TO: **Planning Commission**

FROM: **Ed Gallagher, Community Development Director**

SUBJECT: **Planned Development (PD 13-005), Tentative Parcel Map (PR 13-0109), and Oak Tree Removal (OTR 13-008) for Marriott Residence Inn - Request for Continuance**

DATE: **April 8, 2014**

NEEDS: For the Planning Commission to consider a request to continue consideration of this project to the Planning Commission meeting of April 22, 2014.

FACTS:

1. At its meeting of March 25, 2014, the Planning Commission considered the above referenced entitlements for development of a 128-room hotel and associated uses at 121 Wilmar Place.

2. The Commission received a 9-page comment letter (not including lengthy exhibits) from Mr. Greg Sanders, an attorney representing an adjacent property owned by Quorum Realty Fund, on the afternoon of the Commission's meeting on March 25th.

3. Given the length and breadth of comments received on the day of the meeting, the Commission and staff did not have a reasonable opportunity to respond to the comments at the meeting. Therefore, the Commission continued consideration of this item until the meeting of April 8, 2014.

4. Mr. Sanders provided oral comments at the Commission's meeting on March 25, 2014. As noted in the minutes from this meeting, he indicated that his firm would not be submitting further comments on this project to the Commission. However, Mr. Saunders subsequently submitted an additional 7-page comment letter (plus exhibits) on March 31st.

5. City staff, including the City Attorney, needs adequate time to prepare responses to issues raised by Mr. Sanders. Therefore, it is requested that the Commission continue consideration of this item until April 22, 2014, to allow staff the time necessary to response to the two letters submitted by Mr. Sanders.

ANALYSIS & CONCLUSION: The Commission re-opened and continued the public hearing on March 25th to allow sufficient time for environmental review. On April 8th, the Commission may accept comments on any issue related to the project. It is suggested, however, that the Commission close the public hearing, postpone any discussion of issues and comments, and continue the matter until April 22, 2014. This will allow the City to have sufficient time to complete its responses to Mr. Sanders' two letters and any other comments that may be made on April 8th.

Policy Reference: City of Paso Robles 2003 General Plan Update and EIR, Economic Strategy, Zoning Ordinance, Gateway Design Standards, 2010 Urban Water Management Plan, 2007 Sewer Master Plan, CEQA.

Fiscal Impact: No fiscal impacts identified.

Options: After opening the public hearing and taking public testimony, the Planning Commission is requested to take one of the actions listed below:

a. Close the public hearing and continue discussion and consideration of this item to the Planning Commission meeting on April 22, 2014.

b. Amend, modify, or reject the above-listed action.

Attachments:

1 – Comment letters from Mr. Sanders

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Refer To File #: 290324-0001

VIA FEDERAL EXPRESS

March 24, 2014

Chairman Vince Vanderlip
City of Paso Robles Planning Commission
1000 Spring Street
Paso Robles, CA 93446

Re: Comments on Initial Study and Draft Mitigated Negative Declaration for the Marriott Residence Inn Proposed at 121 Wilmar Place (PD 13-005) (PR 13-0109) (OTR 13-008)

Dear Chairman Vanderlip and Commissioners,

On behalf of Quorum Realty Fund III, LLC, we are submitting the following comments on the Initial Study and draft Mitigated Negative Declaration ("Draft MND") circulated for public comment by the City of Paso Robles ("City") regarding the Marriott Residence Inn proposed to be constructed at 121 Wilmar Place, Paso Robles, California ("Project"). For the reasons set forth below, the Draft MND fails to comply with the California Environmental Quality Act ("CEQA"),[1] the CEQA Guidelines,[2] the City's Zoning Code,[3] and the General Plan. Because the Draft MND is legally insufficient, and because the Project is inconsistent with the governing planning documents, the Draft MND and the Project cannot be approved by the City. Moreover, because substantial evidence demonstrates that the mitigation measures may not reduce all impacts of the Project to a level of insignificance -- particularly with respect to aesthetics, transportation/traffic, noise, biology, and hydrology/water quality -- an Environmental Impact Report ("EIR") must be prepared for the Project.

1. AN EIR MUST BE PREPARED FOR THE PROJECT.

Because of the importance of an EIR to the environmental review process, the legislature has established a low threshold for requiring preparation of an EIR: the "fair argument standard." (*Citizen Action to Serve All Students v. Thornley* (1990) 222 Cal.App.3d 748, 754.) An EIR is required where there is substantial evidence in the record supporting a fair argument that significant impacts may occur. Even if there is other substantial evidence in the record to support the opposite conclusion, the agency nevertheless must prepare an EIR. (*No Oil, Inc. v. City of Los Angeles* (1974) 13 Cal.3d 68, 75.) A Negative Declaration may be used only if there is no substantial evidence in light of the whole record before the lead agency that a significant effect on the environment may result from the development of the project. (Pub.

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1 Public Resources Code, section 21000 et seq.
2 California Code of Regulations, title 14, section 15000 et seq.
3 City of Paso Robles Municipal Code, title 21.

Resources Code, § 21080, subd. (c).) Similarly, adoption of a Mitigated Negative Declaration is not appropriate unless the evidence in the record conclusively demonstrates that mitigation measures, adopted and monitored through enforceable means, will reduce all impacts to a level of insignificance. (*San Bernardino Valley Audubon Soc'y v. Metropolitan Water Dist.* (1999) 71 Cal.4th 382, 391.) If there is substantial evidence that the mitigation measures may not reduce all impacts to a level of insignificance, an EIR must be prepared. In this case, because substantial evidence demonstrates that the mitigation measures may not reduce all impacts of the Project to a level of insignificance -- particularly with respect to aesthetics, transportation/traffic, noise, biology, and hydrology/water quality -- an EIR must be prepared for the Project.

2. THE DRAFT MND MUST BE RECIRCULATED BECAUSE IT FAILED TO PROVIDE THE PUBLIC WITH MEANINGFUL OPPORTUNITY TO COMMENT ON THE PROJECT'S POTENTIAL ENVIRONMENTAL EFFECTS.

Under California law, the public must be given a meaningful opportunity to comment on environmental documents prepared pursuant to CEQA. (*Laurel Heights Improvement Ass'n v. Regents of Univ. of Cal.* (1993) 6 Cal.4th 1112, 1120 [recirculation of environmental document required when the document "deprives the public of meaningful opportunity to comment"]; accord *Silverado Modjeska Recreation and Parks Dist. v. County of Orange* (2011) 197 Cal.App.4th 282.)

Recirculation is required in this case because the Draft MND failed to provide the public with a meaningful opportunity to comment on the Project's potential effects on traffic. In its Transportation/Traffic discussion, the Draft MND relies on a Traffic Impact Study (Attachment 12 of the Draft MND). However, the Draft MND failed to include four pages of the Traffic Impact Study, including the pages identifying the sources upon which the report relies. By omitting these essential portions of the Traffic Impact Study, the circulated Draft MND failed to give the public any meaningful opportunity to review and comment on the various sources, and thereby the traffic impacts related to the Project. Accordingly, at a minimum, recirculation of the Draft MND with the entire Traffic Impact Study, for the entire statutory period, is required in order to comply with the legal mandates of CEQA. (See Pub. Resources Code, § 21003, subd. (b) [documents prepared pursuant to CEQA must be "organized and written in a manner that will be meaningful and useful to decisionmakers and to the public"].)

3. THE DRAFT MND VIOLATES CEQA BECAUSE IT FAILS TO PROVIDE AN ADEQUATE PROJECT DESCRIPTION.

Before a local government can ascertain that all impacts are "insignificant," it must have an understanding of the current environmental setting at the site (the "environmental baseline"), the proposed project, and the impacts of the proposed project. Further, all of this must be described in the environmental document in order to comply with CEQA. In this case, however, the Draft MND fails to, among other things, provide an adequate description of the Project and a factually accurate description of the current environmental setting. As such, the Draft MND fails to discuss or analyze the actual impacts of the Project.

For example, while the Draft MND states on page 5 that "[t]he proposed project includes a four-story hotel building and ancillary site improvements," it fails to identify the Project's

square footage, the number of rooms that are being proposed, or identify the "ancillary site improvements." Moreover, the Project assumes, but does not discuss or analyze, the realignment of Vine Street onto a neighboring property. Thus, without an adequate project description, it is impossible to gauge the impacts associated with the Project, or the validity of the mitigation measures. Accordingly, the Draft MND fails to satisfy the informational requirement established by CEQA.

