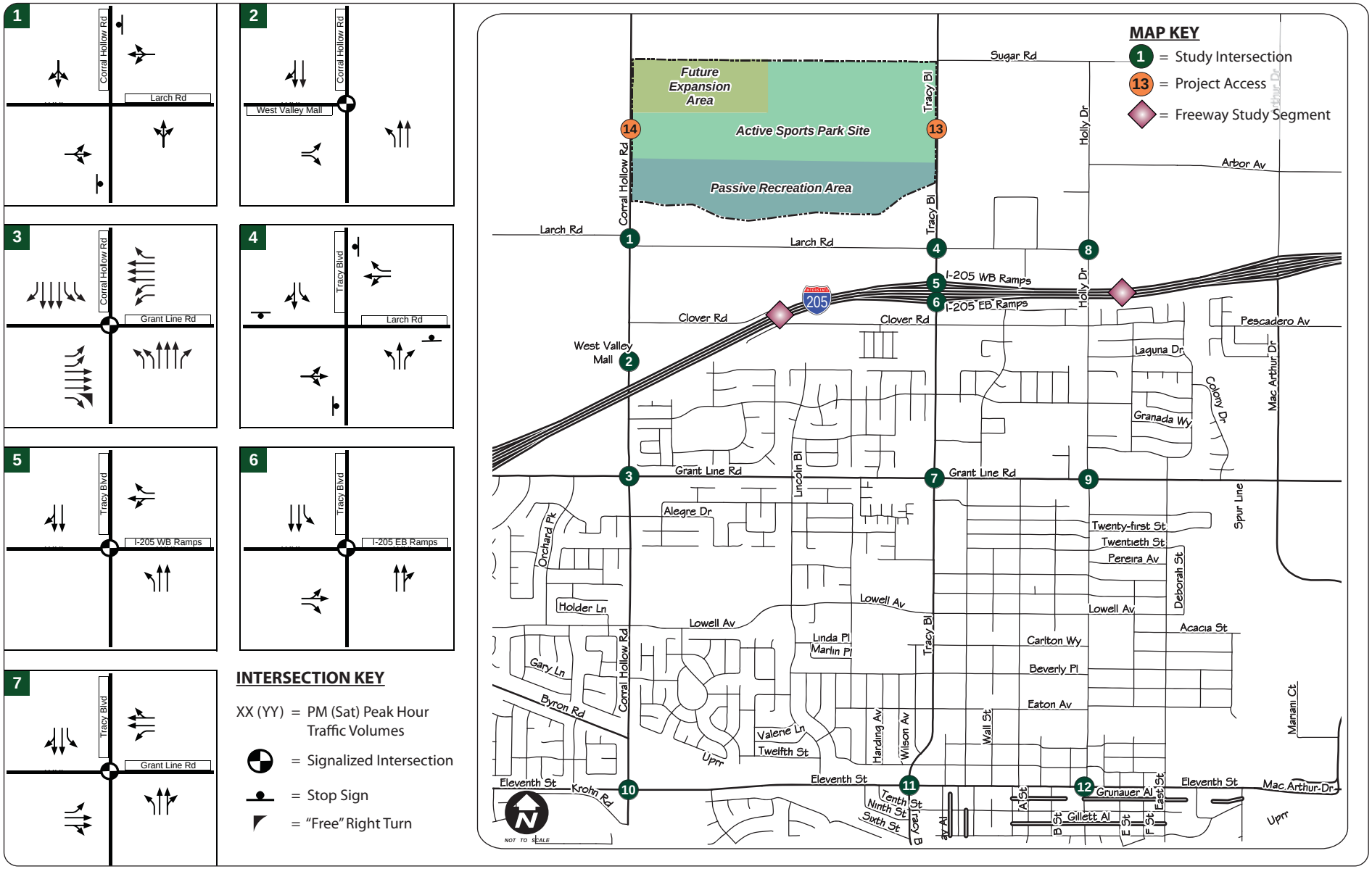

Holly Sugar Sports Park EIR

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CUMULATIVE (2030)
INTERSECTION LANE CONFIGURATIONS AND TRAFFIC CONTROLS

FIGURE 3.12-11A

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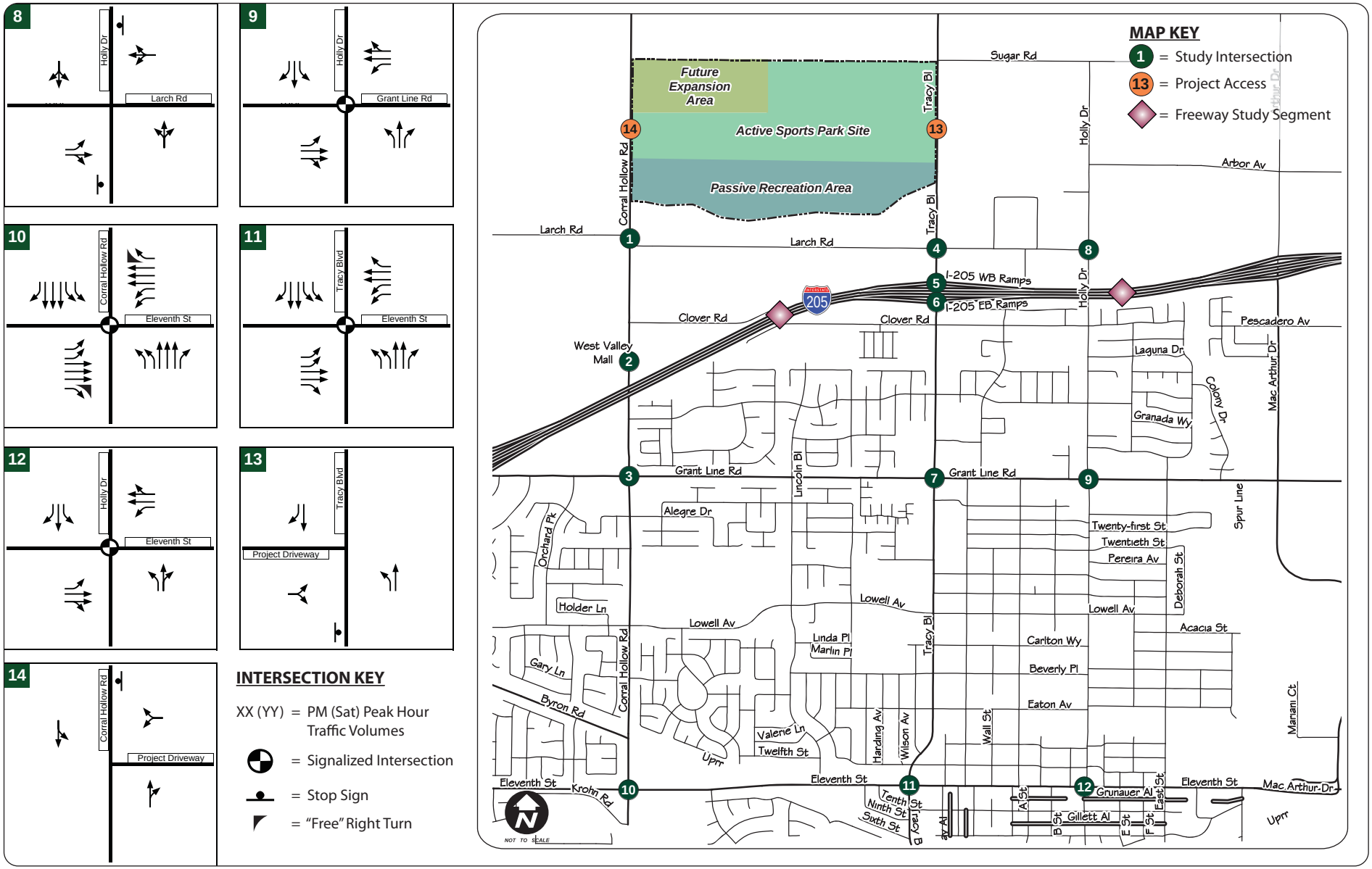

Holly Sugar Sports Park EIR

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CUMULATIVE (2030)
INTERSECTION LANE CONFIGURATIONS AND TRAFFIC CONTROLS

FIGURE 3.12-11B

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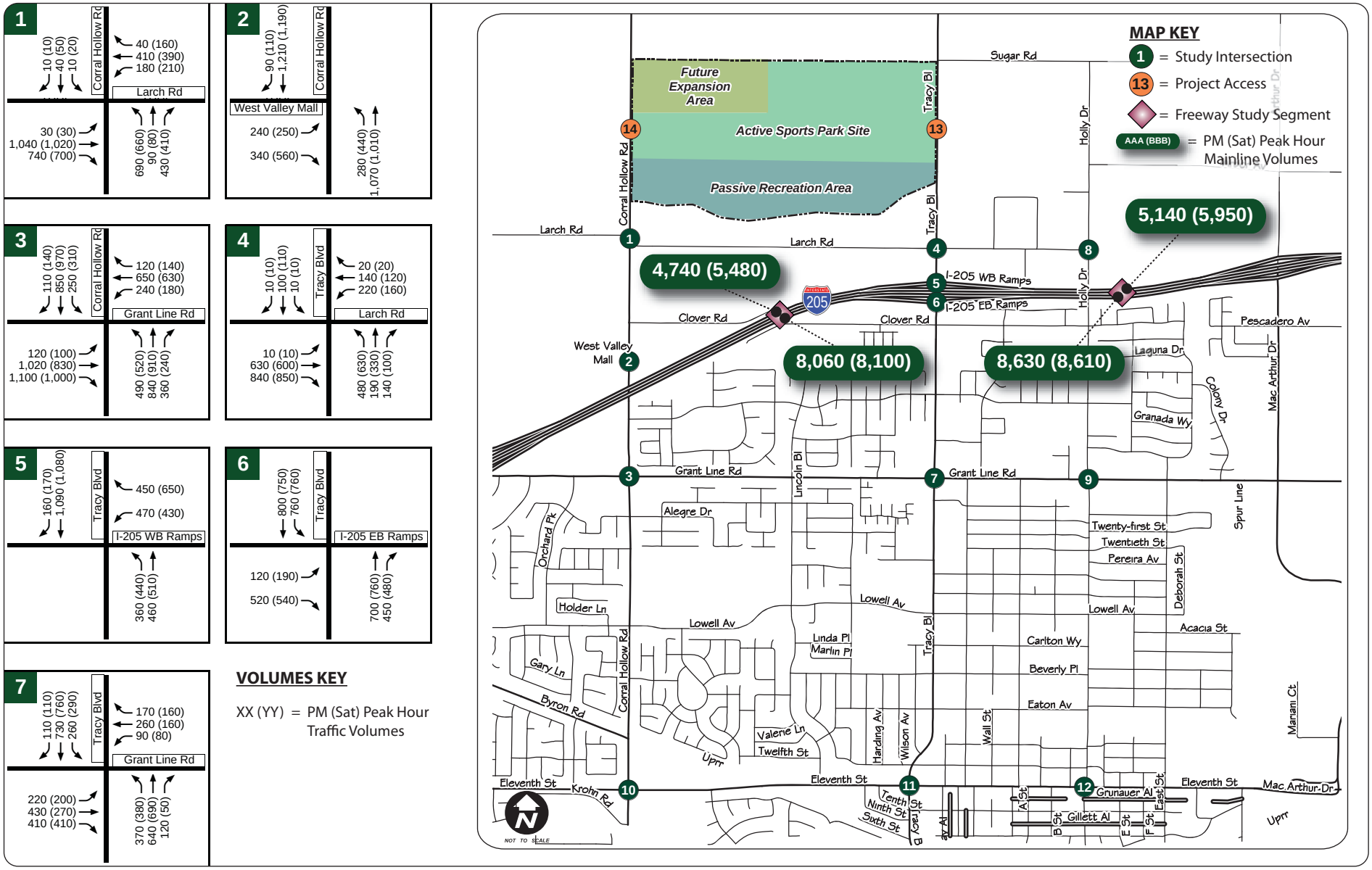

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CUMULATIVE NO PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 3.12-12A

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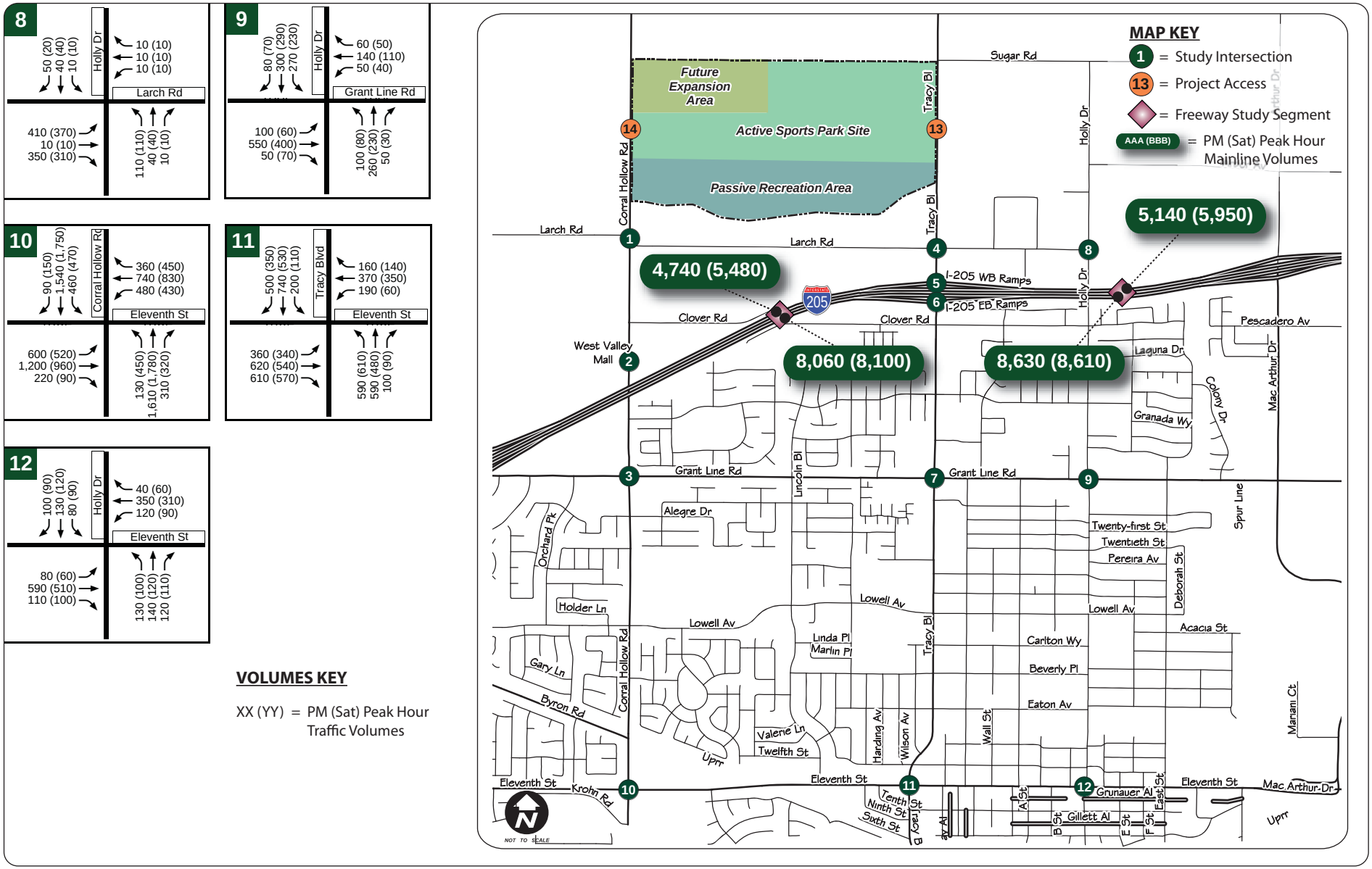

