

## **RESPONSES TO NOTICE OF PREPARATION COMMENTS**

### **SIERRA CLUB**

#### *Comment Summary*

The Sierra Club notes that the NOP indicates that only four topics will be analyzed in the DEIR, and that a complete analysis of several other topics are required by CEQA.

#### *Response to Comment*

The topics listed on page 16 of the NOP are only those topics that may result in significant and unavoidable impacts. These findings are preliminary and could change once technical analyses are completed for the project. The DEIR will include a complete analysis of 14 topics, including specific and effective mitigation measures and design features to reduce potential environmental impacts.

### **PACIFIC GAS AND ELECTRIC COMPANY**

#### *Comment Summary*

PG&E notes that they own and operate gas and electric facilities within and adjacent to the proposed project. They suggest early coordination with PG&E to ensure compliance with California Public Utilities Commission standards. The letter also states that expansion of distribution and transmission lines and related facilities may be necessary due to continued growth and development in the project area, and that the costs associated with relocating any PG&E facilities will be the responsibility of the developer.

#### *Response to Comment*

PG&E currently serves the existing agricultural operations on the project site and the Spanos Park West Development. Two substations provide electrical power to the area around the proposed project, including the Stagg Substation at Feather River Drive and March Lane, and the Eight Mile Substation located west of Interstate 5 and south of Eight Mile Road.

PG&E also currently provides natural gas services to Spanos Park West and will also serve the Westlake development. The facilities are sized to accommodate service to Crystal Bay. Lines will be extended west from the existing ends of Scott Creek Drive and Eight Mile Road. There are also existing gas facilities in Eight Mile Road at the western intersection of Mokelumne Drive.

The developer will continue to coordinate with PG&E regarding gas and electric facilities and the proposed project.

## **SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT**

### *Comment Summary*

The Air Pollution Control District notes that the entire San Joaquin Valley Air Basin is in non-attainment for ozone and particulate matter. The District also lists four main components that will be required as part of the DEIR.

### *Response to Comment*

A complete Air Quality study will be prepared for the proposed project. This study as well as analysis and appropriate mitigation measures will be discussed in the DEIR. Further, the components listed in the District's comment letter will be discussed in detail in the DEIR Air Quality section.

## **SAN JOAQUIN COUNTY MOSQUITO & VECTOR CONTROL DISTRICT**

### *Comment Summary*

The commentor notes that the stormwater detention basin planned as part of the proposed project may provide habitat for mosquitoes and other vector species. The District has also provided a list of mosquito prevention best management practices.

### *Response to Comment*

The stormwater system will incorporate detention into a lake amenity designed to improve stormwater quality. The planned lake operations include ongoing maintenance that is intended to prevent vector problems. An analysis of vector control will be included in the DEIR, Section 4.9, Public Services.

## **STATE DEPARTMENT OF CONSERVATION, DIVISION OF LAND RESOURCE PROTECTION**

### *Comment Summary*

The Department of Conservation notes that while agricultural impacts of the project were addressed as part of the Westlake Villages project and were determined to be significant and unavoidable, further analysis regarding the loss of agricultural land may be required. Specifically, if any mitigation measures to decrease the project's impact on agricultural land conversion have become available since the previous project, they should be considered.

### *Response to Comment*

The potential loss of agricultural land and consideration of further mitigation measures will be addressed in the DEIR, Section 4.6, Land Use. The project will be subject to the recently adopted Agricultural Mitigation fee program.

## **SAN JOAQUIN COUNTY COMMUNITY DEVELOPMENT DEPARTMENT**

### *Comment Summary*

The commentor requests that the proposed project could generate possible conflicts with existing agricultural operations on neighboring properties and should be addressed.

### *Response to Comment*

Land use compatibility will be analyzed in the DEIR, Section 4.6, Land Use.

## **DEPARTMENT OF HEALTH SERVICES**

### *Comment Summary*

The commentor requests that the subject of potable water supplies (i.e. well locations and site diagrams, main sizes, and projected water usage) be included as part of the DEIR.

### *Response to Comment*

Potable water supplies will be analyzed in the DEIR, Section 4.10, Public Water Supply Assessment.

## **CALIFORNIA DEPARTMENT OF CALIFORNIA HIGHWAY PATROL**

### *Comment Summary*

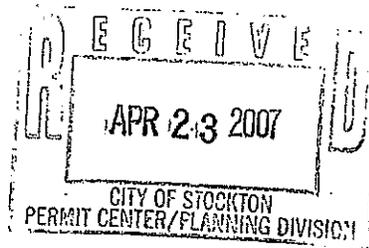
The commentor notes concern over the increased traffic on surrounding roadways as well as I-5 and the CHP's responsibility for traffic enforcement on these roads. The commentor also requests that these concerns be addressed in the DEIR.

### *Response to Comment*

Traffic impacts and mitigation measures will be analyzed in the DEIR, Section 4.7, Traffic and Circulation. Further, impacts to public services such as police protection will also be discussed in the DEIR, Section 4.9, Public Services.



SIERRA  
CLUB  
FOUNDED 1892



MOTHER LODGE CHAPTER  
1414 K STREET, SUITE 500  
SACRAMENTO, CA 95814  
TEL. (916) 557-1100 x 108  
Fax: (916) 557-9669  
coordinator@sierraclub-sac.org  
www.motherlode.sierraclub.org

Mark Martin  
City of Stockton  
Community Development Dept.  
345 N. El Dorado Street  
Stockton, CA 95202

23 April 2007

RE: Crystal Bay Notice of Preparation

Mr. Martin:

We have reviewed the NOP for the above project and have these comments:

We strongly object and will challenge any attempt to limit the focus of the environmental impact report for this 173 acre project to only four topics as indicated on page 16 of the NOP.

The EIR must include an analysis of the agricultural resources; biological resources; cultural resources; hydrology/water quality; utilities/services; noise; and land use/planning.

The NOP fails to include adequate justification why any of these additional topics would not result in "potentially significant" impacts due to the project. For example, the NOP fails to indicate why the loss of ag land would not be significant and fails to describe mitigation that would be required under the City's recently adopted 1:1 ag mitigation (purchase of easement for any project over 40 acres).

Similarly, the NOP argues that the project "will comply with applicable water quality and storm drainage discharge requirement" as well a "new standards set forth by the State and adopted by the City" and this will result in no potentially significant impacts. This argument is without factual basis and is patently absurd, especially give the location of the project immediately adjacent to Bishop Cut and the primary zone of the Delta. Building some 1,400 new housing units next to a major waterway and the Delta will require specific and effective mitigation measures and design features to not cause water quality impacts to this important resources.

*Representing 20,000 members in 24 counties in Northern and Central California*

Alpine - Amador - Butte - Calaveras - Colusa - El Dorado - Glenn - Lassen - Modoc - Nevada - Placer - Plumas  
Sacramento - San Joaquin - Shasta - Sierra - Siskiyou - Solano - Stanislaus - Sutter - Tehama - Tuolumne - Yolo - Yuba

Please comply with CEQA and stop trying to avoid environmental analysis of these key issues.

If you have any questions about these comments, you may contact me at 209/462-7079 or [eparfrey@sbcglobal.net](mailto:eparfrey@sbcglobal.net).

Please send the revised NOP, a copy of the Draft EIR, and all legal notices regarding this project to my home address, 1421 W. Willow St., Stockton 95203. Do NOT send copies to the Sierra Club address in Sacramento at the top of this letterhead.

Sincerely,

Eric Parfrey, Executive Committee  
Sierra Club, Mother Lode Chapter



**Pacific Gas and  
Electric Company**

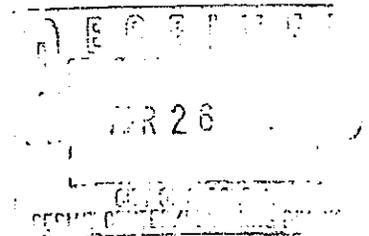
Alfred Poon  
Land Agent

Technical & Land  
Services.  
P.O. Box 930  
Stockton, Ca. 95201

Office: (209) 942-1419  
Fax: (209) 942-1485  
E-mail: akp3@pge.com

April 23, 2007

City of Stockton  
c/o Community Development Dept.  
Planning Division  
425 North El Dorado St.  
Stockton, CA 95202  
Attn: Mark Martin  
Fax: 209-937-8893



RE:NOP/ Initial study (IS) for an Environmental Impact Report (EIR)  
For: Crystal Bay Project  
Loc: South of Eight Mile Rd., E/O Rio Blanco Rd., Stockton  
City's Ref: EIR 6-05 dated February 2007  
PG&E File : WL 666 (Land)

Dear Mr. Martin,

Thank you for the opportunity to review the Initial study for an Environmental Impact Report (EIR) for the above project at the referenced location. PG&E has the following comments to offer:

PG&E owns and operates gas and electric facilities which are located within and adjacent to the proposed project. To promote the safe and reliable maintenance and operation of utility facilities, the California Public Utilities Commission (CPUC) has mandated specific clearance requirements between utility facilities and surrounding objects or construction activities. To ensure compliance with these standards, project proponents should coordinate with PG&E early in the development of their project plans. Any proposed development plans should provide for unrestricted utility access and prevent easement encroachments that might impair the safe and reliable maintenance and operation of PG&E's facilities.

The requesting party / developers will be responsible for the costs associated with the relocation of existing PG&E facilities to accommodate their proposed development. Because facilities relocation's require long lead times and are not always feasible, the requesting party should be encouraged to consult with PG&E as early in their planning stages as possible.

Relocations of PG&E's electric transmission and substation facilities (50,000 volts and above) could also require formal approval from the California Public Utilities Commission. If required, this approval process could take up to two years to complete. Proponents with development plans which could affect such electric transmission facilities should be referred to PG&E for additional information and assistance in the development of their project schedules.

We would also like to note that continued development consistent with the City's General Plans will have a cumulative impact on PG&E's gas and electric systems and may require on-site and off-site additions and improvements to the facilities which supply these services. Because utility facilities are operated as an integrated system, the presence of an existing gas or electric transmission or distribution facility does not necessarily mean the facility has capacity to connect new loads.

Expansion of distribution and transmission lines and related facilities is a necessary consequence of growth and development. In addition to adding new distribution feeders, the range of electric system improvements needed to accommodate growth may include upgrading existing substation and transmission line equipment, expanding existing substations to their ultimate buildout capacity, and building new substations and interconnecting transmission lines. Comparable upgrades or additions needed to accommodate additional load on the gas system could include facilities such as regulator stations, odorizer stations, valve lots, distribution and transmission lines.

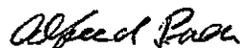
We would like to recommend that environmental documents for proposed development projects include adequate evaluation of cumulative impacts to utility systems, the utility facilities needed to serve those developments and any potential environmental issues associated with extending utility service to the proposed project. This will assure the project's compliance with CEQA and reduce potential delays to the project schedule.

PG&E remains committed to working with the City to provide timely, reliable and cost effective gas and electric service to the planned area. We would also appreciate being copied on future correspondence regarding this subject as this project develops.

The California Constitution vests in the California Public Utilities Commission (CPUC) exclusive power and sole authority with respect to the regulation of privately owned or investor owned public utilities such as PG&E. This exclusive power extends to all aspects of the location, design, construction, maintenance and operation of public utility facilities. Nevertheless, the CPUC has provisions for regulated utilities to work closely with local governments and give due consideration to their concerns. PG&E must balance our commitment to provide due consideration to local concerns with our obligation to provide the public with a safe, reliable, cost-effective energy supply in compliance with the rules and tariffs of the CPUC.

Should you require any additional information or have any questions, please call me at (209) 942-1419.

Sincerely,



Alfred Poon

Land Agent

Land Rights Protection

Northern Area

External: (209) 942-1419

Fax: (209) 942-1485



# San Joaquin Valley

AIR POLLUTION CONTROL DISTRICT

April 23, 2007

Mark Martin  
City of Stockton  
Community Development  
345 N. El Dorado St.  
Stockton, CA 95202

**Project:** Crystal Bay Project (EIR6-05)

**Subject:** CEQA comments regarding the Notice of Preparation for the development of 1,360 dwelling units and a project lake on 173 acres bounded by Eight Mile Road, Westlake, Rio Blanco Road, and Bishop Cut (APN 066-060-01, 02, 03)

**District Reference No:** 200700561

Dear Mr. Martin:

The San Joaquin Valley Unified Air Pollution Control District (District) has reviewed the project referenced above and offers the following comments:

The entire San Joaquin Valley Air Basin is designated non-attainment for ozone and particulate matter (PM10 and PM2.5). This project would contribute to the overall decline in air quality due to construction activities in preparation of the site, and ongoing traffic and other operational emissions. Preliminary analysis, based on the information provided, indicates the project may exceed the District's Threshold of Significance for ozone precursors of 10 tons per year of reactive organic gases (ROG) and oxides of nitrogen (NOx).

The District recommends that the air quality section of the EIR have four main components:

1. **A description of the regulatory environment and existing air quality conditions impacting the area.** This section should be concise and contain information that is pertinent to analysis of the project. The District has several sources of information available to assist with the existing air quality and regulatory environment section of the EIR. The District's *"Guide for Assessing and Mitigating Air Quality Impacts, 2002*

Seyed Sadredin  
Executive Director/Air Pollution Control Officer

---

Northern Region  
4800 Enterprise Way  
Modesto, CA 95358-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

Central Region (Main Office)  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061  
[www.valleyair.org](http://www.valleyair.org)

Southern Region  
2700 M Street, Suite 275  
Bakersfield, CA 93301-2373  
Tel: (661) 326-6900 FAX: (661) 326-6985

*Revision*" (GAMAQI) contains discussions regarding the existing air quality conditions and trends of the San Joaquin Valley Air Basin (SJVAB), including those pollutants of particular concern: ozone, PM<sub>10</sub>, and carbon monoxide. In addition, it provides an overview of the regulatory environment governing air quality at the federal, state, and regional levels. The GAMAQI provides air monitoring data and other relevant information for PM-10 and other pollutants. The current GAMAQI can be found at [www.valleyair.org/transportation/ceqa\\_guidance\\_documents.htm](http://www.valleyair.org/transportation/ceqa_guidance_documents.htm). The most recent air quality data for the District is Available on the California Air Resources Board (ARB) website at <http://www.arb.ca.gov/html/age&m.htm>. The air quality section of EPA's Region 9 (which includes information on the SJVAB) can be found at <http://www.epa.gov/region09/air/index.html>. Additionally, this section should also contain a discussion regarding growth projections that the City of Stockton provided to the District (through the San Joaquin COG) for inclusion in the Ozone and PM<sub>10</sub> Attainment Plans and any impacts this project will have on Federal Conformity for San Joaquin County and the SJVAB. Lastly, this section should clearly describe the air pollution regulatory authority of the District and ARB for the various emission sources from the Crystal Bay Project.

- 2. Estimates of existing emissions and projected pollutant emissions related to the increase in project source emissions and vehicle use, along with an analysis of the effects of these increases.** The EIR should include the methodology, model assumptions, inputs and results for pollutant emissions. The cumulative impact analyses should consider current existing and planned development both within the project area and in surrounding areas. The EIR needs to address the short term and long term local and regional adverse air quality impacts associated with the operation of construction equipment (ROG, NO<sub>x</sub>, carbon monoxide [CO], and PM<sub>10</sub>) and emission generated from stationary and mobile sources. The EIR should identify the components and phases of the project. The EIR should provide emissions projections for the project at the build out of each phase (including ongoing emissions from each previous phase). The most current URBEMIS program may be used to quantify these emissions.

**Ozone Precursors** – The District recommends using the regional transportation model to quantify mobile source emissions, but in some cases it may be possible to use the most current URBEMIS program to calculate project area and operational emissions. San Joaquin COG may be able to provide assistance with the regional transportation model. The District recommends using the most current URBEMIS program to calculate project area and operational emissions and to identify mitigation measures that reduce impacts. URBEMIS can be downloaded from <http://www.urbemis.com/> or the South Coast Air Quality Management District's website at <http://www.aqmd.gov/ceqa/urbemis.html>. If the analysis reveals that the emissions generated by this project will exceed the District's thresholds, this project may significantly impact the ambient air quality if not sufficiently mitigated. The project applicant or consultant is encouraged to consult with District staff for assistance in determining appropriate methodology and model inputs.

**Toxic Air Pollutants** – The air analysis should discuss any District or State regulations for identifying and reducing toxic pollutants and should describe how the City of Stockton would address future projects with sensitive receptors near existing sources that emit toxic pollutants and the citing of new sources of toxic pollutants in the plan area. Potential sources that emit toxic pollutants include project operations, and vehicles (the ARB has designated diesel particulate emissions as a toxic air contaminant). If the project is near sensitive receptors, or if existing sources are near the project area, the District should be contacted to determine if the project developer should perform a Health Risk Assessment (HRA). An HRA should include a discussion of the toxic risk associated with the proposed project, including project equipment, operations, and vehicles. The GAMAQI defines the significance levels for toxic impacts as a cancer risk greater than 10 in a million and/or a hazard index (HI) of 1.0 or greater for chronic non-carcinogenic or acute risks.

HRA guidelines promulgated by the California Office of Environmental Health Hazard Assessment (OEHHA) and OEHHA toxicity criteria must be used. In addition, the applicant should also refer to the *"Guidance for Air Dispersion Modeling"* document found on the District's web page for additional guidance. This document can be found at [http://www.valleyair.org/busind/pto/Tox\\_Resources/AirQualityMonitoring.htm](http://www.valleyair.org/busind/pto/Tox_Resources/AirQualityMonitoring.htm).

The District recommends use of the latest version of the Hot Spots Analysis and Reporting Program (HARP) released by ARB for an HRA because it is the only software that is compliant with the OEHHA guidelines.

The project consultant should contact the District to review the proposed modeling approach before modeling begins. For more information on HAPs analyses, please contact Mr. Leland Villalvazo, Supervising Air Quality Specialist, at (559) 230-6000 or [hramodeler@valleyair.org](mailto:hramodeler@valleyair.org).

**Carbon Monoxide Hotspot Analysis** – Results of the traffic study should be used to identify intersections and corridors with high levels of congestion that may result in a CO hot spot. CO hot spots should be screened using a protocol developed by the Institute of Transportation Studies at University of California Davis entitled Transportation Project-Level Carbon Monoxide Protocol. Locations that are predicted by the CO Protocol to experience high levels of CO should be modeled using the most current CALINE dispersion model. The procedure for using the current EMFAC model to calculate emission factors to be used in the CALINE modeling can be downloaded at the Caltrans Division of Environmental Analysis site <http://www.dot.ca.gov/hq/env/air/pages/calinesw.htm>.

**Odor Analysis** – The proposed project should be analyzed to see if it is considered near a location of sensitive receptors (including residences) and if odor is a concern. The procedure outlined in the GAMAQI includes the following:

- Identify the location of sensitive receptors (including residences).

- Compare the distance to the nearest sensitive receptor to the distances in Table 4.2 of the GAMAQI. If the sensitive receptors are further away than the distances given in Table 4.2, no further analysis is required. The results should be documented in the EIR.
- Obtain any odor complaints against the facility or similar facilities from the local District office and the county's environmental health department.
- Review the complaints to determine the location of complainants relative to the facility.
- Identify any sensitive receptors at similar distances.
- Determine if emissions of odoriferous compounds will increase or decrease with implementation of the project.
- Draw any reasonable conclusions as to the probability that the project will generate odor complaints based on this analysis of complaint history.

Note that the emission of odiferous compounds should be mitigated as much as feasible if it is anticipated that the project will have a significant impact. For more information on odor impact analyses, please contact Mr. Leland Villalvazo, Supervising Air Quality Specialist, at (559) 230-6000, or [hramodeler@valleyair.org](mailto:hramodeler@valleyair.org).

3. **Identify and discuss all existing District regulations that apply to the project.** The EIR should identify and discuss all existing District regulations that apply to the project. It would be appropriate to discuss proposed rules that are being developed that would apply to the proposed project. Current rules and regulations are available on the District's website at <http://www.valleyair.org/rules/1ruleslist.htm>. District rules and regulations are periodically revised, and new regulations are promulgated. The District strongly advises the City of Stockton to contact the District for any rule updates and new rules when the project development begins. Current District rules and regulations applicable to the proposed project are requirements.

**Regulation VIII** (Fugitive PM10 Prohibitions) Rules 8011-8081 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. The District's compliance assistance bulletin for construction sites can be found at [www.valleyair.org/busind/comply/PM10/Reg VIII CAB.pdf](http://www.valleyair.org/busind/comply/PM10/Reg VIII CAB.pdf).

If a residential project is 10 or more acres in area or the project will include moving, depositing, or relocating more than 2,500 cubic yards per day of bulk materials on at least three days, a Dust Control Plan must be submitted as specified in Section 6.3.1 of Rule 8021. Construction activities shall not commence until the District has approved the Dust Control Plan. A template of the District's Dust Control Plan is available at [www.valleyair.org/busind/comply/PM10/forms/DCP-Form.doc](http://www.valleyair.org/busind/comply/PM10/forms/DCP-Form.doc)

**Rule 4002** (National Emission Standards for Hazardous Air Pollutants) In the event that any portion of an existing building will be renovated, partially demolished or removed, the project will be subject to District Rule 4002. Prior to any demolition

activity, an asbestos survey of existing structures on the project site may be required to identify the presence of any asbestos containing building material (ACBM). In accordance with CAL-OSHA requirements, a certified asbestos contractor must remove any identified ACBM having the potential for disturbance. If you have any questions concerning asbestos related requirements, please contact the District's Compliance Division at (209) 557-6400 or contact CAL-OSHA at (559) 454-1295. The District's Asbestos Requirements Bulletin can be found online at <http://valleyair.org/busind/comply/asbestosbultn.htm>.

**Rule 4102** (Nuisance) This rule applies to any source operation that emits or may emit air contaminants or other materials. In the event that the project or construction of the project creates a public nuisance, it could be in violation and be subject to District enforcement action.

**Rule 4103** (Open Burning) This rule regulates the use of open burning and specifies the types of materials that may be open burned. Agricultural material shall not be burned when the land use is converting from agriculture to non-agricultural purposes (e.g., commercial, industrial, institutional, or residential uses). Section 5.1 of this rule prohibits the burning of trees and other vegetative (non-agricultural) material whenever the land is being developed for non-agricultural purposes. In the event that the project applicant burned or burns agricultural material, it would be in violation of Rule 4103 and be subject to District enforcement action.

**Rule 4601** (Architectural Coatings) This rule limits volatile organic compounds from architectural coatings by specifying architectural coatings storage, clean up and labeling requirements and applies to any person who supplies, sells, offers for sale, applies, or solicits the application of any architectural coating.

**Rule 4641** (Cutback, Slow Cure, and Emulsified Asphalt, Paving and Maintenance Operations) If asphalt paving will be used, then paving operations of this 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 4901** (Wood Burning Fireplaces and Wood Burning Heaters) This rule limits PM10 and PM2.5 emissions from residential development. Construction plans for residential developments may be affected by section 5.3, specifically:

- 5.3.1 – No person shall install a wood burning fireplace in a new residential development with a density greater than two (2) dwelling units per acre.
- 5.3.2 – No person shall install more than two (2) EPA Phase II Certified wood burning heaters per acre in any new residential development with a density equal to or greater than three (3) dwelling units per acre.
- 5.3.3 – No person shall install more than one (1) wood burning fireplace or wood burning heater per dwelling unit in any new residential development with a density equal to or less than two (2) dwelling units per acre.

More information about Rule 4901 can be found on our website at [www.valleyair.org](http://www.valleyair.org). For compliance assistance, please contact Mr. Wayne Clarke, Air Quality Compliance Manager, at (559) 230-5968.

**Rule 9510** (Indirect Source Review) This rule was adopted to reduce the impacts of growth in emissions from all new development in the San Joaquin Valley. Rule 9510 requires applicants subject to the rule to provide information that enables the District to quantify construction, area and operational PM10 and NOx emissions, and potentially mitigate a portion of those emissions. Rule 9510 requires construction exhaust emissions to be reduced by 20 percent for NOx and 45 percent for PM10 when compared to the statewide fleet average or to pay an in lieu mitigation fee. An application must be filed with the District no later than concurrent with application with a local agency for the final discretionary approval. For more information and instruction, please contact the District's ISR staff by phone at (559) 230-5800 or by email at [ISR@valleyair.org](mailto:ISR@valleyair.org).

The District does not consider compliance with District regulations to be mitigation. As such, emissions reductions as a result of compliance with District regulations should be considered as part of the project. Mitigation measures are those measures taken to lower emissions above and beyond what is required by compliance with District rules. The District believes this distinction is important because mitigation measures will require the preparation of a mitigation monitoring program that provides the schedule for implementation and the enforcement mechanism.