4. THE DRAFT MND VIOLATES CEQA BECAUSE IT FAILS TO ADEQUATELY ANALYZE THE POTENTIAL EFFECTS OF THE PROJECT ON TRANSPORTATION/TRAFFIC.

The City and Caltrans have entered into an agreement with respect to certain transportation infrastructure improvements. This agreement was the consequence of a Project Study Report ("PSR") which has been approved both Caltrans and the City. The PSR identifies four alternatives, all of which involve the realignment of Vine Street through the Project proponent's property. As such, and as previously acknowledged by the City, "[t]he geometrics of the PSR must be considered with any application involved property within its study area." (City of Paso Robles, Planning Division Initial Study for The Inns at Vintners Village Development Project, attached hereto as Exhibit 1, p. 10.) However, there is no discussion of the PSR in the "Transportation/Traffic" section of the Draft MND. Moreover, there is no acknowledgement that, as set forth in the PSR, all of the identified alternatives for the realignment of Vine Street pass through the Project proponent's property. Accordingly, as the Draft MND fails to discuss or analyze the Project's obligations with respect to the PSR, or the impacts associated with realignment of Vine Street though the applicant's property, the Draft MND fails to satisfy the requirements of CEQA.

5. THE DRAFT MND VIOLATES CEQA BECAUSE IT FAILS TO ADEQUATELY ANALYZE THE POTENTIAL EFFECTS OF THE PROJECT ON THE CITY'S WATER SUPPLY.

Although the Draft MND states that the Project's water impacts are "less than significant," substantial evidence demonstrates that the Project may have a significant, unavoidable impact on the City's water supply. The City relies on water from the Paso Robles Groundwater Basin ("Basin"), whose water supply has steadily been diminishing since 1997. (See Map of Diminishing Supplies in the Basin from 1997-2013, attached hereto as Exhibit 2.) The San Luis Obispo County Board of Supervisors has declared the Basin to be at a "Level of Severity III," meaning that demand for Basin water has met the amount of water available. (See "Resource Capacity Study: Water Supply in the Paso Robles Groundwater Basin," San Luis Obispo Board of Supervisors, Feb. 2011, attached hereto as Exhibit 3.) Moreover, the state of Basin's water supply has likely been exacerbated given that California is currently experiencing a drought so severe that the Governor has declared a State of Emergency. (See Press Release, Governor Brown Declares Drought State of Emergency (Jan. 17, 2014), available at http://gov.ca.gov/news.php?id=18368.) The Draft MND, however, fails to acknowledge or discuss any of these facts.

California law requires CEQA documents to extensively analyze the impacts that a proposed development project may have on groundwater levels. (See *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99.) The Draft MND

does not analyze the effects that the Project will have on the ***existing*** water supply in the Basin. Instead, it states that "there is sufficient municipal water supply to accommodate development of this property" based on the City's ***2010*** Groundwater Master Plan. As such, it does not address potential effects the Project may have on the City's existing water supply given the current drought and rapid water depletion that is expected to occur in the future (see Table 16, "Paso Robles Groundwater Basin Water Balance Review and Update," Fugro West, Inc., Mar. 2010, attached hereto as Exhibit 4), nor does it say how the Project will comply with the Groundwater Master Plan. Because the Draft MND fails to provide any substantive analysis of the possible effects the Project may have on the City's existing and future water supply, the Draft MND is in violation of CEQA. (See *Leonoff v. Monterey County Bd. of Supervisors* (1990) 222 Cal.App.3d 1337, 1346 [CEQA documents that provide "mere conclusions about potential environmental effects" are legally insufficient].)

Moreover, because the substantial evidence discussed above demonstrate that the mitigation measures may not reduce all impacts to a level of insignificance, an EIR must be prepared. (*San Bernardino Valley Audubon Soc'y v. Metropolitan Water Dist.*, *supra*, 71 Cal.4th at p. 391.)

6. THE DRAFT MND VIOLATES THE CITY'S ZONING CODE AND CEQA BECAUSE IT FAILS TO ADEQUATELY ANALYZE THE POTENTIAL AESTHETIC EFFECTS OF THE PROJECT.

The City's Zoning Code establishes planned development districts, within which maximum building heights for development projects are set. A project may exceed the building height maximum within its district only if the city council determines that such exceedance would result in a "better design" or "greater public benefit" after having given "due consideration" to six specific characteristics of the project. (Paso Robles Municipal Code § 21.16A.010.) Specifically, the City Council is required to examine: (1) the proportion, scale and nature of the project; (2) the visual quality and aesthetics of the project; (3) the design of the project; (4) the project's compatibility with the established character of surrounding development; (5) the project's ability to not create an adverse visual impact or otherwise have a negative effect on public views from nearby roads and other public vantage points; and (6) the project's risk to fire life-safety when considering building safety features and emergency response capabilities. (Paso Robles Municipal Code § 21.16A.010(i).)

The Project is located in planned development district C2, which has a maximum building height of 50 feet. The Project is designed to exceed this maximum, with most of the Project built up to 53 feet and some architectural features built up to 60 and 66 feet above ground level. While the Draft MND states that the additional height will result in a "better project," it fails to discuss or analyze the six characteristics required to be examined under the Zoning Code before such a determination may be made. Instead, the draft MND merely states that "[s]ome of the building massing and height is mitigated through the setbacks, as well as through foundation, perimeter, and parking lot landscaping." Such a perfunctory analysis falls well below the analysis required by the City's Zoning Code. Moreover, by glossing over potential aesthetic effects that the Project's excessive height may have, the Draft MND is in violation of CEQA. (See *North Coast Rivers Alliance v. Marin Municipal Water District Board of Directors* (2013) 216 Cal.App.4th 614, 627 [factual evidence must be provided to support the conclusion that aesthetic effects will be less than significant].)

7. THE DRAFT MND VIOLATES CEQA AND CANNOT BE APPROVED BECAUSE THE PROJECT IS INCOMPATIBLE WITH THE STANDARDS OF THE CITY'S GENERAL PLAN.

The Project is incompatible with the City of Paso Robles' General Plan. "Under state law, the propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements." (*Resource Defense Fund v. County of Santa Cruz* (1982) 133 Cal.App.3d 800, 806.) It is an abuse of discretion to approve a project that "frustrate[s] the General Plan's goals and policies." (*Napa Citizens for Honest Gov't v. Napa County* (2001) 91 Cal.App.4th 342, 379.) The project need not present an "outright conflict" with a general plan provision to be considered inconsistent; the determining question is instead whether the project "is compatible with and will not frustrate the General Plan's goals and policies." (*Id.* at p. 379.) In this case, the Project presents an outright conflict.

The question of consistency between the project and the applicable plans and ordinances plays two distinct roles in the environmental and project approval process. First, under CEQA, a conflict between a plan or ordinance and the project is a significant impact that must be disclosed and analyzed in the environmental document. (See *Pocket Protectors v. City of Sacramento* (2005) 124 Cal.App.4th 903, 929-936.) Second, under separate provisions of state law, the project may not be approved in the face of such an inconsistency. (See *Citizens of Goleta Valley v. Board of Supervisors* (1990) 52 Cal.3d 553, 570; *Neighborhood Action Group v. County of Calaveras* (1984) 156 Cal.App.3d 1176, 1184.)

In this case, the Draft MND states on page 2 that "[s]ince the applicant has adequate access from South Vine Street to serve the project and does not need access from the road realignment, the applicant is not required [to] dedicate right-of-way for the potential future realignment through his property." However, this statement fails to acknowledge the fact that the realignment is required in part because of the impacts associated with the Project. Moreover, by failing to require this dedication, and thereby mitigate for the Project's cumulative impacts, the Project is inconsistent with the City's General Plan. As concluded in the project proponent's traffic study, "the Marriott Residence Inn ***Project would contribute to a significant cumulative impact*** at the SR 46W/U.S. 101 SB-SR 46 W/Vine Street intersections. ***Realignment of Vine Street would be required to mitigate this impact*** (see Mitigation Measures section of report)." (Traffic Impact Study (Attachment 12 of the Draft MND) at p. 18, emphasis added.) Thus, realignment is required in order to mitigate for the Project's cumulative impacts.