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CUMULATIVE NO PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 3.12-12B

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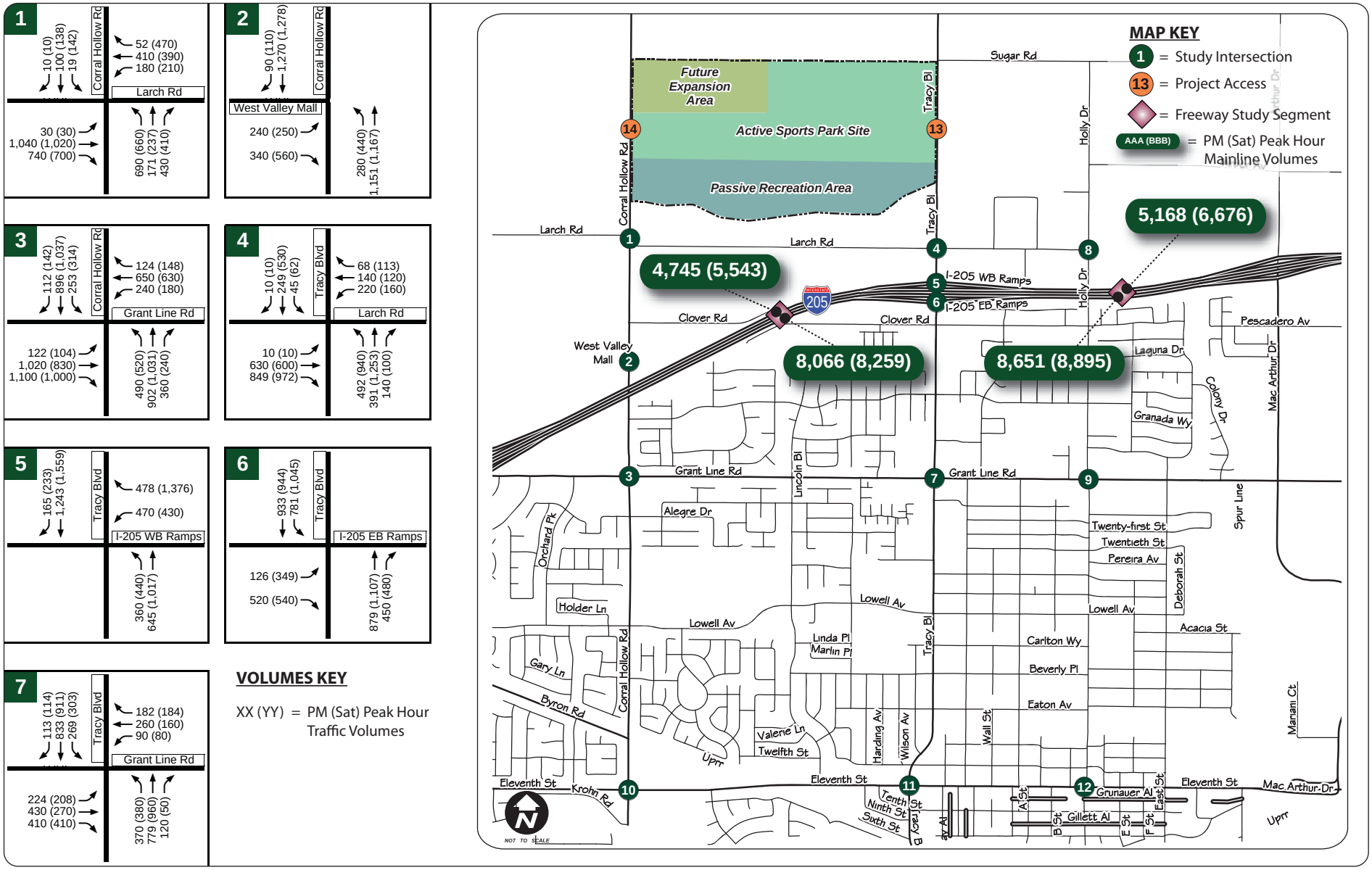

Holly Sugar Sports Park EIR

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CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 3.12-13A

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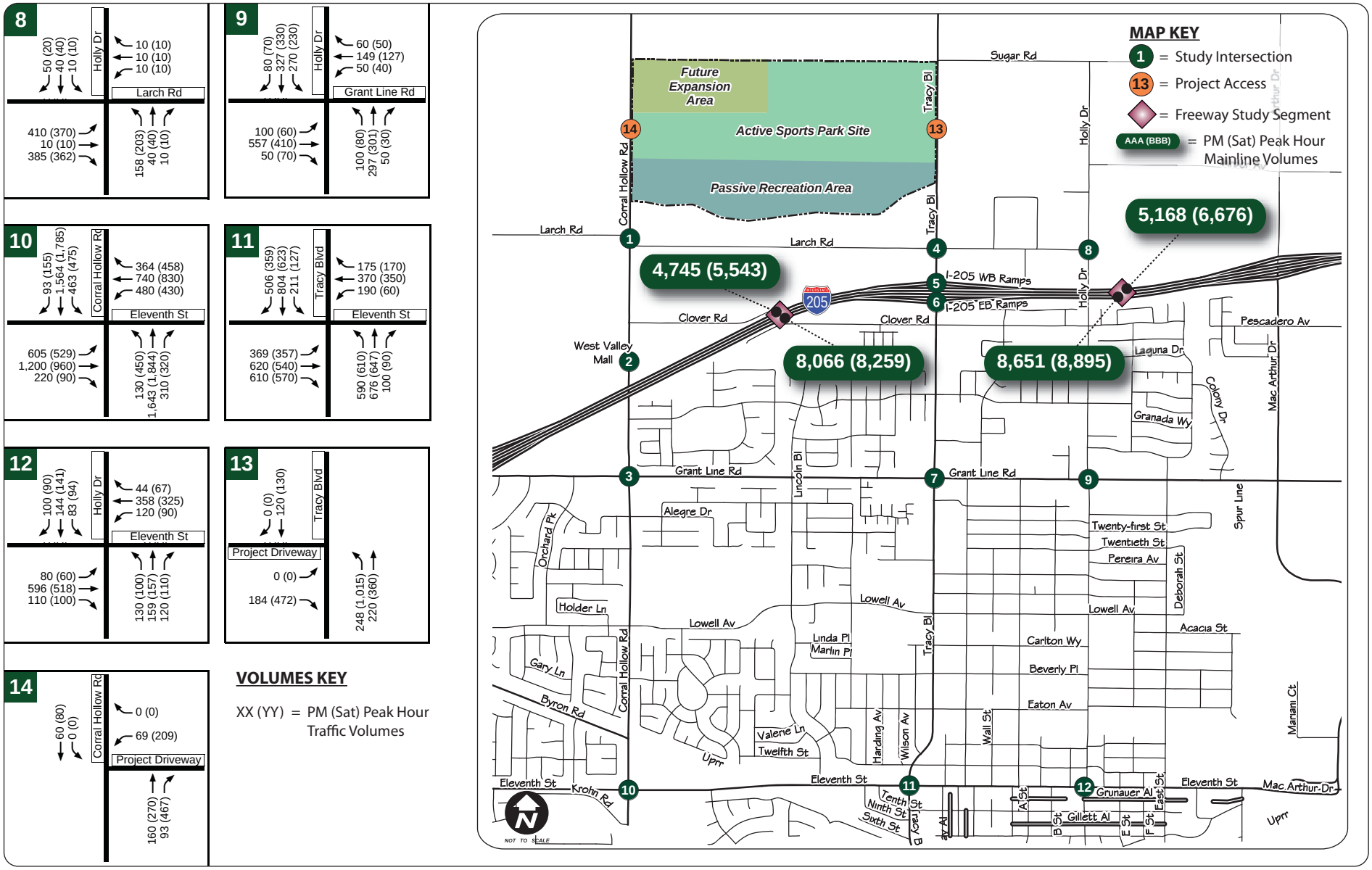

Holly Sugar Sports Park EIR

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CUMULATIVE PLUS PROJECT PEAK HOUR TRAFFIC VOLUMES

FIGURE 3.12-13B

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The purpose of this section is to disclose and analyze the potential impacts associated with water, wastewater, storm drainage, and solid waste disposal as the project is built and operated.

Information in this section is derived primarily from the following:

- Holly Sugar Sports Park Civil Engineering Work Memo (Nolte, 2009)
- Water Supply Assessment for the Holly Sugar Sports Park (West Yost Associates, 2009)
- City of Tracy General Plan EIR (DC&E, 2005);
- City of Tracy General Plan (DC&E, 2006);

3.13.1 WASTEWATER TREATMENT

EXISTING SETTING

The project site is not currently served by wastewater infrastructure. The proposed project would include several restrooms and concession facilities that would require connection to a wastewater disposal system. The on-site restroom and concession facilities would connect via a lateral line to an existing sewer main line located within the right-of-way of Tracy Boulevard to the east of the site, which would convey the project's wastewater to the City's wastewater treatment plant (WWTP) for treatment. Up to four onsite wastewater lift stations would be installed in order to convey wastewater to the existing sewer main on Tracy Boulevard.

Wastewater Collection and Treatment

The City of Tracy's wastewater collection system consists of gravity sewer lines, pump stations and the WWTP. The City has a municipal wastewater system handling both domestic and industrial wastewater. Wastewater flows toward the northern part of the city where it is treated at the WWTP and then discharged into the Old River in the southern Sacramento-San Joaquin Delta.

The existing wastewater collection system consists of three major interceptor systems. The Eastside collection system conveys wastewater from areas in the southeastern and eastern parts of the city, including the Northeast Industrial Area. The Corral Hollow sewer system conveys wastewater, mainly from residential development, from the southwestern part of the city. The Hansen sewer system conveys wastewater from the western and northern parts of the City including the Patterson Pass Business Park and the West Valley Shopping Center. The downtown area conveys wastewater directly to the WWTP using sewer mains in Holly Drive.

The City of Tracy currently has plans to expand and improve the existing Tracy Wastewater Treatment Plant. These plans have been evaluated in the Draft and Final EIR for the Tracy Wastewater Treatment Plant Expansion (SCH No. 2000012039). The Final EIR was completed in September of 2002 and was certified in November 2002. The City plans to expand the average dry weather flow treatment capacity of the Plant from 9.0 million gallons per day to 16.0 million gallons per day. The expansion would also result in improvements to the quality of the effluent discharged from the Plant by upgrading the facility from secondary to tertiary treatment. The proposed expansion and improvements to the Plant are necessary because:

- The NPDES permit for the current facility was expiring;
- The renewal of the NPDES permit will require compliance with more stringent water quality standards;
- The facility is currently operating near full capacity and requires expansion to accommodate future development in the City; and,
- The City wishes to upgrade the facility to improve water quality and take advantage of new technology and advances in wastewater treatment.

The expansion of the Wastewater Treatment Plant is occurring in four phases. The phase expanding the treatment capacity to 10.8 mgd was completed in 2008. The final phase of the four phases is projected to be completed in the year 2014.

REGULATORY SETTING - WASTEWATER

National Pollutant Discharge Elimination System Program

The federal National Pollutant Discharge Elimination System (NPDES) program requires that all dischargers receive a permit to release effluent into surface waters. Since the City of Tracy wastewater treatment plant releases effluent into the Old River, the City is subject to NPDES permitting requirements, as implemented by the Regional Water Quality Control Board (RWQCB).

City of Tracy Wastewater Master Plan

In 1994, the City of Tracy prepared a Wastewater Master Plan following adoption of the 1993 Urban Management Plan. The Plan was part of the City's planning efforts to expand wastewater infrastructure to accommodate the growth planned for in the Urban Management Plan (UMP). The Plan includes recommendations for two phases of improvements to meet the future waste-water collection, treatment and disposal needs of the growth projected in the UMP.

City of Tracy Wastewater Treatment Plant Facilities Plan

In 2003, the City of Tracy prepared the Wastewater Treatment Plant Facilities Plan that outlines the features and costs of a project to expand and upgrade the existing Wastewater Treatment Plant (WWTP) to meet NPDES permit conditions. The WWTP includes an assessment of existing plant facilities and operations, an estimation of future wastewater flows, an analysis of anticipated waste discharge requirements for an expanded WWTP, a selection of recommended treatment processes, and construction phasing recommendations to provide the necessary capacity while minimizing capital expenditures.

City of Tracy General Plan

The City of Tracy General Plan includes goals and objectives, supported by several policies and actions to ensure that adequate facilities for the conveyance and treatment of wastewater are maintained.

Goal PF-7: *Meet all wastewater treatment demands and federal and State regulations.*

Objective PF-7.1 of Goal 9F-7 is to collect, transmit, treat and dispose of wastewater in ways that are safe, sanitary and environmentally acceptable.

Policy P1: The City shall maintain wastewater conveyance, treatment and disposal infrastructure in good working condition in order to supply municipal sewer service to the City's residents and businesses.

Policy P2: The City shall expand the existing wastewater treatment plant to the extent possible or pursue a single new west side facility instead of building new facilities at multiple locations to meet future needs.

Policy P3: New habitable structures located within the City limits shall connect to the public wastewater collection system.

Objective PF-7.3 of Goal 9F-7 is to promote coordination between land use planning and wastewater conveyance, treatment and disposal.

Policy P1: Wastewater collection and treatment facilities shall be designed to serve expected buildout of the areas served by these facilities but constructed in phases to reduce initial and overall costs.

Policy P2: The City shall construct new wastewater trunk lines as needed. Individual development projects shall be responsible for construction of all collection lines other than trunk lines.

Policy P3: The approval of new development shall be conditioned on the availability of sufficient capacity in the wastewater collection and treatment system to serve the project.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it will:

1. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board.
2. Require or result in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.
3. Result in a determination by the wastewater treatment provider which serves or may serve the project that is has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments.

IMPACTS AND MITIGATION MEASURES

Impact 3.13-1: The project would generate wastewater that would be conveyed and treated at an existing wastewater treatment plant (Less than Significant)

Wastewater would be generated by the onsite restrooms and concession facilities associated with the sports park. The 86-acre passive recreation area located to the south of the active sports park site would not generate any wastewater flows (note: wastewater flows generated within the 46-acre future expansion area are addressed under cumulative impacts).

Wastewater generated on the project site would be conveyed to the existing wastewater conveyance infrastructure located on Tracy Boulevard. Up to four sewer lift stations would be installed on the project site to pump wastewater from the site to the connection point with the existing lateral lines located on Tracy Boulevard. The existing wastewater conveyance lines on Tracy Boulevard consist of an 8-inch PVC line north of Larch Road and a 24-inch line south of Larch Road. The existing off-site wastewater conveyance lines have adequate capacity to convey the project-generated wastewater to the City's WWTP, and no off-site improvements are proposed or required.

It is anticipated that the project will generate up to 10.5 gallons per day (gpd) of wastewater per acre of park. Therefore, the 150-acre active sports park site is estimated to generate up to 1,575 gpd of wastewater. The City has recently completed capacity expansions at the WWTP, which can now effectively treat up to 10.8 million gallons per day (mgd) of wastewater.

The City's WWTP currently treats approximately 9.0 mgd of wastewater. The project-generated wastewater would increase the total wastewater treated by 1,575 gpd, which would not exceed the capacity of the WWTP. No improvements or expansions to the existing WWTP are required, and the addition of project-generated wastewater would not result in any RWQCB violations related to effluent treatment or discharge. Implementation of the proposed project would have a **less than significant** impact and no mitigation is required.