4. **Identify and discuss all feasible measures that will reduce air quality impacts generated by the project.** "Feasible" means "capable of being accomplished in a successful manner within a reasonable period of time, taking into account economic, environmental, legal, social, and technological factors: (California Code of Regulations (CCR § 15364)). CEQA requires that EIRs "describe measures which could minimize significant adverse impacts" (CCR §15126(c)). Additionally, the CCR requires that "a public agency should not approve a project as proposed if there are feasible alternatives or mitigation measures that would substantially lessen any significant effects that the project would have on the environment " (CCR § 15021(a)(2)). For each potential adverse impact, mitigation measures should be identified to reduce impacts below air quality threshold levels of significance. Therefore, the EIR should identify which mitigation measures will be included in the project, and how each mitigation measure will be implemented. The reduction of air quality impacts from implementation of mitigation measures should be quantified to the extent possible. If a measure cannot be quantified a qualitative discussion should be provided explaining the benefits of the proposed mitigation measure. The EIR should discuss how project design modifications could reduce project impacts

Mitigation measures are emission reduction measures beyond those required in Section 3. This section should provide an analysis of existing mass transit/bicycle access to or near the site, and discuss if additional infrastructure will be needed.

The section should identify which mitigation measures will be included in the project, and how each mitigation measure will be implemented. Site design, equipment alternatives, construction and operational measures that would reduce emissions should be identified. It should also analyze opportunities to mitigate urban heat island effects. The reduction of air quality impacts from implementation of mitigation measures should be quantified when possible. The EIR should discuss how the project design would encourage alternative transportation (including car pool parking), pedestrian and bicycle access/infrastructure, smart growth design, energy efficient project and building design, reduce urban heat island impacts, and include business programs that further reduce air pollution in the valley (such as carpooling). Mitigation measures must be included in the EIR that reduce the emissions of reactive organic gases, nitrogen oxides, and PM10 to the fullest extent possible. Site design and building construction measures that would reduce air quality impacts should be included. The Districts GAMAQI describes these features. The Local Government Commission (LGC) website, found at [www.lgc.org/](http://www.lgc.org/), contains valuable information and resources on subjects from street design to energy efficiency. The use of the principles of the document Landscape of Choice is encouraged to reduce air quality impacts.

District staff is available to meet with you and/or the applicant to further discuss the regulatory requirements that are associated with this project. If you have any questions or require further information, please call Jessica Willis at (559) 230-5818 and provide the reference number at the top of this letter.

Sincerely,

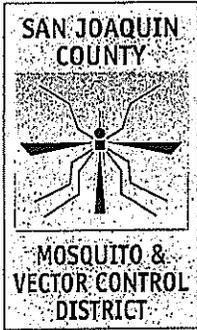
David Warner  
Director of Permits Services



for Daniel T. Barber, Ph. D.  
Supervising Air Quality Specialist

DW:jw

cc: File



JOHN R. STROH  
MANAGER  
BOARD OF TRUSTEES

JACK V. FIORI  
PRESIDENT  
CITY OF LODI

GERALD M. SCHILBER  
VICE PRESIDENT/SECRETARY  
CITY OF ESCALON

JACK W. CORELL  
SAN JOAQUIN COUNTY

FRANK DEBENEDETTI  
SAN JOAQUIN COUNTY

ALLAN R. FETTERS  
CITY OF STOCKTON

MARIO "MJ" GRAVINA  
CITY OF LATHROP

FRANCIS GROEN  
CITY OF RIPON

ALVIN C. INMAN  
SAN JOAQUIN COUNTY

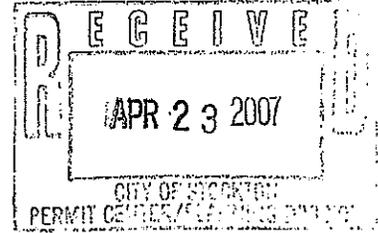
MICHAEL MANNA  
SAN JOAQUIN COUNTY

CHESTER C. MILLER  
CITY OF TRACY

JACK SNYDER  
CITY OF MANTECA

MARC WARMERDAM  
SAN JOAQUIN COUNTY

CHRISTOPHER K. ELEY  
LEGAL ADVISOR



April 19, 2007

City of Stockton  
Community Development Department, Planning Division  
Attn: Mark Martin, Project Manager III  
345 North El Dorado Street  
Stockton, CA 95202

Re: Public Review of the Notice of Preparation/Initial Study for "Chrystal Bay"  
Project (EIR6-05)

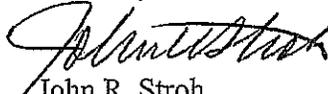
Dear Mark Martin,

San Joaquin County Mosquito and Vector Control District has reviewed the  
Notice of Preparation/Initial Study for "Chrystal Bay" Project (EIR6-05) and  
provides the following comments:

1. The General Project Description includes a proposed temporary  
detention basin that will receive stormwater, occupying several acres.  
Storm water retention basins provide aquatic habitats suitable for  
mosquitoes and other vector species as an unintended consequence of  
their implementation. It is requested that the project's proponents  
implement mosquito prevention measures in the design, construction,  
and management of the storm water retention basin and related  
structures. Enclosed for your consideration are suggested mosquito  
prevention best management practices published by the University of  
California Mosquito Research Program.

Do not hesitate to contact me if you have any questions or need additional  
information on this matter.

Sincerely,

  
John R. Stroh  
Manager



UNIVERSITY OF  
CALIFORNIA

Division of Agriculture  
and Natural Resources  
<http://anrcatalog.ucdavis.edu>



MVC  
MOSQUITO AND VECTOR CONTROL  
ASSOCIATION  
of CALIFORNIA



# Managing Mosquitoes in Stormwater Treatment Devices

MARCO E. METZGER, Vector-Borne Disease Section, California Department of Health Services

The federal Clean Water Act, as amended in 1987, requires states to develop and implement nonpoint source pollution management programs (see Copeland 1999, 2003). These mandated programs require that certain measures be taken to abate pollutants carried by rainwater and urban (i.e., dry weather) runoff, herein collectively referred to as stormwater runoff. A principal component of stormwater programs is the implementation of Best Management Practices (BMPs), a term first adopted in the 1970s to represent actions and practices used to reduce the flow rates and the constituent concentrations in runoff (WEF and ASCE 1998).

The regulatory pressure to achieve increasingly higher levels of pollution abatement gave birth to a burgeoning industry that specializes in developing stormwater treatment devices based on the latest available technologies. These "treatment" BMPs are engineered to maximize the capture and removal of target pollutants from stormwater, often with the added benefit of reducing excessive downstream flows. Hundreds of designs have been developed across the United States, including many proprietary devices, and in some cases existing structures such as flood-control basins and constructed wetlands may be modified to function as treatment BMPs to satisfy local needs. Unfortunately, although "best" for managing runoff, these devices often provide aquatic habitats suitable for mosquitoes and other vector species as an unintended consequence of their implementation (see CH2M Hill 1999; Chanda and Shisler 1980; Dorothy and Staker 1990; Florida Coordinating Council on Mosquito Control 1998; Klueh et al. 2002; McLean 2000; Metzger et al. 2002, 2003; O'Carroll 1978; Santana et al. 1994; Schimmenti 1979; Schmidt 1980; Smith and Shisler 1981). In this publication, "treatment BMP" and "treatment device" are used interchangeably.

Public health and safety is a major component of all stormwater management programs. Flood control and the reduction of waterborne pathogens are high priorities, yet mosquito management is often overlooked. Mosquito management is essential to prevent disease transmission and maintain quality of life and must be integrated into every stormwater program. This publication provides basic guidelines for mosquito management that are relevant to the location, design, and operation of proprietary and nonproprietary stormwater treatment devices. Unfortunately, the rapid growth and evolution of stormwater programs and BMP designs combined with the tremendous number of local factors that may influence mosquito production at any given site preclude any "cure-all" recommendations or solutions. Careful implementation of these guidelines will help suppress mosquito breeding while reducing health risks and discomfort, lowering costs associated with mosquito abatement, and lessening legal liability.

## MOSQUITOES AND MOSQUITO CONTROL

Mosquitoes are regarded as undesirable in both rural and urban areas throughout most of the United States. Not only is their biting activity a nuisance, mosquitoes also vector (transmit) pathogens that cause human and animal diseases. The recent threat of West Nile virus compounds concerns and reinforces the need for effective mosquito control.

There are approximately 3,000 species of mosquitoes worldwide (about 200 in the United States) and all require water to complete their life cycle (fig. 1). Mosquito control is most effective when directed at immature stages in standing water rather than at adults and is best conducted using a combination of techniques including biological, physical, chemical, and in states such as California, legal control (California Health & Safety Code [H&S Code], §§2060-2067, 100170, 100175). Biological control uses or enhances natural enemies of mosquitoes such as fish; physical control makes habitats less suitable for mosquito production; chemical control uses insecticides that target immatures or adults; and legal control can force uncooperative parties to eliminate breeding habitats on their property or face financial penalties.

Despite advances in mosquito management, the importance and need for careful preventative design and maintenance plans is paramount. This becomes apparent especially when faced with the limitations imposed by certain treatment BMPs as a result of their design, location, or accessibility. For example, underground treatment devices that hold permanent sources of water and produce mosquitoes are unlikely to support commonly used biological control agents, and physical controls such as exclusion

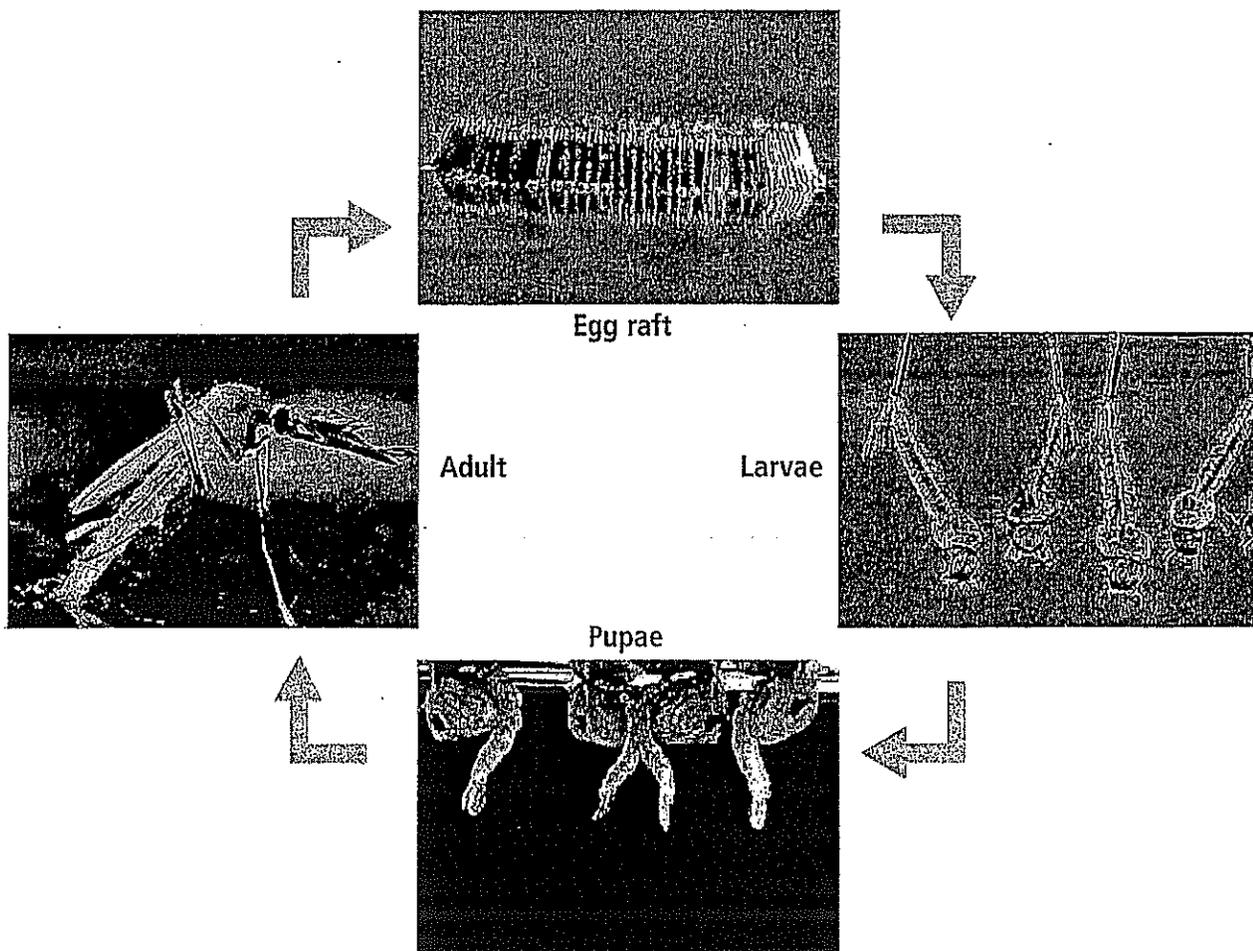


Figure 1. The mosquito life cycle consists of four stages: egg, larva, pupa, and adult. Female mosquitoes lay eggs on or near water. Eggs hatch into aquatic larvae that feed on organic material and grow through four stages before becoming pupae. Winged adults emerge from pupae, mate, and begin the cycle again. Only female mosquitoes feed on blood, which provides the nutrients needed for the development of eggs. Males are more short-lived and feed on plant juices. Photos courtesy of Marin/Sonoma Mosquito and Vector Control District.

(e.g., valves and covers) can be difficult to implement without affecting the devices' intended function. In these situations, chemical treatment, and legal abatement in some states, are the only remaining options. Note that in this publication, "chemical treatment" refers to the use of registered pesticides to control the aquatic stages of mosquitoes (larvicides), including bacteria, hormone mimics, and oils.

### LARVICIDING VERSUS PREVENTATIVE ENGINEERING

As more and more stormwater programs recognize the importance of integrating mosquito control into their lists of public health priorities, the dilemma of how to effectively manage mosquitoes in designs that favor mosquito breeding becomes obvious. Larvicide treatments are increasingly considered as long-term solutions for mosquito control in lieu of costly retrofits, replacements, or redesigns. However, sole reliance on larvicides is *not* a long-term solution for preventing mosquito production. Every possible effort should be made to "design the bugs out" during preconstruction planning or via postconstruction retrofits to avoid creating a possible public health hazard. When all else fails, registered pesticides should be applied only by certified professionals due to the risk of establishing pesticide resistance in target organisms, as well as potential liability issues from misuse.

### TYPE AND LOCATION OF TREATMENT BMPs

When selecting and installing stormwater treatment devices, agencies consider factors such as the projected runoff for a given area, the available or allocated space, cost, and local pollutants of concern. Structural designs can range from simple to elaborate and appear to be limited only by funding and the imagination of engineers. The most common processes used for pollution management in treatment BMPs that may be used singly or in combination include trash capture, settling and sedimentation, media filtration, and infiltration. Typical urban and suburban treatment devices include vegetated channels (swales), dry detention basins, wet retention ponds or constructed wetlands, media filtration devices, and belowground sumps, vaults, and basins. Of concern to public health officials is that an alarming number of these devices hold nutrient-rich stagnant water that provides breeding places for mosquitoes (fig. 2).

Location can greatly affect whether a treatment BMP becomes a significant source of mosquitoes. For example, identical structures in different locations may vary widely in potential mosquito production due to the number of mosquitoes present in the area, the species composition, and the duration of breeding activity. Elements that may influence the mosquito breeding potential in any given location may include a variety of environmental, construction, and local factors operating singly or in combination (table 1). Because of their propensity to breed mosquitoes, *all* treatment BMPs, regardless of their design, should be monitored periodically by vector control professionals with knowledge of the biology and ecology of local mosquito species. A more proactive approach would be to include vector

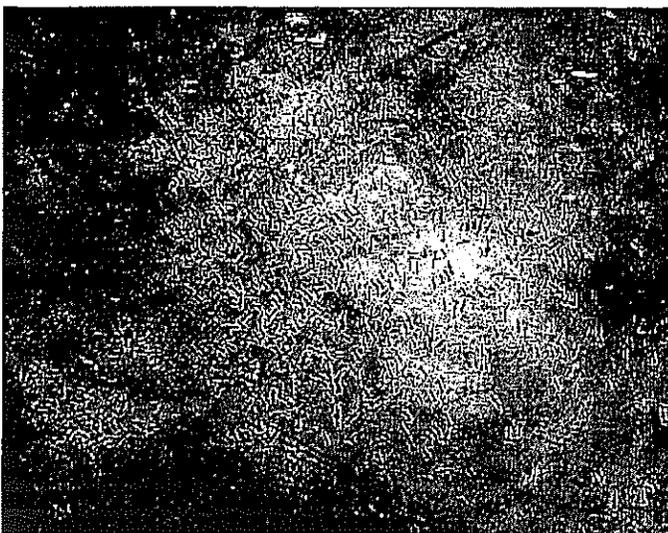


Figure 2. Waters rich in accumulations of organic materials created by some treatment BMPs provide ideal larval habitats for many species of mosquitoes, including those that can transmit human diseases. The standing water in this small roadside stormwater basin harbored hundreds of mosquito larvae and illustrates the reproductive potential of mosquitoes when provided with suitable habitat. Photo: Marco Metzger.

**Table 1. Factors that may influence mosquito production potential in treatment BMPs.**

Elevation
Installation above or below ground
Local climate
Local fauna (i.e., potential predators)
Nonstormwater runoff quantity, quality, and event frequency (e.g., residential and commercial)
Proximity to existing mosquito sources
Stormwater runoff quantity, quality, and event frequency
Surrounding host animals (wild and domestic) potentially available for female mosquitoes to feed upon
Surrounding land use, both present and future
Surrounding structural refuges for adult mosquitoes (e.g., trees, shrubs, storm sewers)
Surrounding vegetation, both native and exotic

Note: This list is incomplete. Other local factors may also be conducive to mosquito production.

control professionals in preconstruction planning. This type of collaborative effort could help prevent costly future retrofits or replacements necessary to meet mosquito management goals.

## MOSQUITO SUPPRESSION THROUGH DESIGN AND MAINTENANCE

The majority of treatment BMPs operate as "passive" systems, meaning that they do not require active operational control or adjustment beyond routine maintenance. As a result, most installations remain unsupervised for extended periods, and if conditions are favorable, mosquito breeding could occur unobserved and uncontrolled.

Conscientious planning that emphasizes mosquito habitat reduction or elimination in both design and maintenance plans can prevent these problems (Metzger et al. 2002; O'Carroll 1978; Schimmenti 1979).

Minimizing the mosquito production potential of treatment BMPs requires that standing water not be available for sufficient time to permit emergence of adult mosquitoes. This can be achieved in one of three ways:

- Rapid discharge of all captured water.
- Denying mosquitoes access to standing water (e.g., tight-fitting covers).
- Making the habitat less suitable for breeding (e.g., vegetation management, mosquitofish).

Mosquito development from egg to adult varies by species and is influenced primarily by temperature and food availability. Certain species can complete the aquatic stages of development and emerge as adults in less than 1 week under ideal conditions. Because of this, a 72-hour maximum residence time for captured water in treatment BMPs is recommended in California and elsewhere as a conservative safeguard to prevent emergence of adult mosquitoes (Florida Coordinating Council on Mosquito Control 1998; Metzger et al. 2003; Santana et al. 1994). In reality, many treatment BMPs hold water for over 72 hours, sometimes due to their outdated designs, and more recently in order to meet stringent effluent water quality requirements. To ensure that public health and safety is maintained, the following suggestions should be considered for any structure that holds water for over 72 hours.

- Select or design an alternative (or modified) device that provides adequate constituent removal and complete drainage in 72 hours. *This is the most reliable and cost-effective choice.*
- Contact state or local public health or vector control agencies to determine whether local mosquito species and local factors (e.g., high elevation) may preclude rapid mosquito emergence, thus safely allowing water residence times to exceed 72 hours. In some areas this may require a detailed study that should be funded by the soliciting party.
- Provide adequate funds necessary to support routine mosquito monitoring and control.

Possibly the most overlooked aspect of treatment BMP implementation is the long-term commitment of funds necessary for proper maintenance of structures. Routine and timely maintenance is critical for suppressing mosquito breeding as well as for meeting local water quality goals. If maintenance is neglected or inappropriate for a given site, even structures designed to be the least "mosquito friendly" may

become significant breeding sites. Table 2 lists conditions that may increase the probability of breeding mosquitoes over time in various treatment BMPs. Maintenance guidelines for individual BMPs are often site-specific and are beyond the scope of this publication.

**Table 2. Postconstruction conditions that may increase the probability of mosquito production in treatment BMPs.**

Clogging (e.g., effluent pipes, media filters, infiltration basins)
Establishment of invasive or exotic vegetation
Groundwater fluctuations
Nonstormwater runoff (i.e., increases in runoff frequency, residence time, and/or volume)
Scouring and erosion
Structural damage (e.g., shifting or settling, roots)
Trash and sediment accumulation (e.g., formation of pools, clogging, redirected water flows)
Vandalism
Vegetation overgrowth

*Note: This list may be incomplete. Other conditions favorable to mosquito production may become apparent as structures age.*

## BASIC GUIDELINES FOR MOSQUITO MANAGEMENT

### Dry Systems

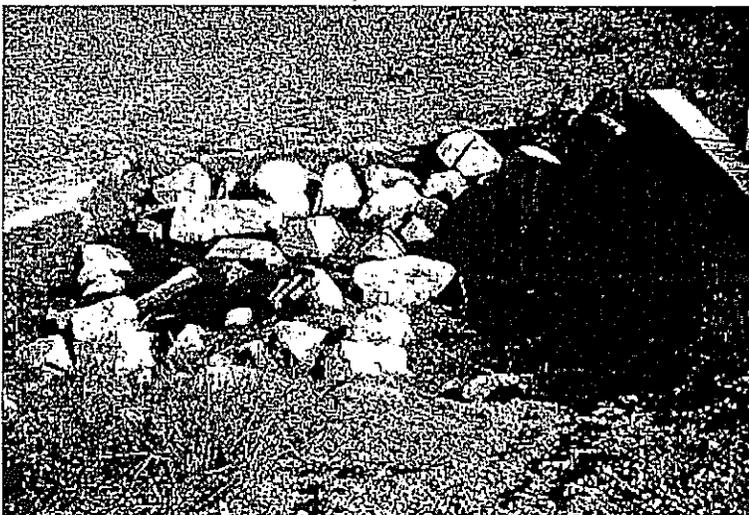
This category includes all stormwater treatment devices that are designed to drain completely following a storm event and remain dry. Examples include extended detention (dry detention) basins, vegetated swales, infiltration devices, and media filters.

- Design structures so they do not hold standing water for more than 72 hours. Special attention to groundwater depth is essential.
- Incorporate features that prevent or reduce the possibility of clogged discharge orifices (e.g., debris screens). The use of weep holes is not recommended due to rapid clogging.
- Use the hydraulic grade line of the site to select a treatment BMP that allows water to flow by gravity through the structure. Pumps are not recommended because they are subject to failure and often require sumps that hold water.
- Design distribution piping and containment basins with adequate slopes to drain fully and prevent standing water. The design slope should take into consideration buildup of sediment between maintenance periods. Compaction during grading may also be needed to avoid slumping and settling.
- Avoid the use of loose riprap or concrete depressions that may hold standing water (fig. 3).
- Avoid barriers, diversions, or flow spreaders that may retain standing water.

### Systems with Sumps, Vaults, or Basins

This category includes all stormwater treatment devices, except ponds and wetlands, that incorporate features that hold permanent or semipermanent standing water. Sumps, vaults, and basins may be located both above and below ground, but they are particularly common features of belowground proprietary and nonproprietary treatment devices that tie into existing storm sewers. Examples include above- and belowground media filters, oil-water separators, vortex separators, and vault-type devices (fig. 4).

- Completely seal structures that retain water permanently or longer than 72 hours to prevent entry of adult mosquitoes. Adult female mosquitoes may



**Figure 3.** The use of loose rocks (riprap) to dissipate the energy of incoming runoff encourages mosquito production. Inevitably, standing water collects between the rocks, providing habitat for mosquitoes and making monitoring and control very difficult. A low-maintenance sloped concrete slab with imbedded rocks or concrete blocks is recommended as an alternative. *Photo: Marco Metzger.*

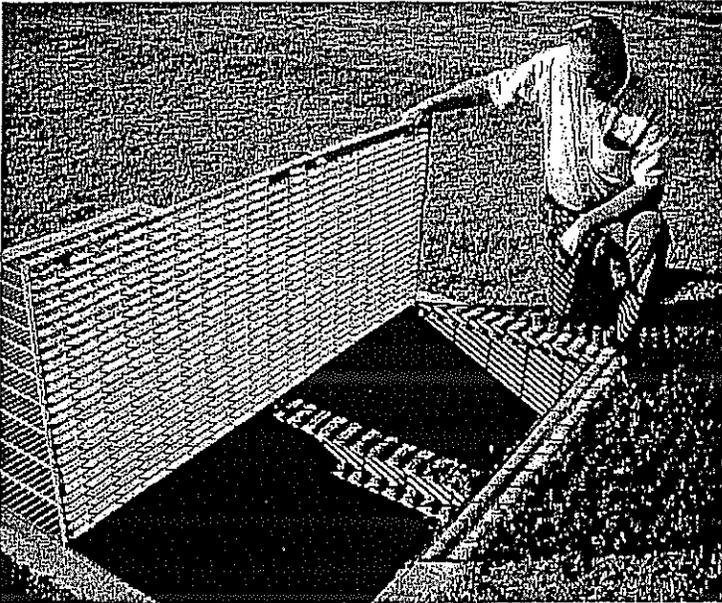


Figure 4. Stormwater treatment BMPs that hold permanent sources of standing water, especially belowground devices, pose a difficult challenge to mosquito exclusion efforts. A cooperative effort between stormwater professionals, municipal planners, public health officials, vector control agencies, and others is crucial to developing novel techniques that eliminate or deny mosquitoes access to standing water. Contact the state or local public health or vector control agency to discuss local vector issues and provide input and consultation on siting, design, and maintenance of proposed treatment BMPs. Photo: Marco Metzger.