Moreover, this conclusion is consistent with the City's longstanding position that:

> The requirement for the dedication for the public right-of-way for the extension of Vine Street westerly through the subject property is in accordance with Municipal Code Section 11.12.0301, which has been established in order to protect the public health, safety and welfare, and the ***requirement for this dedication is not only necessary to provide orderly development of this area of the City, but is also in direct proportion to the impacts that will be created*** by the 138 room hotel project that will be added to this area of the City which is already impacted.

(City of Paso Robles City Council Resolution No. 05-232, attached hereto as Exhibit 5, emphasis added; see also City of Paso Robles Planning Commission Resolution No. 05-087, attached hereto as Exhibit 6 ["The requirement for the dedication for the public right-of-way for the extension of Vine Street westerly through the subject property is in accordance with Municipal Code Section 11.12.030I. The requirement for this ***dedication is in direct proportion to the impacts that will be created*** by the 138 room hotel project that will be added to this are of the City which is already impacted."], emphasis added.)

Moreover, as set forth in the Circulation Element of the City's General Plan,[4] the City must "[p]reserve right-of-way in accordance with the Circulation Master Plan and all adopted Plan Lines." (City of Paso Robles Circulation Element (2011) at p. CE-1, Policy CE-1A [Action Item 3].) And, the City's Circulation Master Plan identifies a proposed 2 lane undivided arterial running through the Project applicant's property. (See City of Paso Robles Circulation Element, at p. CE-7 [Circulation Master Pan Map].) Thus, the City's failure to require dedication of the proposed right-of-way is inconsistent with the General Plan.

Accordingly, the Project not only fails to disclose and discuss a significant Project impact, it also fails to adequately mitigate for the significant transportation/traffic impact. Therefore, a valid approval of the Project is impossible.

8. THE DRAFT MND VIOLATES CEQA BECAUSE THE IT FAILS TO ADEQUATELY ANALYZE THE SECONDARY ENVIRONMENTAL EFFECTS OF THE PROJECT.

A CEQA document is required to evaluate the secondary environmental effects of a project – to include the environmental effects of mitigation measures incorporated therein. Here, the Draft MND anticipates a realignment of South Vine Street through an adjacent property. As a result, the affected property owner will be subject to a variety of impacts (noise impacts, biological impacts, aesthetic impacts, etc.), none of which are analyzed or discussed in the Draft MND. The failure to discuss and analyze these impacts is a clear violation of CEQA. (See CEQA Guideline, § 15126.4; *Save Our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99.)

9. THE DRAFT MND VIOLATES CEQA BECAUSE IT RELIES ON LEGALLY INSUFFICIENT MITIGATION MEASURES.

The Traffic Study Report relied on in the Draft MND concludes that the Project will have significant effects on traffic circulation at the intersection of South Vine Street and U.S. 101/State Route 46. (See Table 10, "Traffic Impact Study".) These significant effects are proposed to be mitigated by a realignment of Vine Street to the West through an adjacent property owner's parcel. This mitigation measure, however, does not meet the standards for a mitigation measure under CEQA. There are six requirements for a mitigation measure to be legally sufficient under CEQA:

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[4] The City's Circulation Element is available at http://www.prcity.com/government/departments/commdev/planning/pdf/general-plan-2003/CirculationElement.pdf.

(1) the measure must be feasible (CEQA Guideline, § 15126.4(a)(1));

(2) the measure must be fully enforceable (CEQA Guideline, § 15126.4(a)(2));

(3) the measure must be consistent with all applicable constitutional requirements (CEQA Guideline, § 15126.4(a)(4));

(4) the measure must be effective, and there must be evidence in the record showing that the measure will be effective (*Gray v. County of Madera* (2008) 167 Cal.App.4th 1099);

(5) the measure must be specific, not vague, incomplete, untested, remote, or speculative (*Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th1252); and

(6) formulation of the mitigation measure should not be deferred until some future time (CEQA Guideline, § 15126.4(a)(1)(B)).

The proposed realignment of Vine Street onto the adjacent property fails to meet these requirements. The Draft MND provides no analysis of whether it is feasible to realign Vine Street onto the adjacent property owner's parcel or whether such realignment can be enforced. In addition to lacking feasibility and enforceability, the suggested realignment likely does not comply with the constitutional limitations of nexus and rough proportionality. (*Nollan v. California Coastal Commission* (1987) 483 U.S. 825; *Dolan v. City of Tigard* (1994) 512 U.S. 374.) The Draft MND does not discuss any of these potential problems.

Because the proposed mitigation measure is not valid, the Project has a significant impact on traffic, and the Draft MND cannot be approved. (Pub. Resources Code, § 21100 [an environmental impact report must be prepared for any project that may have a significant effect on the environment].)

10. THE DRAFT MND DOES NOT ACCOUNT FOR THE INCREASED POTENTIAL FOR TRAFFIC ACCIDENTS AT THE INTERSECTION OF WILMAR PLACE, SOUTH VINE STREET AND U.S. 101/STATE ROUTE 46.

The draft MND fails to adequately analyze the increased potential for vehicle accidents and human injury that may occur as a result of the increased traffic at the intersection of Wilmar Place, South Vine Street, and U.S. 101/State Route 46 West. This intersection has visibility issues due to a hill that ascends along South Vine Street, to reach a peak of 770 feet. The Wilmar Place turn-off from Vine Street, where cars will come and go from the Project's location, is near the peak of this hill. Vehicles that reach the top of the hill and begin to descend at high speeds may not have adequate time to brake for a vehicle that is stopped and waiting to turn left onto Wilmar from Vine. Likewise, vehicles descending the hill may not have adequate time to break for vehicles turning left from Wilmar onto Vine. The Traffic Impact Study relied on in the Draft MND does not assess this potential indirect effect of the Project, and therefore fails to comply with CEQA. (CEQA Guideline, § 15126.2 ["Direct and indirect significant effects of the project on the environment shall be clearly identified and described"].)

11. THE DRAFT MND VIOLATES CEQA BECAUSE THE IT FAILS TO ADEQUATELY ANALYZE CUMULATIVE EFFECTS.

CEQA requires a mandatory finding of significance and an EIR if a "project has possible environmental effects that are individually limited but cumulatively considerable. Cumulatively considerable means that the incremental effects of past projects, the effects of other current projects, and the effects of probable future projects." (CEQA Guideline, § 15065; Pub. Resources Code, § 21083; *San Joaquin Raptor/Wildlife Rescue Ctr. v. County of Stanislaus* (1996) 42 Cal.App.4th 608, 622.) In assessing cumulative effects, the lead agency must consider two questions: whether the cumulative impact of all related projects is significant, and whether the impacts of the specific project are cumulatively considerable. (Pub. Resources Code, § 21083; CEQA Guideline, § 15064.) If substantial evidence in the record shows that a specific project is cumulatively considerable notwithstanding compliance with the mitigation program that is imposed to address the cumulative problem, an EIR must be prepared. (*Communities for a Better Environment v. California Resources Agency* (2002) 103 Cal.App.4th 98, 115.)

In this case, however, there is no discussion or analysis of other current projects or probable future projects. Thus, there is no substantive discussion or analysis of cumulative impacts. As a result, the Draft MND fails to comply with the requirements of CEQA. This failure is particularly glaring given the unprecedented water shortage facing not only the City of Paso Robles, but the entire State of California.

12. THE DRAFT MND VIOLATES CEQA BECAUSE THERE IS NO MITIGATION REPORTING AND MONITORING PROGRAM.

Agencies adopting MNDs must take affirmative steps to ensure that approved mitigation measures are in fact implemented subsequent to project approval. An agency does this by adopting a "reporting or monitoring program" for any mitigation measures incorporated into a project or imposed as conditions of approval. (Pub. Resources Code, § 21081.6; CEQA Guideline, § 15074.) In violation of CEQA, the Draft MND does not contain any mechanism for ensuring that mitigation measures identified in the document are actually implemented. Accordingly, at a minimum, the City must amend the Draft MND and draft a document that includes mandatory mitigation measures and identifies the regulatory mechanisms by which such measures will be enforced. (*Federation of Hillside and Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [agency must take steps to ensure mitigation measures "are fully enforceable through permit conditions, agreements, or other measures."]; Pub. Resources Code, § 21081.6.)

For the foregoing reasons, we respectfully submit that the Planning Commission and City Council cannot lawfully approve the Project or the Draft MND. Furthermore, we urge the Planning Commission to take no further action on the Project until, in accordance with CEQA, the City prepares an EIR for the Project, and the Project is modified so that it conforms with the requirements established by the City's Code and General Plan.