Impact 3.13-2: Under cumulative conditions the project would require the conveyance and treatment of additional wastewater (Less than Significant)

The City of Tracy is in the process of completing facility expansions at the existing WWTP. The treatment capacity of the plant is anticipated to be completed by 2014. Buildout of the proposed project, including the 46-acre future expansion area, is anticipated to generate up to 2,058 gpd of wastewater. There is currently adequate capacity at the City's WWTP to receive and treat all of the wastewater generated by the proposed project. Project implementation would not result in the need for new or expanded WWTP facilities, and would not exceed the existing or projected capacity of the City's WWTP. Implementation of the proposed project would have a **less than significant** cumulative impact and no mitigation is required.

3.13.2 STORM DRAINAGE

EXISTING SETTING

Regional Drainage

The project site is located in the San Joaquin River drainage system which average 10 inches of precipitation primarily from November to April. With the exception of the area within the hills south of Tracy, the natural slope of the City is relatively flat with grades ranging between 0.2% and 0.6%. Stormwater generated within the portions of watersheds with relatively flat slopes generally drain from south to north as overland flow and as concentrated flow. Concentrated flow generally occurs within existing or proposed streets, storm drains and drainage channels. Natural drainages and major man-made drainage and water conveyance facilities Tracy include the Old River, Tom Paine Slough, Corral Hollow Creek, the California Aqueduct, Delta-Mendota Canal, and the Upper and Lower Main Canals. The natural streams and rivers are generally located on the north side of the City and outside the Sphere of Influence (SOI).

Storm Drainage System

The main purposes of a storm drainage system are to control stormwater runoff in order to prevent flood damage, reduce inconvenience from excessive flows and to minimize pollution of surface and groundwater. Tracy's storm drainage system is managed by the City's Public Works Department. Stormwater drains through open channels, storm drains, and closed conduits that are owned, operated and maintained by the City and the West Side Irrigation District (WSID). These systems drain into three outfalls, the WSID Main Drain, the Westside Channel Outfall System (that discharges into Old River via a force main) and the Sugar Cut Outfall. The Sugar Cut Outfall system serves two areas, Central Tracy and the eastside industrial area. Both areas have their own outfall systems. These three outfalls discharge storm runoff into Old River which is a part of the San Joaquin Delta. Pump stations are used to move water over grades; however, the majority of the system is gravity operated. The City utilizes detention basins at many locations to store and meter discharges before they are released into outfall facilities.

Existing Site Drainage

According to the City of Tracy Storm Drainage Master Plan (1994) the southern portion of the project site is located within the Sugar Cut watershed. The Sugar Cut watershed is an isolated watershed located generally in an area bounded by the alignment of an existing canal located approximately 800 feet north of Larch Road on the north, I-205 to the south, Corral Hollow Road to the west and Tracy Boulevard to the east. The Sugar Cut watershed encompasses approximately 0.5 square miles.

There are no existing drainage features on the project site or within the Sugar Cut watershed. The project site and surrounding area is generally flat, and water drains through natural sheetflow in a northerly direction. As stated in the 1994 Storm Drainage Master Plan, development within the watershed should be required to retain runoff onsite.

REGULATORY SETTING – STORM DRAINAGE

Section 3.8 Hydrology and Water Quality addresses the regulatory setting as it relates to storm drainage. Some of the laws and regulations that are discussed in detail in that section include the federal Clean Water Act, National Pollution Discharge Elimination System, Federal Insurance Rate Mapping System, the California Water Code, the City of Tracy General Plan, the City of Tracy Municipal Code, and the City of Tracy Stormwater Management Program. For a detailed discussion of these regulations see Section 3.8.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it will:

1. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

IMPACTS AND MITIGATION MEASURES

Impact 3.13-3: The Project would result in the construction of storm drainage facilities. (Less than Significant)

Development of the project site would replace largely undeveloped land with a combination of buildings and temporary structures, parking areas, baseball and softball fields, football fields, soccer fields, playgrounds, picnic areas, spectator seating areas, and landscaping elements. Some of these uses will result in new impervious surfaces. The 86-acre passive recreation area in the southern portion of the project site would not result in the introduction of impervious surfaces, and drainage and stormwater runoff would not change within this area as a result of project implementation.

The turf areas composing the various recreational and sports fields and local landscape areas would not produce any significant increases in storm runoff production when compared with existing site conditions. However, parking facilities, buildings, and spectator seating areas would produce significant increases in storm runoff production when compared with existing site conditions. As a result, the proposed project will require drainage facilities.

A mitigation measure is presented in Section 3.8-1 that requires the City to prepare a detailed drainage and stormwater detention plan that includes storm water calculations based on the final site design, and plans for the retention/detention of the calculated stormwater runoff on the project site. The intention of this mitigation measure is to ensure that stormwater detention facilities are designed with adequate capacity to ensure that stormwater generated on the project site is retained at a rate that will ensure that discharges from the site do not exceed pre-construction levels. All drainage facilities will be located within the boundary of the project site and any construction of such facilities will not have any impact that is greater then what is discussed within this CEQA document. The purpose of the storm drainage facilities will be to ensure the health and safety of the citizens by controlling new stormwater runoff and preventing

flooding. With the implementation of previously presented mitigation measures, the proposed project would have a **less than significant** impact with regards to this environmental topic.

3.13.3 SOLID WASTE

EXISTING SETTING

The City of Tracy has an exclusive franchise agreement with Tracy Disposal Service for solid waste collection and disposal and recycling collection. Solid waste is collected and taken to the 40-acre Tracy Material Recovery Facility (MRF) and Transfer Station on South MacArthur Drive before being sent to the Foothill Sanitary landfill, 48 miles northeast of Tracy, off of Shelton Road east of Linden, California. The MRF is operated by Tracy Material Recovery and Solid Waste Transfer, Inc., and has capacity of approximately 1,000 tons per day, but averages approximately 350 tons per day, of which 85 percent is generated in Tracy. Approximately 175,000 tons of solid waste is generated in Tracy each year, of which approximately 27 percent is residential garbage.

The approximately 800-acre Foothill landfill, owned by San Joaquin County, is the primary disposal facility accepting the City's solid waste. The Foothill landfill receives approximately 810 tons per day, of which 185 tons per day come from the City. The landfill is permitted to accept up to 1,500 tons per day, and has a permitted capacity of 51 million tons, of which approximately 45 million tons of capacity remains. It is estimated that the Foothill landfill will have the capacity to accept solid waste from the City of Tracy until 2054.

Recycling

The Tracy Disposal Service provides recycling services to city residents and businesses through their franchise agreement with the City. The recycling service collects materials such as glass containers, all plastics, tin and aluminum cans, plastic milk cartons, newsprint, boxboard, corrugated cardboard, bond paper and magazines in 90 gallon contains along residential curbsides. The City also implements special recycling programs that collect electronics, tires, and large item/debris from residential areas. To the extent possible, construction and demolition waste is also recycled.

The City's recycling goal was to reduce solid waste in accordance with State law. The City's recycling programs exceeded the State's diversion rate goal by almost 15 percent.

Composting

The City of Tracy implements a green waste collection and composting program which is estimated to compost approximately 10,000 tons per year. Tracy also implements grass-cycling at City parks where grass is cut and left as mulch. It is estimated that grass cycling results in approximately 2,500 tons on compost.

REGULATORY SETTING – SOLID WASTE

California's Integrated Waste Management Act of 1989 (AB 939)

California's Integrated Waste Management Act of 1989 (AB 939) set a requirement for cities and counties to divert 50 percent of all solid waste from landfills by January 1, 2000, through source reduction, recycling and composting. In order to achieve this goal, AB 939 requires that each City and County prepare and submit a Source Reduction and Recycling Element. AB 939 also established the goal for all California counties to provide at least 15 years of ongoing landfill capacity.

AB 939 also established requirements for cities and counties to develop and implement plans for the safe management of household hazardous wastes. In order to achieve this goal, AB 939 requires that each city and county prepare and submit a Household Hazardous Waste Element.

Source Reduction and Recycling Element

In 1994 the City adopted a Source Reduction and Recycling Element in accordance with the requirements of AB 939. The Element provides programs and strategies for source reduction, recycling, composting, special wastes and public education as well as implementation and monitoring plans for each program and strategy.

Household Hazardous Waste Element

In 1994 the City adopted a regional Household Hazardous Waste Element in cooperation with the County and other cities to meet the requirements of AB 939. The Element provides household hazardous waste programs that include periodic collection events, limited drop-off facilities for recycling, permanent collection facilities and public education and information programs. The Element was formally approved by the California Integrated Waste Management Board in 1995.

City of Tracy General Plan

The City of Tracy General Plan includes goals and objectives, supported by several policies and actions to ensure adequate solid waste collection and disposal service, as well as reductions in solid waste volume.

Goal PF-5 *Reduction in the volume of solid waste.*

Objective PF-5.1 Reduce volumes of solid waste generated in Tracy through recycling and resource conservation.

Policy P1: The City shall strive to meet or exceed the State's goal of diverting 50 percent of all solid waste from landfills.

Policy P2: The City shall encourage local businesses to expand their recycling efforts and to reduce packaging of products manufactured in the city.

Policy P3: Public buildings shall be designed or improved with on-site storage facilities for recycled materials.

Policy P4: Salvage and reuse of construction and demolition materials and debris is encouraged at all construction projects in the city.

Policy P5: The City shall encourage the use of post-consumer recycled paper and other recycled materials in all City operations.

Policy P6: Residential, industrial, commercial and retail buildings should be designed or improved to accommodate an increase in the amount and type of recycled materials.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project will have a significant impact on the environment associated with Utilities if it will:

1. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs.
2. Comply with federal, State, and local statutes and regulations related to solid waste.

IMPACTS AND MITIGATION MEASURES

Impact 3.13-4: The project would be served by a landfill for solid waste disposal needs and will require compliance with various laws and regulations (Less than Significant)

Buildout of the General Plan will generate an estimated 233 tons of solid waste per day. The Foothill landfill currently receives approximately 810 tons per day, of which 185 tons per day come from the City. The landfill is permitted to accept up to 1,500 tons per day, and has a permitted capacity of 51 million tons, of which approximately 45 million tons of capacity remains. It is estimated that the Foothill landfill will have the capacity to accept solid waste from the City of Tracy until 2054.

The proposed project will not generate a large volume of solid waste that will enter the landfill, as would residential or commercial uses. The City will implement grass cycling as part of their regular maintenance program, whereby they will use the grass clippings for mulch onsite. This standard maintenance program will significantly reduce the total solid waste that will require collection and disposal. The solid waste that will require collection and disposal will be limited to garbage from picnics, sporting events, and other community events. The City will install recycling bins at the project site, which will further reduce the volume of solid waste that enters the landfill. Implementation of the proposed project will have a **less than significant** impact with regards to solid waste.

3.13.4 WATER SUPPLIES

EXISTING SETTING

The project site is part of the former Holly Sugar processing and packing facility which ceased operations several years ago. Water use at the facility since then has consisted of potable water use for on-going cleanup and maintenance of remaining buildings and non-potable water use for continued agricultural use of the surrounding lands (using untreated surface water diverted from Sugar Cut). Recent potable water use at the former Holly Sugar facility is summarized in Table 3.13-1. As shown, the annual potable water use at the facility in recent years has ranged from about 22 to 48 af/yr based on the City's metered water use records. These potable water demands are included in the City's existing potable water demands from the City's 2005 Urban Water Management Plan (UWMP).

TABLE 3.13-1: RECENT POTABLE WATER USE AT HOLLY SUGAR FACILITY

YEAR	*METERED WATER CONSUMPTION, 100 CUBIC FEET**	*METERED WATER CONSUMPTION, AF/YR*
1999	19,501	44.8
2000	No data available	--
2001	No data available	--
2002	11,480	26.4
2003	11,960	27.5
2004	16,790	38.5
2005	20,975	48.2
2006	11,280	25.9
2007	10,905	25.0
2008	9,810	22.5

** BASED ON CITY OF TRACY WATER READING HISTORY FOR HOLLY SUGAR WATER SERVICE ACCOUNT*

SOURCE: WATER SUPPLY ASSESSMENT FOR THE HOLLY SUGAR SPORTS PARK. WEST YOST, MAY 2009.

Untreated surface water from Sugar Cut has been used to irrigate the project site since at least 1912. The project site has been continuously farmed over the years and planted with a variety of crops, including winter wheat, corn, tomatoes, and, when the property was owned by Holly Sugar, sugar beets. The current crop on the project site is predominantly alfalfa, which is irrigated with non-potable untreated surface water diverted from Sugar Cut. The actual metered quantity of non-potable water use is not available, but is estimated to be at least 4 to 6 af/ac/yr based on the types of crops planted on the property (primarily alfalfa). This equates to at least 1,200 to 1,800 af/yr of non-potable untreated surface water currently being used to flood irrigate the 298-acre project site.

The proposed use of non-potable surface water from Sugar Cut for the proposed project is estimated to be approximately 482 af/yr at buildout. This equates to less than half of the current non-potable water use on the project site.

The project site is currently located outside of the City limits and is not located within any of the City's major designated planning areas. As such, future potable water demands and non-potable water demands for the project area were not explicitly included in the City's 2005 (UWMP).

However, as discussed in the WSA (Appendix F), the potable and non-potable water demands for the proposed project, together with the City's existing water demands and projected water demands for approved and currently anticipated future projects, are within the water demand projections included in the City's 2005 UWMP.

As described in the WSA, the estimated total potable water demand for the proposed project is approximately 47 af/yr. This potable water demand will be met using potable water supplies from the City's water system and could include the following uses:

- Active Sports Park Site: proposed concession and restroom buildings.
- Passive Recreation Area: potential restroom building.
- Future Expansion Area: interior water uses at the potential future recreation center and library, potential concession and restroom buildings, and the water supply for the potential future children's "spray park".

REGULATORY SETTING – WATER SUPPLIES

Senate Bill 610

Senate Bill (SB) 610 requires that public agencies in a position of approving certain projects check with the water agency proposed to serve the project to determine if there are sufficient water supplies available to accommodate the project. SB 610 applies to projects that meet the following criteria:

- A proposed residential development of more than 500 dwelling units.
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space.
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space.
- A proposed hotel or motel, or both, having more than 500 rooms.
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area.
- A mixed-use project that includes one or more of the projects specified above.
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500 dwelling unit project.

SB 610 amended Public Resources Code Section 21151.9 to provide that whenever a city or county decides that a project meets any the above criteria, it must comply with Section 10910 *et seq.* of the Water Code. Section 10910 *et seq.* of the Water Code was also amended by SB 610 to require a

city or county to coordinate the CEQA analysis with the water agency proposed to serve the project. Section 10910 *et seq*. requires a city or county to identify any public water system that may supply water to a proposed project. The city or county must ask each of these water providers to indicate whether its "total projected water supplies available during normal, single dry, and multiple dry water years during a 20-year projection will meet the projected water demand associated with the proposed project, in addition to the public water system's existing and planned future uses, including agricultural and manufacturing uses." If the city or county cannot receive this information from the water provider, it must provide the water supply assessment itself.

City of Tracy General Plan

The City of Tracy General Plan cites policies to provide decision-makers with long-range guidance affecting the future character of the Tracy Planning Area. The elements within the General Plan provide goals, policies, and implementation measures in order to ensure that public utilities have adequate capacity to service proposed projects. Applicable goals and policies relative to the proposed project within these elements are listed below.

Goal PF-6: *Adequate supplies of water for all types of users.*

Objective PF-6.1 of Goal 9F-6 is to ensure that reliable water supply can be provided within the City's service area, even during drought conditions.

> **Policy P1***:* The City shall promote water conservation by implementing the Best Management Practices contained in the Urban Water Management Plan.
>
> **Policy P2***:* The City shall continue to acquire additional sources of water supplies to meet the City's future demands.
>
> **Policy P3***:* To the extent feasible, the City shall use surface water supplies to meet daily water needs and reduce reliance on groundwater supplies.