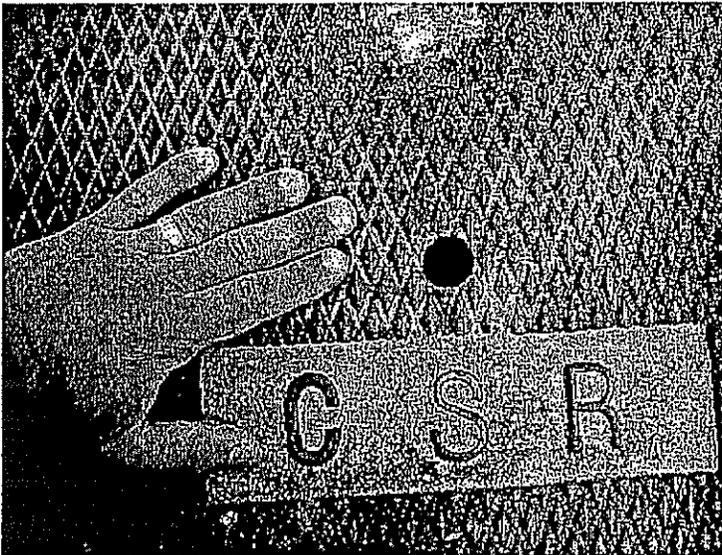


Figure 5. Mosquitoes can access underground sources of water in treatment BMPs from many places, including inlet and outlet pipes, loose-fitting covers, and vent holes. As a general rule, any gap  $\frac{1}{16}$  inch (2 mm) or greater is large enough to allow egg-laying females to enter. The hole in this manhole cover is more than large enough to allow mosquito entry. Photo: Marco Metzger.

penetrate openings as small as  $\frac{1}{16}$  inch (2 mm) to gain access to water for egg laying (fig. 5). Screening can exclude mosquitoes, but it is subject to damage and is not a method of choice.

- If using covers, they should be tight fitting with maximum allowable gaps or holes of  $\frac{1}{16}$  inch (2 mm) to exclude entry of adult mosquitoes. The use of gaskets can provide a much more effective barrier when used properly.
- If the sump, vault, or basin is sealed against mosquitoes, with the exception of the inlet and outlet, submerge the inlet and outlet completely to reduce the available surface area of water for mosquito egg-laying (female mosquitoes can fly through pipes). Alternatively, creative use of flapper or pinch valves, collapsible tubes (Mulligan and Schaefer 1982), and "brush curtains" might be effective for mosquito exclusion in certain designs.
- Design structures with the appropriate pumping, piping, valves, or other necessary equipment to allow for easy dewatering of the unit if necessary.

### Stormwater Ponds and Wetlands

Stormwater ponds and constructed, modified, or restored wetlands that receive runoff and provide stormwater treatment pose a difficult challenge for mosquito control because nearly all produce mosquitoes to some degree (fig. 6). Over time, emergent and shoreline vegetation create habitats conducive to mosquito breeding that may be difficult or even hazardous for mosquito control professionals to access. Hazards increase significantly if proper access (see below) is not provided. If these kinds of structures must be built, it is crucial that appropriate and adequate funds be allocated to support long-term site maintenance as well as routine monitoring and management of mosquitoes by a qualified agency. The long-term costs, jurisdictional and maintenance conflicts associated with establishment of protected species (United States Fish and Wildlife Service 1999), and legal liability (e.g., H&S Code) associated with



Figure 6. Stormwater treatment ponds and constructed wetlands form complex biological systems in which mosquitoes can be difficult to control. Effective mosquito management in these habitats requires careful planning before, during, and after construction. Mosquito suppression in this stormwater pond was achieved by following guidelines provided in this publication, i.e., weekly larval monitoring, annual removal of emergent vegetation, and maintenance of a healthy mosquitofish population. Additional guidelines for managing mosquitoes in surface-flow constructed wetlands are available and should be consulted (see Walton 2003). Photo: Marco Metzger.

these kinds of projects must be evaluated; if any doubt exists, consider alternate treatment devices. For example, feasibility studies of subsurface flow treatment wetlands are currently under investigation and may provide excellent mosquito-free alternatives (see Anonymous 2002).

Long-term management of mosquitoes in stormwater ponds and wetlands should integrate biological control, vegetation management and other physical practices, and chemical control as appropriate. Also, a provision for regular inspection of sites for detection of developing mosquito populations should be included. Some general guidelines are listed below. Local factors may influence the overall effectiveness of certain approaches for mosquito reduction. Additional information and guidelines are available for surface-flow constructed treatment wetlands and should be consulted (Walton 2003) to ensure that mosquito populations are minimized.

### Mosquito Predators and Biological Control

- Stormwater ponds and wetlands should maintain water quality sufficient to support surface-feeding fish such as mosquitofish (*Gambusia affinis*), which feed on immature mosquitoes and can aid significantly in mosquito control.
- If large predatory fish are present (e.g., perch and bass), mosquitofish populations may be negatively impacted or eradicated. In this case, careful vegetation management remains the only nonchemical mosquito control measure.
- Where mosquitofish are not allowed, careful vegetation management remains the only nonchemical mosquito control measure.
- Other opportunistic predators such as dragonflies, diving beetles, birds, and bats feed on mosquitoes when available, but their effects are generally not sufficient to preclude chemical treatment. Despite popular beliefs, control of adult mosquitoes by birds (e.g., purple martins) and bats cannot be relied on in lieu of habitat maintenance and chemical control (Kale 1968; Tuttle 2000).

### Vegetation

- Emergent vegetation provides mosquito larvae with refuge from predators, protection from surface disturbances, and increased nutrient availability while interfering with monitoring and control efforts.
- Perform routine maintenance to reduce emergent plant densities to facilitate the ability of mosquito predators (i.e., fish) to move throughout vegetated areas.
- Whenever possible, maintain stormwater ponds and wetlands at depths in excess of 4 feet (1.2 m) to limit the spread of invasive emergent vegetation such as cattails (*Typha* spp.). Deep, open areas of exposed water are typically unsuitable for mosquito immatures due to surface disturbances and predation. Deep zones also provide refuge areas for fish and beneficial macroinvertebrates should the densely vegetated emergent zones be drained.

- Build shoreline perimeters as steep and uniform as practicable to discourage dense plant growth.
- Use concrete or liners in shallow areas to discourage unwanted plant growth where vegetation is not necessary.
- Eliminate floating vegetation conducive to mosquito production (i.e., water hyacinth [*Eichhornia* spp.], duckweed [*Lemna* and *Spirodela* spp.], and filamentous algal mats).

#### Miscellaneous

- Make shorelines accessible to maintenance and vector control crews for periodic maintenance, control, and removal of emergent vegetation, as well as for routine mosquito monitoring and abatement procedures, if necessary.
- Design and obtain necessary approvals for all stormwater ponds and wetlands to allow for complete draining when needed.

#### General Access Requirements

Providing adequate and safe access for maintenance activities and for mosquito monitoring and management in stormwater treatment devices cannot be over emphasized (fig. 7). An alarmingly high number of treatment BMPs already exist that were constructed with little or no regard to reasonable access and safety. Examples include basins with 1:1 perimeter slopes, devices with deep sumps or vaults, and covered devices with heavy lids or grates.

- All stormwater treatment devices should be easily and safely accessible without the need for special requirements (e.g., OSHA requirements for "confined space"). This allows vector control personnel to effectively monitor and, if necessary, abate vectors.
- If utilizing covers, the design should include spring-loaded or lightweight access hatches that can be opened easily for inspection.
- Mosquito larvicides are applied with handheld equipment at small sites and with backpack or truck-mounted high-pressure sprayers at large sites. The effective swath width of most backpack or truck-mounted larvicide sprayers is approximately 20 feet (6 m) on a windless day. Because of these equipment limitations, all-weather road access (with provisions for turning a full-size work vehicle) should be provided along at least one side of large above-ground structures that are less than 25 feet (7.5 m) wide. Structures that have shoreline-to-shoreline distances in excess of 25 feet should have a perimeter road for access to all sides.

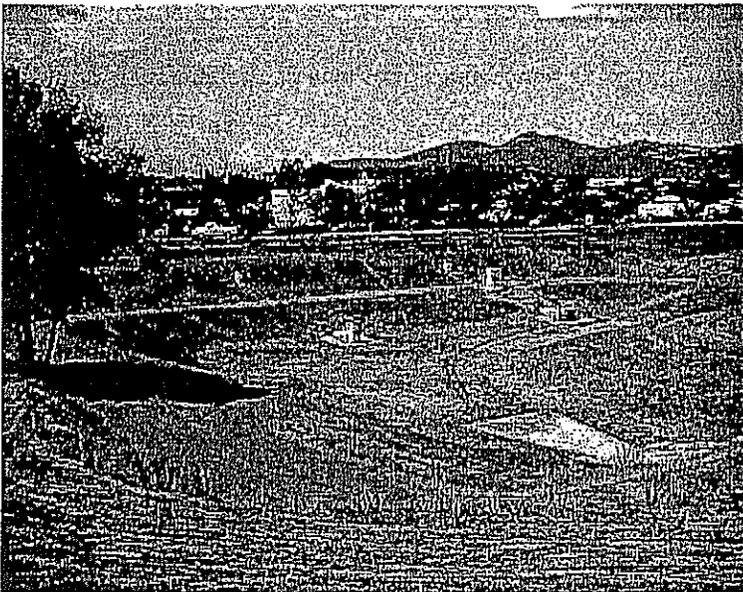


Figure 7. An example of a well-designed perimeter road and access ramp to the basin floor. Adequate access in and around BMP devices such as this large extended detention basin are critical for maintenance activities and vector control. Photo: Marco Metzger.

- Access roads should be built as close to the shoreline as possible. Vegetation or other obstacles should not be permitted between the access road and the stormwater treatment device that might obstruct the path of larvicides to the water.
- Vegetation should be controlled (by removal, thinning, or mowing) periodically to prevent barriers to access.

## CONCLUSION

Stormwater treatment devices, especially those that hold permanent sources of standing water by design, create a difficult challenge for public health officials and vector control agencies and may pose a legal liability in states such as California (H&S Code). The best solution to managing mosquito populations in stormwater structures lies in fostering interdisciplinary cooperation among stormwater professionals, municipal planners, public health officials, vector control agencies, and others. Existing and future treatment BMPs must incorporate features and follow guidelines to minimize or eliminate mosquitoes. Contact state or local public health or vector control agencies to discuss local vector issues and provide input and consultation into siting, design, and maintenance of proposed treatment BMPs. Ultimately, a proactive rather than reactive approach saves money, time, effort, and most importantly, ensures the public's health.

## REFERENCES

- Anonymous. 2002. OCWD's dairy washwater treatment wetlands demonstration project. *Land and Water* 46(2): 40-45.
- California Health & Safety Code (H&S Code). See the H&S Web site at <http://www.leginfo.ca.gov/calaw.html>.
- CH2M Hill. 1999. A mosquito control strategy for the Tres Rios demonstration constructed wetlands. Tempe, AZ: CH2M Hill.
- Chanda, D. A., and J. K. Shisler. 1980. Mosquito control problems associated with stormwater control facilities. *Proceedings of the New Jersey Mosquito Control Association* 67:193-200.
- Copeland, C. 1999. Clean Water Act: a summary of the law. Congressional Research Service Report RL30030. Washington, DC: National Council for Science and the Environment. See the NCSE Web site at <http://www.ncseonline.org>.
- Copeland, C. 2003. Water quality: implementing the Clean Water Act. Congressional Research Service Report IB89102. Washington, DC: National Council for Science and the Environment. See the NCSE Web site at [www.ncseonline.org](http://www.ncseonline.org).
- Dorothy, J. M., and K. Staker. 1990. A preliminary survey for mosquito breeding in stormwater retention ponds in three Maryland counties. College Park: Maryland Department of Agriculture, Mosquito Control.
- Florida Coordinating Council on Mosquito Control. 1998. Florida mosquito control: The state of the mission as defined by mosquito controllers, regulators, and environmental managers. Gainesville: University of Florida.
- Kale, H. W., II. 1968. The relationship of purple martins to mosquito control. *Auk* 85(4): 654-661.
- Kluh, S., M. E. Metzger, D. F. Messer, J. E. Hazelrigg, and M. B. Madon. 2002. Stormwater, BMPs, and vectors: The inevitable impact of new BMP construction on local public health agencies. *Stormwater* 3(2): 40-46.

- McLean, J. 2000. Mosquitoes in constructed wetlands: A management bugaboo? In T. R. Schueler and H. K. Holland, eds., *The practice of watershed protection*. Ellicott City, MD: Center for Watershed Protection. 29-33.
- Metzger, M. E., D. F. Messer, C. L. Beitia, C. M. Myers, and V. L. Kramer. 2002. The dark side of stormwater runoff management: Disease vectors associated with structural BMPs. *Stormwater* 3(2): 24-39.
- Metzger, M. E., C. M. Myers, and V. L. Kramer. 2003. The "dark side" of stormwater runoff management: vectors associated with BMPs. *Proceedings of the California Mosquito Vector Control Association* 70:2-10.
- Mulligan, F. S., III, and C. H. Schaefer. 1982. A physical barrier for controlling mosquitoes which breed in urban storm drains. *Mosquito News* 42(3): 360-365.
- O'Carroll, G. 1978. The mosquito abatement hazards of detention-retention facilities in New Jersey. *Proceedings of the New Jersey Mosquito Control Association* 65:158-165.
- Santana, F. J., J. R. Wood, R. E. Parsons, and S. K. Chamberlain. 1994. Control of mosquito breeding in permitted stormwater systems. Brooksville: Sarasota County Mosquito Control and Southwest Florida Water Management District.
- Schimmenti, F. G. 1979. Mosquito control problems associated with and general guidelines for detention and retention basins. *Proceedings of the New Jersey Mosquito Control Association* 66:139-148.
- Schmidt, R. F. 1980. A two year study of multi-purpose water structures in Middlesex County, N.J. *Proceedings of the New Jersey Mosquito Control Association* 67:184-192.
- Smith, C. M., and J. K. Shisler. 1981. An assessment of storm water drainage facilities as sources of mosquito breeding. *Mosquito News* 41(2): 226-230.
- Tuttle, M. D. 2000. Bats, man-made roosts, and mosquito control. *The Bat House Researcher* 18(2): 6.
- United States Fish and Wildlife Service. 1999. Announcement of final safe harbor policy. *Federal Register* 64(116): 32717-32726. See the Federal Register Web site at [http://ndangered.fws.gov/policy/safe\\_har.pdf](http://ndangered.fws.gov/policy/safe_har.pdf).
- Walton, W. E. 2003. Managing mosquitoes in surface-flow constructed treatment wetlands. University of California Division of Agriculture and Natural Resources, Publication 8117. Available for free download from the UC ANR Communication Services Web site at <http://anrcatalog.ucdavis.edu>.
- Water Environment Federation (WEF) and the American Society of Civil Engineers (ASCE). 1998. Urban runoff quality management. WEF manual of practice no. 23. ASCE manual and report on engineering practice no. 87. Alexandria, VA: Water Environment Federation; Reston, VA: American Society of Civil Engineers.

## FOR MORE INFORMATION

You'll find more information on mosquito control in the following ANR Communication Services publications

*Aquatic Pest Control*, Publication 3337, 2001.

*Managing Mosquitoes in Surface-Flow Constructed Treatment Wetlands*, Publication 8117, 2003, available for free downloading at <http://anrcatalog.ucdavis.edu/pdf/8117.pdf>

*Mosquitoes: Pest Notes for Home and Landscape*, Publication 7451, 1998.

*Mosquitoes of California*, 3rd edition, Publication 4084, 1978.

To order these publications, visit our online catalog at <http://anrcatalog.ucdavis.edu>. You can also place orders by mail, phone, or FAX, or request a printed catalog of publications, slide sets, videos, and CD-ROMs from

University of California  
Agriculture and Natural Resources  
Communication Services  
6701 San Pablo Avenue, 2nd Floor  
Oakland, California 94608-1239

Telephone: (800) 994-8849 or (510) 642-2431, FAX: (510) 643-5470

E-mail inquiries: [danrcs@ucdavis.edu](mailto:danrcs@ucdavis.edu)

An electronic version of this publication is available on the ANR Communication Services Web site at <http://anrcatalog.ucdavis.edu>.

### Publication 8125

© 2004 by the Regents of the University of California, Division of Agriculture and Natural Resources. All rights reserved.

The University of California prohibits discrimination against or harassment of any person employed by or seeking employment with the University on the basis of race, color, national origin, religion, sex, physical or mental disability, medical condition (cancer-related or genetic characteristics), ancestry, marital status, age, sexual orientation, citizenship, or status as a covered veteran (special disabled veteran, Vietnam-era veteran or any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized).

University Policy is intended to be consistent with the provisions of applicable State and Federal laws.

Inquiries regarding the University's nondiscrimination policies may be directed to the Affirmative Action/Staff Personnel Services Director, University of California, Agriculture and Natural Resources, 300 Lakeside Drive, 6th Floor, Oakland, CA 94612-3550 (510) 987-0096. For information about obtaining this publication, call (800) 994-8849. For information on downloading, call (530) 754-5112.

pr-1/04-SB/CR



This publication has been anonymously peer reviewed for technical accuracy by University of California scientists and other qualified professionals. This review process was managed by the ANR Associate Editor for Pest Management.



# DEPARTMENT OF CONSERVATION

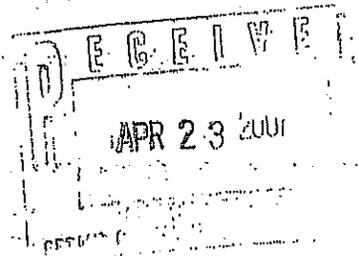
## DIVISION OF LAND RESOURCE PROTECTION

801 K STREET • MS-18-01 • SACRAMENTO, CALIFORNIA 95814

PHONE 916 / 324-0850 • FAX 916 / 327-3430 • TDD 916 / 324-2555 • WEBSITE [conservation.ca.gov](http://conservation.ca.gov)

April 17, 2007

Mark Martin, Project Manager III  
City of Stockton  
c/o Community Development Department  
Planning Division  
345 North El Dorado Street  
Stockton, CA, 95202-1997



Subject: Notice of Preparation (NOP) of a Draft Environmental Impact Report  
(DEIR) for the Crystal Bay Project SCH# 2007032116

Dear Mr. Martin:

The Department of Conservation's Division of Land Resource Protection (Division) monitors farmland conversion on a statewide basis and administers the California Land Conservation (Williamson) Act and other agricultural land conservation programs. The Division has reviewed the above NOP and offers the following recommendations for the DEIR with respect to the project's potential impacts on agricultural land.

The proposed project involves a General Plan Amendment, Rezoning, Master Development Plan, Vesting Tentative Map, and annexation of 173 acres of land. Proposed land uses for the area include various densities of residential units, parkland, and a 7.2-acre lake. The NOP notes that agricultural impacts of the project were addressed as part of the Westlake Villages project and determined to be significant and unavoidable. The NOP further states that accordingly, the conversion of agricultural land on the current Spanos Parcel requires no further environmental review.

The City should be aware that an appeals court ruling in Communities for Better Environment, et al. v. California Resources Agency, et al. (2002) has invalidated the California Environmental Quality Act Guideline §15152(f)(3)(c). Although a prior environmental impact report's *analysis* of environmental effects may be incorporated in a later EIR for a specific project the decisionmakers must still make findings as to why the later project was approved despite significant unavoidable impacts.

In addition, if any mitigation measures to decrease the project's impact on agricultural land conversion have become available since the previous project, they should be considered. For example, if a program or land trust has been established to facilitate

Mark Martin, Project Manager III

April 17, 2007

Page 2 of 2

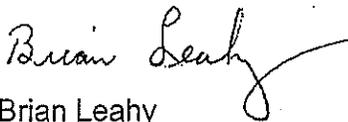
the purchase of agricultural conservation easements on land of at least equal quality and size, we recommend that this option be considered to reduce impacts on agricultural land. Mitigation using conservation easements can be implemented by at least two alternative approaches: the outright purchase of conservation easements tied to the project, or via the donation of mitigation fees to a local, regional or statewide organization or agency, including land trusts and conservancies, whose purpose includes the purchase, holding and maintenance of agricultural conservation easements. For example, the Division's California Farmland Conservancy Program is authorized to accept donations of funds if the Department of Conservation is the designated beneficiary and it agrees to use the funds for purposes of the program in a county specified by the donor. Whatever the approach, the conversion of agricultural land should be deemed an impact of at least regional significance and the search for mitigation lands conducted regionally, and not limited strictly to lands within the Stockton jurisdiction or even San Joaquin County.

Information about conservation easements is available on the Division's website, or by contacting the Division at the address and phone number listed below. The Division's website address is:

<http://www.conservation.ca.gov/DLRP/>

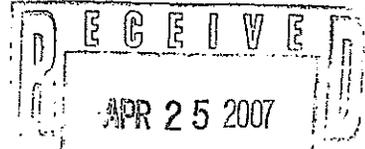
Thank you for the opportunity to comment on the NOP. If you have questions on our comments, or require technical assistance or information on agricultural land conservation, please contact the Division at 801 K Street, MS 18-01, Sacramento, California 95814; or, phone (916) 324-0850.

Sincerely,



Brian Leahy  
Assistant Director

cc: San Joaquin County RCD  
1222 Monaco Court #23  
Stockton, CA 95207



**SAN JOAQUIN COUNTY  
COMMUNITY DEVELOPMENT DEPARTMENT**

1810 E. HAZELTON AVE., STOCKTON, CA 95206-8232  
PHONE: 209/468-3121 FAX: 209/468-3163

April 23, 2007

Mr. Mark Martin  
City of Stockton  
Community Development Department  
Planning Division  
345 N. El Dorado Street  
Stockton, CA 95202

**SUBJECT: CRYSTAL BAY PROJECT – NOTICE PREPARATION AND INITIAL STUDY OF  
THE ENVIRONMENTAL IMPACT REPORT**

Thank you for allowing San Joaquin County the opportunity to respond to this project. The Community Development Department has the following comments:

The property proposed for subdivision is currently located in the unincorporated portion of San Joaquin County. The property is currently zoned C-R (Commercial Recreation) and has the General Plan designation of C/R. Also, the proposed subdivision is adjacent to property zoned AG-40 (General Agriculture, 40 acre minimum). The Community Development Department requests the possible conflicts with existing agricultural operations on neighboring properties be addressed.

Sincerely,

A handwritten signature in cursive script that reads "Karla Kuhl".

Karla Kuhl  
Associate Planner



California  
Department of  
Health Services

SANDRA SHEWRY  
Director

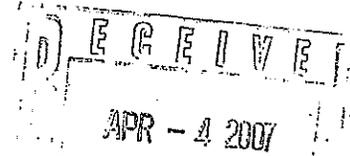
State of California—Health and Human Services Agency  
Department of Health Services



ARNOLD SCHWARZENEGGER  
Governor

March 29, 2007

Mark Martin,  
City of Stockton  
345 North El Dorado Street  
Stockton, CA 95202



RE: Crystal Bay Project – SCH #2007032116

Dear Mr. Stagnaro,

The California Department of Health Services (CDHS) Environmental Review Unit is in receipt of the Draft Environmental Information Report (DEIR) for this project. As a “responsible agency” under the California Environmental Quality Act (CEQA), we appreciate the opportunity to comment. The project proposes to annex 173+ acres to develop a Master Development Plan community with residential, commercial and other features. This includes approximately 1,360 total units.

In Section 13 entitled, PUBLIC SERVICES SUBSECTION (5), the document outlines the need for additional potable water supplies. Please be aware that any new drinking water source must be reviewed and approved through a water supply permit process in the CDHS Stockton District Office. These future developments will be subject to further CEQA if the water utilities are not described closer to actual project level (i.e. well locations & site diagrams, main sizes, and projected water usage and need for each lot for example). So if at all possible, please include the pertinent water utilities information as part of the draft EIR. If these details are included, it will not be necessary to provide separate environmental review at a later date for the development.

Please contact the Stockton office at (209) 948-7696 for further information.