Sincerely,

Gregory W. Sanders
of Nossaman LLP

GWS/BZR

EXHIBIT 1

CITY OF PASO ROBLES – PLANNING DIVISION
INITIAL STUDY

1. GENERAL PROJECT INFORMATION

PROJECT TITLE:	**The Inns at Vintners Village Development Project (PD 05-010 & Conditional Use Permit 05-006)**
LEAD AGENCY:	City of Paso Robles - 1000 Spring Street, Paso Robles, CA 93446
Contact:	Darren Nash, Associate Planner
Telephone:	(805) 237-3970
PROJECT LOCATION:	In the vicinity of the northwest corner of Hwy 101 and Hwy 46 West (APN: 009-631-011)
PROJECT PROPONENT:	Applicant: CENCO Investment, LLC / Alexander Samardzich 800 Pollard Road, Suite 36 – Bldg. C Los Gatos, CA 95032
LEAD AGENCY CONTACT/ INITIAL STUDY PREPARED BY:	Darren Nash, Associate Planner
Telephone:	(805) 237-3970
Facsimile:	(805) 237-3904
E-Mail:	dnash@prcity.com
GENERAL PLAN DESIGNATION:	RC (Regional Commercial)
ZONING:	C2P-D (Highway Commercial, Planned-Development)

2. PROJECT DESCRIPTION

The proposed project is to construct a 118-unit hotel and 20 bungalow units, totaling 138 units. The project is Phase I of a multiple phase master plan. This environmental review is studying only Phase I, any additional phases will need to undergo a separate environmental review.

The 138 room hotel project will consist of the construction of the 69,225 square foot hotel and 5 bungalow buildings totaling 12,450 square feet (each bungalow building contains four units). Accessory to the hotel and bungalows will be a 166 space parking lot, landscaping improvements and associated infrastructure.

There are 131 oak trees located on the site which the project has been designed around. There will be some impacts to a few of the trees from the construction of the project, but with the mitigation measures outlined in the Arborist Report, there should not be a significant impact.

3. **OTHER AGENCIES WHOSE APPROVAL MAY BE REQUIRED (For example, issuance of permits, financing approval, or participation agreement)**:

- Agreement for Interim Traffic Mitigation Measures
- Agreement to Participate in Formation of an Assessment District for Highway Interchange Improvements at Hwys. 101 and 46 West.

4. **EARLIER ENVIRONMENTAL ANALYSIS AND RELATED ENVIRONMENTAL DOCUMENTATION:**

This Initial Study incorporates by reference the City of El Paso de Robles General Plan Environmental Impact Report (EIR) (SCH#2003011123).

5. **CONTEXT OF ENVIRONMENTAL ANALYSIS FOR THE PROJECT:**

This Initial Study relies on expert opinion supported by the facts, technical studies, and technical appendices of the City of El Paso de Robles General Plan EIR. These documents are incorporated herein by reference. They provide substantial evidence to document the basis upon which the City has arrived at its environmental determination regarding various resources.

6. **PURPOSES OF AN INITIAL STUDY**

The purposes of an Initial Study for a Development Project Application are:

A. To provide the City with sufficient information and analysis to use as the basis for deciding whether to prepare an Environmental Impact Report, a Mitigated Negative Declaration, or a Negative Declaration for a site specific development project proposal;

B. To enable the Applicant of a site specific development project proposal or the City as the lead agency to modify a project, mitigating adverse impacts before an Environmental Impact Report is required to be prepared, thereby enabling the proposed Project to qualify for issuance of a Negative Declaration or a Mitigated Negative Declaration;

C. To facilitate environmental assessment early in the design of a project;

D. To eliminate unnecessary EIRs;

E. To explain the reasons for determining that potentially significant effects would not be significant;

F. To determine if a previously prepared EIR could be used for the project;

G. To assist in the preparation of an Environmental Impact Report if one is required; and

H. To provide documentation of the factual basis for the finding of no significant effect as set forth in a Negative Declaration or a Mitigated Negative Declaration prepared for the a project.

7. **EXPLANATION OF ANSWERS FOUND ON THE ENVIRONMENTAL CHECKLIST FORM**

A. Scope of Environmental Review

This Initial Study evaluates potential impacts identified in the following checklist. Potential environmental impacts identified can be mitigated to a less than significant level. A project specific traffic study was also

conducted and is attached to this document in Exhibit B. The project is consistent with the applicable development standards of the M P-D zoning district and BP land use designation.

B. Evaluation of Environmental Impacts

1. A brief explanation is required for all answers to the questions presented on the following Environmental Checklist Form, except where the answer is that the proposed project will have "No Impact." The "No Impact" answers are to be adequately supported by the information sources cited in the parentheses following each question or as otherwise explained in the introductory remarks. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to the project. A "No Impact" answer should be explained where it is based on project-specific factors and/or general standards. The basis for the "No Impact" answers on the following Environmental Checklist Form is explained in further detail in this Initial Study in Section 9 (Earlier Environmental Analysis and Related Environmental Documentation) and Section 10 (Context of Environmental Analysis for the Project).

2. All answers on the following Environmental Checklist Form must take into account the whole action involved with the project, including implementation. Answers should address off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3. "Potentially Significant Impact" is appropriate, if an effect is significant or potentially significant, or if the lead agency lacks information to make a finding of insignificance. If there are one or more "Potentially Significant Impact" entries when the determination is made, preparation of an Environmental Impact Report is warranted.

4. Potentially Significant Impact Unless Mitigated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level. Mitigation Measures from Section 9 (Earlier Environmental Analysis and Related Environmental Documentation) may be cross-referenced).

5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). See Section 4 (Earlier Environmental Analysis and Related Environmental Documentation) and Section 11 (Earlier Analysis and Background Materials) of this Initial Study.

6. References to the information sources for potential impacts (e.g., general plans, zoning ordinances) have been incorporated into the Environmental Checklist Form. See Section 11 (Earlier Analysis and Related Environmental Documentation). Other sources used or individuals contacted are cited where appropriate.

7. The following Environmental Checklist Form generally is the same as the one contained in Title 14, California Code of Regulations; with some modifications to reflect the City's needs and requirements.

8. Standard Conditions of Approval: The City imposes standard conditions of approval on Projects. These conditions are considered to be components of and/or modifications to the Project and some reduce or minimize environmental impacts to a level of insignificance. Because they are considered part of the Project, they have not been identified as mitigation measures. For the readers' information, the standard conditions identified in this Initial Study are available for review at the Community Development Department.

9. Certification Statement: The statements made in this Initial Study and those made in the documents referenced herein present the data and information that are required to satisfy the provisions of the California Environmental Quality Act (CEQA) – Statutes and Guidelines, as well as the City's Procedures for Implementing CEQA. Further, the facts, statements, information, and analysis presented are true and correct in accordance with standard business practices of qualified professionals with expertise in the development review process, including building, planning, and engineering.

8. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The proposed project may potentially affect the environmental factors checked below, and may involve at least one impact that is a "Potentially Significant Impact" or is "Potentially Significant Unless Mitigated," if so indicated on the following Environmental Checklist Form (Pages 8 to.15)

☐ Land Use & Planning	☑ Transportation/Circulation	☐ Public Services
☐ Population & Housing	☑ Biological Resources	☐ Utilities & Service Systems
☐ Geological Problems	☐ Energy & Mineral Resources	☐ Aesthetics
☐ Water	☐ Hazards	☐ Cultural Resources
☑ Air Quality	☐ Noise	☐ Recreation
	☐ Mandatory Findings of Significance	

9. ENVIRONMENTAL DETERMINATION: On the basis of this initial evaluation: I find that:

The proposed project could not have a significant effect on the environment; and, therefore, a **NEGATIVE DECLARATION** will be prepared. ☐

Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because the mitigation measures described on an attached sheet have been added to the project. Therefore, a **MITIGATED NEGATIVE DECLARATION** will be prepared. ☑

The proposed project may have a significant effect on the environment; and, therefore an **ENVIRONMENTAL IMPACT REPORT** is required. ☐

The proposed project may have a significant effect(s) on the environment, but one or more effects (1) have been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) have been addressed by mitigation measures based on the earlier analysis as described on attached sheets, if the effect is a "potentially significant impact" or is "potentially significant unless mitigated." ☐

Therefore, an **ENVIRONMENTAL IMPACT REPORT** is required, but it will analyze only the effect or effects that remain to be addressed.