Objective PF-6.2 of Goal 9F-6 is to provide adequate water infrastructure facilities to meet current and future populations.

> **Policy P1***:* The City shall maintain water storage, conveyance and treatment infrastructure in good working condition in order to supply domestic water to all users with adequate quantities, flows and pressures.
>
> **Policy P2***:* Storage reservoirs should be buried or partially buried depending on local groundwater conditions to allow for the joint use of the site with parks or recreational facilities, unless reservoirs are elevated to provide a gravity flow system, in which case the reservoirs shall be screened by landscaping and/or earthen berms.

Objective PF-6.3 of Goal 9F-6 is to promote coordination between land use planning and water facilities and service.

Policy P1*:* Structures with plumbing that are located within the City limits shall connect to the City water supply system.

Policy P2: New developments shall dedicate land for utility infrastructure such as treatment facilities, tanks, pump stations and wells as needed to support the development of their project.

Policy P3: The City shall be responsible for constructing new transmission water lines, as needed to meet future needs. Individual development projects shall be responsible for the construction of all water transmission means.

Policy P4*:* All new water facilities shall be designed to accommodate expected capacity for buildout of areas served by these facilities but may be constructed in phases to reduce initial and overall costs.

Policy P5*:* The availability of sufficient, reliable water shall be taken into account when considering the approval of new development.

Policy P6*:* Costs for water service expansion shall be distributed among new water users fairly and equitably.

Objective PF-6.4 of Goal 9F-6 is to design and manage water system facilities for reliability during catastrophic events such as fires, power outages, droughts and earthquakes.

Policy P1*:* Groundwater supplies should be reserved for emergency use during water treatment shutdowns, short-term shortages of surface water supplies or during droughts.

Policy P2*:* Backup emergency power systems shall be provided at all essential water facilities that rely on electric power.

Policy P3*:* Storage reservoir facilities should be located at naturally high topographic locations to capitalize on gravity flow, whenever possible.

Policy P4*:* Future water systems and facilities shall be designed to minimize the likelihood of damage from vandalism or terrorist activity.

Objective PF-6.5 of Goal 9F-6 is to use recycled water to reduce non-potable water demands whenever practicable and feasible.

Policy P1: The City shall provide recycled water systems, including pipelines, pump stations and storage facilities; to serve primarily City-owned facilities, schools and parks as funding becomes available.

Policy P3: Recycled water shall be used for all public properties and large private open spaces or common areas to the extent feasible.

Policy P4*:* To the extent feasible, recycled water should be utilized for non-potable uses, such as landscape irrigation, dust control, industrial uses, cooling water and irrigation of agricultural lands.

City of Tracy Urban Water Management Plan

The City of Tracy prepared an Urban Water Management Plan in response to the Urban Water Management Planning Act of 1983. The focus of the Plan is the conservation and efficient use of water in Tracy's service area, and the development and implementation of plans to assure reliable water service in the future. The Plan contains projections for future water use, discusses the reliability of Tracy's water supply, describes the City's water treatment system, and contains the water shortage contingency plan described below. In addition, the Plan contains best management practices for efficient water use.

Water Shortage Contingency Plan

The City of Tracy developed a Water Shortage Contingency Plan in 1992, which contains five stages of actions to be undertaken in the event of an interruption of water supplies, such as could occur in a drought or emergency situation. The City Council determines the appropriate stage of action in the event of a crisis, after which the City Manager can authorize and implement applicable water conservation and rationing requirements. The Water Shortage Contingency Plan contains a Water Conservation and Rationing Plan wherein the five stages of action are described in detail.

2001 Groundwater Management Policy

In May of 2001, the City of Tracy adopted the 2001 Groundwater Management Policy. The 2001 Groundwater Management Policy set a groundwater production increase of 2,300 acre-feet per year to allow a total of 9,000 af/yr to be extracted from the lower aquifer zones of the Tulare Formation. The study determined this would be a sustainable pumping rate and groundwater levels would not drop by a significant amount. Therefore, increased pumping of groundwater (up to 9,000 af/yr) would not result in adverse impacts to the aquifer.

The 2001 Groundwater Management Policy includes water level monitoring criteria to measure groundwater quality, groundwater levels, and to detect any ground subsidence. Six monitor wells are to be developed under the policy. City production wells are also used for monitoring. Water levels are taken from each monitoring well on a monthly basis, water quality samples are taken quarterly, and ground elevation survey monitoring occurs annually.

In addition to establishing production caps and monitoring criteria, the 2001 Groundwater Management Policy established a Groundwater Allocation Program to address potential growth inducing impacts associated with the groundwater production levels and to provide for the allocation of groundwater resources to land uses and development activities consistent with City policies and objectives. The distribution and use of the additional 2,300 acre-feet per year to be extracted pursuant to the 2001 Groundwater Management Policy is limited by the following criteria:

- Lands must be located within the City corporate boundaries as of May 24, 2001;

- Land uses and development activities must be consistent with the City Urban Management Plan and any specific plan as in effect as of May 24, 2001;
- Development projects and uses must be consistent with City zoning, development agreements, and related regulatory and contract programs governing the use and development of land.

City policy objectives and programs require that the 70% of the distribution of the additional groundwater be allocated for residential development, and the remaining 30% be reserved for commercial and industrial uses.

Water Supply Evaluation Criteria

The City of Tracy Water Supply Evaluation Criteria is used to determine the adequacy of the water supply presented with applications for development, including, but not limited to, annexations, subdivision maps, specific plans, preliminary and final development plans, zoning amendments, conditional use permits, and building permits.

Development projects must prove that sufficient supply is available to meet the following requirements:

- Critically Dry Year Conditions: The available supply must be equal to 90% of the projected demands;
- Dry Year Conditions: The available supply must be equal to 95% of the projected demands;
- Wet, Above Normal, and Normal Conditions: Available supply must equal 100% of the projected demands.

The Water Supply Evaluation Criteria requires a storage volume of at least two times the project's projected demands for an average day to be provided by the project during emergency conditions. Hillside developments are required to provide emergency storage in treated water storage reservoirs. All other development in the City can provide emergency supply from the underlying groundwater basin provided the project utilizes wells with a capacity equal to the projected demand for an average day.

City of Tracy Municipal Code, Chapter 11.30: Recycled and Non-Potable Water

The City of Tracy enacted the Recycled and Non-Potable Water Ordinance in March 2002. The ordinance requires that planned new developments in Tracy install pipelines and dual distribution systems to supply non-potable water to green spaces for irrigation and to facilities for industrial cooling or processing.

THRESHOLDS OF SIGNIFICANCE

Consistent with Appendix G of the CEQA Guidelines, the proposed project may have a significant impact on the environment associated with Utilities if it would:

1. Have insufficient water supplies available to serve the project from existing entitlements and resources, or if new or expanded entitlements are needed.

IMPACTS AND MITIGATION MEASURES

Impact 3.13-5: The project would be adequately served by existing water supply sources under existing and cumulative conditions. (Less than Significant)

Potable water for the proposed project would be supplied from the City's municipal water system. The project site would receive potable water via a connection to an existing water main located on Tracy Boulevard, near Larch Road. Approximately 2,000 feet of water line will need to be installed on Tracy Boulevard, in addition to the installation of a water lateral on the project site.

As described above and shown in Table 3.13-2, the estimated total potable water demand for the proposed project is approximately 47 af/yr, and could include the following uses:

- Active Sports Park Site: proposed concession and restroom buildings.
- Passive Recreation Area: potential restroom building.
- Future Expansion Area: interior water uses at the potential future recreation center and library, potential concession and restroom buildings, and the water supply for the potential future children's "spray park".

TABLE 3.13-2: ESTIMATED POTABLE WATER USE FACTORS FOR THE HOLLY SUGAR SPORTS PARK

PROPOSED POTABLE WATER USES	*POTABLE WATER USE FACTORS*
Concession stands and restrooms	10 gallons per minute (gpm) for 12 hours per day for 100 days per year per building
Interior water use for recreation center and library	0.1 gallons per day (gpd) per square foot
Children's "spray park"	10,000 gallons per day (gpd) for 150 days per year

SOURCE: WATER SUPPLY ASSESSMENT FOR THE HOLLY SUGAR SPORTS PARK. WEST YOST, MAY 2009.

These projected water demands include a contingency to account for changes to the proposed land use for the proposed project which may occur during the planning process and the uncertainty in the future development plans for the Passive Recreation Area and the Future Expansion Area.

It should also be noted that although actual potable and non-potable water demands for the proposed project will develop incrementally over time as various elements of the proposed project

are implemented, the WSA and this EIR provide analysis of the total estimated potable and non-potable demands for buildout of the proposed project and conservatively assumes that buildout of the proposed project will occur by 2030.

As shown in Table 3.13-3, non-potable water is assumed to be used for all other water demands on the project site including turf irrigation, dust control on "skin areas" of baseball and softball fields, and landscape irrigation. It should be noted that the Project Description for the Holly Sugar Sports Park indicates that the proposed football/soccer stadium located near the western boundary of the project site would include synthetic turf. For purposes of this analysis, and to be conservative, it is assumed that natural grass turf will be provided for all of the proposed football, baseball, softball and soccer fields, including the proposed football/soccer stadium.

TABLE 3.13-3: ESTIMATED NON-POTABLE WATER USE FACTORS FOR THE HOLLY SUGAR SPORTS PARK

PROPOSED NON-POTABLE WATER USES	*NON-POTABLE WATER USE FACTORS*
Turf irrigation (including sports fields and play areas)	3.5 acre-feet per acre per year (af/ac/yr)
Dust control on "skin areas" of baseball and softball fields	1.0 af/ac/yr
General landscape irrigation (trees and perimeter plantings with bubbler irrigation systems)	2.0 ac/ac/yr)

SOURCE: WATER SUPPLY ASSESSMENT FOR THE HOLLY SUGAR SPORTS PARK. WEST YOST, MAY 2009.

The recommended non-potable water supply to meet the non-potable water demand of 482 af/yr will initially be untreated surface water diverted from Sugar Cut (which has historically and is currently being used to irrigate the project site) and, in the future, tertiary-treated recycled water delivered from the City's wastewater treatment plant.

The project site is currently located outside of the City limits and is not located within any of the City's major designated planning areas. As such, future potable water demands and non-potable water demands for the project area were not explicitly included in the City's 2005 (UWMP). However, as discussed above, the potable and non-potable water demands for the proposed project, together with the City's existing water demands and projected water demands for approved and currently anticipated future projects, are within the water demand projections included in the City's 2005 UWMP.

Table 3.13-4 summarizes the City's projected potable water demand based on existing uses and planned future uses, which includes approved projects that are not yet complete and anticipated development projects. The projected potable water demands for the "Approved and Anticipated Development Projects" are based on data which accounts for changes in on-going development and planning activities. The "currently approved projects that are not yet completed" primarily include projects for which building permits have been issued and/or for which Residential Growth Allotments (RGAs) have been secured. "Currently anticipated development projects" include projects in the planning stage and those for which specific plans have been prepared.

Potable water demands for these two categories of upcoming projects are continuously reviewed and revised by the City as development and planning activities occur, and are the City's best

current estimate of planned future uses. As shown, the potable water demands for the proposed project, together with the City's existing water demands and projected water demands for approved and currently anticipated future projects, are within the water demand projections included in the City's 2005 UWMP for 2030.

TABLE 3.13-4: TRACY PROJECTED FUTURE POTABLE WATER DEMAND BY DEVELOPMENT STAGE

	EXISTING POTABLE WATER DEMAND (AF/YR)	*FUTURE POTABLE WATER DEMAND (AF/YR)(A)*	*FUTURE POTABLE WATER DEMAND (AF/YR)(B)*
2007 Existing Users(C)	17,820		19,176
Planned Future Uses (Approved and Anticipated Development Projects)			
- Currently Approved Projects that are not yet completed (D)		3,284	3,530
- Currently Anticipated Development Projects (E)		2,861	3,076
Subtotal: Existing Users + Planned Future Uses	**17,820**	**6,145**	**25,782**
Potable Water Demands for the Proposed Project		47	51
Total: Existing Users + Planned Future Uses + Proposed Project(F)	**17,820**	**6,192**	**25,833**
2030 (includes Existing Users, Planned Future Uses, the Proposed Project, and other Future Projects(G))			**30,500**

SOURCE: WATER SUPPLY ASSESSMENT FOR THE HOLLY SUGAR SPORTS PARK. WEST YOST, MAY 2009.

(A) DOES NOT INCLUDE UNACCOUNTED FOR WATER.

(B) INCLUDES ACTUAL POTABLE WATER DEMAND IN 2007 AND PROJECTED POTABLE WATER DEMAND FOR APPROVED AND ANTICIPATED PROJECTS AND PROPOSED PROJECT (INCLUDES 7.5 PERCENT UNACCOUNTED FOR WATER).

(C) BASED ON WATER USAGE DATA AND CITY OF TRACY WATER INVENTORY REPORT, FEBRUARY 5, 2008. AS NOTED ABOVE, 2007 POTABLE WATER DEMANDS ARE USED FOR THE EVALUATION IN THIS WSA, AS 2007 POTABLE WATER DEMANDS MORE CLOSELY REPRESENT NORMAL YEAR CONDITIONS (2008 WAS A DRY YEAR).

(D) INCLUDES TRACY GATEWAY (WITH ZERO POTABLE WATER DEMAND AS A RESULT OF THE WATER EXCHANGE PROGRAM), ELLIS SPECIFIC PLAN, AND DOWNTOWN SPECIFIC PLAN.

(E) BASED ON CURRENT DEVELOPMENT AND PLANNING ACTIVITIES.

(F) TOTAL PROJECTED POTABLE WATER DEMAND FOR EXISTING USES, PLANNED FUTURE USES AND PROPOSED PROJECT IS WITHIN THE DEMAND PROJECTED IN THE CITY'S 2005 UWMP FOR 2020 AND BEYOND.

(G) OTHER FUTURE PROJECTS INCLUDES FUTURE PROJECTS WITHIN THE URBAN RESERVE AREAS (SUCH AS TRACY HILLS) WHICH ARE ANTICIPATED TO DEVELOP BY 2030, BUT WHICH ARE NOT INCLUDED IN PLANNED FUTURE USES. WATER DEMAND PROJECTIONS BASED ON 2005 UWMP FUTURE PROJECTIONS THROUGH 2025 AND EXTRAPOLATED TO 2030.

Based on the analysis described above, and the analysis contained in the Water Supply Assessment (which was prepared consistent with the requirements of SB 610), the City's existing and additional potable and non-potable water supplies are sufficient to meet the City's existing and projected future potable and non-potable water demands, including those future potable and non-

potable water demands associated with the proposed project, to the year 2030 under all hydrologic conditions (normal years and dry years). Therefore, the proposed project would result in a **less than significant** and **less than cumulatively considerable** impact to water supplies, and no new water production, treatment or extraction facilities would be required to serve the proposed project. No mitigation is required.

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CEQA requires an EIR to evaluate a project's effects in relationship to broader changes occurring, or that are foreseeable to occur, in the surrounding environment. Accordingly, this chapter presents discussion of CEQA-mandated analysis for cumulative impacts, irreversible impacts, and growth inducement associated with the Holly Sugar Sports Park project.

4.1 CUMULATIVE SETTING AND IMPACT ANALYSIS

INTRODUCTION

The California Environmental Quality Act (CEQA) requires that an Environmental Impact Report (EIR) contain an assessment of the cumulative impacts that could be associated with the proposed project. According to CEQA Guidelines Section 15130(a), "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 connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects (as defined by Section 15130). As defined in CEQA Guidelines Section 15355, a cumulative impact consists of an impact that is created as a result of the combination of the project evaluated in the EIR together with other projects causing related 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 probable 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.