Sincerely,

Peter Ruggerello  
California Department of Health Services  
Drinking Water Program  
Environmental Review Unit

Cc: Office of Planning and Research - State Clearinghouse  
DHS Merced District Office – Mr. Joe Spano

**DEPARTMENT OF CALIFORNIA HIGHWAY PATROL**

3330 Ad Art Road

Stockton, CA 95208

(209) 943-8666

(800) 735-2929 (TT/TDD)

(800) 735-2922 (Voice)



April 6, 2007

File No.: 265.11045.11485.CRYSTAL



Mr. Mark Martin  
City of Stockton  
Community Development Department  
345 North El Dorado Street  
Stockton, CA 95202

Dear Mr. Martin:

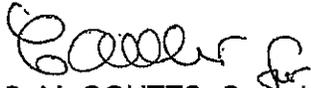
Thank you for the opportunity to review the Notice of Preparation and Initial Study of the Environmental Impact Report (EIR) for the Crystal Bay Project located in the area of Eight Mile Road west of Interstate 5 (SCH# 2007032116). The project will have significant impacts on surrounding roadways as well as I-5. As you know, the California Highway Patrol (CHP) has the primary responsibility for traffic enforcement on county roads as well as this state highway. These roadways will see a measurable increase in the average daily traffic volumes as a result of this project.

The project plan includes approximately 173 acres with an anticipated building plan encompassing more than 1,360 residential housing units of varying densities. The Notice of Preparation does indicate an attempt to mitigate the expected increased traffic volumes throughout the project and adjacent roadways in order to help maintain the City of Stockton's Level of Service (LOS) standards for local roadways. The report also notes the potential impact this project will have on traffic volume, congestion, and emergency access in the area. Therefore, it is important the City of Stockton work closely with the Department of Transportation (Caltrans) as well as the California Highway Patrol in developing long range plans that are beneficial to all the citizens utilizing the highway system.

Mr. Mark Martin  
Page 2  
April 6, 2007

It is clear the proposed project will create challenges for daily commuters and tax the already busy roadway systems in the area. As the report notes, an additional 13,500 daily trips are expected as a result of this project – a majority of which will directly impact I-5 and the CHP's ability to effectively manage traffic without an increase in resources. This need should be addressed in the project's Environmental Impact Report. Should you have any questions, please feel free to call me or Lieutenant Craig Oliver of my staff at (209) 943-8666.

Sincerely,



S. M. COUTTS, Captain  
Commander  
Stockton Area

cc: Special Projects Section

**MEMORANDUM**

April 23, 2007

TO: Mark Martin, Project Manager III  
FROM: Antonio S. Tovar, Senior Civil Engineer  
SUBJECT: **PUBLIC REVIEW OF THE NOTICE OF PREPARATION/INITIAL STUDY FOR CRYSTAL BAY PROJECT (EIR6-05)**

The Municipal Utilities Department staff has reviewed the subject Notice of Preparation/Initial Study of the Environmental Impact Report. Based on our review, staff offers the following comments on the subject document:

1. Exhibit A: Environmental Significance Checklist/Section 16 – Utilities and Service Systems: A non-potable water system will be required as part of the Crystal Bay Project. Discussion on the non-potable water system is limited, and further elaboration is required.
2. Exhibit A: Environmental Significance Checklist/Section 16 – Utilities and Service Systems: Add the following mitigation measure: The owners, developers and/or successors-in-interest shall establish a maintenance entity, acceptable to the City of Stockton to provide funding for the operation, maintenance and replacement costs of the non-potable water distribution system.

Please incorporate the above comments. If you have any questions, please call me at x-8790.



ANTONIO S. TOVAR  
SENIOR CIVIL ENGINEER



Arnold Schwarzenegger  
Governor

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



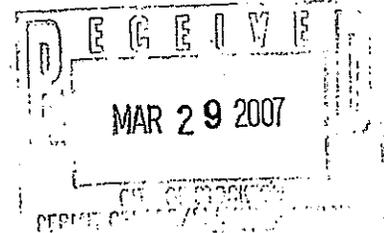
Cynthia Bryant  
Director

Notice of Preparation

March 22, 2007

To: Reviewing Agencies

Re: Crystal Bay  
SCH# 2007032116



Attached for your review and comment is the Notice of Preparation (NOP) for the Crystal Bay draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

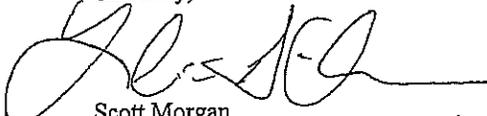
Please direct your comments to:

Mark Martin  
City of Stockton  
Community Development Department  
345 N. El Dorado Street  
Stockton, CA 95202

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,



Scott Morgan  
Senior Planner, State Clearinghouse

Attachments  
cc: Lead Agency

**Document Details Report  
State Clearinghouse Data Base**

**SCH#** 2007032116  
**Project Title** Crystal Bay  
**Lead Agency** Stockton, City of

**Type** NOP Notice of Preparation  
**Description** The Crystal Bay Master Development Plan project proposes a General Plan Amendment, Rezoning, Master Development Plan, Tentative Map, and annexation of three parcels comprising the 173 acre site. The proposed project consists of residential uses at a variety of densities. The development plan consists of five types of housing units, major circulation roads, and a project created lake. The community is anticipated to include approximately 1,360 total units. A total of 13.1 acres of parkland will be dedicated as part of this project. Additional open space landscape areas total 11.4 acres within the proposed project.

**Lead Agency Contact**

**Name** Mark Martin  
**Agency** City of Stockton  
**Phone** 209-937-8266 **Fax**  
**email**  
**Address** Community Development Department  
345 N. El Dorado Street  
**City** Stockton **State** CA **Zip** 95202

**Project Location**

**County** San Joaquin  
**City** Stockton  
**Region**  
**Cross Streets** Eight Mile Road / Rio Blanco Road  
**Parcel No.** 066-060-01, -02, -03  
**Township** 2N **Range** 5E **Section** **Base** MDB&M

**Proximity to:**

**Highways** I-5  
**Airports**  
**Railways**  
**Waterways** Bishop Cut  
**Schools** Manillo Silva Elementary  
**Land Use** Present LU: Agriculture  
Zoning: (SJ Co) CR - Commercial Recreation  
General Plan: (SJ Co) C/R - Commercial Recreation

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

**Reviewing Agencies** Resources Agency; Department of Conservation; Department of Parks and Recreation; Reclamation Board; Department of Water Resources; Department of Fish and Game, Region 2; Department of Health Services; Native American Heritage Commission; State Lands Commission; California Highway Patrol; Department of Housing and Community Development; Caltrans, District 10; Department of Toxic Substances Control; Regional Water Quality Control Bd., Region 5 (Sacramento)

**Date Received** 03/22/2007 **Start of Review** 03/22/2007 **End of Review** 04/20/2007

**NOP Distribution List**

OK

County: San Joaquin

SCH#

V V I V V V I A U

- Resources Agency
- Resources Agency  
Nadeil Gayou
- Dept. of Boating & Waterways  
David Johnson
- California Coastal Commission  
Elizabeth A. Fuchs
- Colorado River Board  
Gerald R. Zimmerman
- Dept. of Conservation  
Roseanne Taylor
- California Energy Commission  
Paul Richards
- Dept. of Forestry & Fire Protection  
Allen Robertson
- Office of Historic Preservation  
Wayne Donaldson
- Dept. of Parks & Recreation  
Environmental Stewardship Section
- Reclamation Board  
DeeDee Jones
- S.F. Bay Conservation & Dev't. Comm.  
Steve McAdam
- Dept. of Water Resources  
Resources Agency  
Nadeil Gayou
- Conservancy
- Fish and Game
- Dept. of Fish & Game  
Scott Flint  
Environmental Services Division
- Fish & Game Region 1  
Donald Koch
- Fish & Game Region 2  
Banky Curtis
- Fish & Game Region 3  
Robert Flierke
- Fish & Game Region 4  
Julie Vance
- Fish & Game Region 5  
Don Chadwick  
Habitat Conservation Program
- Fish & Game Region 6  
Gabrina Gatchel  
Habitat Conservation Program
- Fish & Game Region 6 I/M  
Gabrina Gatchel  
Inyo/Mono, Habitat Conservation Program
- Dept. of Fish & Game M  
George Isaac  
Marine Region
- Other Departments
- Food & Agriculture  
Steve Shaffer  
Dept. of Food and Agriculture
- Dept. of General Services  
Public School Construction
- Dept. of General Services  
Robert Sleppy  
Environmental Services Section
- Dept. of Health Services  
Veronica Malloy  
Dept. of Health/Drinking Water
- Independent Commissions, Boards
- Delta Protection Commission  
Debbie Eddy
- Office of Emergency Services  
Dennis Casrillo
- Governor's Office of Planning & Research  
State Clearinghouse
- Native American Heritage Comm.  
Debbie Treadway

- Public Utilities Commission  
Ken Lewis
- State Lands Commission  
Jean Sarino
- Tahoe Regional Planning Agency (TRPA)  
Cherry Jacques
- Business, Trans & Housing
- Caltrans - Division of Aeronautics  
Sandy Hesnard
- Caltrans - Planning  
Terri Pencovic
- California Highway Patrol  
Shirley Kelly  
Office of Special Projects
- Housing & Community Development  
Lisa Nicholas  
Housing Policy Division
- Dept. of Transportation
- Caltrans, District 1  
Rex Jackman
- Caltrans, District 2  
Marcelino Gonzalez
- Caltrans, District 3  
Jeff Puiverman
- Caltrans, District 4  
Tim Sable
- Caltrans, District 5  
David Murray
- Caltrans, District 6  
Marc Bimbaum
- Caltrans, District 7  
Cheryl J. Powell
- Caltrans, District 8  
Dan Kopulsky
- Caltrans, District 9  
Gayle Rosander
- Caltrans, District 10  
Tom Dumas
- Caltrans, District 11  
Mario Orso
- Caltrans, District 12  
Bob Joseph
- Cal EPA
- Air Resources Board
- Airport Projects  
Jim Lerner
- Transportation Projects  
Ravi Ramalingam
- Industrial Projects  
Mike Tollstrup
- California Integrated Waste Management Board  
Sue O'Leary
- State Water Resources Control Board  
Jim Hookenberry  
Division of Financial Assistance
- State Water Resources Control Board  
Student Intern, 401 Water Quality Certification Unit  
Division of Water Quality
- State Water Resources Control Board  
Steven Herrera  
Division of Water Rights
- Dept. of Toxic Substances Control  
CEQA Tracking Center
- Department of Pesticide Regulation

- Regional Water Quality Control Board (RWQCB)
- RWQCB 1  
Cathleen Hudson  
North Coast Region (1)
- RWQCB 2  
Environmental Document Coordinator  
San Francisco Bay Region (2)
- RWQCB 3  
Central Coast Region (3)
- RWQCB 4  
Teresa Rodgers  
Los Angeles Region (4)
- RWQCB 5S  
Central Valley Region (5)
- RWQCB 5F  
Central Valley Region (5)  
Fresno Branch Office
- RWQCB 5R  
Central Valley Region (5)  
Redding Branch Office
- RWQCB 6  
Lahontan Region (6)
- RWQCB 6V  
Lahontan Region (6)  
Victorville Branch Office
- RWQCB 7  
Colorado River Basin Region (7)
- RWQCB 8  
Santa Ana Region (8)
- RWQCB 9  
San Diego Region (9)
- Other

Notice of Preparation and Initial Study  
of the Environmental Impact Report  
for the:

## **CRYSTAL BAY PROJECT**

Stockton, California

City of Stockton EIR File No. 6-05

■   ■   ■

*Prepared for:*

CITY OF STOCKTON  
Community Development Department  
Planning Division  
345 North El Dorado Street  
Stockton, CA 95202  
(209) 937-8444

*Prepared by:*

LSA ASSOCIATES, INC.  
4200 Rocklin Road, Suite 11B  
Rocklin, CA 95677  
Bill Mayer, Principal

February 2007

## TABLE OF CONTENTS

	<b>PAGE</b>
ENVIRONMENTAL INFORMATION AND INITIAL STUDY FORM.....	1
EXHIBIT A - SUPPORTING DOCUMENTATION FOR SECTION C (ENVIRONMENTAL SIGNIFICANCE CHECKLIST) .....	18

### **FIGURES**

Figure 1: Project Location and Surrounding Features .....	51
Figure 2: Conceptual General Development Plan .....	52
Figure 3: Interim Drainage Improvement .....	53
Figure 4: Interim Details of Stock Pile .....	54
Figure 5: Details of Interim Detention Basin.....	55
Figure 6: Details of Interim Drainage Conveyance .....	56

**CITY OF STOCKTON**  
**ENVIRONMENTAL INFORMATION AND INITIAL STUDY FORM**  
(Pursuant to Cal. Code of Regulations, Title 14, Sections 15063-15065)

INITIAL STUDY FILE NO:	_____	<u>LEAD AGENCY</u>
EIR FILE NO:	<u>6-05</u>	City of Stockton
INITIAL STUDY FILING DATE:	_____	Community Development Dept.
		Planning Division
		345 North El Dorado Street
		Stockton, CA 95202
		(209) 937-8266

Note: The purpose of this document is to describe the project, its environmental setting, any potentially significant adverse environmental impacts which may be caused by the project or which may affect the project site and/or surrounding area, and any mitigation measures which will be incorporated into the project. Please complete all applicable portions of Section A (General Information/Project Description) and as much of Section B (Project Site Characteristics) as possible. If a question is not applicable, then, respond with "N/A". After completing Sections A and B, please sign the certification following Section B and attach any supplemental documentation and exhibits as deemed necessary. The completed form and applicable fees should be filed at the above-noted Lead Agency address. PLEASE TYPE OR PRINT IN DARK INK.

**A. GENERAL INFORMATION/PROJECT DESCRIPTION (Completed by Applicant)**

1. Project Title: Crystal Bay
2. Property Owner(s): A.G. Spanos, Trustee of Alex and Fay Spanos Family Trust  
Address: 10100 Trinity Parkway, Fifth Floor, Stockton, CA Zip 95219 Phone (209) 955-2550
3. Applicant/Proponent: Spanos Family Partnership  
Contact Person: Jim Panagopoulos  
Address: 10100 Trinity Parkway, Fifth Floor, Stockton, CA Zip 95219 Phone (209) 955-2550
4. Consulting Firm: LSA Associates, Inc. Contact Person: Bill Mayer  
Address: 4200 Rocklin Road, Suite 11B, Rocklin, CA Zip 95677 Phone (916) 630-4600
5. Project Site Location: (see attached Figure 1)
  - a. Address (if applicable) or Geographic Location: The project site (see attached Figure 1) is generally bounded by Eight Mile Road to the north, Westlake to the east and south, and Rio Blanco Road and Bishop Cut to the west.
  - b. Assessor's Parcel Number(s): 066-060-01, 066-060-02, and 066-060-03
  - c. Legal Description [Attach metes and bounds (bearings and dimensions) description and corresponding map(s) or list existing lots of record from recorded deed]: Parcels 1, 2, and 3 as per Parcel Map filed June 25, 1991 in Volume 17 of Parcel Maps, page 171, San Joaquin County Records. Excepting therefrom an undivided 1/3 interest in and to all of the oil, gas, asphaltum and other hydrocarbon substances as reserved in Deed recorded January 2, 1957 in Book 1931, Page 456, San Joaquin County Records. Also excepting therefrom an undivided 1/3 interest in all oil, gas, hydrocarbons and other mineral substances of any nature located below a depth of 500 feet and without the right of surface entry, as reserved in the Deed recorded April 14, 1987 as Instrument No. 87032637, and re-recorded on December 10, 1987 as Instrument No. 87112057, San Joaquin County Records..
6. General Project Description: (Describe the whole action, including later phases of the project and any secondary, support, or offsite features necessary for its implementation. Attach additional sheets if necessary.)

The Proposed Project contains approximately 173 + acres, located within San Joaquin County adjacent to the northwest limits of the City of Stockton, California. The project site is bounded to the North by Eight Mile Road, to the South by the residential development Westlake at Spanos Park West, to the West by Rio Blanco Road and Bishop and to the East by Westlake at Spanos Park West.

The project proposes a General Plan Amendment, Rezoning, Master Development Plan, Vesting Tentative Map, and annexation of three parcels comprising the 173 + acre project site. The proposed project consists of residential uses at a variety of densities. The development plan consists of five types of housing units that are generally defined by major circulation roads, and a project created lake. The community is anticipated to include approximately 1,360 total units, consisting of four residential product types: traditional single family units; small lot, cluster type development or courtyard units; and high-density residential units. The traditional single family residential units will be developed on approximately 53.6 acres with medium and low density residential. The medium density residential will consist of courtyard lots developed at a density of approximately 17 units per acre, the 40 x 65 lot residential units will be developed at

approximately 17 units per acre, and the 50 x 75 lot residential units will be developed at approximately 11 units per acre. The low density single family residential units will be developed on 17.6 acres at approximately 8.00 units per acre. The high density residential will be developed on approximately 17.6 acres at a density of 22 dwelling units per acre. The lake will provide for storm water detention, treatment and a source of non-potable water for landscape irrigation. Runoff will flow from the Crystal Bay Lake into the lake planned at Westlake Villages prior to discharging into Disappointment Slough.

A total of 11.4 acres of parkland will be dedicated as part of this proposed project. The traditional single family residential will be clustered around an 8.0-acre community park and a 7.2-acre lake. The park will include picnic areas, tot-lot, and open areas for play fields. An additional park of 1.3 acres will be included in the single family residential neighborhood. The courtyard single family is developed on a grid street pattern around two pocket parks with a total of 3.1 acres. The pocket parks will include such amenities as tot lots, barbeque facilities and open play areas. Additional open space landscape areas total 11.4 within the proposed project.

The development of the high-density multi-family parcel includes two small public parks of 0.4 acres each. In addition to the park dedication, the proposed the project also includes 8.7 acres of levee/greenbelt adjacent to multi-family site along Rio Blanco Road. This greenbelt will be landscaped and include a bike and pedestrian trail and par course exercise stations. The bike and pedestrian trail will terminate at the Paradise Point Marina parcel.

It should be noted that the project will be constructed in phases; the multi-family parcel will develop in a later phase. In the interim, the parcel will be used for storage of runoff waters diverted from the existing drainage ditch (between Westlake Village and Crystal Bay). These waters will be conveyed along Eight Mile Road (within three buried drainage pipes) prior to discharging into a temporary detention basin, prior to discharging into Bishop Cut via the existing pump station. Earth excavated from the detention basin will be stock-piled adjacent to the basin creating a 10-foot high mount. When the Thompson property (north of the project site) is developed, the multi-family residential product will be developed, and a new drainage system will be constructed to discharge irrigation waters through the Thompson parcel and into Bishop Cut. Additional earth fill material may be imported into the temporary detention basin to create a developable pad.

The project location is north and west of the new Westlake development, and south of Eight Mile Road. Interstate 5 (I-5) provides regional access to the east (approximately 2 miles) via the Eight Mile Road interchange. The western project boundary borders Rio Blanco Road and Bishop Cut. Local roadways from the project site will connect with Westlake and ultimately with Spanos Park West (to the east). Utilities would be extended to the site from the Westlake development. It is anticipated that the project will be built in three phases with the single family homes being built in 2 phases, in accordance with market demand. The multi-family will be built as phase 3 (as described above once the Thompson property is developed).

7. **Applications Currently Under City Review:** General Plan Amendment, Annexation, Pre-zoning, Master Development Plan, Development Agreement, Eight Mile Road Specific Plan Amendment and Tentative Map.

**File Number(s):** \_\_\_\_\_

8. **Other permits/reviews required by the City, County, State, Federal or other agencies for project implementation:**

<u>Agency:</u>	<u>Permits/Reviews:</u>
<u>City of Stockton</u>	<u>General Plan Amendment</u>
<u>City of Stockton</u>	<u>Pre-zoning Application</u>
<u>City of Stockton</u>	<u>Master Development Plan</u>
<u>City of Stockton</u>	<u>Development Agreement</u>
<u>City of Stockton</u>	<u>Annexation Memorandum of Agreement</u>
<u>City of Stockton/San Joaquin County</u>	<u>Eight-Mile Road Specific Plan Amendment</u>
<u>LAFCo</u>	<u>Annexation</u>
<u>LAFCo</u>	<u>City Services Plan</u>
<u>City of Stockton</u>	<u>Tentative Map</u>
<u>City of Stockton</u>	<u>Master Storm Drainage, Sewer, and Water Plans</u>
<u>RWQCB</u>	<u>Water Quality Certification</u>
<u>RWQCB</u>	<u>NPDES permit</u>
<u>California Department of Fish and Game</u>	<u>Streambed Alteration Agreement</u>
<u>Army Corps of Engineers</u>	<u>Clean Water Act Section 404 permit</u>
<u>San Joaquin Valley Air Pollution Control District</u>	<u>Air quality permitting –ATC/PTO</u>
<u>Reclamation District 20-42</u>	<u>Consultation/permitting</u>
<u>LAFCo</u>	<u>Detachment</u>

9. **Describe proposed General Plan (GP) amendments and/or rezoning requests, if applicable:**  
A General Plan Amendment was previously approved by the City of Stockton in September 2004 in conjunction with amending the City's Sphere of Influence boundary. The General Plan land use designation for the site is now Low-Medium Density Residential. To accommodate the multi-family component of the proposed project, a General Plan Amendment to High Density Residential is required for a portion of the project site. Accordingly, the applicant has requested pre-zoning for the site to R-3 (Apartment Residential) District, and R-2 (Two-Family) District and R-1 (Single

Family) District for the courtyard units and single family detached residential, respectively. The applicant has requested pre-zoning to promote quality planning and innovative site planning consistent with the goals and policies of the General Plan. A Master Development Plan is required and will include: the construction of 660 single family residential units, 311 courtyard units, and 392 multi-family units. The plan will also provide 7.2 acres of lake area, approximately 8.0 acres for a public park and 5.2 acres of smaller parks will be within the development dedicated towards parkland requirements. Additional open space of approximately 29.7 acres will be included as part of the project (greenbelt, landscaping, and yards). A Development Agreement is also required. The purpose of the previous Development Agreement was to allow the owners in interest to retain the project site within the study area of the City's ongoing General Plan Update and vest a right to apply for land use planning or development approvals under jurisdiction in the future. The new Development Agreement will assign development responsibilities between the applicant and the City.

Existing GP Designation	Proposed GP Designation	Acres	Existing Zoning	Proposed Zoning	Acres
Low-Medium Density Res.	No change	133.9	C-R	R-1	133.9
Low-Medium Density Res.	No change	22.2	C-R	R-2	22.2
Low-Medium Density Res.	High Density Residential	17.6	C-R	R-3	17.6

10. Describe any site alterations which result from the proposed project: *(Address the amount and location of grading, cuts and fills, vegetation/tree removal, alterations to drainage, removal of existing structures, etc.)*  
 The project site is near level with few distinguishing features. To the south and east is a canal that carries irrigation water and runoff transported from Telephone Cut and the surrounding watershed. The canal is defined by small levees, and ultimately discharges into Bishop Cut via a pump station. In the interim, the existing canals will be relocated and reconstructed parallel and south of Eight Mile Road, and discharged into an interim detention basin then conveyed through the existing pump station into Bishop Cut. These activities will be managed by the Reclamation District 20-42. These drainage facilities will be relocated to the north (offsite) in conjunction with future development.

For the current development plan request, a new drainage system will be constructed that conveys runoff through subsurface storm drains, discharging into the onsite lake. Water from the onsite lake will be conveyed through storm drain pipes constructed within the Westlake project and directly to the pump station south of Westlake. The runoff will be pumped over the levee and discharged to Disappointment Slough. No other obvious features are present on the project site.

11. Specific Project Description/Operational Characteristics:

a. Describe Proposed Commercial, Industrial, Institutional, and Recreational Uses (all non-residential uses):

An 8.0-acre public park is planned in an area central to the project site, with a second park of 1.3 acres. Within the courtyard units, 2 additional parks of 2.4 acres and 0.7 acres are planned for use by homeowners. The high density residential portion contains two parks consisting of 0.4 acres. Bicycle (class I) and pedestrian facilities will be provided along the primary internal roadway network and will connect with similar facilities in Westlake and along the south side of Eight Mile Road. In addition, a 7.2 acre lake is within the development.

(1)	Proposed Land Use(s)	Zoning	Site Acreage	Structure Sq. Ft.	Required Parking	Parking Provided
	Public Park	R-1	8.0	N/A	N/A	N/A
	Lake	R-1	7.2	N/A	N/A	N/A
	Levee (existing)	R-3	6.5	N/A	N/A	N/A
	Levee (existing)	R-1	2.2	N/A	N/A	N/A
	Roadway/ROW	R-1/R3	42.6	N/A	N/A	N/A
	Pump Stations	R3	.40	N/A	N/A	N/A

- (2) Describe project phasing (location/timing): Off-site and infrastructure improvements will be completed prior to initiating construction of residences and other project components. Construction of these components would be completed in multiple phases consistent with demand as outlined in the Master Development Plan, Conceptual Phasing Plan.