Signature: Date:

August 19, 2005

Darren Nash, Associate Planner

10 Environmental Checklist Form

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

I. LAND USE AND PLANNING. Would the Proposal:

a) Conflict with general plan designation or zoning? (Sources: 1 & 8) ☐ ☐ ☐ ☑

Discussion: The proposed project is consistent with the C2 P-D Zoning District and RC land use designation in the General Plan Land Use Element, and they are permitted uses in compliance with all applicable development standards.

b) Conflict with applicable environmental plans or policies adopted by agencies with jurisdiction over the project? (Sources: 1 & 3) ☐ ☐ ☐ ☑

Discussion: The proposed project complies with the EIR recently certified for the City General Plan Update, 2003.

c) Be incompatible with existing land uses in the vicinity? (Sources: 1 & 3) ☐ ☐ ☐ ☑

Discussion: The project uses, site plan and architecture are similar to and compatible with surrounding development. The project is consistent with existing land uses in the vicinity. There are other hotel developments currently operating and currently under construction in the vicinity of the project on the south side of Hwy 46 West.

d) Affect agricultural resources or operations (e.g., impacts to soils or farmlands, or impacts from incompatible uses)? ☐ ☐ ☐ ☑

Discussion: This is an urban infill site. There are no agricultural resources on or near the project site. Therefore, the project could not impact agricultural resources or operations.

e) Disrupt or divide the physical arrangement of an established community (including a low-income or minority community)? (Sources: 1 & 3) ☐ ☐ ☐ ☑

Discussion: The project is currently vacant except for one house which will be removed. The project would meet the Zoning and General Plan designations for the site as well as meet the goals of the City's Economic Strategy. This project is not anticipated to disrupt or divide the physical arrangement of an established community.

II. POPULATION AND HOUSING. Would the proposal:

a) Cumulatively exceed official regional or local population projections? (Sources: 1 & 3) ☐ ☐ ☐ ☑

Discussion: The proposed project does not include a residential component nor is it large enough to result in creating a significant number of new jobs that could affect cumulative population projections.

b) Induce substantial growth in an area either directly or indirectly (e.g., through projects in an undeveloped area or extension of major infrastructure)? (Sources: 1 & 3) ☐ ☐ ☐ ☑

Discussion: This is an urban infill site and will be served by all city services which currently exist along South Vine

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Street.

c) Displace existing housing, especially affordable housing? (Sources: 1, 3, & 5) ☐ ☐ ☐ ☑

Discussion: There is no housing currently existing on the project site, thus the project will not displace any existing housing.

III. GEOLOGIC PROBLEMS. Would the proposal result in or expose people to potential impacts involving:

a) Fault rupture? (Sources: 1, 2, & 3) ☐ ☐ ☑ ☐

Discussion: The potential for and mitigation of impacts that may result from fault rupture in the project area are identified and addressed in the General Plan EIR, pg. 4.5-8. There are two known fault zones on either side of this valley. The Rinconada Fault system runs on the west side of the valley. The San Andreas Fault is on the east side of the valley and runs through the community of Parkfield east of Paso Robles. The City of Paso Robles recognizes these geologic influences in the application of the Uniform Building Code to all new development within the City. Review of available information and examinations indicate that neither of these faults is active with respect to ground rupture in Paso Robles. Soils reports and structural engineering in accordance with local seismic influences would be applied in conjunction with any new development proposal. Based on standard conditions of approval, the potential for fault rupture and exposure of persons or property to seismic hazards is not considered significant. In addition, per requirements of the Alquist-Priolo Earthquake Fault Zones, only structures for human habitation need to be setback a minimum of 50 feet of a known active trace fault. The proposed structures are not intended for human habitation.

b) Seismic ground shaking? (Sources:1, 2, & 3) ☐ ☐ ☑ ☐

Discussion: The City is located within an active earthquake area that could experience seismic ground shaking from the Rinconada and San Andreas Faults. The proposed structure will be constructed to current UBC codes The General Plan EIR identified impacts resulting from ground shaking as less than significant and provided mitigation measures that will be incorporated into the design of this project including adequate structural design and not constructing over active or potentially active faults.

c) Seismic ground failure, including liquefaction? (Sources: 1, 2 & 3) ☐ ☐ ☐ ☑

Discussion: Per the General Plan EIR, the project site is not located in an area with soil conditions that have a high risk for liquefaction or other type of ground failure

d) Seiche, tsunami, or volcanic hazard? (Sources: 1, 2, & 3) ☐ ☐ ☐ ☑

e) Landslides or Mudflows? (Sources: 1, 2, & 3) ☐ ☐ ☐ ☑

Discussion: d. and e. The project site is not located near bodies of water or volcanic hazards, nor is the site located in an area subject to landslides or mudflows.

10 Environmental Checklist Form

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Erosion, changes in topography or unstable soil conditions from excavation, grading, or fill? (Sources: 1, 2, 3, & 4)	☐	☐	☐	☑

Discussion: The site slopes up from the existing elevation of South Vine Street approximately 26 feet on the south end to approximately 14 feet on the northern end. There will need to be cuts into the slopes to provide for the entry/exit driveways. Once on top of the site there will be minimal grading for the parking lots and buildings. Per the General Plan EIR, the project site is not located in an area known to have unstable soil conditions, thus impacts resulting from grading and excavation are anticipated to be less than significant. In addition to standard erosion control measures that are a part of development, all grading would be subject to standard conditions of approval ensuring that soils conditions are suitable for the proposed structures and improvements. Soil reports are also required to be submitted with the building and grading plans. As such, no significant impacts are anticipated.

g) Subsidence of the land? (Sources: 1, 2, & 3)	☐	☐	☐	☑

Discussion: Per the General Plan EIR, the project site is not located in an area subject to subsidence from either groundwater extraction or liquefaction, thus impacts would be less than significant from development of this project.

h) Expansive soils? (Sources: 4)	☐	☐	☑	☐

Discussion: Per the General Plan EIR, Paso Robles is an area that has moderately expansive soils. This issue will be addressed through implementation of appropriate excavation and compaction of soils. Therefore, impacts related to expansive soils will be less than significant.

i) Unique geologic or physical features? (Sources:1 & 3)	☐	☐	☐	☑

Discussion: There are no unique geologic or physical features on or near the project site.

IV. WATER. Would the proposal result in:

a) Changes in absorption rates, drainage patterns, or the rate and amount of surface runoff? (Sources:1, 3, & 7)	☐	☐	☑	☐

Discussion: The project includes structures and parking lots which will increase the amount of surface runoff and decrease absorption rates. However, site drainage will be conveyed to the storm water system where it will be filtered in compliance with the NPDES regulations prior to flowing into the Salinas River and recharge groundwater resources.

b) Exposure of people or property to water related hazards such as flooding? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: There is no potential to expose people or property to water related hazards due to this project since it is not near a water source and it is not in a flood zone.

c) Discharge into surface waters or other alteration of surface water quality (e.g., temperature, dissolved oxygen or turbidity)? (Sources: 1, 3, & 7)	☐	☐	☐	☑

10 Environmental Checklist Form

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion: The project will utilize the existing storm water system and historical flow to the Salinas River. The volume of discharge that may result from this project could not be of a quantify to alter water quality in terms of temperature, dissolved oxygen or create significant turbidity.

d) Changes in the amount of surface water in any water body? (Sources: 1, 3, & 7) ☐ ☐ ☐ ☑

Discussion: The resulting project surface water is not large enough to significantly affect the amount of surface water in any water body. Additionally, water is pumped from several City wells from the groundwater basin, which has adequate capacity for city build-out.

e) Changes in currents, or the course or direction of water movement? (Sources: 1, 3, & 7) ☐ ☐ ☐ ☑

Discussion: This project could not result in changes in currents or water movement since it is not located near surface water.

f) Change in the quantity of ground waters, either through direct additions or withdrawals, or through interception of an aquifer by cuts or excavations or through substantial loss of groundwater recharge capability? (Sources: 1,3, & 7) ☐ ☐ ☑ ☐

Discussion: Build-out of the City is anticipated in the General Plan and evaluated in the GP EIR. This project is in compliance with the adopted build-out scenario and anticipated impacts to water demand. The project will implement water conservation measures through use of water conservation landscape and irrigation measures, and building fixtures.

g) Altered direction or rate of flow of groundwater? (Sources: 1, 3, & 7) ☐ ☐ ☐ ☑

Discussion: This project could not result in alterations to the direction or rate of groundwater flow since this project does not directly extract groundwater or otherwise affect these resources.

h) Impacts to groundwater quality? (Sources: 1, 3, & 7) ☐ ☐ ☐ ☑

Discussion: The project will not affect groundwater quality since this project does not directly extract groundwater or otherwise affect these resources. This project will not change existing water quality from discharging in surface waters with implementation of standard storm water discharge infrastructure that is in compliance with the National Pollution Discharge Elimination System (NPDES) requirements.

i) Substantial reduction in the amount of groundwater otherwise available for public water supplies? (Sources: 1, 3, & 7) ☐ ☐ ☑ ☐

Discussion: Refer to response f.