The proposed project represents an action that is subject to CEQA compliance. It must evaluate both the project-specific and cumulative environmental impacts. Based on discussions with the City of Tracy and San Joaquin County, there are reasonably foreseeable projects when viewed in connection with the proposed project that could result in related cumulative impacts.

CUMULATIVE SETTING

Unless otherwise specified, the cumulative setting is the Tracy Planning Area, which includes the City of Tracy, its Sphere of Influence, and the surrounding Planning Area. Under CEQA, the discussion of cumulative impacts should focus on the severity of the impacts and the likelihood of their occurrence. The cumulative scenario for the proposed Holly Sugar Sports Park project was developed in consultation with City staff, and is consistent with the City's General Plan. This cumulative scenario includes all development envisioned through 2030, with a development pattern consistent with the "Preferred" alternative of the Tracy General Plan EIR. The cumulative scenario also includes two individual projects that have been proposed for implementation since the General Plan EIR was certified in 2006. These approved and/or pending projects and their characteristics are described in Table 4.0-2.

Table 4.0-1, City of Tracy SOI Cumulative Development Assumptions, summarizes cumulative development assumptions within the City of Tracy Sphere of Influence (SOI). The residential dwelling unit growth assumption is consistent with the City of Tracy's Growth Management Ordinance (GMO) limits on residential permits through year 2030. The GMO limits residential permits to an average of 600 units per year. The employment level shown is consistent with the "Preferred Alternative" analyzed in the General Plan EIR.

TABLE 4.0-1: CITY OF TRACY SOI CUMULATIVE DEVELOPMENT ASSUMPTIONS

	DWELLING UNITS	*EMPLOYMENT*
Existing	28,157	28,834
Incremental Growth	10,943	26,487
Citywide Cumulative Total	39,100	55,321

SOURCE: CITY OF TRACY, ELLIS SPECIFIC PLAN EIR, 2008

TABLE 4.0-2: APPROVED AND/OR PENDING PROJECTS

PROJECT	*LOCATION*	*CHARACTERISTICS*	*STATUS*
Ellis Specific Plan	Located within the City's SOI, near the southwestern border of the City limits within the Ellis Specific Plan area.	• 321-acre project site • 2,250 residential units • Village Center • Open Space • 180,000 sq. ft. commercial space • Additional recreational amenities	Approved on Dec. 16, 2008
Altamont Motorsports Park	Located within the City's SOI, approximately 0.25 miles northeast of the Holly Sugar Sports park site. Project site is located on City-owned land.	• 3.7 mile road course for stockcars, sports cars, open wheel cars, kart and endurance racing • ½ mile dirt motocross course for motorcycle racing • 1 mile Dirt Rallycross course for off-road and 4x4 trucks and cars, motorcycles and buggies • 1/6 mile dirt bicycle course for BMX events	The City received a letter from the applicant on Nov. 7, 2008 requesting consideration of the project. Formal application has not been submitted.

SOURCE: CITY OF TRACY, 2009

CUMULATIVE EFFECTS OF THE PROJECT

Method of Analysis

Although the environmental effects of an individual project may not be significant when that project is considered separately, the combined effects of several projects may be significant when considered collectively. State CEQA Guidelines 15130 requires a reasonable analysis of a project's cumulative impacts, which are defined as "two or more individual effects which, when considered together are considerable or which compound or increase other environmental impacts." The cumulative impact that results from several closely related projects is: the change in the environment which results from the incremental impact of the project when added to other closely related past, present, and reasonable foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time (State CEQA Guidelines 15355[b]). Cumulative impact analysis may be less detailed than the analysis of the project's individual effects (State CEQA Guidelines 15130[b]).

There are two approaches to identifying cumulative projects and the associated impacts. The list approach identifies individual projects known to be occurring or proposed in the surrounding area in order to potential cumulative impacts. The projection approach uses a summary of projections in adopted General Plans or related planning documents to identify potential cumulative impacts. This EIR uses a combination of the list approach and the projection approach for the cumulative analysis and considers the development anticipated to occur upon buildout of the Tracy General Plan in addition to the two individual projects identified in Table 4.0-2 above.

Project Assumptions

The project's contribution to environmental impacts under cumulative conditions is based on full buildout of the proposed Holly Sugar Sports Park, including the 166-acre active sports park, 86-acre passive recreation, and 46-acre future expansion area and related facilities and infrastructure. See Chapter 2, Project Description, for a complete description of the proposed project.

Cumulative Impacts

Effects associated with mineral resources, population growth and housing were discussed in the Initial Study and determined to not have an impact or to have a less than significant impact. The analysis in the Initial Study has identified that these impacts will not contribute any substantial incremental effects, no comments were received in response to the NOP regarding these issues, and the analysis performed for preparation of this Draft EIR did not indicate that the project would have a considerable contribution to significant cumulative effects in these issue areas; therefore, the project is determined to have a less than considerable contribution to cumulative impacts associated with mineral resources, population growth and housing.

Cumulative impacts for most issue areas are not quantifiable and are therefore discussed in general terms as they pertain to development patterns in the surrounding region. Exceptions to this are traffic, noise and air quality (the latter two of which are associated with traffic volumes), which may be quantified by estimating future traffic patterns, pollutant emitters, etc. and determining the combined effects that may result. In consideration of the cumulative scenario described above, the proposed Holly Sugar Sports park may result in the following cumulative impacts.

AESTHETICS

Impact 4.1: Cumulative Degradation of the Existing Visual Character of the Region (Considerable Contribution and Significant and Unavoidable)

The cumulative setting for aesthetics is the Tracy Planning Area. Under cumulative conditions, buildout of the Tracy General Plan would result in changes to the visual character of the Tracy Planning Area from a more rural setting to one that is more characterized by urban uses. Despite the General Plan's policies and actions, in conjunction with adopted State, County and City regulations to enhance "hometown feel" and preserve open space, development permitted under the proposed General Plan would result in a significant impact to the existing visual identity and character of the City due to the amount of growth allowed.

As described in Section 3.1- Aesthetics, implementation of the proposed project would change the visual character of the project site from its agricultural state, which is similar to the surrounding area, to a developed park with associated facilities and amenities. This project-specific impact was determined to be significant and unavoidable. The proposed project would contribute to a cumulative change in visual character resulting from conversion from agricultural, open space, and rural residential uses to urban and developed uses within the City, as well as its Sphere of Influence and Planning Area. While the project would include landscaping to shield structures and

parking areas from public views and implementation of mitigation measures MM 3.1-2 would reduce the project's contribution to cumulative increases in nighttime lighting to the extent feasible, the project's contribution to visual resource impacts under cumulative conditions is **cumulatively considerable** and **significant and unavoidable** .

AGRICULTURE

Impact 4.2: Cumulative Impact on Agricultural Land and Uses (Considerable Contribution and Significant and Unavoidable)

The cumulative setting for agricultural resources is San Joaquin County. Under buildout conditions in the Tracy General Plan there would be a loss of the existing agricultural lands within the City limits and SOI. While the General Plan includes policies to minimize this impact, there would still be a significant loss of agricultural land in the City and throughout the Planning Area under cumulative conditions. The loss of agricultural land within Tracy and the SOI as a result of urban development is part of an overall trend within San Joaquin County, with 80 percent (2,037 acres) of new urban acres occurring on formerly irrigated farmland between 1998 and 2000 (Tracy General Plan EIR, 2006). According to the FMMP, agricultural land in San Joaquin County will continue to face development pressure in the foreseeable future.

The Tracy General Plan does include several policies and actions under Objective OSC-2.1 stating that the City will work at a regional level to control the conversion of agricultural uses. The City also recently adopted an Agricultural Mitigation Fee Ordinance to help mitigate for the loss of farm-land; in-lieu fees will be collected for impacts from development on agricultural land, which will eventually be utilized for the purchase of conservation easements on agricultural lands. In addition, the San Joaquin County Multi- Species Habitat Conservation and Open Space Plan works at a regional level to promote the permanent preservation of agricultural lands in San Joaquin County.

As described in Section 3.2- Agricultural Resources, the entire 298-acre project site is designated as Unique Farmland by the California Department of Conservation. Additionally, the project site is actively being farmed with alfalfa, and has historically been used to grown corn and winter wheat. Implementation of the proposed project would permanently remove these 298 acres from agricultural production. Under the significance thresholds of the State CEQA Guidelines, conversion of farmland would result in significant impacts. Converting this farmland to non-agricultural uses would permanently eliminate a source of food and fiber. These resources cannot be recreated. Because any quantity of agricultural resources that would be permanently removed from production is significant, direct impacts to farmland would be significant and unavoidable. Mitigation measures have been identified to help reduce the significance of the impacts to agricultural resources. The permanent preservation of Prime Farmland and/or Unique Farmland does not reduce or eliminate the direct physical impacts to Important Farmland. However, this mitigation would help preserve County-wide agricultural resources, helping to preserve the agricultural economy and lessen long-term, cumulative impacts to Important Farmland. The implementation of Mitigation Measure 3.2-1 would reduce the severity of the agricultural resource impacts associated with implementation of the project. However, implementation of the

proposed project would still result in a net loss of Important Farmland. This impact is **cumulatively considerable and significant and unavoidable.** There is no additional feasible mitigation available to reduce this impact.

AIR QUALITY

Impact 4.3: Cumulative Impact on the Region's Air Quality (Less than Cumulatively Considerable)

The cumulative setting for air quality impacts is the San Joaquin Valley Air Basin (see Figure 3.3-1). Under buildout conditions in the Tracy General Plan, the San Joaquin Valley Air Basin would continue to experience increases in criteria pollutants and efforts to improve air quality throughout the basin would be hindered.

As discussed under Impact 3.3-2, the proposed project would result in increased emissions primarily from vehicle miles travelled associated with project implementation. However, as further discussed under Impact 3.3-2, upon full buildout, the proposed project would not result in emissions of criteria pollutants in excess of SJVAPCD thresholds of significance. Additionally, as described under Mitigation Measure 3.3-3, the project is subject to the requirements of SJVAPCD Rule 9510, which requires the adoption of on-site measures to reduce criteria pollutants, and/or the payment of in-lieu mitigation fees to offset this impact. The project's contribution to cumulative air quality impacts is **less than cumulatively considerable**, and no further mitigation is required.

Impact 4.4: Increased Project-Related Greenhouse Gas Emissions May Contribute to Climate Change (Significant and Unavoidable)

As discussed under Impact 3.3-4, the proposed project would have a **significant and unavoidable** contribution to cumulative impacts associated with climate change and global warming. Section 3.3.4 of the Air Quality Chapter of this EIR includes a full discussion and analysis of the cumulative GHG impacts associated with project implementation.

BIOLOGICAL RESOURCES

Impact 4.5: Cumulative Loss of Biological Resources Including Habitats and Special Status Species (Less than Considerable Contribution)

The cumulative setting for biological resources includes the City of Tracy Planning Area and the greater San Joaquin County region. Development associated with implementation of the Tracy General Plan would contribute to the ongoing loss of natural and agricultural lands in the Tracy area, which currently provide habitat for a variety of species. Cumulative development would result in the conversion of existing agricultural habitat to urban uses. The Tracy General Plan, in addition to regional, State and federal regulations, includes policies and measures that mitigate impacts to biological resources associated with General Plan buildout. Development outside of Tracy in San Joaquin County, would also be subject to the same regional, State and federal regulations addressing sensitive species. Implementation of regional, State and federal regulations, such as the San Joaquin County Multi-Species Habitat Conservation and Open Space

Plan (SJMSCP), and the Endangered Species Act would also minimize risks to sensitive populations and reduce cumulative impacts throughout the region.

As described in Section 3.4- Biological Resources, construction on the project site would permanently remove agricultural land that provides habitat for the threatened Swainson's hawk and burrowing owl, as well as numerous raptor species. When combined with other projects in the City and throughout the region, the permanent removal of the agricultural land is considered a potentially significant cumulative impact. The SJMSCP was created and adopted to address both the project and cumulative impacts to biological resources, including the burrowing owl and Swainson's hawk. The City continues to participate in the SJMSCP, and the continued collection and application of mitigation fees for the purpose of preserving agricultural lands as foraging territory. Mitigation measures presented within this EIR would further reduce impacts to biological resources and sensitive habitat, and the City is required to comply with all Incidental Take Minimization Measures required by the SJCOG through the authorization of SJMSCP coverage for the project site. The project's inclusion in the SJMSCP would ensure that the project's contribution to cumulative biological resource impacts is **less than cumulatively considerable**. No further mitigation is required.

CULTURAL RESOURCES

Impact 4.6: Cumulative Impacts on Known and Undiscovered Cultural Resources (Less than Cumulatively Considerable)

The cumulative setting for biological resources includes the City of Tracy Planning Area and the surrounding areas of San Joaquin County. Cumulative development anticipated in Tracy and the greater San Joaquin County area, including growth projected by adopted general plans, may result in the discovery and removal of cultural resources, including archaeological, paleontological, historical, and Native American resources and human remains. As discussed in Section 3.5- Cultural Resources, there are no known cultural or historic resources present on the project site. Mitigation measures provided in Section 3.5 would require the proposed project to evaluate any resources discovered during construction activities. Any significant finds would be required to be preserved, either through relocation or documentation and the project is not anticipated to considerably contribute to a significant reduction in cultural resources. Therefore, the project would have a **less than cumulatively considerable** contribution to impacts to cultural resources and no further mitigation is required.

GEOLOGY AND SOILS

Impact 4.7: Cumulative Impact on Geologic and Soils Characteristics (Less than Cumulatively Considerable)

The cumulative setting area for geology and soils includes the City of Tracy Planning Area. As discussed in Section 3.5- Geology and Soils, implementation of the proposed project would not result in any significant impacts related to this environmental topic. Geologic and soils impacts tend to be site-specific and project-specific. Implementation of the proposed project would not result in increased risks or hazards related to geologic conditions in the cumulative setting area,

nor would it result in any off-site or indirect impacts. This is considered to be a **less than cumulatively considerable** impact, and no further mitigation is required.

HAZARDS AND HAZARDOUS MATERIALS

Impact 4.8: Cumulative Impact Related to Hazards and Hazardous Materials (Less than Cumulatively Considerable)

The cumulative setting area for hazards and hazardous materials is the City of Tracy Planning Area. As discussed in Section 3.6- Hazards and Hazardous Materials, implementation of the proposed project would not result in any significant impacts related to this environmental topic. Hazard-related impacts tend to be site-specific and project-specific. Implementation of the proposed project would not result in increased risks of hazards in the cumulative setting area, nor would it result in any off-site or indirect impacts. Mitigation measures have been included to reduce the risk of on-site hazards, wildland fires, and to reduce potential risks associated with flooding. This is considered to be a **less than cumulatively considerable** impact, and no further mitigation is required.

LAND USE AND PLANNING

Impact 4.9: Cumulative Impact on Communities and Local Land Uses (Less than Cumulatively Considerable)

The cumulative setting for land use and planning impacts includes the City of Tracy, the Tracy SOI and the Tracy Planning Area. Cumulative land use and planning impacts, such as the potential for conflicts with adjacent land uses and consistency with adopted plans and regulations, are typically site- and project-specific. Subsequent projects allowed by the Tracy General Plan may result in site specific land use conflicts; however, these effects are not anticipated to be cumulatively considerable. Prior to project authorization, the City of Tracy would amend the General Plan to designate the site for parks use, and would prezone the site to Planned Unit Development (PUD). Implementation of the project, in combination with other proposed and future projects in the Planning Area, has the potential to create land use conflicts with existing uses. Generally, land use conflicts would be related to agricultural interface, noise, traffic, air quality, and safety issues which are discussed in the relevant sections of this document. Land use conflicts are site-specific and would not result in a cumulative impact. Incompatibility issues are generally addressed and mitigated on a project-by-project basis. The project's contribution to cumulative land use impacts is **less than cumulatively considerable,** and no further mitigation is required.