- (3) Days/Hours of operation: The project is composed of residential and supporting facility components. It is expected that "hours of operation" will vary throughout the day. Work shifts per day: N/A

- (4) Total number of employees: N/A ; Number of employees per work shift: : N/A

- (5) Number of company vehicles/trucks: N/A

- (6) Estimated number of vehicle trip ends (TE) per day generated by project: Trucks 0 TE/Day; Passenger Vehicles, 13,550 TE/Day; Total, 13,550 TE/Day.

- (7) Estimated maximum number of TE/Day based on proposed General Plan Designation: 13,550 TE/Day, and/or Proposed Zoning: 13,550 TE/Day



purposes. Westlake is an approved residential development located directly south and east of the project site. Development of Westlake required the improvement and extension of utilities to service the development. These utilities would be expanded to the Crystal Bay development.

7. **Adjacent land uses, zoning and General Plan designations:**

Adjacent Uses	Zoning (City or County)	General Plan Designations
North: Agricultural	CR (County)	Commercial Recreation
South: Agricultural	M-X (City)	Mixed Use
East: Agricultural	M-X (City)	Mixed Use
West: Bishop Cut (slough)	AG-40 (County)	General Agriculture

8. **If site contains at least ten (10) acres of undeveloped and/or cultivated agricultural land, complete the following:**

- a. Is the land classified as "Prime Farmland" and/or "Farmland of Statewide Importance" (as identified on the San Joaquin County "Important Farmland Map")? Yes  No
- b. Is the site under a Williamson Act Land Conservation Contract? Yes  No
- c. If the site is under contract, has a "Notice of Non-Renewal" been filed? Yes  No  If yes, when will the contract expire? Date: \_\_\_\_\_

9. **Describe important on-site and/or adjacent topographical and water features:**

On-Site: A drainage canal extends along the southern and eastern boundaries of the project site.  
 Adjacent: Bishop Cut (slough) extends along the western site boundary.

10. **Describe any important on-site and/or adjacent vegetation/wildlife habitat:**

On-Site: Agricultural  
 Adjacent: Land uses to the north are agricultural. Land use to the south and east are agricultural with approved residential uses (Westlake). Bishop Cut (slough) exists to the west.

11. **Describe any general and special status wildlife species known to inhabit the site or for which the site provides important habitat:**

Swainson's Hawk, giant garter snake, burrowing owls

12. **Identify and describe any significant cultural resources on or near the site (attach a "Records Search", "Site Survey", and/or other documentation, if applicable):**

A significant cultural resource is located within the Spanos Park West development site. The proximity of this development suggests that cultural resources may exist on the Spanos Parcel site. A cultural resource study will be conducted to determine the presence or absence of cultural resources.

13. **Identify and describe any on-site or nearby public health and safety hazards or hazardous areas (attach a "Preliminary Site Assessment" and/or "Remediation Plan", if applicable. No known hazardous waste sites are present on the project site.**

\_\_\_\_\_

14. **Identify and describe any potentially hazardous geologic/soil conditions:**

The project site consists of soils that can have expansive and compressible qualities. These conditions are considered mitigatable with standard construction and engineering practices.

15. **Is any portion of the site subject to a 100-year flood? Yes  No  If so, what flood zone?**

16. **Identify and describe, below, any existing and/or projected on-site ambient noise levels which exceed adopted noise standards (plot noise contours on proposed tentative maps or on a site plan for the project, if applicable):**

a. Do on-site ambient noise levels from existing land uses (locally regulated noise sources) located on-site or off-site exceed adopted noise standards? Yes  No  If so, describe: \_\_\_\_\_

b. Does or will transportation-related noise exceed 60 dB Ldn at any exterior location or 45 dB Ldn at any interior location? Yes  No . If so, describe: The potential for vehicular noise exists along Eight Mile Road and on interior streets within the project and within Westlake which could exceed the exterior noise standard.

17. **Indicate by checking ( ) whether the following public facilities/infrastructure, utilities, and services are presently or readily available to the project site and whether the proposed project can be adequately served without substantial improvements or expansion of existing facilities and services. If new or expanded/modified facilities or services are necessary, explain below.**

	<u>Yes</u>	<u>No</u>	<u>N/A</u>
a. Water supply/treatment facilities	<u>X</u>	—	—
b. Wastewater collection/treatment facilities	<u>X</u>	—	—
c. Storm drainage, flood control facilities	<u>X</u>	—	—
d. Solid waste collection/disposal/recycling services	<u>X</u>	—	—
e. Energy/communication services	<u>X</u>	—	—
f. Public/private roadway and access facilities	<u>X</u>	—	—
g. Public/private parking facilities	<u>X</u>	—	—
h. Other public/private transportation services (public transit, railway, water or air transport, etc.)	—	—	<u>X</u>
i. Fire and emergency medical services	<u>X</u>	—	—
j. Police/law enforcement services	<u>X</u>	—	—
k. Parks and recreation services	<u>X</u>	—	—
l. Library services	<u>X</u>	—	—
m. General government services	<u>X</u>	—	—
n. School facilities	<u>X</u>	—	—

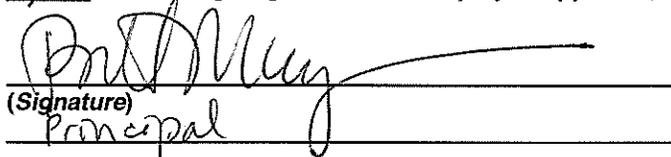
**Explanation(s):** Future water sources and supplies remain uncertain on a regional level. The City is actively pursuing permanent, long-term solutions for future water supplies. In the interim, the City will prepare a project specific water supply assessment to quantify the City's 20-year supply for this project. The water supply assessment will determine if adequate water supplies are available for the project. Development of Crystal Bay would extend utility and public service infrastructure from the approved Westlake development. Any impacts to utilities and public services should be resolved with payment of developer fees/contributions. The current sewer infrastructure within the project vicinity appears to have capacity to service the Crystal Bay development. Additional upgrades to the pump station and force main may be required. This may require the formation of an assessment district, in which, developers of Crystal Bay would participate. As a whole, the project will provide park and open space in excess of City requirements. The County's Oak Grove Regional Park may be overburdened with the population increase and exceed the acre to population ratio for regional parklands. School facilities may be over-capacity with the increase of school-aged children. The project will develop an on-site school in consultation with the school district. Additional impacts should be resolved with payment of developer fees, and/or other arrangements with the school district.

**SIGNATURE (Completed by Owner or Legal Agent)**

I certify, under penalty of perjury, that the foregoing is true and correct and that I am (check one):

Legal property owner (owner includes partner, trustee, trustor, or corporate officer)

Owner's legal agent, authorized project applicant, or consultant (attach proof of consent to file on owner's behalf)

  
 (Signature)  
 Principal

March 15, 2007  
 (Date)

(Type or Print Name and Title)

**C. ENVIRONMENTAL SIGNIFICANCE CHECKLIST (Completed by Lead Agency or Authorized Consultant - - Check  Responses and Provide Supporting Documentation and References, as applicable:)**

- In completing this Checklist, the Lead Agency shall evaluate each environmental issue based on the preceding Sections A and B of this Initial Study and shall consider any applicable previously-certified or adopted environmental analysis. The decision as to whether a project may have one or more significant effects shall be based on substantial evidence in light of the whole record before the Lead Agency. All answers must take into account the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- Following each section of this Checklist is a subsection to incorporate environmental documentation and to cite references in support of the responses for that particular environmental issue. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources the Lead Agency cites (in parentheses) at the end of each section. This subsection provides (a) the factual basis for determining whether the proposal will have a significant effect on the environment; (b) the significance criteria or threshold, if any, used to evaluate each question; and (c) the new or revised mitigation measures and/or previously-adopted measures that are incorporated by reference to avoid or mitigate potentially significant

*impacts. Mitigation measures from Section D, "Earlier Analyses", may be cross-referenced. In addition, background and support documentation may be appended and/or incorporated by reference, as necessary. This section is required to support a "Mitigated Negative Declaration". If an Environmental Impact Report (EIR) will be prepared, this section shall provide an "EIR Scope of Work" in order to focus on issues to be addressed in the Draft EIR.*

- *A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project site is not subject to flooding). A "No Impact" answer should be explained if it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).*
- *Once the lead agency has determined that a particular physical impact may occur, the checklist answers must indicate whether the impact is "Potentially Significant", "Less-than-Significant with Mitigation Incorporated", or "Less-than-Significant". "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant and mitigation measures to reduce the impact to a less-than-significant level have not been identified or agreed to by the project applicant. If there are one or more "Potentially Significant Impact" entries upon completing the Checklist, an Environmental Impact Report (EIR) is required.*
- *The "Less-than-Significant with Mitigation Incorporated" category applies when revisions in the project plans or proposals made, or agreed to, by the applicant would avoid or mitigate the effect(s) of the project to a point where, clearly, no significant adverse environmental effect would occur. The lead agency must describe the mitigation measures and briefly explain how they reduce the effect to a less-than-significant level. Upon completing the Checklist, if there is no substantial evidence in light of the whole record before the Lead Agency that the project, as revised, may have a significant effect on the environment, then, a "Mitigated Negative Declaration" shall be prepared.*
- *The Checklist shall incorporate references to common or comprehensive information sources [e.g., the City's General Plan, redevelopment plans, infrastructure master plans, zoning ordinance/development code(s), and related environmental documents, etc.] for potential regional (Citywide) and cumulatively considerable impacts. In addition, any prior site-specific environmental documents and/or related studies (e.g., traffic studies, geo-technical/soils reports, etc.) should be cited and incorporated by reference, as applicable. Reference to a previously prepared or outside document should, when appropriate, include a reference to the page or pages where the statement is substantiated. Referenced documents shall be available for public review in the City of Stockton Community Development Department, Planning Division, 345 N. El Dorado St., Stockton, CA.*
- *Supporting Information Sources: A source list should be attached and other sources used and/or individuals contacted should be cited in the discussion.*

**ENVIRONMENTAL SIGNIFICANCE CHECKLIST**

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than- Significant Impact	No Impact
--------------------------------------	--	-------------------------------------	--------------

**1. AESTHETICS - Would the project:**

- a. Have a substantial adverse effect on a scenic vista?
- b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?
- c. Substantially degrade the existing visual character or quality of the site and its surroundings?
- d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?

		√	
			√
	√		
	√		

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**2. AGRICULTURAL RESOURCES - In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation. Would the project:**

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

		√	
	√		
		√	

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**3. AIR QUALITY - When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:**

- a. Conflict with or obstruct implementation of the applicable air quality plan?
- b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?
- c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

		√	
√			
√			

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

d. Expose sensitive receptors to substantial pollutant concentrations?			√	
e. Create objectionable odors affecting a substantial number of people?		√		

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**4. BIOLOGICAL RESOURCES**

- Would the project:

a. 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?		√		
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?			√	
c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?			√	
d. 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?			√	
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			√	
f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?		√		

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**5. CULTURAL RESOURCES**

- Would the project:

a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?				√
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		√		

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?		√	
d. Disturb any human remains, including those interred outside of formal cemeteries?			√

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**6. GEOLOGY AND SOILS**

- Would the project:

- a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - (1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.
  - (2) Strong seismic groundshaking?
  - (3) Seismic-related ground failure, including liquefaction?
  - (4) Landslides?
- b. Result in substantial soil erosion or the loss of topsoil?
- c. 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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?
- d. 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?
- e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?

			√
			√
	√		
			√
	√		
	√		
	√		
			√

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**7. HAZARDS AND HAZARDOUS MATERIALS - Would the project:**

- a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
- b. 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?

			√
			√

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?				√
d. Be located on a site that 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?			√	
e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?				√
f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?				√
g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?				√
h. Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?				√

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**8. HYDROLOGY AND WATER QUALITY - Would the project:**

- a. Violate any water quality standards or waste discharge requirements?
- b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?
- c. 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 or siltation onsite or offsite?
- d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?
- e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

	√			
	√			
	√			
	√			
	√			

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

- f. Otherwise substantially degrade water quality?
- g. 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?
- h. Place within a 100-year flood hazard area structures that would impede or redirect floodflows?
- i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?
- j. Contribute to inundation by seiche, tsunami, or mudflow?

	√		
			√
			√
			√
			√

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**9. LAND USE AND PLANNING**

- Would the project:

- a. Physically divide an established community?
- b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to, a general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?
- c. Conflict with any applicable habitat conservation plan or natural community conservation plan?

			√
		√	
	√		

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**10. MINERAL RESOURCES**

- Would the project:

- a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
- b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a general plan, specific plan, or other land use plan?

			√
			√

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**11. NOISE - Would the project:**

- a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?
- b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?

	√		
			√

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?		√		
d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?		√		
e. Be 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 public use airport and expose people residing or working in the project area to excessive noise levels?				√
f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?				√

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**12. POPULATION AND HOUSING**

- Would the project:

- a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?
- b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?
- c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?

		√		
				√
				√

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**13. PUBLIC SERVICES - Would the project:**

- a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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:

- (1) Fire protection?
- (2) Police protection?
- (3) Schools?
- (4) Parks?
- (5) Other public facilities?

		√		
		√		
		√		
√				
		√		

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
--------------------------------	--	------------------------------	-----------

14. **RECREATION** - Would the project:

- a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?
- b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

	√		
		√	

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

15. **TRANSPORTATION/TRAFFIC**

- Would the project:

- a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?
- b. Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?
- c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?
- d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?
- e. Result in inadequate emergency access?
- f. Result in inadequate parking capacity?
- g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

√			
√			
			√
			√
		√	
		√	
		√	

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

16. **UTILITIES AND SERVICE SYSTEMS** - Would the project:

- a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?
- c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

		√	
	√		
	√		

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less-than-Significant Impact	No Impact
d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?		√		
e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?		√		
f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?		√		
g. Comply with federal, state, and local statutes and regulations related to solid waste?			√	

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**17. MANDATORY FINDINGS OF SIGNIFICANCE**

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?		√		
b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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.)	√			
c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?			√	

**Supporting Documentation/References Cited:** Refer to attached Exhibit A, Supporting Documentation for Section C (Environmental Significance Checklist)

**D. EARLIER ANALYSIS (Completed by Lead Agency or Authorized Consultant):**

Earlier analyses may be used where, pursuant to the tiering, Program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or Initial Study/Negative Declaration [Section 15063(c)(3)(D) of the State CEQA Guidelines]. The previously-certified or adopted environmental document(s) and any applicable adopted mitigation measures, CEQA "Findings", statements of overriding consideration, and mitigation monitoring/reporting programs are incorporated by reference, as cited below, and discussed on attached sheet(s) to identify the following:

- (a) **Earlier Analysis Used** - - Identify and state where earlier analyses are available for review.
- (b) **Impacts Adequately Addressed** - - Identify which effects from the above Checklist (Section C) were within the scope of, and adequately analyzed in, an earlier document pursuant to applicable legal standards and state whether such effects were addressed by mitigation measures based on the earlier analysis.
- (c) **Mitigation Measures** - - For effects that are "Less than Significant with Mitigation Incorporated," describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.



G. DETERMINATION [Completed by Lead Agency - -Check ( ), as applicable]:

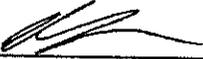
On the basis of this initial evaluation and on substantial evidence in light of the whole record before the Lead Agency:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, however, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent (see attached Mitigation Agreement). A MITIGATED NEGATIVE DECLARATION or an ADDENDUM to a MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT (EIR), SUBSEQUENT EIR, SUPPLEMENT to an EIR, or an ADDENDUM to an EIR is required.
- I find that the proposed project MAY have an impact on the environment that is "potentially significant" or "potentially significant unless mitigated" but at least one effect: (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards and (2) has been addressed by mitigation measures based on the earlier analysis, as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
- I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or MITIGATED NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or MITIGATED NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the project, nothing further is required. Specifically, the environmental documentation for the proposed project is provided by the following document(s):

- (1) Negative Declaration/Initial Study (I.S.) File No.: \_\_\_\_\_  
State Clearinghouse No.: \_\_\_\_\_
- (2) Final EIR File No: \_\_\_\_\_ Title: \_\_\_\_\_  
State Clearinghouse No.: \_\_\_\_\_
- (3) Other Environmental Document(s): \_\_\_\_\_

(Pursuant to the State and City Guidelines for Implementation of CEQA, the determination of the Community Development Director may be appealed to the City Planning Commission by submitting a written appeal with the applicable fee to the Community Development Department within ten (10) calendar days following this date of the determination.)

MIKE NIBLOCK, DIRECTOR  
COMMUNITY DEVELOPMENT DEPARTMENT

By:   
(Signature of Planner)

Date: 3/15/07  
(Date of Determination)

MARK MARTIN, PROJECT MANAGER III  
(Name and Title of Planner - Typed or Printed)

## EXHIBIT A

### SUPPORTING DOCUMENTATION FOR SECTION C (ENVIRONMENTAL SIGNIFICANCE CHECKLIST)

#### 1. AESTHETICS

Would the project:

**a. Have a substantial adverse effect on a scenic vista?**

The project will not have a substantial adverse effect on a scenic vista. The project will be located directly south of Eight Mile Road. Westlake is the planned, approved development located directly south and east of the proposed project. Westlake will significantly alter the on-site land uses and the proposed project is consistent with these approved land uses. The architectural and landscape elements of The Spanos Parcel will be designed to complement Westlake, thus promoting a positive visual image for the area.

**b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings along a scenic highway?**

The project site is not located along a scenic highway.

**c. Substantially degrade the existing visual character or quality of the site and its surroundings?**

The project will degrade the existing visual character of the site and surroundings, however, mitigation is proposed to reduce potential impacts. Project development will replace the existing vacant, graded agricultural field with intense urban development. The project will be located directly south of Eight Mile Road. Westlake is an approved residential development that will be located directly south and east of the project site. Construction of the Westlake project will create an urban environment; the proposed project is consistent with this future, approved use. The architectural and landscape elements of the proposed project will be designed to complement Westlake, thus promoting a positive visual image for the area.

As part of project approval, the applicant will be required to develop a Master Development Plan. The City must approve the plan prior to implementation. The plan will integrate well-planned architectural and landscape elements, promoting a positive image for the project.

**Potential Mitigation Measure:** To assist in minimizing the impacts of the proposed project, the applicant will be required to prepare a Master Development Plan which considers building elements and architectural treatments that provide aesthetic enhancement.

**d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?**

The project will create new sources of light, however, mitigation is proposed to reduce potential impacts. After project buildout, there will be new sources of light and glare, primarily during nighttime hours. Glare from residential structures is not

expected to be significant due to the traditional use of non-glare construction materials. The residential communities and parks will require street lighting, which will introduce a significant, persistent light source where there previously was none. This new light source may negatively impact wildlife species located within, near, or traveling through the project area. However, due to the proximity of Westlake and SPW and associated light sources, impacts to wildlife from light sources are not expected to be significant.

**Potential Mitigation Measure:** Mitigation may include prior review and approval of building materials and lighting specifications by the Design Review Board and City Community Development Director. Downcast lighting should be used where feasible. To ensure compliance with specifications set forth by the Design Review Board and Community Development Director, the applicant should maintain control over all development within the project site. This can be done through compliance with the Master Development Plan and conditions placed on the covenants, conditions and restrictions established by the Applicant for the development.

#### **Supporting Documentation/References Cited:**

Site observations; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; preliminary project plans; Westlake Villages Environmental Impact Report.

- 2. AGRICULTURAL RESOURCES - In determining whether impacts on agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Department of Conservation.**

#### **Would the project:**

- a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

The project site was included as part of the General Plan Amendment for the Westlake Villages entitlement process. As part of the Westlake Villages project, the General Plan designation for the Spanos Parcel was changed from General Agricultural to Low Medium Density Residential. As part of the Westlake Villages project, the conversion of farmland was considered significant and unavoidable; a Statement of Overriding Considerations was adopted for this project. As such, the conversion of the agricultural land on the Spanos Parcel requires no further environmental review.

- b. Conflict with existing zoning for agricultural use or conflict with a Williamson Act contract?**

As previously stated, the project site was included in the General Plan Amendment for the Westlake Villages project. The project site, however, was not annexed to within the City's boundaries and was not zoned. The existing zoning designation is AG-40 (County). The proposed project requires annexation and rezoning to R-1, R-2 and R-3. This change conflicts with the existing zoning, however is consistent (generally) with the General Plan designations.

The project parcel is not currently under a Williamson Act contract.

**Potential Mitigation Measure:**

A "Right to Farm Ordinance" has been adopted by the City of Stockton. This ordinance provides that on-going farming operations are not considered a nuisance, however, it does not eliminate the actual potential for land use conflicts.

Potential residents in areas adjacent to agricultural land will be informed of possible conflicts associated with farming operations and the Right to Farm ordinance prior to purchasing homes. The developer will be required to disclose this information prior to opening of escrow.

These mitigation measures will be included as conditions on the Tentative Maps.

**c. Involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?**

Other lands immediately surrounding the project site that remain in agricultural production are outside of the City of Stockton's jurisdiction, and are outside of the urban growth area. The remaining lands surrounding the proposed application requests are not expected to convert to urban uses as a result of the project (see 12a).

**Supporting Documentation/References Cited:**

City of Stockton General Plan; applicant supplied information; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; Westlake Villages Environmental Impact Report.

**3. AIR QUALITY - When available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.**

**Would the project:**

**a. Conflict with or obstruct implementation of the applicable air quality plan?**

The project plan would be consistent with the AQAP due to the retention of urban/residential land use designations on the project site. Although a General Plan Amendment is needed for the proposed project, the land use changes are minor, and ostensibly reflect the proposed site plan design. It should be noted that the site also requires a pre-zone change to achieve General Plan consistency. However, these changes are insignificant, and will not cause an inconsistency with the AQAP.

**b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation?**

The project may contribute to an existing air quality violation. The City of Stockton and San Joaquin County lie within the San Joaquin Valley Air Pollution Control District. The Air District is in non-attainment for ozone, PM<sub>10</sub> and NOx. Preliminary air quality analysis indicates that stationary and mobile sources generated by the proposed project will exceed thresholds for air pollutants. Construction equipment emissions will also temporarily exceed thresholds for air pollutants.

**Potential Mitigation Measure:** Standard dust and NOx reducing measures will be required to minimize construction related emissions. Adhering to the AQAP control strategies should minimize the potential to aggravate the non-attainment status of ozone and PM<sub>10</sub>. The applicant will also conduct an air quality analysis to determine and quantify project impacts and mitigation.

**c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is a nonattainment area for an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?**

The project may result in a net increase of criteria pollutants in a nonattainment area. Construction activities produce combustion emissions from various sources, such as site grading, utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting construction crews. The use of construction equipment on site would increase localized vehicle exhaust emissions while grading activities would exceed the defined thresholds for dust emissions. On a cumulative basis, when combined with other development projects, project construction would generate fugitive dust and pollutant emissions that could be significant. An air quality analysis will be prepared for the project.

The proposed project will introduce residential uses. The project will introduce a significant number of new vehicles to the area on a permanent basis. This would create conditions which exceed established thresholds for CO, ozone, and other pollutants related to vehicle exhaust emissions.

**Potential Mitigation Measure:** Standard dust and NOx reducing measures will be required to minimize construction related emissions. Adhering to the AQAP control strategies should minimize the potential to aggravate the non-attainment status of ozone, PM<sub>10</sub>, and other air pollutants. The applicant will also conduct an air quality analysis to quantify project impacts and mitigation.

**d. Expose sensitive receptors to substantial pollutant concentrations?**

The project is not expected to expose sensitive receptors to substantial pollutant concentrations. Westlake is a residential development that is situated directly south and east of the proposed project. Preliminary air quality analysis indicates that stationary and mobile sources generated by the proposed project will not exceed thresholds for air pollutants. An air quality analysis will be conducted to determine impacts on sensitive receptors.

**e. Create objectionable odors affecting a substantial number of people?**

If the onsite lake is not maintained or operated properly, odors may occur in relation to decay of plant material, algae blooms, lack of water circulation, etc., and could be objectionable for residents. This may result in a significant impact if the lake is not routinely maintained and managed.

**Potential Mitigation Measure:** The applicant will prepare a technical study that provides detailed information on the lake and storm water system. This study will include information regarding proper maintenance procedures and schedules, system backups, operational procedures, etc.

**Supporting Documentation/References Cited:**

Supplemental Final Environmental Impact Report, Spanos Park West, 2001; San Joaquin Valley Air Pollution Control District website; Westlake Villages Environmental Impact Report.

**4. BIOLOGICAL RESOURCES - Would the project:**

**a. 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?**

The project may create adverse effects on special status species, due to the conversion of potential habitat. The project site possesses suitable habitat for Swainson's hawk, giant garter snake, and burrowing owls. Development of the site would destroy the suitable habitat for these special status species.

Adherence to the SJMSCP fee program will mitigate the effects on most of the sensitive species occupying due to project impacts.

**Potential Mitigation Measure:**

The applicant will comply with provisions of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) for conservation of Giant Garter Snake habitat as defined in Section 5.2.4.8(B).