10 Environmental Checklist Form

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

V. AIR QUALITY. Would the proposal:

a) Violate any air quality standard or contribute to an existing or projected air quality violation? (Sources: 1, 3, & 7) ☐ ☑ ☐ ☐

Discussion: The San Luis Obispo County area is a non-attainment area for the State standards for ozone and suspended particulate matter. The SLO County Air Pollution Control District (APCD) administers a permit system to ensure that stationary sources do not collectively create emissions which would cause local and state standards to be exceeded. To aid in the assessment of project impacts subject to CEQA review, the APCD published the "CEQA Air Quality Handbook" in April, 2003. This handbook establishes screening thresholds for measuring the potential of projects to generate air quality impacts. Generally, any project that generates less than 10lbs./day of emissions would "qualify" for a Negative Declaration determination, and a project that generates between 10 and 24lbs./day of emissions would "qualify" for a Mitigated Negative Declaration.

Based on Table 1-1 of the APCD's handbook, a threshold of 66 rooms would place emissions at an estimated 10 1bs./day. A 160 room project would be estimated at generating 25 lbs./day of emissions. Based on these table projections, the 138 unit project would generate approximately 15 lbs. / day of ozone and particulate matter emissions. This would place the project slight higher than the 10lbs./day (for a Negative Declaration without mitigation measures), but clearly below the 25lbs./day emission threshold for the granting of a Mitigated Negative Declaration.

Based on exceeding the 10 bs./day threshold for a Negative Declaration, it will be necessary for the project to incorporate appropriate short and long term mitigation measures as outlined in the APCD's CEQA Handbook. The recommended mitigation measures are included in the attached mitigation summary , and they include measures for dust control and Best Available Technology (BAT) during construction , and heating/cooling standards in building construction and landscaping for reducing long term impacts. Based on implementation of short and long term mitigation measures outlined in this report, the resultant impacts are considered to be less than significant.

b) Expose sensitive receptors to pollutants? (Sources: 1, 3, & 7) ☐ ☐ ☐ ☑

Discussion: There are no sensitive receptors such as schools, hospitals, etc. within the near vicinity that could be impacted by this project.

c) Alter air movement, moisture, or temperature? (Sources: 1, 3, & 7) ☐ ☐ ☑ ☐

Discussion: This project does not have the potential to significantly alter air movement, moisture, or temperature since it does not include a large parking lot without trees.

d) Create objectionable odors? ☐ ☐ ☐ ☑

Discussion: The construction of this project will not result in objectionable odors.

VI. TRANSPORTATION/CIRCULATION. Would the proposal result in:

a) Increased vehicle trips or traffic congestion? (Sources: 1, 3, & 7) ☐ ☑ ☐ ☐

Discussion: An analysis of future vehicle trips and traffic circulation were analyzed by an independent transportation consultant. The consultant prepared a traffic study which evaluated project related and cumulative traffic impacts

10 Environmental Checklist Form

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

particularly as they relate to the intersection of Hwys. 46 West and 101. The study determined that with interim improvements planned at this intersection, that LOS D could be maintained, which is an acceptable interim level of service until long-term improvements can completed. Intersections on the east side of Hwy 101 near the project site, are forecasted operate at LOS B-C. Peak hour trips and traffic contributions were also determined in the study. The applicant will be required to participate in their share of interim and long-term improvements as calculated in the study to mitigate the project traffic impacts to a less than significant level.

The subject property will be affected by the ultimate improvements to the intersection of State Highways 101 and 46 West. A Project Study Report (PSR) has been prepared by the City and was signed as approved by Caltrans last April.

Numerous alternative designs have been studied over the past four years. The PSR identifies four alternatives which Caltrans approves for further study. All four of these alternatives involve the realignment of Vine Street westerly through the CENCO property to point of connection to Highway 46 west roughly 1,000 feet west of its current intersection.

The geometrics of the PSR must be considered with any application involving property within its study area. In the case of the Vintners Village project, only the Vine Street leg of the PSR affects the project property. Vine Street is unique to the PSR in that it will remain a City street while all other improvements will be owned and operated by Caltrans. Therefore, Vine Street will be subject to design criteria established by the City, as opposed to Caltrans.

Consistent with the PSR, a condition of approval has been added to PD 05-010 requiring the following:

Prior to issuance of building permits, the applicant will provide the City with an irrevocable and perpetual offer of dedication for public right-of-way for the extension of Vine Street westerly through the subject property. The width of the offer shall be 68 feet. The horizontal alignment of the offer shall be subject to the approval of the City Engineer.

b) Hazards to safety from design features (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g. farm equipment)? (Sources: 1, 3, & 7) ☐ ☐ ☐ ☑

Discussion: The proposed project does not include road improvements that may result in safety hazards or in incompatible uses.

c) Inadequate emergency access or inadequate access to nearby uses? (Sources:1, 3, & 7) ☐ ☐ ☐ ☑

Discussion: The project is adequately served by public streets for emergency services

d) Insufficient parking capacity on-site or off-site? (Sources: 1, 3, 7, & 8) ☐ ☐ ☐ ☑

Discussion: The Site Plan indicates the required number of parking spaces (165) per Zoning Ordinance requirements for the proposed uses. Therefore, the project will have sufficient on-site parking spaces.

e) Hazards or barriers for pedestrians or bicyclists? (Source: 7) ☐ ☐ ☐ ☑

Discussion: The project includes curb, gutter and sidewalk improvements along property frontages. The project will not affect travelways for pedestrians or bicyclists.

10 Environmental Checklist Form

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
f) Conflicts with adopted policies supporting alternative transportation (e.g., bus turnouts, bicycle racks)? (Sources: 1 & 8)	☐	☐	☐	☑

Discussion: The project would not conflict with or otherwise affect adopted policies supporting alternative transportation.

g) Rail, waterborne or air traffic impacts?	☐	☐	☐	☑

Discussion: The project could not result in impacts to rail, waterborne or air transportation.

BIOLOGICAL RESOURCES. Would the proposal result in impacts to:

a) Endangered, threatened or rare species or their habitats (including but not limited to: plants, fish, insects, animals, and birds)? (Source 11)	☐	☐	☐	☑

Discussion A Sensitive Species and Habitat Survey was prepared by LFR on June 7,2005. The study concluded that "No listed sensitive plant or wildlife species were observed or are expected to be present on the site." Thus, impacts to endangered, threatened or rare species or their habitats would be less than significant.

See attached copy of the LFR Survey. Source 11

b) Locally designated species (e.g., heritage trees)? (Source 13)	☐	☑	☐	☐

Discussion: There are twenty-nine (29) oak trees located within the developable areas of this project. All of the oak trees are proposed to be saved/preserved. An Arborist Report was completed for the project by Consulting Arborist, E. Wesley Conner. The report concludes that the project has been redesigned from the initial design to better work around the oak trees. There will be mitigation measures for the trees including protection during construction, monitoring during construction and use of pervious pavers for driveway and parking lot areas within the oak tree critical root zone to reduce potential impacts to oak trees to a less than significant level.

By applying the mitigation measures as requested by the Arborist, impacts to oak trees will not be significant.

c) Locally designated natural communities (e.g., oak forest, coastal habitat, etc.)?	☐	☐	☐	☑

Discussion: There are no locally designated natural communities on the project site.

d) Wetland habitat (e.g., marsh, riparian and vernal pool)?	☐	☐	☐	☑

Discussion: There are no wetland habitats on the project site.

e) Wildlife dispersal or migration corridors?	☐	☐	☐	☑

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

Discussion: There are no wildlife dispersal or migration corridors on or near the project site.