NOISE

Impact 4.10: Cumulative Exposure of Existing and Future Noise- Sensitive Land Uses to Increased Noise Resulting from Cumulative Development (Cumulatively Considerable and Significant and Unavoidable)

The cumulative setting for noise impacts includes the City of Tracy Planning Area. Cumulative development conditions associated with General Plan buildout would result in increased cumulative roadway noise levels, and would also result in increased noise associated with future development. As described in greater detail in Section 3.10- Noise, ambient noise levels in the

project area are influenced primarily by traffic noise emanating from area roadways. No major stationary sources of noise have been identified in the project area. The primary factor for cumulative noise impact analysis is, therefore, the consideration of future traffic noise levels.

Future cumulative traffic noise levels, with and without implementation of the proposed project, were calculated using the FHWA roadway noise prediction model (FHWA-RD-77-108) based on California vehicle reference noise levels and traffic data obtained from the traffic analysis prepared for this project. Modeling was conducted for future cumulative weekday and Saturday traffic conditions (Tables 3.10-13 and 3.10-14, respectively). The project's contribution to the cumulative traffic noise levels along area roadways was determined by comparing the predicted noise levels with and without project-generated traffic. Based on the modeling conducted, implementation of the proposed project would result in a significant increase in future cumulative weekday traffic noise levels of approximately 3.6 dBA CNEL along N. Tracy Boulevard, north of Larch Road. During future cumulative Saturday traffic conditions, implementation of the proposed project would result in significant increases in traffic noise levels along Corral Hollow Road, north of Larch Road, and N. Tracy Boulevard, to the north and south of Larch Road.

Recreational uses associated with the proposed active sports park, including the proposed stadium, baseball, and softball facilities would result in significant increases in ambient noise levels at nearby noise-sensitive land uses that could exceed the City's noise standard of 55 dBA L_{eq}. Depending on final site design, the proposed skate park, BMX track, paintball course, and ball fields developed as part of the future expansion area could also result in significant increases in ambient noise levels at nearby noise-sensitive land uses, particularly if multiple events were to occur simultaneously, and could also exceed the City's noise standard of 55 dBA L_{eq}. In addition to recreational uses, landscape maintenance activities occurring throughout the project area could also result in a significant increase in ambient noise levels at nearby noise-sensitive land uses. Landscape maintenance activities occurring during the more noise-sensitive nighttime hours could result in increased levels of annoyance and potential sleep disruption to occupants of nearby residential land uses.

Mitigation measures have been included in Section 3.10 which would reduce the severity of cumulative noise increases associated with project implementation. However, these measures would not reduce these impacts to less than significant levels and the project would contribute to a cumulative increase in noise levels. Therefore, under cumulative conditions, the proposed project would result in **cumulatively considerable** and **significant and unavoidable** noise impacts. There is no additional feasible mitigation available to offset this impact.

PUBLIC SERVICES

Impact 4.11: Cumulative Impact on Public Services (Less than Cumulatively Considerable)

The cumulative setting for public services consists of the South County Fire Authority service area (an area of approximately 225 square miles, 17 square miles of which are within City limits and over 200 square miles are in the southern part of San Joaquin County) in addition to the City of

Tracy Planning Area. Cumulative growth that would occur within the Tracy Planning Area over the life of the General Plan will result in increased demand for police and fire protection services. As discussed in greater detail in Section 3.11- Public Services, implementation of the proposed project would not result in the need to construct new or expanded police or fire protection facilities in order to serve the proposed project. Additionally, as detailed in Section 3.11, implementation of the proposed project would not result in decreased service levels for police and fire projection services within the existing service areas of these two departments. As growth within the Tracy Planning Area continues under cumulative conditions, police and fire services will be expanded on an as-needed basis in order to maintain adequate staffing levels and response times. As demonstrated in Section 3.11, project implementation would not result in adverse impacts to police and fire projection services. Therefore, under cumulative conditions, the project would result in **less than cumulatively considerable** impacts to police and fire protection services, and no additional mitigation is required.

TRANSPORTATION AND CIRCULATION

Impact 4.12: Cumulative Impact on the Transportation Network (Cumulatively Considerable and Significant and Unavoidable)

The cumulative setting for transportation and circulation impacts includes the study roadways and intersections identified in Section 3.12 and shown in Figure 3.12-1. Under cumulative conditions, the increase in development associated with General Plan buildout is anticipated to result in increased traffic congestion on local and regional roadways, as well as result in increased demand for transit, bicycle/pedestrian, rail, and aviation facilities and infrastructure.

The cumulative land use scenario was developed in consultation with City staff. Within the Tracy Planning Area, the development assumptions used are consistent with the City's General Plan envisioned development through 2030. Outside of the Tracy Planning Area, the development assumptions used in preparing the traffic forecasts are consistent with the 2030 scenario of the SJCOG traffic model, as updated for the 2007 Regional Transportation Plan. With City direction, motor sport race tracks that potentially may be developed on City property just north to the project site were included in the cumulative scenario. The assumptions and trip generation rates used for the motor sport race tracks are described in Appendix H.

As described under Impact 3.12-5, under cumulative conditions, the intersection of Larch Road/Corral Hollow Road would operate at LOS F during the PM and Saturday peak hours under both Cumulative No Project and Cumulative Plus Project Conditions. This is a significant impact because the project would increase the overall intersection volume by more then five percent during the Saturday peak hour, in addition to meeting the peak hour traffic signal warrant.

As described under Impact 3.12-6, under cumulative conditions, the intersection of Larch Road/Tracy Boulevard would operation at LOS F during the PM and Saturday peak hours under Cumulative No Project and Plus Project Conditions. This is a significant impact because the project would increase the overall intersection volume by more then ten percent during the weekday PM and Saturday peak hours, in addition to meeting the peak hour traffic signal warrant.

Mitigation Measure 3.12-5 and 3.12-6 identify improvements that would reduce these impacts to a less than significant level. However, as described in greater detail in Section 3.12, these intersections are under the jurisdiction of San Joaquin County, and the City of Tracy cannot guarantee that the recommended improvements will be implemented. Therefore, the project's contribution to these cumulative intersection impacts is considered **cumulatively considerable and significant and unavoidable.** There is no additional feasible mitigation available to reduce the significance of these impacts.

As further described under Impacts 3.12-7 through 3.12-11, the proposed project would have less than cumulatively considerable impacts on all other study roadways, intersections and freeway segments after implementation of the mitigation measures included in Section 3.12 of this EIR.

UTILITIES

Impact 4.12: Cumulative Impact on Utilities (Less than Cumulatively Considerable)

The cumulative setting for utilities includes the City of Tracy Planning Area. Under General Plan buildout conditions, the City of Tracy would see an increased demand for water service, sewer service, solid waste disposal services, and stormwater infrastructure needs.

As described under Impact 3.13-2, the City of Tracy is in the process of completing facility expansions at the existing Wastewater Treatment Plant (WWTP). The treatment capacity improvements are anticipated to be completed by 2014. Buildout of the proposed project, including the 46-acre future expansion area, is anticipated to generate up to 2,058 gpd of wastewater. There is currently adequate capacity at the City's WWTP to receive and treat all of the wastewater generated by the proposed project. Project implementation would not result in the need for new or expanded WWTP facilities, and would not exceed the existing or projected capacity of the City's WWTP. Therefore, the project's cumulative impact to wastewater services is **less than cumulatively considerable**, and no additional mitigation is required.

As described under Impact 3.12-3, a mitigation measure is presented in Section 3.8 that requires the City to prepare a detailed drainage and stormwater detention plan that includes storm water calculations based on the final site design, and plans for the retention/detention of the calculated stormwater runoff on the project site. The intention of this mitigation measure is to ensure that stormwater detention facilities are designed with adequate capacity to ensure that that stormwater generated on the project site is retained at a rate that will ensure that discharges from the site do not exceed pre-construction levels. All drainage facilities will be located within the boundary of the project site and any construction of such facilities will not have any impact that is greater then what is discussed within this CEQA document. Implementation of Mitigation Measures identified in Section 3.8 would ensure that under cumulative conditions, stormwater runoff from the project site would not exceed pre-project levels, and would not result in increase off-site flooding or the need to construct additional off-site stormwater infrastructure as a result of project implementation. Therefore, under cumulative conditions, the project would have a **less than cumulatively considerable** impact on stormwater infrastructure, and no additional mitigation is required.

As described under Impact 3.13-4, buildout of the General Plan will result in an estimated 233 tons of solid waste per day. The Foothill landfill currently receives approximately 810 tons per day, of which 185 tons per day come from the City. The landfill is permitted to accept up to 1,500 tons per day, and has a permitted capacity of 51 million tons, of which approximately 45 million tons of capacity remains. It is estimated that the Foothill landfill will have the capacity to accept solid waste from the City of Tracy until 2054. The proposed project will not generate a large volume of solid waste that will enter the landfill, as would residential or commercial uses. The City will implement grass cycling as part of their regular maintenance program, whereby they will use the grass clippings for mulch onsite. This standard maintenance program will significantly reduce the total solid waste that will require collection and disposal. The solid waste that will require collection and disposal will be limited to garbage from picnics, sporting events, and other community events. The City will install recycling bins at the project site, which will further reduce the volume of solid waste that enters the landfill. Under cumulative conditions, the project's contribution to solid waste impacts would be **less than cumulatively considerable**, and no further mitigation is required.

As described under Impact 3.13-5, the potable and non-potable water demands for the Proposed Project, together with the City's existing water demands and projected water demands for approved and currently anticipated future projects, are within the water demand projections included in the City's 2005 UWMP. Non-potable water would initially be provided to the project site from the Sugar Cut Slough, which currently provides water to the site for agricultural uses. Potable water would be provided from the City's municipal water supply. Under cumulative conditions, it is anticipated that non-potable water would eventually be provided from recycled wastewater sources, further reducing the demands for non-potable water from Sugar Cut Slough.

As demonstrated by the analysis in Section 3.13 and under Impact 3.13-5, the proposed project would result in **less than cumulatively considerable** impacts to water supplies, and no further mitigation is required.

4.2 GROWTH-INDUCING EFFECTS

INTRODUCTION

Section 15126.2(d) of the CEQA Guidelines requires that an EIR evaluate the growth-inducing impacts of a proposed action. A growth-inducing impact is defined by the CEQA Guidelines as:

> *The way in which a proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth…It is not assumed that growth in an area is necessarily beneficial, detrimental, or of little significance to the environment.*

Based on the CEQA Guidelines, growth inducement is any growth that exceeds planned growth of an area and results in new development that would not have taken place without implementation of the project. A project can have direct and/or indirect growth inducement potential. Direct growth inducement would result if a project, for example, involved construction of new housing. A project would have indirect growth inducement potential if it established substantial new permanent employment opportunities (e.g., commercial, industrial, or governmental enterprises) or if it would involve a construction effort with substantial short-term employment opportunities that would indirectly stimulate the need for additional housing and services to support the new employment demand *(Napa Citizens for Honest Government v. Napa County Board of Supervisors)*. Similarly, a project would indirectly induce growth if it would remove an obstacle to additional growth and development, such as removing a constraint on a required public service. A project providing an increased water supply in an area where water service historically limited growth could be considered growth-inducing.

The State CEQA Guidelines further explain that the environmental effects of induced growth are considered indirect impacts of the proposed action. These indirect impacts or secondary effects of growth may result in significant, adverse environmental impacts. Potential secondary effects of growth include increased demand on other community and public services and infrastructure, increased traffic and noise, and adverse environmental impacts such as degradation of air and water quality, degradation or loss of plant and animal habitat, and conversion of agricultural and open space land to developed uses.

Growth inducement may constitute an adverse impact if the growth is not consistent with or accommodated by the land use plans and growth management plans and policies for the area affected. Local land use plans provide for land use development patterns and growth policies that allow for the orderly expansion of urban development supported by adequate urban public services, such as water supply, roadway infrastructure, sewer service, and solid waste service.

Components of Growth

The timing, magnitude, and location of land development and population growth in a region are based on various interrelated land use and economic variables. Key variables include regional economic trends, market demand for residential and non-residential uses, land availability and cost, the availability and quality of transportation facilities and public services, proximity to employment centers, the supply and cost of housing, and regulatory policies or conditions. Since the general plan of a community defines the location, type, and intensity of growth, it is the primary means of regulating development and growth in California.

GROWTH EFFECTS OF THE PROJECT

Direct Population Growth

The proposed project consists of a 298-acre sports park, which includes an active sports park, passive recreation area, and future expansion area. The City is also proposing to amend the General Plan to designate the site Parks (P), to allow and limit the proposed development to parks

and similar uses. No housing is proposed as part of this project, and therefore project implementation would not lead to direct population growth.

Indirect Population Growth

As described above, projects that do not directly induce population growth still have the potential to result in indirect population growth through the creation of jobs or the extension of infrastructure into areas that were not previously served. Implementation of the proposed project would not lead to significant job growth in the Tracy area.

The project would require the extension of infrastructure (water, sewer, and roads) to connect the site to the surrounding infrastructure network. As previously discussed in Section 3.13, the project would connect to existing water and wastewater lines located near Tracy Boulevard. In the near-term, roadway access to the site would be via Tracy Boulevard, with a future connection to Corral Hollow Road. The extension of these infrastructure services would not extend beyond the boundaries of the project site, and would not result in the delivery of these services to areas that were previous un-served or under-served by these services. The project would not result in an increase in infrastructure capacity beyond the level necessary to serve the project. Therefore, project implementation would not result in indirect population growth in the City of Tracy or the surrounding areas of San Joaquin County.

4.3 SIGNIFICANT IRREVERSIBLE EFFECTS

Legal Considerations

CEQA Section 15126.2(c) and Public Resources Code Sections 21100(b)(2) and 21100.1(a), requires that the EIR include a discussion of significant irreversible environmental changes which would be involved in the proposed action should it be implemented. Irreversible environmental effects are described as:

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

Determining whether the proposed project would result in significant irreversible effects requires a determination of whether key resources would be degraded or destroyed such that there would

be little possibility of restoring them. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

Analysis

Implementation of the proposed project would result in the conversion of approximately 298 acres of agricultural lands to parks uses. Development of the proposed project would constitute a long-term commitment to parks uses. It is unlikely that circumstances would arise that would justify the return of the land to its original condition as agricultural land. The loss of existing agricultural land is addressed in Section 3.2, and was determined to be a significant and unavoidable impact.

A variety of resources, including land, energy, water, construction materials, and human resources would be irretrievably committed for the project's initial construction, infrastructure installation and connection to existing utilities, ongoing buildout (future expansion area), and its continued maintenance. Construction of the project would require the commitment of a variety of other non-renewable or slowly renewable natural resources such as lumber and other forest products, sand and gravel, asphalt, petrochemicals, and metals.

Additionally, a variety of resources would be committed to the ongoing maintenance and life of the proposed project. An increase in the public use of land use on the site will result in an increase in area traffic over existing conditions. Fossil fuels are the principal source of energy and the project will increase consumption of available supplies, including gasoline. These energy resource demands relate to initial project construction, project operation and site maintenance and the transport of people and goods to and from the project site.