1. Construction shall occur during the active period for the snake, between May 1 and October 1. Between October 2<sup>nd</sup> and April 30<sup>th</sup>, the JPA, with the concurrence of the Permitting Agencies' representatives on the TAC, shall determine if additional measures are necessary to minimize and avoid take.
2. Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to minimize area necessary.
3. Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.
4. Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species and the importance of avoiding impacts to these species and their habitats.
5. In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:

- Install temporary fencing at the edge of the construction areas and the adjacent wetland, marsh, or ditch;
  - Restrict working areas, spoils and equipment storage and other project activities to areas outside of marshes, wetlands and ditches; and
  - Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.
6. If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated shall be seined and transported to the new aquatic habitat as the old site is dewatered.
  7. If wetlands, irrigation ditches, marshes, etc. will not be relocated in the vicinity, then the aquatic habitat shall be dewatered at least two weeks prior to commencing construction.
  8. Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.
  9. Other provisions of the USFWS Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat shall be implemented (excluding programmatic mitigation ratios which are superceded by the SJMSCP's mitigation ratios).

The project site provides suitable foraging habitat for Swainson's hawk. The SJMSCP only provides minimization measures for suitable nesting habitat, adherence to the SJMSCP is not required. The applicant will be required to pay fees to San Joaquin COG minimization programs to offset the cumulative loss of Swainson's hawk foraging habitat.

The project site also provides suitable habitat for burrowing owls. To lessen impacts to this species, the SJMSCP provides the following:

The presence of ground squirrels and squirrel burrows are attractive to burrowing owls. Burrowing owls may therefore be discouraged from entering or occupying construction areas by discouraging the presence of ground squirrels. To accomplish this, the Project Proponent should prevent ground squirrels from occupying the project site early in the planning process by employing one of the following practices:

1. The Project Proponent may plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36" above the ground. Vegetation should be retained until construction begins. Vegetation will discourage both ground squirrel and owl use of the site.
2. Alternatively, if burrowing owls are not known or suspected on a project site and the areas is an unlikely occupation site for red-legged frogs, San Joaquin kit fox, or tiger salamander: The Project Proponent may disc or plow the entire project site to destroy any ground squirrel burrows. At the same time burrows are destroyed, ground squirrels should be removed through one of the following approved methods to prevent the reoccupation of the project site. Detailed descriptions of these methods are included in Appendix A, *Protecting*

*Endangered Species, Interim Measures for Use of Pesticides in San Joaquin County*, dated March, 2000: anticoagulants, zinc phosphide, fumigants, traps.

If the measures described above were not attempted or were attempted but failed, and burrowing owls are known to occupy the project site, then the following measures shall be implemented.

1. 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)
2. 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.

Adherence to the requirements of the SJMSCP will ensure a less than significant impact on Swainson's hawk, giant garter snake, and burrowing owl.

**b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

The project is not expected to impact riparian habitat located along Bishop Cut to the west. Riparian vegetation along Bishop Cut that may be removed as part of the major canal relocation project will be administered by Reclamation District 20-42. Riparian vegetation may also exist along the minor drainage canals that transect the project site. This vegetation should be removed prior to bird nesting season to exclude the opportunity for birds to utilize this habitat. Consultation with CDFG will not be necessary as these drainages are not expected to be subject to CDFG jurisdiction.

**c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marshes, vernal pools, coastal wetlands, etc.) through direct removal, filling, hydrological interruption, or other means?**

The ACOE is reviewing jurisdiction responsibilities over the drainage canals that run along the southern and eastern borders of the project site. The project applicant has initiated consultation with the ACOE regarding impacts and mitigation for these drainage canals prior to development of the Westlake project. No other drainages on-site are subject to ACOE or CDFG jurisdiction.

**d. 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?**

The proposed project will not result in a barrier to the migration or movement of fish or wildlife species, or impede the use of native wildlife nursery sites.

**e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?**

The project site is within the mapped boundaries for lands covered by the SJMSCP. Once the project site is annexed into the City's boundaries, the project applicant will be required to adhere to the provisions outlined in the SJMSCP. Project impacts will be mitigated as required by the SJMSCP. The applicant will also be required to conform to any other relevant City conditions and fees.

**f. Conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?**

The project site is within the mapped boundaries for lands covered by the SJMSCP. The proposed project will comply with conditions set forth in the SJMSCP for Swainson's hawk, giant garter snake, and burrowing owl. The project applicant will be required to comply with the SJMSCP fee program and any other relevant City conditions and fees.

**Potential Mitigation Measure:** As a condition of the project, the applicant will be required to participate in the SJMSCP fee program and any other relevant City conditions and fees.

**Supporting Documentation/References Cited:**

Jeff Bray, biologist; Geoff Monk, biologist; San Joaquin County Multi-Species Habitat Conservation and Open Space Plan, November 2000; Westlake Villages Environmental Impact Report.

**5. CULTURAL RESOURCES - Would the project:**

**a. Cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5?**

The project is not expected to impact a significant historical resource. Development is proposed on lands that have been subject to extensive surface modifications as a result of agricultural production. This involved site grading and leveling, tilling and crop rotation, and hydraulic/hydrologic modifications.

**b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?**

The site may impact significant archaeological resources. Development is proposed on lands that have been subject to extensive surface modifications as a result of agricultural production. This involved site grading and leveling, tilling and crop rotation, and hydraulic/hydrologic modifications. An identified pre-historic site exists within SPW. The proximity of this site suggests that other pre-historic sites may exist

within the project boundaries. An archeological study will be prepared to assess the presence or absence of cultural resources.

**Potential Mitigation Measure:** Any significant cultural sites shall be preserved and development shall avoid the resources. Provisions will be incorporated into the project design to protect any resources from public contact. During site construction, if deposits of pre-historic resources are encountered, provisions should be made to halt construction activities until qualified personnel can evaluate the findings and make further recommendations.

**c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

The project may impact significant paleontological resources. Development is proposed on lands that have been subject to extensive surface modifications as a result of agricultural production. This involved site grading and leveling, tilling and crop rotation, and hydraulic/hydrologic modifications. A cultural resources study, which includes paleontological resource analysis, will be prepared to assess the presence or absence of all cultural resources.

**Potential Mitigation Measure:** Any significant paleontological resource sites shall be preserved and development shall avoid the resource. Provisions will be incorporated into the project design to protect any resources from public contact. During site construction, if deposits of paleontological resources are encountered, provisions should be made to halt construction activities until qualified personnel can evaluate the findings and make further recommendations.

**d. Disturb any human remains, including those interred outside of formal cemeteries?**

The project may impact significant human remains, however, there are no known or documented historical or pre-historical human remains located on the project site. An archeological study will be prepared to assess the presence or absence of cultural resources.

**Supporting Documentation/References Cited:**

Supplemental Final Environmental Impact Report, Spanos Park West, 2001;  
Westlake Villages Environmental Impact Report.

**6. GEOLOGY AND SOILS - Would the project:**

**a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**

- (1) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.**

The site does not contain any Alquist-Priolo faults or other significant fault evidence.

**(2) Strong seismic groundshaking?**

The site is not subject to strong seismic groundshaking or hazards.

**(3) Seismic-related ground failure, including liquefaction?**

The Geotechnical Services Report prepared for the project did not indicate that the site was subject to seismic-related ground failure, including liquefaction.

**Potential Mitigation Measure:** Geologic professionals will be required to prepare detailed geotechnical reports to determine specific design requirements for development areas. The geotechnical reports will be conducted as part of the environmental review process and will be used to determine potential impacts in the Draft EIR.

**(4) Landslides?**

The project is not subject to landslides since the site is nearly level. There are no physical features associated with the site that could be subject to landslide activity.

**b. Result in substantial soil erosion or the loss of topsoil?**

Implementation of the project may create substantial soil erosion and/or loss of topsoil. Construction of the proposed project would require grading for proposed roadways and infrastructure. These activities will create significant ground disturbance which may lead to erosion on unprotected graded surfaces if exposed to rainfall and surface run-off. Erosion control measures will be required to ensure that soil erosion during construction will be minimized. Once the project development is complete, the surfaces will be stabilized and the erosion potential will be eliminated.

It should be noted that site development will eliminate the effects of wind and water erosion associated with previous agricultural operations. With an increase in paved surfaces associated with development, soil surfaces will be protected in place and should reduce sedimentation of adjacent resources.

**Potential Mitigation Measure:** Standard erosion control measures will be required to prevent erosion and sedimentation during construction. As a condition of the required NPDES permit, the applicant must prepare a Storm Water Pollution Prevention Plan (SWPPP).

**c. 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 an onsite or offsite landslide, lateral spreading, subsidence, liquefaction, or collapse?**

See 6.d.

**Potential Mitigation Measure:** Geologic professionals will be required to prepare detailed geotechnical reports to determine specific design requirements for development areas.

**d. 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 project site contains expansive soils. These conditions are considered suitable for construction of the proposed project provided that recommendations included in the Geotechnical Services Report are implemented. These impacts are potentially significant, however, they are expected to be mitigated through standard engineering practices.

**Potential Mitigation Measure:** Geologic professionals will be required to prepare detailed geotechnical reports to determine specific design requirements for development areas.

**e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems in areas where sewers are not available for the disposal of wastewater?**

The project will tie into the City's sanitary sewer system, therefore septic tanks will not be required. The project's sanitary sewer system will be designed to accommodate wastewaters generated from project uses and will be approved by the City prior to project approval.

**Supporting Documentation/References Cited:**

Site observations; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; Westlake Villages Environmental Impact Report; Geotechnical Services Report prepared by Kleinfelder, 2003.

**7. HAZARDS AND HAZARDOUS MATERIALS - Would the project:**

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

The project will not involve the routine transport, use, or disposal of hazardous materials. Proposed project uses are not normally associated with activities that involve risks of hazardous wastes. Any uses that require hazardous materials or generate hazardous wastes will be controlled and regulated by State law.

**b. 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?**

It is not expected that the proposed land uses (residential and recreation) will introduce hazardous materials to the environment or the general public. Any hazardous substances that may be involved with construction activities will be identified on a Spill Prevention and Counter-Measure Plan (SPCMP) developed for

the project. This SPCMP will identify all hazardous substances, methods for cleanup, and measures to protect construction workers.

**Potential Mitigation Measure:** The SPCMP will be prepared prior to the commencement of any construction activities. The SPCMP will identify any and all hazardous materials that will be used or stored on site. The SPCMP will also identify any hazardous wastes that might be generated by the proposed project. The SPCMP will detail proper measures to handle and/or transport hazardous materials. The plan will also present procedures to contain or initiate cleanup of any spills. The phone number of the appropriate government agency will be contained on the plan in the event of any release of hazardous substances.

**c. Emit hazardous emissions or involve handling hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?**

The project will not create land uses that generate (e.g., industrial/manufacturing) hazardous materials or wastes.

**d. Be located on a site that 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?**

The project is not expected to be located on a site that is listed on governmental databases. Nonetheless, in light of the historic agricultural land uses, the potential for hazardous materials exists (e.g. pesticides, fertilizers, petroleum products). To determine the potential hazardous waste/contamination issues, a Hazardous Waste Initial Site Assessment will be conducted as part of the EIR process. This assessment will include a government records search and visual site survey to determine the presence of hazardous materials/wastes and the potential to impact the project, if any. Based on the findings, additional testing and/or remediation may be required prior to site development.

**Potential Mitigation Measure:** A summary Hazardous Waste overview will be conducted that will include a government records search and visual site survey to determine the presence of hazardous materials/wastes and the potential to impact the project, if any.

**e. Be located within an airport land use plan area or, where such a plan has not been adopted, be within two miles of a public airport or public use airport, and result in a safety hazard for people residing or working in the project area?**

There are no airport uses or activities near the project site. A helistop has been approved for the Spanos Park West project area. The environmental analysis conducted for the helistop determined that the helistop did not pose a hazard to people residing or working in the area.

**f. Be located within the vicinity of a private airstrip and result in a safety hazard for people residing or working in the project area?**

There are no private air strips proximate to the project site.

**g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?**

The proposed project has not been included in existing emergency response or evacuation plans. The project is not expected to impair the implementation or interfere with an adopted emergency response plan or evacuation plan, since these plans will be updated after project approval. After annexation of the site into the City's jurisdiction, relevant plans should be amended to include the project site and land uses. The developer will assist the amendment of these plans as deemed necessary by the City.

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

The site is not located in a wildland fire hazardous setting.

**Supporting Documentation/References Cited:**

Site observations; applicant provided information; 1990 City General Plan; Westlake Villages Environmental Impact Report.

**8. HYDROLOGY AND WATER QUALITY - Would the project:**

**a. Violate any water quality standards or waste discharge requirements?**

The project has the potential to violate water quality standards and/or waste discharge requirements. The proposed project will change the existing agricultural land use to residential uses. While this land use change will eliminate a source of agricultural pesticides and fertilizers that may have impacted water quality adjacent to the site, the landscaping associated with the proposed project would also require the use of pesticides, herbicides, and fertilizers. Negative impacts to water quality from this pollution source could persist.

Construction activities will create ground disturbance that may increase erosion and sedimentation in nearby water courses. The project applicant will be required to implement standard erosion control measures to ensure that storm water runoff does not adversely impact water quality in these waterways.

The nature of the proposed development may also impact water quality in Disappointment Slough. The project will add significant amounts of impervious areas, potentially increasing the amount of storm water runoff. Vehicular traffic will also increase as a result of project development. These conditions create an increased potential for hydrocarbons, sediments, heavy metals, and other pollutants to reach local waterways via storm water runoff.

**Potential Mitigation Measures:**

1. The project applicant proposes to mitigate water quality and storm water discharge impacts by detaining a majority of storm water on-site, in the lake

identified on the project plan. This will allow the applicant to detain peak storm water flows and to remove pollutants from runoff. The project will be required to conform to the requirements of the City of Stockton's Stormwater NPDES Quality Control Criteria Plan (SWQCCP), as outlined in the City's Phase 1 Stormwater NPDES permit issued by the California Water Quality Control Board, Central Valley Region (Order No. R5-2002-0181). The implementation of SWQCCP became effective November 25, 2003. All storm water discharges will be subject to NPDES permit requirements as set for by the RWQCB.

2. As required by the Stormwater Quality Control Criteria Plan, the owners, developers, and /or successors-in-interest shall establish a maintenance entity acceptable to the City to provide funding for the operation, maintenance, and replacement costs of the storm water best management practices.
3. The property owners, developers, and/or successors in interest shall comply with any and all requirements, and pay all associated fees, as required by the City's Storm Water Pollution Prevention Program as set forth in the NPDES Storm Water Permit as set for by the RWQCB.

**b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge, resulting in a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted)?**

The project will interfere with groundwater recharge on-site. Upon project implementation, a majority of the project site will be converted to urban uses, thereby preventing the infiltration of rain water into the soil. This impact is potentially significant.

Historically, the City of Stockton supplied domestic water via surface and ground water sources. Use of ground water eventually created overdraft conditions within the City's aquifer system. Continued use of surface water has improved the state of overdraft but has not relieved the situation completely.

The City will prepare a project specific water supply assessment to quantify the City's 20-year supply for this project. The water supply assessment will determine if adequate water supplies are available for the project.

Additionally, the project will create an on-site lake for storm water retention. Due to high ground water levels, creation of these lakes may require dewatering of the site to avoid conflicts between lake water and groundwater. Site dewatering will lower ground water levels both on and off the project site. Accordingly, this impact is considered potentially significant and will be studied in the EIR. Technical studies will be prepared by a qualified lake/storm water engineer to assess the potential effects.

**Potential Mitigation Measures:**

Refer to mitigation cited in Section 8(a).

**c. 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 or siltation onsite or offsite?**

The existing drainage pattern of the site will be altered to accommodate project development. Construction and operation of the project may create erosion. These potential impacts are considered mitigatable. It is expected that the existing, level terrain will be retained and storm water will flow toward the lakes via a network of vegetated swales or pipelines. Additionally, erosion and siltation will be controlled through standard engineering controls and practices.

The project does not propose to alter the course of a stream or river.

**Potential Mitigation Measures:**

Refer to mitigation cited in Section 8(a).

**d. Substantially alter the existing drainage pattern of the site or area, including through the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding onsite or offsite?**

The existing drainage pattern of the site will be altered to accommodate project development. Project development will require an increase in the amount of impervious surfaces on the project site when compared with the existing agricultural uses. This could lead to onsite flooding, however, the onsite storm water system will be designed to accommodate peak discharges. A combination of drainage pipes and vegetated swales will be used to convey storm water runoff to the onsite lake. It is anticipated that sufficient capacity is available within the lake to detain runoff during peak storm conditions. By retaining storm water on-site and controlling peak discharges, the applicant will eliminate effects on downstream flooding or discharges.

Interim drainage improvements will be required to relocate existing waters contained in the ditch between the project site and the Westlake Villages project (refer to project description). Ultimate improvements will require future development of the Thompson Parcel and relocation of the drainage improvements north of Eight Mile Road.

**Potential Mitigation Measure:** Storm drainage analysis or plans will be required to demonstrate that the runoff from the project can be adequately stored and treated within the lake. The analysis will also demonstrate that the network of pipes and swales will adequately convey storm drainage to the lake or require supplemental storm water elimination systems.

Refer to mitigation cited in Section 8(a).

**e. Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?**

The onsite storm water drainage system will be designed to accommodate peak flows.

Project development may create polluted runoff. The proposed project will change the existing agricultural land use to residential uses. While this land use change will eliminate a source of agricultural pesticides and fertilizers that may have impacted water quality adjacent to the site, the landscaping associated with the proposed project would also require the use of pesticides, herbicides, and fertilizers. Negative impacts to water quality from this pollution source could persist.

Construction activities will create ground disturbance that may increase erosion and sedimentation in nearby water courses. The project applicant will be required to implement standard erosion control measures to ensure that storm water runoff does not adversely impact water quality in these waterways.

The nature of the proposed development may also impact water quality in Bishop Cut. The project will add significant amounts of impervious areas, potentially increasing the amount of storm water runoff. Vehicular traffic will also increase as a result of project development. These conditions create an increased potential for hydrocarbons, sediments, heavy metals, and other pollutants to reach local waterways via storm water runoff. Chemicals used in landscaping maintenance may also negatively impact water quality.

The proposed project would increase the amount of impervious surfaces on the project site when compared with the existing agricultural uses. A combination of drainage pipes and vegetated swales will be used to convey storm water runoff to the onsite lake. This water will then be transported to the network of lakes within the Westlake project and will be ultimately discharged to Disappointment Slough via a new pump station.

**Potential Mitigation Measure:** The project will comply with the applicable water quality and storm drainage discharge requirements of the City of Stockton Public Works Department, City of Stockton Department of Municipal Utilities, and Regional Water Quality Control Board—Central Valley Region. These requirements prohibit discharge of pollutants to the storm drain system leading to downstream violation of water quality standards. The applicant will also comply with new standards as set forth by the State and adopted by the City.

Storm drainage analysis or plans will be required to demonstrate that the runoff from the project can be adequately stored within the lake system. The analysis will also demonstrate that the network of pipes and swales will adequately convey storm drainage to the lake and the pump station will adequately discharge water to Disappointment Slough. The report must also indicate that both on-site and downstream locations will not be subject to flooding due to project-induced impacts.

Refer to mitigation cited in Section 8(a).

**f. Otherwise substantially degrade water quality?**

All water quality issues are expected to be mitigated to a less than significant level.

Refer to mitigation cited in Section 8(a) and (e).

**g. 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?**

With regional flood control improvements that have been implemented over the past several years, flood control protection against the 100-year flood event is expected for the project site.

**h. Place within a 100-year flood hazard area structures that would impede or redirect floodflows?**

Lands within the project site are protected from the 100-year flood event. Improvements to the regional flood control system have been completed and meet the Federal Emergency Management Agency (FEMA) flood control standards and resolving past flooding issues. The Reclamation District and City of Stockton are responsible for demonstrating that the proposed project's internal drainage systems comply with the FEMA Letter of Map Revision, which provides confirmation that the site is protected from the 100-year flood event.

**i. Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?**

Lands within the project site are protected from the 100-year flood event. The existing levees have been maintained without incident since 1919. Additionally, improvements to the regional flood control system have been completed and meet the Federal Emergency Management Agency (FEMA) flood control standards. The Reclamation District has adopted rules designed to protect the levees from improper use and damage. Therefore, the possibility for levee failure is considered low. The project will not expose people or structures to a significant risk of loss, injury or death involving flooding.

**j. Contribute to inundation by seiche, tsunami, or mudflow?**

The project will not contribute to inundation by seiche, tsunami, or mudflow.

**Supporting Documentation/References Cited:**

Site observations; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; information provided by applicant; Westlake Villages Environmental Impact Report.

**9. LAND USE AND PLANNING - Would the project:**

**a. Physically divide an established community?**

The proposed project will not divide the adjacent Westlake community.

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

Implementation of the proposed project will require the approval of a General Plan Amendment to High Density Residential to accommodate the multi-family component of the project. A rezoning application will also require approval to meet the entitlement requirements proposed by the applicant. An amendment to the Eight Mile Road Specific Plan is necessary to implement the project due to access modifications to the site. Annexation of the project site into the City limits will require preparation of a City Services Plan. Amendments to the City Master Storm Drainage, Sewer and Water Plans will also be required. All amendments will be subject to the approval of the City of Stockton.

**c. Conflict with any applicable habitat conservation plan or natural community conservation plan?**

The project site is covered by the SJMSCP. The project applicant will be required to comply with measures set forth in this plan. The City of Stockton has adopted the SJMSCP. After annexation to the City of Stockton, the applicant will also be required to conform to the SJMSCP and any other relevant City conservation measures and fees.

**Supporting Documentation/References Cited:**

Site observations; conceptual development plans, 1990 General Plan; SJMSCP; information provided by applicant; Westlake Villages Environmental Impact Report.

**10. MINERAL RESOURCES - Would the project:**

**a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

The project will not result in the loss of availability of known mineral resources. The proposed project site is not known to contain important mineral resources.

**b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

The proposed project will not result in the loss of any mineral resource.

**Supporting Documentation/References Cited:**

1990 City General Plan; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; Westlake Villages Environmental Impact Report.

**11. NOISE - Would the project:**

**a. Expose persons to or generate noise levels in excess of standards established in a local general plan or noise ordinance or applicable standards of other agencies?**

It is expected that the exterior noise standard for the proposed project land uses could be exceeded as set forth in the City's Noise Ordinance. An overall noise assessment will be conducted for the project. As a result of prior noise analyses and previously constructed sound walls, the exterior noise standard for adjacent existing sensitive receptors will not be exceeded. Temporary increases in noise are expected during construction activities.

**Potential Mitigation Measure:** Additional noise studies will be required to determine the precise noise effects on specific sensitive receptors.

Construction activities will be mitigated by limiting the hours of operation.

**b. Expose persons to or generate excessive groundborne vibration or groundborne noise levels?**

The project will not generate land uses or activities that generate substantial groundborne noise events or vibrations.

**c. Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?**

Noise levels will increase over the current levels as a result of site development. The proposed project will be consistent with surrounding land uses to the south and east. It is not expected that the increase in residential units will significantly impact these surrounding land uses.

**Potential Mitigation Measure:** The applicant will be required to prepare a noise study to identify effects on specific sensitive receptors. Any mitigation measures provided within this study will be implemented by the applicant.

**d. Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?**

The predominant source of temporary or periodic noise events for the project will be from construction activity. The increase from construction will be similar to the noise generated by agricultural equipment and is not expected to be significant when compared to ambient levels. The noise increases may temporarily impact adjacent residential communities.

**Potential Mitigation Measure:** The applicant will be required to comply with City noise ordinances pertaining to construction activities, including limiting the hours of construction activities.

**e. Be 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 public use airport and expose people residing or working in the project area to excessive noise levels?**

The proposed project is not located within an airport land use. A helistop has been approved for the Spanos Park West project area. A noise impact analysis was conducted for the helistop and determined that noise impacts would not be significant.

**f. Be located in the vicinity of a private airstrip and expose people residing or working in the project area to excessive noise levels?**

The proposed project is not located within a private airport.

**Supporting Documentation/References Cited:**

1990 City General Plan; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; Westlake Villages Environmental Impact Report.

**12. POPULATION AND HOUSING - Would the project:**

**a. Induce substantial population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?**

The proposed project will add a maximum of approximately 4,251 people to the project site (3.14 persons per household). The 3 persons per household figure reflects the City's average household size. The Spanos Parcel development will require the extension of services and utilities to service the project.

Lands to the west (of Bishop Cut) are undevelopable and to the north (of Eight Mile Road) are beyond the reasonable growth limit for the City of Stockton. Significant political and entitlement issues effectively prevent project growth inducement north of Eight Mile Road. Nevertheless, the City recently extended the Sphere of Influence to encompass lands to the north anticipating urban growth in the future.

**b. Displace a substantial number of existing housing units, necessitating the construction of replacement housing elsewhere?**

The project will not displace existing housing units and will not generate additional demand for housing. The project is intended to supplement a deficient housing market within the City. Existing housing should not be affected by the proposal.