VIII. ENERGY AND MINERAL RESOURCES. Would the proposal:

a) Conflict with adopted energy conservation plans? (Sources: 1 & 7) ☐ ☐ ☐ ☑

Discussion: The structures will be designed and constructed according to applicable UBC codes and Title 24 energy conservation requirements, thus it will not conflict with adopted energy conservation plans.

b) Use non-renewable resources in a wasteful and inefficient manner? (Sources: 1 & 7) ☐ ☐ ☐ ☑

Discussion: The project will not use non-renewable resource in a wasteful and inefficient manner.

c) Result in the loss of availability of a known mineral resource that would be of future value to the region and the residents of the State? (Sources: 1 & 7) ☐ ☐ ☐ ☑

Discussion: The project is not located in an area of a known mineral resources that would be of future value to the region and the residents of the State.

IX. HAZARDS. Would the proposal involve:

a) A risk of accidental explosion or release of hazardous substances (including, but not limited to: oil, pesticides, chemicals or radiation)? ☐ ☐ ☐ ☑

Discussion: It is not anticipated that the hotel project will create a risk of accidental explosion or release of hazardous substances.

b) Possible interference with an emergency response plan or emergency evacuation plan? (Sources: 1 & 7) ☐ ☐ ☐ ☑

Discussion: The project will not interfere with an emergency response plan or emergency evacuation plan since it is not a designated emergency response location to be used for staging or other uses in an emergency.

c) The creation of any health hazard or potential hazards? ☐ ☐ ☐ ☑

Discussion: The project and future uses will not likely result in creating any health or other hazards.

d) Increased fire hazard in areas with flammable brush, grass, or trees? ☐ ☐ ☑ ☐

Discussion: The project is not located in or near an area subject to increased fire hazards.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. NOISE. Would the proposal result in:				
a) Increases in existing noise levels? (Sources: 1, 7, & 8)	☐	☐	☑	☐
Discussion: The project will not likely result in a significant increase in operational noise levels. It may result in short-term construction noise. However, construction noise will be limited to specific daytime hours per city regulations.				
b) Exposure of people to severe noise levels? (Source: 3)	☐	☐	☐	☑
See Discussion Xa. above.				
XI. PUBLIC SERVICES. Would the proposal have an effect upon, or result in a need for new or altered government services in any of the following areas:				
a) Fire protection? (Sources: 1, 3, 6, & 7)	☐	☐	☐	☑
b) Police Protection? (Sources: 1, 3, & 7)	☐	☐	☐	☑
c) Schools? (Sources: 1, 3, & 7)	☐	☐	☐	☑
d) Maintenance of public facilities, including roads? (Sources: 1, 3, & 7)	☐	☐	☐	☑
e) Other governmental services? (Sources: 1,3, & 7)	☐	☐	☐	☑
Discussion: a.-e. The project applicant will be required to pay development impact fees as established by the city per AB 1600 to mitigate impacts to public services.				
XII. UTILITIES AND SERVICE SYSTEMS. Would the proposal result in a need for new systems or supplies, or substantial alterations to the following utilities:				
a) Power or natural gas? (Sources: 1, 3, & 7)	☐	☐	☐	☑
b) Communication systems? (Sources: 1, 3, & 7)	☐	☐	☐	☑
c) Local or regional water treatment or distribution facilities? (Sources: 1, 3, & 7)	☐	☐	☐	☑
d) Sewer or septic tanks? (Sources: 1, 3, 7, & 8)	☐	☐	☐	☑
e) Storm water drainage? (Sources: 1, 3, & 7)	☐	☐	☐	☑
f) Solid waste disposal? (Sources: 1, 3, & 7)	☐	☐	☐	☑

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Local or regional water supplies? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: a.-g. The project will not result in the need for new systems or supplies, or result in substantial alterations to utilities and service systems.

XIII. AESTHETICS. Would the proposal:

a) Affect a scenic vista or scenic highway? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: The project is located in the Highway 101 and Highway 46 West area, which is a highly traveled area of the City and is considered an entrance to the City. Although the site is not specifically a scenic vista or on a scenic highway, it located at the entrance to the City and aesthetics are a high priority for the City. This project has been reviewed by the City's Development Review Committee (DRC). The DRC was in favor of the project including the architecture, color and materials and recommended that the Planning Commission approve the project.

b) Have a demonstrable negative aesthetic effect? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: See discussion above, with the proposed architecture and landscaping, it is not anticipated that this project will have a negative aesthetic effect.

c) Create light or glare? (Sources: 1, 3, 7, & 8)	☐	☐	☐	☑

Discussion: All light fixtures will be shielded and downcast as required per city regulations.

XIV. CULTURAL RESOURCES. Would the proposal:

a) Disturb paleontological resources? (Sources: 1, 3, & 7)	☐	☐	☐	☑
b) Disturb archaeological resources? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: a.-b. An Archaeological/ Paleontological Evaluation Report was prepared by Cogstone Resource Management Inc. The report was prepared in June 2005. The report concludes that there are no archaeological, paleontological or historic sites were found on the subject property.

If these types of resources are found during grading and excavation, appropriate procedures will be followed including halting activities and contacting the County Coroner.

c) Affect historical resources? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: There are no existing historical resources on the project site.

d) Have the potential to cause a physical change which would affect unique ethnic cultural values? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: The project is not proposed in a location where it could affect unique ethnic cultural values.

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Restrict existing religious or sacred uses within the potential impact area? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: Discussion: There are no known existing religious or sacred uses on or near the project site.

XV. RECREATION. Would the proposal:

a) Increase the demand for neighborhood or regional parks or other recreational facilities? (Sources: 1, 3, & 7)	☐	☐	☐	☑

Discussion: The project is industrial in nature and will not likely result in an increase in the demand for recreational facilities.

b) Affect existing recreational opportunities? (Sources 1, 3, & 7)	☐	☐	☐	☑

Discussion: The project will not affect existing recreational opportunities.

XVI. 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? (Sources: 1 & 3)	☐	☐	☐	☑

Discussion: The proposed project does not have any significant existing natural resources located on it, nor is the site located near any plant, animal or habitat resources or historical resources that could be negatively affected by this project.

b) Does the project have the potential to achieve short-term, to the disadvantage of long-term environmental goals? (Sources: 1 & 3)	☐	☐	☐	☑

Discussion: With mitigations incorporated for traffic impacts and building design to current UBC code standards the project will not have the potential to achieve short-term, to the disadvantage of long-term environmental goals.

c) 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.) (Sources: 1 & 3)	☐	☐	☐	☑

Discussion: With mitigations incorporated for traffic impacts and building design to current UBC code standards the project will not result in significant cumulative impacts.

d) Does the project have environmental effects that will cause	☐	☐	☐	☑

ISSUES (and Supporting Information Sources):	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact

substantial adverse effects on human beings, either directly or indirectly? (Sources: 1 & 3)

Discussion: With mitigations incorporated for traffic impacts and building design to current UBC code standards the project will not result in substantial adverse effects on human beings, either directly or indirectly.

11. EARLIER ANALYSIS AND BACKGROUND MATERIALS

Earlier analyses may be used where, pursuant to tiering, program EIR, or other CEQA process, one or more effects have been adequately analyzed in an earlier EIR or negative declaration. Section 15063 (c)(3)(D). The earlier documents that have been used in this Initial Study are listed below.