4.4 SIGNIFICANT AND UNAVOIDABLE IMPACTS

CEQA Guidelines Section 15126.2(b) requires an EIR to discuss unavoidable significant environmental effects, including those that can be mitigated but not reduced to a level of insignificance. The following significant and unavoidable impacts of the Holly Sugar Sports Park are discussed in Chapters 3.1 through 3.13 (project-level) and previously in this chapter (cumulative-level). Refer to those discussions for further details and analysis of the significant and unavoidable impact identified below:

- Impact 3.1-1: Project implementation may result in substantial adverse effects on scenic vistas and resources or substantial degradation of visual character
- Impact 3.1-2: Project implementation may result in light and glare impacts
- Impact 3.2-1: Project implementation would result in the conversion of Farmlands, including Prime Farmland, Unique Farmland, and Farmland of Statewide Importance, to non-agricultural uses
- Impact 3.3-4: Project implementation could result in cumulative effects on climate change and global warming

- Impact 3.10-2: Noise associated with the proposed onsite recreational uses would exceed applicable noise standards at nearby residential land uses
- Impact 3.10-3: Implementation of the proposed project would result in a significant increase in traffic noise levels
- Impact 3.10-6: Implementation of the proposed project would result in a significant contribution to cumulative noise levels at nearby land uses
- Impact 3.12-1: Project implementation would result in unacceptable levels of service at the intersection of Larch Road/Corral Hollow Road (Intersection #1)
- Impact 3.12-2: Project implementation would result in unacceptable levels of service at the intersection of Larch Road/Tracy Boulevard (Intersection #4)
- Impact 3.12-5: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of Larch Road/Corral Hollow Road (Intersection #1)
- Impact 3.12-6: Under cumulative conditions project implementation would contribute to unacceptable levels of service at the intersection of Larch Road/Tracy Boulevard (Intersection #4)
- Impact 4.1: Cumulative Degradation of the Existing Visual Character of the Region (Considerable Contribution and Significant and Unavoidable)
- Impact 4.2: Cumulative Impact on Agricultural Land and Uses (Considerable Contribution and Significant and Unavoidable)
- Impact 4.10: Cumulative Exposure of Existing and Future Noise- Sensitive Land Uses to Increased Noise Resulting from Cumulative Development (Cumulatively Considerable and Significant and Unavoidable)

5.1 CEQA REQUIREMENTS

CEQA requires that an EIR analyze a reasonable range of feasible alternatives that meet most or all project objectives while reducing or avoiding one or more significant environmental effects of the project. The range of alternatives required in an EIR is governed by a "rule of reason" that requires an EIR to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Where a potential alternative was examined but not chosen as one of the range of alternatives, the CEQA Guidelines require that the EIR briefly discuss the reasons the alternative was dismissed.

PROJECT OBJECTIVES

The alternatives to the proposed project selected for analysis in the EIR were developed to minimize significant environmental impacts while fulfilling the basic objectives of the project. As described in Chapter 2, Project Description, the following objectives have been identified for the Holly Sugar Sports Park project.

1. Develop a sports park facility that meets the existing and projected needs of the City of Tracy and the surrounding community.

2. Develop a sports park facility on a site with adequate room for contiguous expansion to meet future demands.

3. Ensure flexibility in the project to allow for options and alternatives for the development of future phases of the sports park facility.

4. Implement the project on a site that allows for cost effective site acquisition and site development by the City of Tracy and associated youth sports organizations.

ALTERNATIVES NOT SELECTED FOR FURTHER ANALYSIS

A Notice of Preparation was circulated to the public to solicit recommendations for a reasonable range of alternatives to the proposed project. Additionally, a public scoping meeting was held during the public review period to solicit recommendations for a reasonable range of alternatives to the proposed project. No specific alternatives were recommended by commenting agencies or the general public during the NOP public review process.

5.2 ALTERNATIVES CONSIDERED IN THIS EIR

Three alternatives to the proposed project were developed based on City of Tracy input and the technical analysis performed to identify the environmental effects of the proposed project. The alternatives analyzed in this EIR include the following three alternatives in addition to the proposed Holly Sugar Sports Park project.

- No Project Alternative
- Active Sports Park Only Alternative

- Alternative Location Alternative (Alvarez Site)

PROPOSED PROJECT

The proposed project includes the development of the 166-acre active sports park site, the 86-acre passive recreation site, and the 46-acre future expansion area, as described in greater detail in Section 2.0. In 2005 a Draft EIR was prepared for the Tracy Youth Sports Facility on a 200 acre parcel located at 15178 W. Schulte Road. Since that time, Tracy's City Council has determined that the Schulte Road site is not the ideal location for the City's sports park. On June 17, 2008, City of Tracy staff presented the City Council with a comparative analysis of four long-term youth sports field options, as well as short-term options.

The following four long-term sites were analyzed and discussed:

1. **Plan B Site**- This site is located west of Corral Hollow Road, north of Valpico Road, west of the existing residential developments in the San Joaquin County area, south of the Union Pacific Rail Road line running parallel to the old Schulte Road.

2. **Holly Sugar Site**- The 1,200 acre Holly Sugar site owned by City is located north of Larch Road developments between Corral Hollow Road and Tracy Boulevard and generally between Corral Hollow Road, Holly Road and Sugar Cut, north of Arbor Road.

3. **Alvarez Site**- The Alvarez site is located within Urban Reserve 1 (UR1) in the City's 2006 General Plan. The property is located outside the City's eastern boundary west of Chrisman Road and south of Eleventh Street.

4. **Bright Site**- This site is located south of the proposed Kimball High School on the east side of Lammers Road, between Eleventh Street and the proposed alignment of the Schulte Road expansion west of Corral Hollow Road.

The Holly Sugar Site was selected as the preferred location for the proposed sports park by the City Council and the Parks Commission for multiple reasons, including, but not limited to: costs and timing associated with land acquisition and site development, the site is adequately sized to meet the long-term needs of the community, and the site has room for expansion and future facility development.

NO PROJECT ALTERNATIVE

The CEQA Guidelines (Section 15126.6[e]) require consideration of a no project alternative that represents the existing conditions, as well as what would reasonably be expected to occur in the foreseeable future if the project were not approved. For purposes of this analysis, the No Project Alternative is the continuation of the existing agricultural operations on the project site, and the site would remain within the City's SOI, under the jurisdiction of San Joaquin County. Under this alternative a new regional sports park would not be constructed and operated by the City of Tracy. It is noted that the No Project Alternative would fail to meet the project objectives identified by the City of Tracy.

ACTIVE SPORTS PARK ONLY ALTERNATIVE

This alternative includes the construction and operation of the 166-acre active sports park component of the project, as described in greater detail in Section 2.0. Under this alternative, the 86-acre passive recreation area and the 46-acre future expansion area would remain in agricultural production and would not be annexed into the City of Tracy. Under this alternative the active sports park site would be developed consistent with the plans shown in Figure 2-4. It is noted that this alternative would fail to fully meet Project Objective #2, as it would not provide adequate space for the contiguous expansion of park facilities to meet future demands. Specifically, the uses proposed for the future expansion area, including a library and recreation center, would need to be constructed elsewhere in the City.

ALVAREZ SITE ALTERNATIVE

The Alvarez property is located outside the city's eastern boundary (within the SOI), west of Chrisman Road and south of Eleventh Street, behind the street's frontage developments as shown in Figure 6-1. The Alvarez property is identified as Urban Reserve 1 (UR1) in the City's General Plan. Under this alternative the project site would be annexed into the City of Tracy, and would require a General Plan Amendment to Parks (P). The parcel shown in Figure 6-1 includes 50 acres of land that may be available to the City of Tracy in exchange for concessions granted to the property owner. However, 50 acres of park land is not adequate to meet the projected parks demand of the City through 2025. Therefore, for the purposes of the environmental analysis in this EIR, it is assumed that up to 150 acres of land on the Alvarez property would be made available to the City of Tracy for the construction of a youth sports park. These 150 acres would consist of the 50-acre parcel shown in Figure 6-1, and approximately 100 additional acres of land to the south of the 50-acre parcel.

For the purposes of this analysis, it is assumed that up to 150 acres of land would be developed with active park amenities consistent with those identified for the Active Sports Park component of the proposed Holly Sugar Sports Park, as detailed in Section 2.0.

5.3 ENVIRONMENTAL ANALYSIS

The alternatives analysis provides a summary of the relative impact level of significance associated with each alternative for each of the environmental issue areas analyzed in this EIR. Following the analysis of each alternative, Table 5.0-1 summarizes the comparative effects of each alternative.

NO PROJECT ALTERNATIVE

Aesthetics

The No Project Alternative would leave the project site in its existing state and would not result in increases in daytime glare or nighttime lighting. As described in Section 3.1, the proposed

project would result in significant and unavoidable impacts associated with degradation of the visual character of the site and the introduction of new sources of light and glare. The No Project Alternative would avoid these impacts altogether and would have less of an impact than the proposed project on aesthetics.

Agricultural Resources

The No Project Alternative would result in the project site remaining in active agricultural production. Under the No Project Alternative the project site would not be annexed into the City of Tracy, and would remain in San Joaquin County with an Agriculture (AG) General Plan Land Use Designation. Implementation of the proposed project would have a significant and unavoidable impact on agricultural resources, while implementation of the No Project Alternative would have no impact on agricultural resources.

Air Quality

The No Project Alternative would result in significantly fewer vehicle trips to and from the project site. Under the No Project Alternative the project site would remain in active agricultural production and would continue to be a minor source of air pollution emissions. The primary source of emissions from the No Project Alternative would be from site maintenance and agricultural production activities (tractors, tillers, worker vehicles, water pumps, etc.). As described in Section 3.3, the proposed project would result in less than significant air quality impacts after the implementation of mitigation measures. However, the No Project Alternative would have less of an air quality impact than the proposed project.

Cultural Resources

The No Project Alternative would result in fewer ground disturbing activities than the proposed project and would reduce the potential to disturb or destroy cultural, historic, and archaeological resources, as well as paleontological resources. While the proposed project is not anticipated to result in impacts to cultural or historical resources, the No Project Alternative would further reduce the risk of the unintentionally discovery of such resources.

Geology and Soils

The No Project Alternative would result in the project site remaining in its existing condition in active agricultural production. There are currently no structures or buildings on the project site that are subject to seismic or geologic risks, including earthquakes, liquefaction, subsidence, etc. As described in Section 3.6, implementation of the proposed project would not result in any significant impacts related to geology and soils, but would result in the construction of new structures and accessory buildings on the project site. Therefore, the No Project Alternative would have a reduced impact on geology and soils when compared to the proposed project.

Hazards

Under the No Project Alternative the project site would remain in active agricultural production. Agricultural operations include the use and application of pesticides and fertilizers, the transport and use of which can pose a risk to surrounding land uses. While the proposed project would

include the use and application of pesticides and fertilizers as part of the field maintenance, it is anticipated that the agricultural operations that would continue under the No Project Alternative would use greater amounts of pesticides and fertilizers. Therefore, the risk of expose to hazards and the risk of upset during the transport of hazardous materials are considered greater under the No Project Alternative. With respect to the risk of wildland fires, the proposed project and the No Project Alternative would have comparable impacts as the proposed project would require the City to maintain a 4-inch mow height on all areas of the park that are not covered with field turf.

Hydrology and Water Quality

Under the No Project Alternative, the project site would remain under active agricultural production. As described in Section 3.8, the non-potable water demands of the proposed project are anticipated to be approximately half of the existing non-potable water demands of the site while in agricultural productions. Therefore, under the No Project Alternative, impacts associated with the use of non-potable surface water from Sugar Cut Slough would be greater than the proposed project. The No Project Alternative would not result in the addition of any impervious surfaces to the project site, and therefore, the volume of stormwater that would need to be retained on site would be less than the proposed project. Additionally, the No Project Alternative would not require the use of potable water from the City's municipal water supply, which would reduce impacts to groundwater sources compared to the proposed project. The proposed project would introduce new buildings and structures into an area within the 100-year floodplain, which would place these structures at risk of damage during a flood event. Therefore, the No Project Alternative would result in reduced impacts related to hydrology and water quality when compared to the proposed project.

Land Use

The No Project Alternative would not require annexation into the City of Tracy, and would not result in a change of the project site's General Plan Land Use designation from Agriculture to Parks. While the analysis in Section 3.9 concluded that the proposed project would not result in any significant land use impacts, the No Project Alternative would result in no changes to land use, and therefore, would have less of an impact than the proposed project.

Noise

As described in Section 3.10, implementation of the proposed project may result in significant and unavoidable impacts related to increases in ambient noise levels. The primary sources of increased noise from the proposed project would be from increased vehicle trips in the project area, and the use of the PA system at the proposed sports fields. The No Project Alternative would not result in increased vehicle trips in the project area, and would not introduce new sources of noise from PA systems and other park uses and activities. Therefore, impacts related to noise would be reduced under the No Project Alternative.

Public Services

Under the No Project Alternative the project site would remain in active agricultural production. As described in Section 3.11, implementation of the proposed project would result in a modest increase in demand for police and fire protection services. In general, the need for police and fire protection services for agricultural operations is less than the demand for these services at a regional park. Therefore, the No Project Alternative would have less of an impact than the proposed project on police and fire protection services. However, it should be noted that under the No Project Alternative the proposed Holly Sugar Sports Park would not be constructed, which would place additional strain and result in a more rapid deterioration of other existing park facilities in the City of Tracy. With respect to recreation and parks services, the No Project Alternative would have a greater impact than the proposed project.

Traffic/Circulation

The No Project Alternative would not introduce additional vehicle trips onto the study area roadways identified in Section 3.12. As described in Section 3.12, implementation of the proposed project would require intersection and roadway improvements to ensure less than significant impacts to roadways and intersections within the City of Tracy. Additionally, the proposed project would result in a significant and unavoidable impact to one intersection located within San Joaquin County. Under the No Project Alternative, these impacts would be avoided, and the No Project Alternative would have less of an overall traffic impact than the proposed project.

Utilities

Under the No Project Alternative the project site would continue to have no demand for wastewater services, potable water supplies, or the need to construct additional stormwater drainage infrastructure. Additionally, the demand for solid waste disposal would be lower under the No Project Alternative than the proposed project. It is noted however, that the No Project Alternative would result in a greater demand for non-potable water supplies than the proposed project, as described in greater detail in Section 3.13. Overall, the demand for utilities would be reduced under the No Project Alternative when compared to the proposed project.

ACTIVE SPORTS PARK ONLY ALTERNATIVE

Aesthetics

This alternative would result in the construction of the 166-acre Active Sports Park component of the project, as described in greater detail in Section 2.0. Under this alternative, the 86-acre Passive Recreation Area and the 46-acre Future Expansion Area would remain in active agricultural production. When compared to the proposed project, the Active Sports Park Only Alternative would result in the conversion of less land from agricultural uses to parks uses. While the conversion of the 166-acre Active Sports Park site would still result in significant visual impacts, the total amount of land converted would be reduced, and the impact to visual resources would be less than under the proposed project.

Agricultural Resources

The Active Sports Park Only Alternative would result in the conversion of 166-acres of agricultural land to non-agricultural uses, while the proposed project would result in the conversion of 298-acres of agricultural land to non-agricultural uses. While the loss of 166-acres of agricultural land that would occur under the Active Sports Park Only Alternative would remain significant and unavoidable, this impact would be less than the proposed project.

Air Quality

This alternative would result in reduced construction-related emissions, as the Future Expansion Area would not be developed under this alternative. Additionally, the vehicle traffic associated with the Future Expansion Area would not occur under this alternative. As described in Section 3.3, mitigation measures have been included that would reduce air quality impacts associated with implementation of the proposed project to less than significant levels, however, the Active Sports Park Only Alternative would result in fewer overall vehicle trips under cumulative conditions. Therefore, this alternative would have less of an air quality impact than the proposed project.