**c. Displace a substantial number of people, necessitating the construction of replacement housing elsewhere?**

The proposed project will not result in a displacement of people.

**Supporting Documentation/References Cited:**

1990 City General Plan; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; Westlake Villages Environmental Impact Report.

**13. PUBLIC SERVICES - Would the project:**

**a. Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities or a 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:**

**(1) Fire protection?**

The project may impact fire protection services, however, plans for the Westlake project include the provision of a fire station. It is expected that this station house will accommodate the proposed project and other developments planned for the northern portion of the City.

**Potential Mitigation Measures:** The applicant will consult with the local fire department regarding project components and any potential impacts to fire protection services.

**(2) Police protection?**

The project may impact police protection services, however, the City of Stockton capital improvements budget includes funding for facility expansion and equipment purchases to accommodate projected service demands. Development impact fees exacted on new development projects for police protection services should assist in financing expanded services to the proposed project.

**Potential Mitigation Measures:** The applicant will consult with the local police department regarding project components and impacts to law enforcement services. Any identified impacts should be mitigated by payment of development fees.

**(3) Schools?**

The project may impact schools, however, an on-site elementary school is planned within the project boundaries. For planning purposes, the City estimates school sizes as follows: 800 students for an elementary school; 900 students for a middle school; and 2200-2600 students for a high school. The proposed project will include a maximum of 1,354 units. It is expected that the conventional residential aspect of the project will add 416 elementary students, 110 middle school students, and 205 high school students. Two new elementary schools are planned for the adjacent Westlake and Spanos Park West project.

**Potential Mitigation Measure:** The applicant will be required to pay development impact fees to the school district to offset the cost for providing new facilities.

**(4) Parks?**

The project may impact existing parklands. The project will provide approximately 16.46 acres of parkland and lake area.

The Parks and Recreation Element of the General Plan require three acres of parkland for every 1,000 individuals. Specifically, two acres of community parkland and one acre of neighborhood parkland are required. Based on these requirements, the project should provide a total of 13.0-acres of parkland, comprised of 4.4 acres of neighborhood parks and 8.6 acres of community parks. The project proposal includes the provision of a 6.0-acre park and 7.24-acre lake within the single family residential component. The courtyard units will provide 3 pocket parks, ranging in size from 0.9 to 1.2 acres. A total of 16.46-acres of parkland and lake area will be provided for the proposed project. The project will provide a total park area in excess of City standards, however the project does not meet the minimum parkland size requirements. It should be noted that the 19.5 acre parcel has not been included in any of the above calculations and will be responsible for park land compliance subsequent to preparation of a site plan.

The increase in population generated by the proposed project may impact Oak Grove Regional Park; these impacts will be evaluated. City standards require 7 acres per 1,000 people to accommodate regional park land demand. City General Plan policy (Housing Element, 2004) also includes consideration of acquiring additional land for regional parks in cooperation with San Joaquin County. The EIR will compare the quantity of existing regional parklands to the population served by the regional parks to determine whether regional parklands are in excess or deficient of the County standard. If it is determined that the standard is not met, the project will provide 30.3 acres of regional parklands or an equivalent fee as determined by the City.

**Potential Mitigation Measure:** The applicant proposes to dedicate parkland area to the City to offset parkland requirements. Also, the applicant will be required to pay fees to the City in accordance with the project park dedication requirements to be applied to local (neighborhood and community) park improvements, and in accordance with the City's regional park land policies for providing regional park land area or equivalent fees.

#### **(5) Other public facilities?**

Other public facilities may be impacted by the project, including available water supplies. The City will prepare a project specific water supply assessment to quantify the City's 20-year supply for this project. This water supply assessment will determine if adequate water supplies are available for the project.

It is expected that the sewer main that flows along Fourteen Mile Slough would serve the project site. Currently, this system has the capacity to handle existing and project sewage flows as far as the Fourteen Mile pump station. The pump station will require an increase in capacity to accommodate the project. An upgrade to the force main (e.g., parallel force main) will also be required to convey sewage to the treatment plant.

The City's current plans for expanding library services to the project area would meet the requirements for library services for urban conditions. Developer impact fees will be used to pay the fair share requirements for library services.

For other governmental services, typical project exactions and taxes are expected to adequately fund their long-term maintenance.

**Potential Mitigation Measure:**

1. ODS shall prepare and submit to the Municipal Utilities Department an Integrated Water Management Plan. Said plan shall identify, describe and quantify all of the different water resources used throughout the proposed project. The plan shall distinguish between the various non-potable water supplies used to maintain the lake.
2. The project applicant will be required to pay development impacts fees (as applicable) to reduce the burden on community library and other governmental services.

**Supporting Documentation/References Cited:**

1990 City General Plan; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; Conceptual site plans; applicant provided information (Starr, 2003); communication with Susan Ryan of the Lodi Unified School District (2003); Westlake Villages Environmental Impact Report.

**14. RECREATION - Would the project:**

**a. Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

The increase in population generated by the project may increase the burden on neighborhood and regional parks. The proposed project will provide 16.46 acres of park and lake areas. This is greater than the City's parkland requirement (13.0 acres). An analysis of the project impacts on Oak Grove Regional Park will be conducted to determine if the excess park land provides on-site will offset community and regional park requirements. Refer to mitigation in Section 13(a)(4).

**b. Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?**

The project will provide park and recreational facilities as features in the overall land development plan. Development of the park and recreational facilities is not expected to have a unique or significantly different impact on the environment than the remainder of the land use plan.

**Supporting Documentation/References Cited:**

1990 City General Plan; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; Conceptual site plans; applicant provided information; Westlake Villages Environmental Impact Report.

**15. TRANSPORTATION/TRAFFIC - Would the project:**

**a. Cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections)?**

The increase in population generated by the project will increase traffic in the project vicinity. This proposal was not anticipated by the City's General Plan. Preliminary traffic data indicates that the proposed project will add 13,550 daily trips. A traffic analysis was conducted for Westlake Villages EIR to determine the traffic impacts on local roadways. Traffic from the Spanos Parcel was included in the analysis. Mitigation was proposed to reduce traffic effects, although could not completely mitigate for cumulative traffic impacts. A technical traffic study will be prepared for the project that examines the regional traffic conditions with and without the project scenarios for future year horizons.

**b. Cause, either individually or cumulatively, exceedance of a level-of-service standard established by the county congestion management agency for designated roads or highways?**

Preliminary traffic data indicates that the proposed project will add 13,550 daily trips. A technical traffic study will be prepared for the project that examines the regional traffic conditions with and without the project scenarios for future year horizons. It is anticipated that the project will contribute to a significant cumulative impact (per the Westlake Villages EIR findings) that cannot be completely mitigated.

**Potential Mitigation Measure:** Traffic circulation will be specified in the Master Development Plan. Traffic mitigation measures will be listed in the conditions attached to the project's tentative subdivision map and the subsequent Subdivision Agreement between the developer and the City. These mitigation measures will be incorporated by reference into the Development Agreement. These mitigation measures may include payment of fair share fees to the City of Stockton towards roadway improvements.

**c. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?**

The proposed project will not result in alterations to waterborne, rail, or air traffic patterns.

**d. Substantially increase hazards because of a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?**

The project will create new access points along Eight Mile Road while preliminary traffic data indicates that the project will add 13,550 daily trips. These conditions are not expected to create an increase in hazards within the project area. The potential impact of new access points and increased traffic along Eight Mile Road will be evaluated to determine the significance.

It should be noted that a potential conflict could occur with adjacent agricultural operations. Passenger and service vehicles may conflict with farm equipment being

transported along adjacent public roads. This impact can be mitigated to a less than significant level through roadway geometrics (closing public vehicle access to Rio Blanco Road) and signage.

**e. Result in inadequate emergency access?**

Emergency access to the project site will be provided primarily from the Eight Mile Road/I-5 Interchange. In the future, additional access may be available via the future connection (over Disappointment Slough) to the Shima Tract. It is not expected that project development or operation will result in inadequate emergency access.

**f. Result in inadequate parking capacity?**

The project will not require parking beyond the facilities planned to serve the project. Adequate parking will be provided for residential and parkland/recreational facilities as outlined in the Master Development Plan, and required by City ordinance.

**g. Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?**

Compliance with adopted policies, plans, and programs supporting alternative transportation should be further evaluated to determine potential impacts. The applicant intends to provide separate pedestrian and bicycle trails and walkways where possible.

**Supporting Documentation/References Cited:**

Information provided by project applicant; Westlake Villages Environmental Impact Report.

**16. UTILITIES AND SERVICE SYSTEMS - Would the project:**

**a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?**

The project will tie into the City's sanitary sewer system. Project wastewater treatment requirements will be consistent with the City's Sewer Master Plan, which includes provisions to expand the City's treatment plant. The City must comply with RWQCB wastewater discharge requirements. The proposed project is not expected to create exceedances of these requirements.

**Potential Mitigation Measure:** A water master plan will be prepared for the proposed project to amend the City's Water Master Plan.

**b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Existing and proposed wastewater conveyance facilities should accommodate proposed project demand. Long-term treatment facilities have been designed to

accommodate the adjacent Westlake development and include the Spanos Parcel. Sewage generated by the proposed project is not expected to burden the capabilities of the wastewater treatment plan due to the City's ability to meet increasing demand by expanding the treatment plant in modular components. The applicant may be required to provide a fair share in expanding waste water facilities as needed.

Approval of the Tentative Map for the proposed project will require amendments to the City's Sewer Master Plan. A sewer master plan is being prepared for the proposed project that will amend the City's Plan.

The City will prepare a project specific water supply assessment to quantify the City's 20-year supply for this project. The water supply assessment will determine if adequate water supplies are available for the project.

**Potential Mitigation Measure:** The applicant will be required to pay connection fees, as applicable at the time of approval, and capital improvement fees for water and wastewater service.

**c. Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

A storm drainage system has been conceptually designed to capture storm water runoff generated on-site in the on-site lake feature. This system will control peak storm water events. The storm drainage system of the subject project will convey stormwater flows to a new pump station, adjacent to Rio Bianco Road.

The facilities that comprise the onsite storm water management program include the man-made lake, pump station, and underground storm drains, surface inlets and roadway section. All surface runoff will be transported to the man-made lake. The lake will operate via gravity and will discharge into the Westlake stormwater pump station. This system will provide storm water quality treatment, storm water runoff storage and peak attenuation, and storm water conveyance. Specifically, the stormwater management solution focused on (1) maximum conveyance for the attenuated 100-year runoff from the Crystal Bay lake; (2) hydraulic connection from Crystal Bay to the Westlake pump station; (3) ensure the water quality treatment of the Crystal Bay runoff prior to discharge into Westlake; (4) completely retain nuisance flows and smaller storm events within the Crystal Bay lake; (5) non-mechanical and automatic hydraulic control; (6) maximize the runoff storage and peak runoff attenuation within the Crystal Bay lake; (7) reduce the 100-year overflow water surface within the Crystal Bay and Westlake lake; and (8) provide a secondary overflow connection between Crystal Bay and Westlake lakes.

The subject project is in the City's Wastewater Collection System No. 10. Collection System 10 discharges into the 14-Mile Slough Sanitary Sewer Pump Station is rapidly reaching the pump station's design capacity. The pump station is currently under design for upgrades; however, building permits from subject project may be restricted until upgrade of the pump station is completed. A water master plan is being prepared for this proposed project that will amend the City's Water Master Plan.

**Potential Mitigation Measures:** ODS shall prepare and submit to the Municipal Utilities Department an Integrated Water Management Plan. The plan shall identify, describe and quantify all of the different water resources used throughout the proposed project. The plan shall distinguish between the various non-potable water supplies used to maintain the lake.

**d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or would new or expanded entitlements be needed?**

The City will prepare a project specific water supply assessment to quantify the City's 20-year supply for this project. The water supply assessment will determine if adequate water supplies are available for the project on a first-come, first-serve basis.

**e. Result in a determination by the wastewater treatment provider that serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

The City's wastewater treatment plant has been designed to accommodate phased increases in capacity treatment. As a result, the project wastewater demand is not expected to significantly impact wastewater treatment capacity.

**Potential Mitigation Measure:** The applicant will be required to pay connection fees, as applicable at the time of approval, and capital improvement fees for water and wastewater service.

**f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?**

Four solid waste landfills are located within San Joaquin County and could service the proposed project. These facilities include: Austin Road/Forward Landfill, Foothill Sanitary Landfill, Forward, Inc., and North County Sanitary Landfill. These landfills have estimated closure dates of 2053, 2054, 2006, and 2035, respectively. Based on these estimated closure dates and available capacities, it is not expected that the proposed project will exceed capacities of County landfills. Additionally, continued implementation of the City's adopted Source Reduction and Recycling Element (March 1992) will ensure that contribution of solid waste materials to the landfills will not accelerate the depletion of remaining landfill capacity.

**Potential Mitigation Measure:** To facilitate green-waste recycling, the applicant shall provide composting facilities within the project boundaries. Specifications will be included in the Master Development Plan regarding the location, maintenance, and operation of these facilities.

**g. Comply with federal, state, and local statutes and regulations related to solid waste?**

The project is expected to adhere to the typical management strategies for achieving waste reduction objectives, thus complying with federal, state, and local agency regulations.

#### **Supporting Documentation/References Cited:**

California Integrated Waste Management Board Website; Applicant Provided Materials; 1990 City General Plan; Westlake Villages Environmental Impact Report.

#### **17. MANDATORY FINDINGS OF SIGNIFICANCE**

**a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?**

Project implementation is not expected to have a significant, adverse impact on biological resources. The site is not considered overly sensitive to biological resources due to the graded condition and long-term agricultural productivity occurring on the site. Similarly, as a result of long term agricultural production and subsequent grading, cultural resource sensitivity is considered low. A cultural resource study will be performed to determine the presence/absence of cultural resources.

**b. Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a 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.)**

The proposed project will create cumulative impacts. During construction, temporary air quality impacts are expected. Likewise, project implementation will create exceedances of air pollutants thresholds, thereby creating regional air quality issues. Other potentially significant impacts include the loss of agricultural lands, conversion of open space to urban uses, increases in traffic, limiting of groundwater recharge, adequacy of surface and ground water supplies to serve the project. The following mitigation measures should be considered to minimize individual and cumulative impacts:

#### **AESTHETICS**

To assist in minimizing the impacts of the proposed project, the applicant will be required to prepare a Master Development Plan which considers building elements and architectural treatments that provide aesthetic enhancement.

Mitigation may include prior review and approval of building materials and lighting specifications by the Design Review Board and City Community Development Director. Downcast lighting should be used where feasible. To ensure compliance with specifications set forth by the Design Review Board and Community Development Director, the applicant should maintain control over all development within the project site. This can be done through compliance with the Master Development Plan and conditions placed on the covenants, conditions and restrictions established by the Applicant for the development.

### **AGRICULTURAL RESOURCES**

A "Right to Farm Ordinance" has been adopted by the City of Stockton. This ordinance provides that on-going farming operations are not considered a nuisance, however, it does not eliminate the actual potential for land use conflicts.

Potential residents in areas adjacent to agricultural land will be informed of possible conflicts associated with farming operations and the Right to Farm ordinance prior to purchasing homes. The developer will be required to disclose this information prior to opening of escrow.

These mitigation measures will be included as conditions on the Tentative Maps.

### **AIR QUALITY**

Standard dust and NOx reducing measures will be required to minimize construction related emissions. Adhering to the AQAP control strategies should minimize the potential to aggravate the non-attainment status of ozone and PM<sub>10</sub>. The applicant will also conduct an air quality analysis to determine and quantify project impacts and mitigation.

The applicant will prepare a technical study that provides detailed information on the lake and storm water system. This study will include information regarding proper maintenance procedures and schedules, system backups, operational procedures, etc.

### **BIOLOGICAL RESOURCES**

The applicant will comply with provisions of the San Joaquin County Multi-Species Habitat Conservation and Open Space Plan (SJMSCP) for conservation of Giant Garter Snake habitat as defined in Section 5.2.4.8(B).

6. Construction shall occur during the active period for the snake, between May 1 and October 1. Between October 2<sup>nd</sup> and April 30<sup>th</sup>, the JPA, with the concurrence of the Permitting Agencies' representatives on the TAC, shall determine if additional measures are necessary to minimize and avoid take.
7. Limit vegetation clearing within 200 feet of the banks of potential giant garter snake aquatic habitat to minimize area necessary.
8. Confine the movement of heavy equipment within 200 feet of the banks of potential giant garter snake aquatic habitat to existing roadways to minimize habitat disturbance.
9. Prior to ground disturbance, all on-site construction personnel shall be given instruction regarding the presence of SJMSCP Covered Species and the importance of avoiding impacts to these species and their habitats.
10. In areas where wetlands, irrigation ditches, marsh areas or other potential giant garter snake habitats are being retained on the site:

- Install temporary fencing at the edge of the construction areas and the adjacent wetland, marsh, or ditch;
  - Restrict working areas, spoils and equipment storage and other project activities to areas outside of marshes, wetlands and ditches; and
  - Maintain water quality and limit construction runoff into wetland areas through the use of hay bales, filter fences, vegetative buffer strips, or other accepted equivalents.
10. If on-site wetlands, irrigation ditches, marshes, etc. are being relocated in the vicinity: the newly created aquatic habitat shall be created and filled with water prior to dewatering and destroying the pre-existing aquatic habitat. In addition, non-predatory fish species that exist in the aquatic habitat and which are to be relocated shall be seined and transported to the new aquatic habitat as the old site is dewatered.
  11. If wetlands, irrigation ditches, marshes, etc. will not be relocated in the vicinity, then the aquatic habitat shall be dewatered at least two weeks prior to commencing construction.
  12. Pre-construction surveys for the giant garter snake (conducted after completion of environmental reviews and prior to ground disturbance) shall occur within 24 hours of ground disturbance.
  13. Other provisions of the USFWS Standard Avoidance and Minimization Measures during Construction Activities in Giant Garter Snake Habitat shall be implemented (excluding programmatic mitigation ratios which are superceded by the SJMSCP's mitigation ratios).

The project site provides suitable foraging habitat for Swainson's hawk. The SJMSCP only provides minimization measures for suitable nesting habitat, adherence to the SJMSCP is not required. The applicant will be required to pay fees to San Joaquin COG minimization programs to offset the cumulative loss of Swainson's hawk foraging habitat.

The project site also provides suitable habitat for burrowing owls. To lessen impacts to this species, the SJMSCP provides the following:

The presence of ground squirrels and squirrel burrows are attractive to burrowing owls. Burrowing owls may therefore be discouraged from entering or occupying construction areas by discouraging the presence of ground squirrels. To accomplish this, the Project Proponent should prevent ground squirrels from occupying the project site early in the planning process by employing one of the following practices:

3. The Project Proponent may plant new vegetation or retain existing vegetation entirely covering the site at a height of approximately 36" above the ground. Vegetation should be retained until construction begins. Vegetation will discourage both ground squirrel and owl use of the site.
4. Alternatively, if burrowing owls are not known or suspected on a project site and the areas is an unlikely occupation site for red-legged frogs, San Joaquin kit fox, or tiger salamander: The Project Proponent may disc or plow the entire project site to destroy any ground squirrel burrows. At the same time burrows are destroyed, ground squirrels should be removed through one of the following approved methods to prevent the reoccupation of the project site. Detailed descriptions of these methods are included in Appendix A, *Protecting*

*Endangered Species, Interim Measures for Use of Pesticides in San Joaquin County*, dated March, 2000: anticoagulants, zinc phosphide, fumigants, traps.

If the measures described above were not attempted or were attempted but failed, and burrowing owls are known to occupy the project site, then the following measures shall be implemented.

3. 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)
4. 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.

Adherence to the requirements of the SJMSCP will ensure a less than significant impact on Swainson's hawk, giant garter snake, and burrowing owl.

If necessary, fencing will be erected to exclude construction vehicles from entering riparian areas along Bishop Cut. Vegetation along the drainage canal should be removed prior to bird nesting season to exclude the opportunity for birds to utilize this habitat. Removal of this vegetation would result in the loss of wildlife habitat and may be subject to requirements set forth in the SJMSCP. The payment of fees should mitigate this impact. A Streambed Alteration Agreement may also be required.

#### **CULTURAL RESOURCES**

Any significant cultural sites shall be preserved and development shall avoid the resources. Provisions will be incorporated into the project design to protect any resources from public contact. During site construction, if deposits of historic resources are encountered, provisions should be made to halt construction activities until qualified personnel can evaluate the findings and make further recommendations.

#### **GEOLOGY AND SOILS**

Geologic professionals will be required to prepare detailed geotechnical reports to determine specific design requirements for development areas. The geotechnical reports will be conducted as part of the environmental review process and will be used to determine potential impacts in the Draft EIR.

Standard erosion control measures will be required to prevent erosion and sedimentation during construction. As a condition of the required NPDES permit, the applicant must prepare a Storm Water Pollution Prevention Plan (SWPPP).

#### **HAZARDS AND HAZARDOUS MATERIALS**

The SPCMP will be prepared prior to the commencement of any construction activities. The SPCMP will identify any and all hazardous materials that will be used or stored on site. The SPCMP will also identify any hazardous wastes that might be generated by the proposed project. The SPCMP will detail proper measures to handle and/or transport hazardous materials. The plan will also present procedures to contain or initiate cleanup of any spills. The phone number of the appropriate government agency will be contained on the plan in the event of any release of hazardous substances.

A Hazardous Waste Initial Site Assessment will be conducted that will include a government records search and visual site survey to determine the presence of hazardous materials/wastes and the potential to impact the project, if any.

### **HYDROLOGY AND WATER QUALITY**

The project applicant proposes to mitigate water quality and storm water discharge impacts by detaining a majority of storm water on-site, in the lake identified on the project plan. This will allow the applicant to detain peak storm water flows. The City revised its storm water requirements in November 2003 to comply with new state standards. The project applicant will be required to conform accordingly. All storm water discharges will be subject to NPDES permit requirements as set for by the RWQCB.

Storm drainage analysis or plans will be required to demonstrate that the runoff from the project can be adequately stored and treated within the lake. The analysis will also demonstrate that the network of pipes and swales will adequately convey storm drainage to the lake or require supplemental storm water elimination systems.

The project will comply with the applicable water quality and storm drainage discharge requirements of the City of Stockton Public Works Department, City of Stockton Department of Municipal Utilities, and Regional Water Quality Control Board—Central Valley Region. These requirements prohibit discharge of pollutants to the storm drain system leading to downstream violation of water quality standards. The applicant will also comply with new standards as set forth by the State and adopted by the City.

### **NOISE**

Additional noise studies will be required to determine the precise noise effects on specific sensitive receptors.

The applicant will be required to prepare a noise study to identify effects on specific sensitive receptors. Any mitigation measures provided within this study will be implemented by the applicant.

The applicant will be required to comply with City noise ordinances pertaining to construction activities, including limiting the hours of construction activities.

### **PUBLIC SERVICES**

The applicant will consult with the local police department regarding project components and impacts to law enforcement services. Any identified impacts should be mitigated by payment of development fees.

The applicant will be required to pay development impact fees to the school district to offset the cost for providing new facilities.

The applicant proposes to dedicate parkland area to the City to offset parkland requirements. Also, the applicant will be required to pay fees to the City in accordance with the project park dedication requirements to be applied to local (neighborhood and community) park improvements, and in accordance with the City's regional park land policies for providing regional park land area or equivalent fees.

The project applicant will be required to pay development impacts fees (as applicable) to reduce the burden on community library and other governmental services.

#### **TRANSPORTATION/TRAFFIC**

Traffic circulation will be specified in the Master Development Plan. Traffic mitigation measures will be listed in the conditions attached to the project's tentative subdivision map and the subsequent Subdivision Agreement between the developer and the City. These mitigation measures will be incorporated by reference into the Development Agreement. These mitigation measures may include payment of fair share fees to the City of Stockton towards roadway improvements.

#### **UTILITIES AND SERVICE SYSTEMS**

The applicant will be required to pay connection fees, as applicable at the time of approval, and capital improvement fees for water and wastewater service.

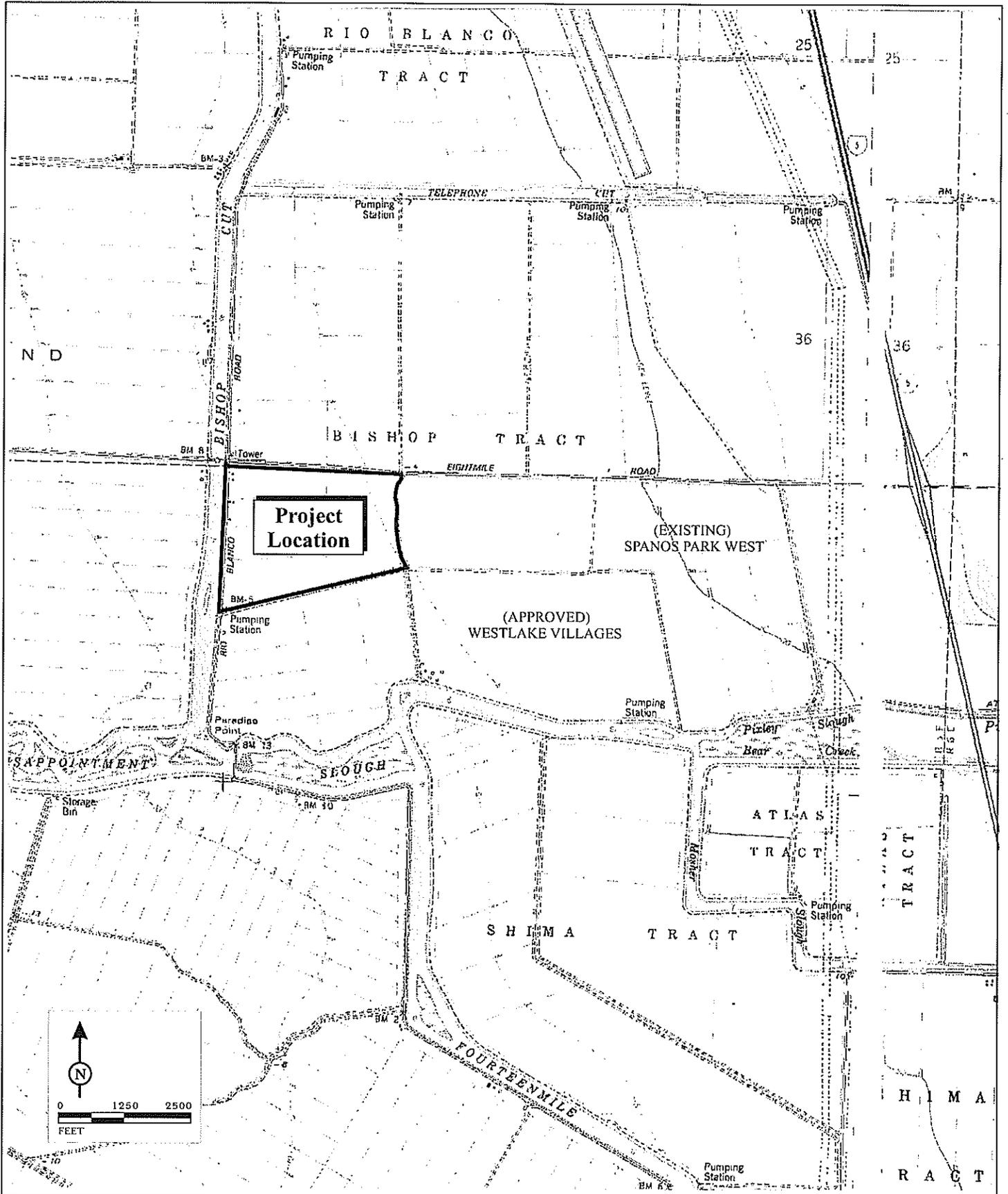
To facilitate green-waste recycling, the applicant shall provide composting facilities within the project boundaries. Specifications will be included in the Master Development Plan regarding the location, maintenance, and operation of these facilities.

#### **c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?**

The project may create substantial adverse effects on human beings.

#### **Supporting Documentation/References Cited:**

Jeff Bray, LSA biologist; applicant provided materials; 1990 City General Plan; Supplemental Final Environmental Impact Report, Spanos Park West, 2001; Westlake Villages Environmental Impact Report.



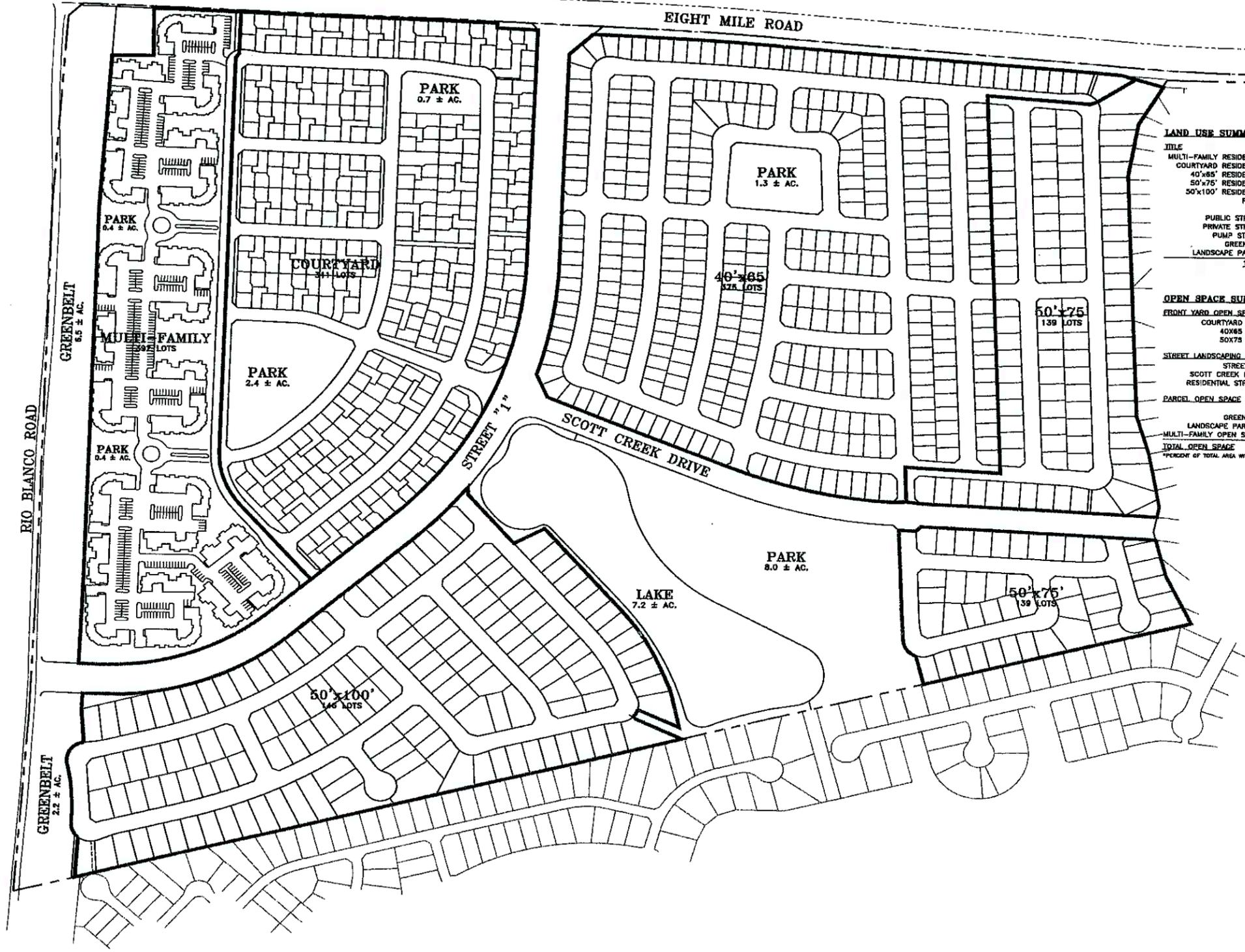
LSA

FIGURE I

BISHOP CUT

RIO BLANCO ROAD

EIGHT MILE ROAD



**LAND USE SUMMARY**

TITLE	ACREAGE	UNITS	PRIMARY USE
MULTI-FAMILY RESIDENTIAL	17.6 ± AC	392 UNITS	RESIDENTIAL
COURTYARD RESIDENTIAL	18.0 ± AC	311 UNITS	RESIDENTIAL
40'x85' RESIDENTIAL	22.2 ± AC	375 UNITS	RESIDENTIAL
50'x75' RESIDENTIAL	13.4 ± AC	139 UNITS	RESIDENTIAL
50'x100' RESIDENTIAL	19.1 ± AC	146 UNITS	RESIDENTIAL
LAKE	7.2 ± AC		OPEN SPACE/RECREATION
PUBLIC STREETS	35.7 ± AC		PUBLIC USE
PRIVATE STREETS	6.8 ± AC		PUBLIC USE
PUMP STATION	0.4 ± AC		PUBLIC FACILITIES
GREENBELT	8.7 ± AC		OPEN SPACE/RECREATION
LANDSCAPE PARCEL	11.4 ± AC		OPEN SPACE/RECREATION
<b>TOTAL</b>	<b>173.7 ± AC</b>	<b>1363 UNITS</b>	

**OPEN SPACE SUMMARY**

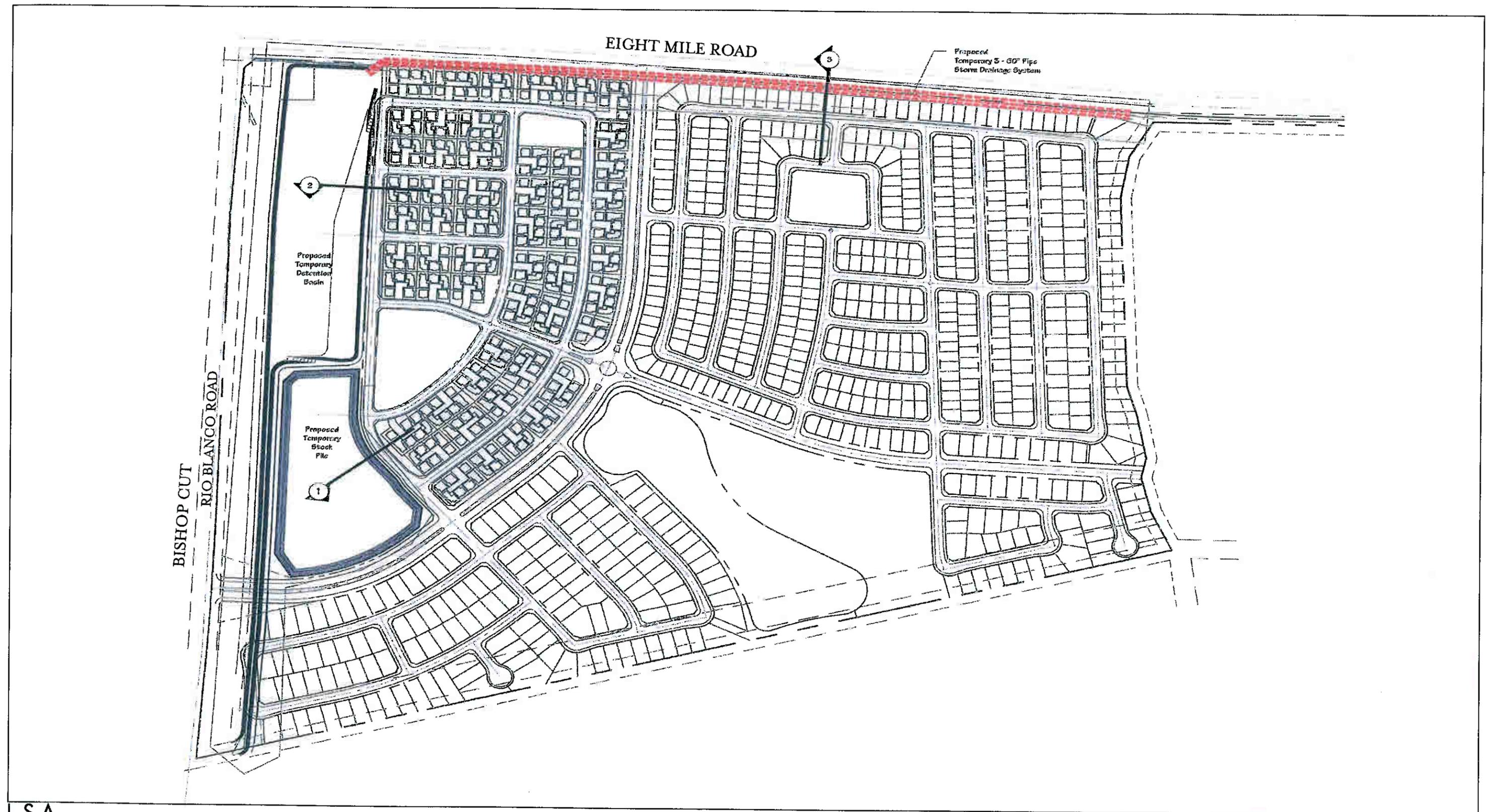
FRONT YARD OPEN SPACE	ACREAGE
COURTYARD LOTS	2.3 ± AC
40x85 LOTS	2.8 ± AC
50x75 LOTS	1.4 ± AC
STREET LANDSCAPING OPEN SPACE	
STREET "1"	0.9 ± AC
SCOTT CREEK DRIVE	1.3 ± AC
RESIDENTIAL STREETS	2.9 ± AC
PARCEL OPEN SPACE	
LAKE	7.2 ± AC
GREENBELT	8.7 ± AC
LANDSCAPE PARCELS	5.0 ± AC
MULTI-FAMILY OPEN SPACE	4.4 ± AC
<b>TOTAL OPEN SPACE</b>	<b>36.9 ± AC (21.2%)</b>

\*PERCENT OF TOTAL AREA WITH LOTS LESS THAN 8000 SF (146.0 AC)

LSA



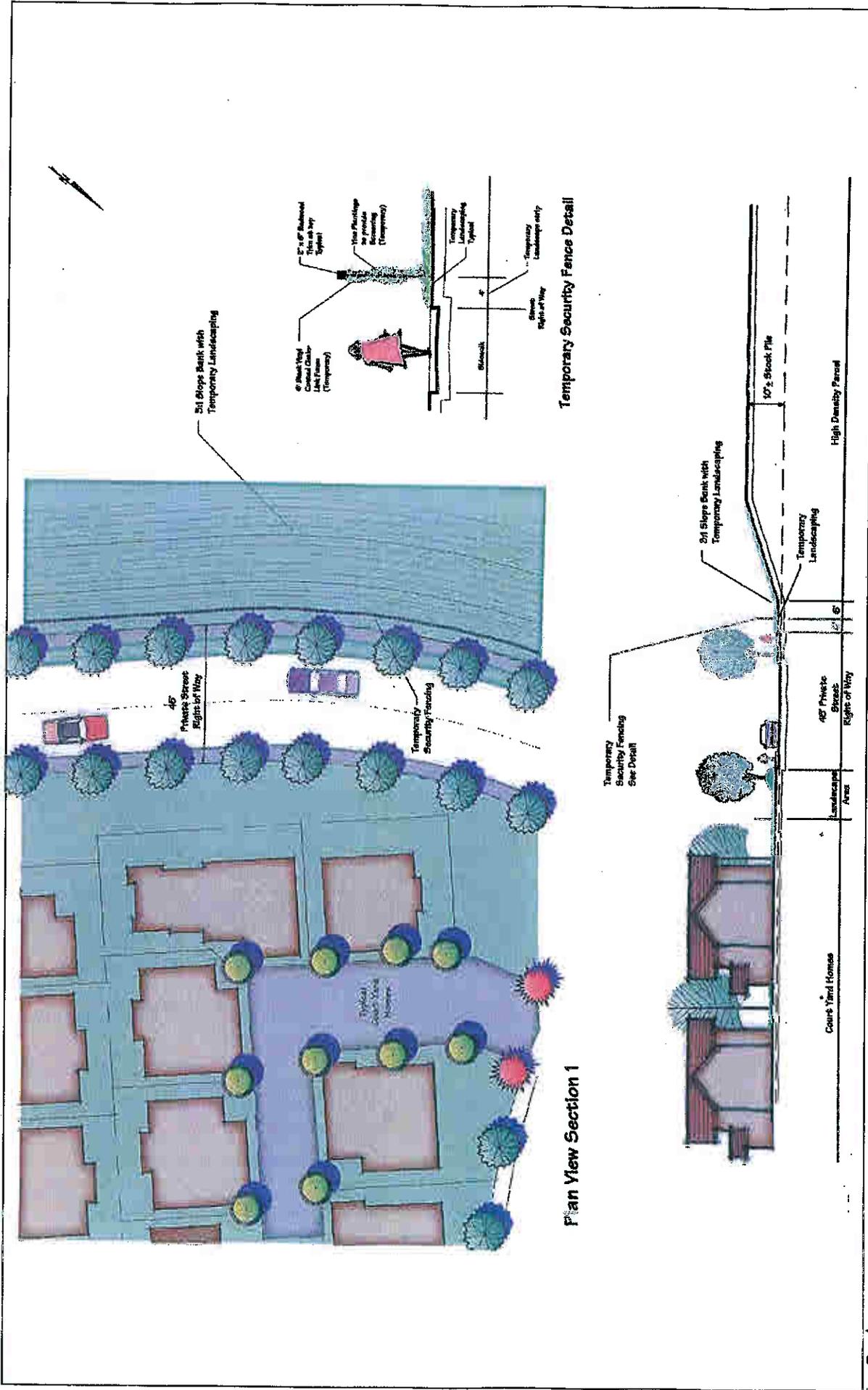
FIGURE 2



LSA



FIGURE 3



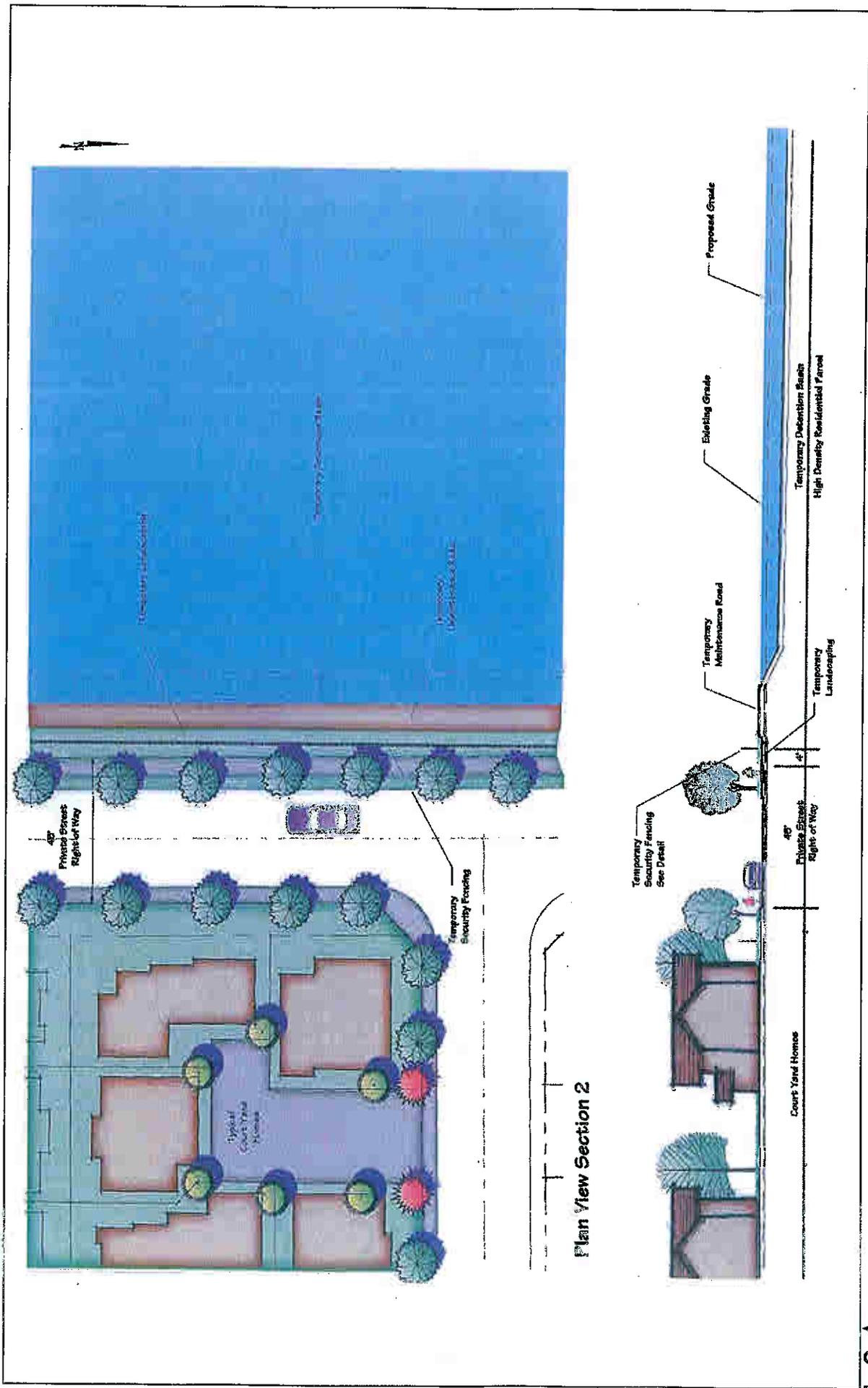
LSA

FIGURE 4

*Crystal Bay*  
 Interim Details of Stock Pile  
 (from interim detention basin)

SOURCE: Kimley-Horn and Associates, 2007

P:\AGS438\Graphics\Figure\_4.cdr (2/12/07)



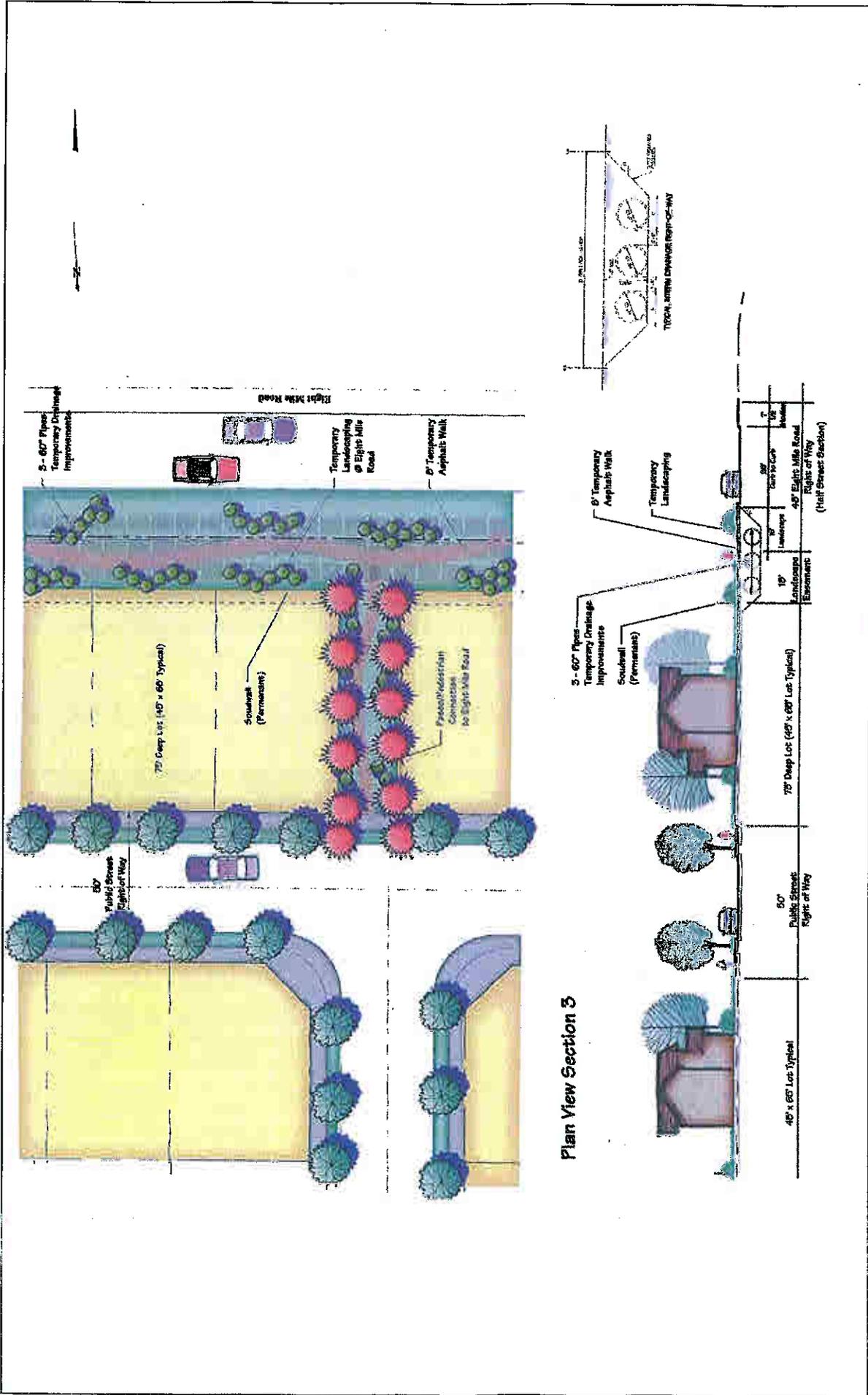
LSA

FIGURE 5

Crystal Bay  
 Details of Interim Detention Basin

SOURCE: Kimley-Horn and Associates, 2007

P:\AGS438\Graphics\Figure\_5.cdr (2/12/07)



LSA

FIGURE 6

Plan View Section 3

Crystal Bay  
 Details of Interim Drainage Conveyance

SOURCE: Kimley-Horn and Associates, 2007

P:\AGS438\Graphics\Figure\_6.cdr (2/12/07)