Biological Resources

This alternative would result in the construction of the active sports park facilities on 166-acres of the Holly Sugar site, but would leave the remaining 132-acres in active agricultural production. As described in Section 2.0, the project site is currently being farmed with alfalfa, which provides quality foraging habitat for raptors, including the Swainson's Hawk and Burrowing Owl. While the Active Sports Park Alternative would still result in impacts to foraging habitat for raptors, the impact would be less than the proposed project, as few acres would be converted to park uses.

Cultural Resources

This alternative would result in less ground disturbing activities than the proposed project, which would reduce the risk of accidental discovery of a cultural or historical resource. The proposed project would result in ground disturbance to the 166-acre Active Sports Park site and the 46-acre Future Expansion Area (there are no ground disturbing activities proposed for the 86-acre Passive Recreation Area. Under the Active Sports Park Only Alternative, the 46-acre Future Expansion Area would not be disturbed, and this alternative would have less of an impact than the proposed project.

Geology and Soils

Under this alternative the land uses proposed for the Future Expansion Area would not be constructed. The Future Expansion Area includes components such as a library and a recreation center, which would be larger and more valuable structures than those proposed for the Active Sports Park component of the project. These larger structures would be at greater risk for damage during a seismic event, and would also be at greater risk from factors such as liquefaction and subsidence. Additionally, these structures would be anticipated to have a

significantly greater number of people indoors at any given time, when compared to the structures proposed for the Active Sports Park (restrooms, concession stands, etc.). Therefore, since the Active Sports Park Only Alternative would result in the construction of fewer structures and would result in reduced ground disturbing activities, these impacts are less than those of the proposed project.

Hazards and Hazardous Materials

As described in Section 3.7, there are no known hazards or contamination issues within the 298-acre Holly Sugar Sports Park site. As further described in Section 3.7, the primary hazards related to implementation of the proposed project are associated with the routine transport and use of mildly hazardous materials associated with field and turf maintenance. The vast majority of the fields and turf areas within the proposed project are within the Active Sports Park site. Under this alternative, the Future Expansion Area would not be constructed. The incremental difference between the proposed project and the Active Sports Park Only Alternative with respect to the use and transport of hazardous materials is negligible. Therefore, this alternative would have a similar impact as the proposed project with respect to hazards and hazardous materials.

Hydrology and Water Quality

Under this alternative the Future Expansion Area would not be constructed. The Future Expansion Area includes multiple structures and parking lots areas that would result in increased impervious surfaces and increased stormwater runoff, which has the potential to adversely impact water quality. Additionally, the Future Expansion Area would increase demand for potable water supplies, which would place additional demand on groundwater supplies that are used to supplement the City's municipal water supply. The Active Sports Park Only Alternative would also place fewer structures within the 100-year floodplain than the proposed project, which would result in a decreased risk of injury or property damage associated with a flood event under this alternative. Therefore, the Active Sports Park Only Alternative would result in decreased impacts related to hydrology and water quality when compared to the proposed project.

Land Use and Planning

The Active Sports Park Only Alternative would result in the conversion of fewer acres of agricultural lands to non-agricultural uses than the proposed project. However, this alternative would still require the approval of a General Plan Amendment to change the land use designation of the 166-acre Active Sports Park site from Agriculture (AG) to Parks (P). Additionally, under this alternative, the 86-acre Passive Recreation Area would not be included in the land that is annexed into the City of Tracy as part of the project approval process. If the 86-acre Passive Recreation Area is not included within the area to be annexed, then the proposed project would represent a non-contiguous annexation, which is not consistent with applicable LAFCO policies regulating annexations. Therefore, under this alternative, impacts with respect to land use would be more significant than the proposed project.

Noise

As discussed above and in Section 3.10, the primary sources of noise associated with implementation of the proposed project are from increased vehicle trips on study area roadways in the project vicinity, and from activities proposed at the Active Sports Park Site (primarily the PA systems). Under this alternative the PA systems proposed for the Active Sports Park site would still be installed and operated, and this noise source of noise would be the same under this alternative. However, under this alternative there would be fewer project-generated vehicle trips under cumulative conditions, which would result in less of an increase in traffic noise. Therefore, under this alternative, noise impacts are reduced when compared to the proposed project.

Transportation/Traffic

As described in Section 3.12, implementation of the proposed project would result in increased vehicle traffic at several study intersections and roadways. Under the Active Sports Park Only Alternative, the Future Expansion Area and the associated proposed uses, such as the library and the recreation center, would not be constructed. Therefore, this scenario would generate few vehicle trips under cumulative buildout conditions. While implementation of the Active Sports Park Only Alternative would generate additional vehicle trips in the project area, it would not generate as many vehicle trips as the proposed project. Under this alternative, traffic and circulation impacts are reduced when compared to the proposed project.

Utilities

As described in Section 3.13, implementation of the proposed project would not result in significant impacts to utilities; including water, wastewater, storm drainage and solid waste. The Active Sports Park Only Alternative would result is less site development and fewer users of the future park and recreation facilities. This reduction in site development intensity and the corresponding decrease in the number of facilities users would result in a decreased demand for potable water, non-potable water, wastewater treatment and conveyance, and the removal and disposal of solid waste when compared to the proposed project. Non-development of the Future Expansion Area would also add less impervious surfaces to the project site when compared to the proposed project, and would require less storm drainage infrastructure. Therefore, when compared to the proposed project, the Active Sports Park Only Alternative would result reduced impacts to utilities.

ALVAREZ SITE ALTERNATIVE

Aesthetics

This alternative would result in the construction of the Active Sports Park component of the project on an alternative site, as shown in Figure 6-1. The alternative project site is bounded by commercial uses to the north and rural residences to the east. The site is bounded by agricultural lands to the south and the west. The project site is currently in agricultural production, and is designated Urban Reserve (UR1) by the Tracy General Plan. Railroad tracks

are located in the direct vicinity of the site to the west and north, as shown in Figure 6-1. The lands surrounding the project site are more intensely developed with commercial and residential uses than the lands surrounding the proposed project site. Similar to the proposed project, implementation of this alternative would convert active agricultural lands to park uses, which would change the existing visual character of the project site and surrounding area. However, this alternative would result in the conversion of 150-acres from agricultural uses to non-agricultural uses, compared to the 298-acres that would be converted if the proposed project were implemented. Therefore, impacts related to visual resources would be reduced under this alternative.

Agricultural Resources

The Alvarez Site Alternative would result in the conversion of 150-acres of agricultural land to non-agricultural uses. It is noted, however, that this alternative site is designated as Urban Reserve by the Tracy General Plan. According to the Tracy General Plan Land Use Element, *"the Urban Reserve designation is applied to relatively large, contiguous, geographic areas where comprehensive planning must occur prior to urbanization. The purpose of assigning the Urban Reserve designation to these large, undeveloped areas rather than specific land use designations to various parcels is to provide guidance regarding the vision and types of land uses allowed while still allowing flexibility in location of these uses."* While the alternative project site has historically been used for agricultural operations, the 2006 Tracy General Plan EIR addressed impacts associated with the eventual conversion of this site to non-agricultural uses when it addressed the cumulative loss of agricultural land associated with General Plan implementation. While implementation of this alternative would result in the loss of agricultural land, it would have less of an impact than the proposed project, as this alternative site is not currently designated for agricultural uses by the City of Tracy.

Air Quality

This alternative would result in similar construction-related and operational impacts as the Active Sports Park component of the proposed project. As described in Section 3.3, operational emissions from the proposed project would result primarily from the project related increase in vehicle emissions (from trips to and from the site) and from landscaping and field maintenance equipment. Under this alternative, the same level of development would occur as the Active Sport Park component of the proposed project, but the Future Expansion Area would not be constructed. Therefore, the total vehicle trips associated with project buildout would be less under this alternative, which would result in a corresponding decrease in air quality impacts when compared to the proposed project.

Biological Resources

Implementation of this alternative would result in the conversion of lands in agricultural operation to non-agricultural uses. Detailed site surveys for biological resources have not been conducted at the alternative project site, however, due to the agricultural nature of the site, the site provides suitable foraging habitat for raptors, including Swainson's Hawk and Burrowing Owl. As described in Section 3.4, implementation of the proposed project would not result in

direct impacts to special status species, but would result in the loss of suitable foraging habitat. Like the proposed project site, this alternative site would require inclusion in the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) in order to mitigate for the loss of habitat. However, this alternative would result in the development of up to 150-acres, while the proposed project would result in the development of up to 298-acres. Therefore, potential impacts to biological resources are reduced under this alternative.

Cultural Resources

Implementation of this alternative has the potential to result in the discovery of previously unknown cultural and historical resources. As described in Section 3.5, implementation of the proposed project is not anticipated to impact cultural or historical resources, but there is always the potential of encountering a previously unknown resource during ground disturbing activities. However, this alternative would result in the development of up to 150-acres, while the proposed project would result in the development of up to 298-acres. Therefore, potential impacts to cultural resources are reduced under this alternative.

Geology and Soils

The geologic and soils characteristics of the alternative site location are not significantly different than those of the proposed project site. The risk of property damage from a seismic event is anticipated to be the same at this alternative location than it is at the proposed project site. Impacts to geology and soils are similar.

Hazards and Hazardous Materials

A Phase I ESA was not completed for the alternative project site. However, the site has historically been used for agricultural operations, and the potential exists for soil contamination associated with the application of pesticides and fertilizers to the soil. It is also noted that the alternative project site is located in close proximity to existing UPRR railroad tracks, which could pose a hazard to vehicles and park users, particularly children. The risks associated with the routine use and transport of hazardous materials at this alternative site location would be similar to those of the proposed project. However, due to the close proximity of the railroad tracks to the site, this alternative is considered to have greater hazards-related impacts than the proposed project.

Hydrology and Water Quality

Implementation of this alternative would require the construction of on-site stormwater detention and retention facilities. Implementation of this alternative would result in similar amounts of new impervious surfaces and similar potential for water quality impacts associated with site drainage as the Active Sports Park component of the proposed project. However, the alternative project site is not located within the 100-year floodplain. As described in Section 3.8, the entire Holly Sugar Sports Park site is located within the 100-year floodplain. Therefore, this alternative has reduced impacts related to flooding when compared to the proposed project.

Land Use and Planning

The alternative project site is located within the Tracy SOI, and like the Holly Sugar site, would require annexation into the City of Tracy. Additionally, the alternative site is currently designated Urban Reserve by the Tracy General Plan, and would require a General Plan Amendment to designate the site as Parks. As described in Section 3.9, implementation of the proposed project would not divide an established community, and the project site would require inclusion in the SJMSCP. Implementation of the project at the alternative project site would not divide an established community, and the project would also require inclusion in the SJMSCP. Therefore, this alternative would result in similar impacts to land use and planning as the proposed project.

Noise

As discussed above and in Section 3.10, the primary sources of noise associated with implementation of the proposed project are from increased vehicle trips on study area roadways in the project vicinity, and from activities proposed at the Active Sports Park Site (primarily the PA systems). Under this alternative, the PA systems proposed for use at the stadium would likely be closer to a greater number of existing residences than it would be at the proposed project site. This would result in increased impacts to adjacent residences when compared to the proposed project site. Increased noise from vehicle trips generated under this alternative would be less than the noise generated from vehicle trips associated with the proposed project because proposed uses in the Future Expansion Area would not be constructed, and upon full buildout, there would be fewer vehicle trips under this alternative. Overall, given the potential for more severe noise impacts associated with the PA system, but less severe impacts associated with traffic noise, this alternative is anticipated to result in similar noise-related impacts as the proposed project.

Transportation/Traffic

As described in Section 3.12, implementation of the proposed project would result in increased vehicle traffic at several study intersections and roadways. Under this alternative, the Future Expansion Area and the associated proposed uses, such as the library and the recreation center, would not be constructed. Therefore, this scenario would generate few vehicle trips under cumulative buildout conditions. While implementation of this alternative would generate additional vehicle trips in the project area, it would not generate as many vehicle trips as the proposed project. Under this alternative, traffic and circulation impacts are reduced when compared to the proposed project.

Utilities

As described in Section 3.13, implementation of the proposed project would not result in significant impacts to utilities; including water, wastewater, storm drainage and solid waste. This alternative would result is less site development and fewer users of the future park and recreation facilities. This reduction in site development intensity and the corresponding decrease in the number of facilities users would result in a decreased demand for potable water,

non-potable water, wastewater treatment and conveyance, and the removal and disposal of solid waste when compared to the proposed project. Non-development of the Future Expansion Area would also add less impervious surfaces to the project site when compared to the proposed project, and would require less storm drainage infrastructure. Therefore, when compared to the proposed project, this alternative would result in reduced impacts to utilities.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA requires that an environmentally superior alternative be identified among the alternatives that are analyzed in the EIR. If the No Project Alternative is the environmentally superior alternative, an EIR must also identify an environmentally superior alternative among the other alternatives (CEQA Guidelines Section 15126.6(e)(2)). The environmentally superior alternative is that alternative with the least adverse environmental impacts when compared to the proposed project.

As Table 5.0-1 presents a comparison of the alternative project impacts with those of the proposed Holly Sugar Sports Park.

TABLE 5.0-1: COMPARISON OF ALTERNATIVE PROJECT IMPACTS TO THE PROPOSED PROJECT

ENVIRONMENTAL ISSUE	*NO PROJECT ALTERNATIVE*	*ACTIVE SPORTS PARK ONLY ALTERNATIVE*	*ALVAREZ SITE ALTERNATIVE*
Aesthetics	<	<	<
Agricultural Resources	<	<	<
Air Quality	<	<	<
Biological Resources	<	<	<
Cultural Resources	<	<	<
Geology and Soils	<	<	NC
Hazards and Hazardous Materials	<	NC	>
Hydrology and Water Quality	<	<	<
Land Use & Planning	<	>	NC
Noise	<	<	+/-
Public Services	<	<	<
Transportation and Circulation	<	<	<
Utilities	<	<	<

> = GREATER IMPACT THAN THAT OF THE PROPOSED PROJECT
< = DECREASED IMPACT THAN THAT OF THE PROPOSED PROJECT
+/- = GREATER IMPACT WITH REGARD TO SOME ASPECTS OF IMPACT AND DECREASED IMPACTS IN OTHER ASPECTS
NC = NO SUBSTANTIAL CHANGE IN IMPACT FROM THAT OF THE PROPOSED PROJECT

As shown in the table above, the No Project Alternative is the environmentally superior alternative. However, as required by CEQA, when the No Project Alternative is the environmentally superior alternative, the environmentally superior alternative among the others must be identified. Therefore, the Active Sports Park Only Alternative is the next environmentally superior alternative to the proposed project.

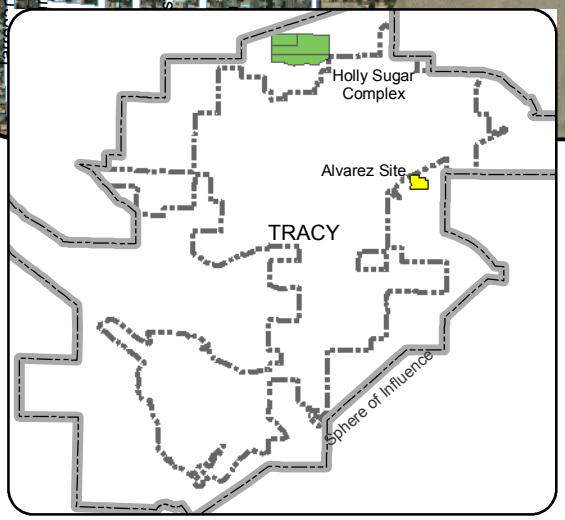

Figure 5-1
Alternative Project Location

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0.25 0.125 0 0.25 0.5 Miles

De Novo Planning Group

A Land Use Planning, Design, and Environmental Firm

June 8, 2009

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