Reference Number	Document Title	Available for Review At
1	City of Paso Robles General Plan	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
2	Seismic Safety Element for City of Paso Robles	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
3	Final Environmental Impact Report City of Paso Robles General Plan	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
4	Soil Survey of San Luis Obispo County, California Paso Robles Area	USDA-NRCS, 65 Main Street-Suite 108 Templeton, CA 93465
5	Uniform Building Code	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
6	City of Paso Robles Standard Conditions of Approval For New Development	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
7	City of Paso Robles Zoning Code	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
8	City of Paso Robles, Water Master Plan	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
9	City of Paso Robles, Sewer Master Plan	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
10	Federal Emergency Management Agency Flood Insurance Rate Map	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
11	Sensitive Species and Habitat Survey June 7, 2005 By LFR	Attached as Exhibit D
12	Archaeological-Paleontological Eval. & Mit. Plan By Cogstone Resource Mgt. Inc.	City of Paso Robles Community Development Department 1000 Spring Street, Paso Robles, CA 93446
13	Tree Survey Report, May 30, 2005 By E. Wesley Conner	Attached as Exhibit I to the Resolution Approving PD 05-010
14	Traffic Study by ATE	Attached as Exhibit B

Attachments:

Exhibit A – Site Plan and Elevations
Exhibit B – Traffic Study
Exhibit C – Sensitive Species and Habitat Survey

EXHIBIT 2

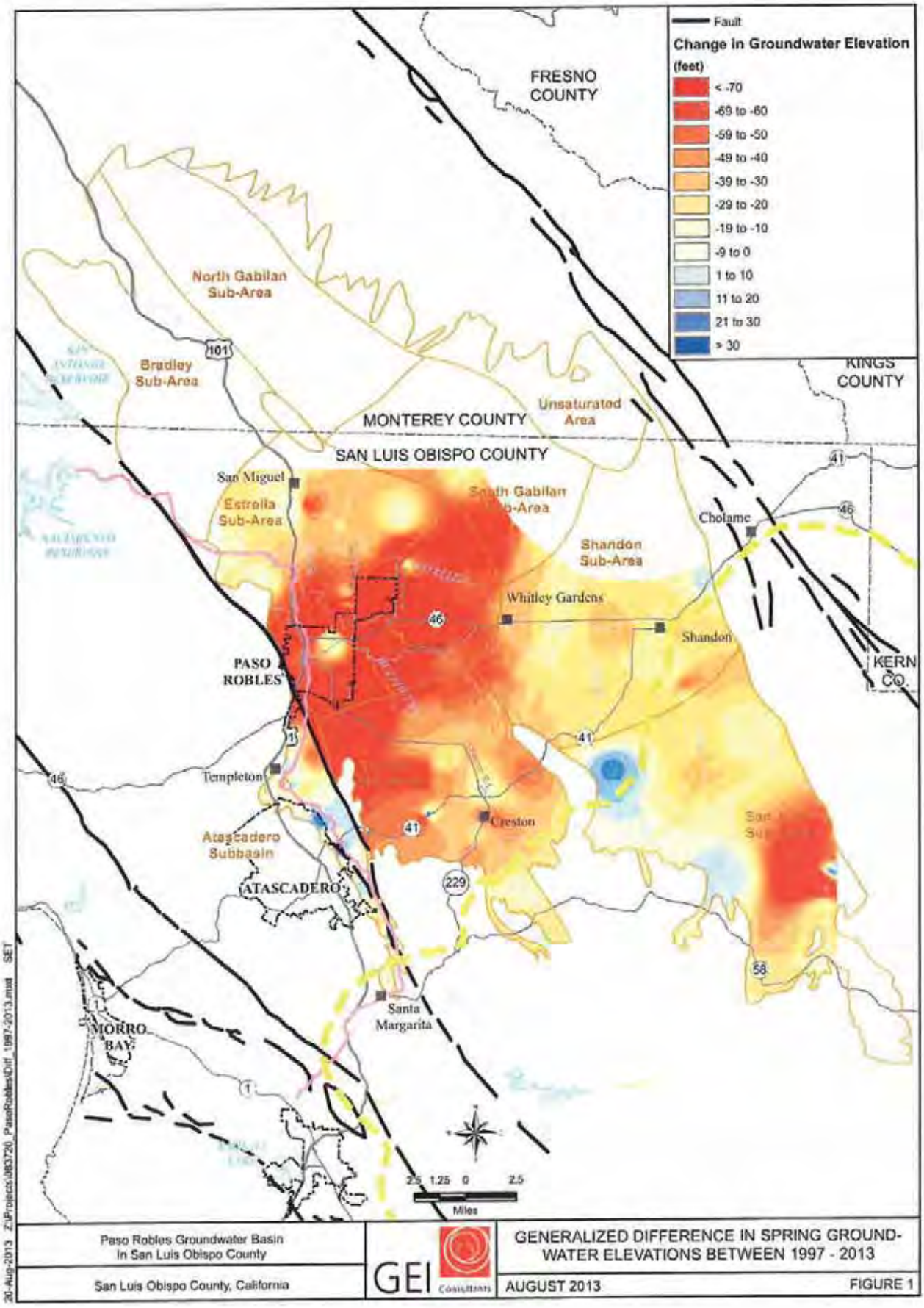

Fault
Change in Groundwater Elevation
(feet)
< -70
-69 to -60
-59 to -50
-49 to -40
-39 to -30
-29 to -20
-19 to -10
-9 to 0
1 to 10
11 to 20
21 to 30
> 30
FRESNO COUNTY
KINGS COUNTY
MONTEREY COUNTY
SAN LUIS OBISPO COUNTY
KERN CO.
North Gabilan Sub-Area
Bradley Sub-Area
Unsaturated Area
San Miguel
Estrella Sub-Area
South Gabilan Sub-Area
Shandon Sub-Area
Cholame
Whitley Gardens
Shandon
PASO ROBLES
Templeton
Creston
Atascadero Subbasin
ATASCADERO
MORRO BAY
Santa Margarita
101
46
41
1
229
58
2.5 1.25 0 2.5
Miles
Paso Robles Groundwater Basin
In San Luis Obispo County
San Luis Obispo County, California
GEI
GENERALIZED DIFFERENCE IN SPRING GROUND-WATER ELEVATIONS BETWEEN 1997 - 2013
AUGUST 2013
FIGURE 1
20-Aug-2013 Z:\Projects\063720_PasoRobles\Diff_1997-2013.mxd SET

EXHIBIT 3

Resource Capacity Study
Water Supply in the Paso Robles Groundwater Basin
Adopted by Board of Supervisors, February 2011

Board of Supervisors

Frank R. Mecham, Chairperson, District 1
Bruce S. Gibson, District 2
Adam Hill, District 3
Paul Teixeira, District 4
James R. Patterson, District 5

Planning Commission

Bruce White
Anne Wyatt
Carlyn Christianson
Eugene Mehlschau
Dan O'Grady

Staff

Jason Giffin, Planning Director
Kami Griffin, Assistant Planning Director
Chuck Stevenson, AICP, Long Range Planning Division Manager
Mike Wulkan, Supervising Planner
James Caruso, Senior Planner – Project Manager

EXECUTIVE SUMMARY

This Resource Capacity Study (RCS) addresses the state of the Paso Robles Groundwater Basin. It is based on work already accomplished by the County and other parties through:

- Fugro 2002 Paso Robles Groundwater Basin Study
- Fugro 2005 Phase II Report
- Todd Engineers 2009 Evaluation of Paso Robles Groundwater Basin Pumping
- Fugro 2010 Paso Robles Groundwater Basin Water Balance Review and Update.

In addition, this RCS acknowledges a peer review of the preceding groundwater studies commissioned by the City of Paso Robles (Yates 2010 Peer Review of Paso Robles Groundwater Studies).

These studies have calculated water use by the major groundwater use sectors (agriculture, rural land uses, small commercial uses, municipal systems and small community systems). Water use by these sectors has increased during the period 1980 to 2009 to the point where basin outflows will soon be greater than basin inflows.

A Level of Severity III can be established if a basin has reached its perennial yield or its perennial yield will be depleted before new supplies are developed. A Level of Severity (LOS) III is recommended for the Paso Robles Groundwater Basin and a separate LOS I is recommended for the Atascadero Sub-basin. Recommended actions include groundwater monitoring to collect additional data on the status of the basin and land use measures that will reduce conflicts over the limited groundwater resource.

INTRODUCTION

The Resource Management System

The County's Resource Management System (RMS) is a mechanism for ensuring a balance between land development and the resources necessary to sustain such development. When a resource deficiency becomes apparent, efforts are made to determine how the resource capacity might be expanded, whether conservation measures could be introduced to extend the availability of unused capacity, or whether development should be limited or redirected to areas with remaining resource capacity. The RMS is designed to avoid adverse impacts from depletion of a resource.

The RMS describes a resource in terms of its "level of severity" (LOS) based on the rate of depletion and an estimate of the remaining capacity, if any. In response to a resource issue or recommended LOS, the Board of Supervisors may direct that a Resource Capacity Study (RCS) be conducted. A RCS provides additional details that enable the Board of Supervisors to certify a LOS and adopt whatever measures are needed to eliminate or reduce the potential for undesirable consequences. The Board of Supervisors directed the preparation of this RCS in January 2007.

LOS I	Level I is reached for a water resource when increasing water demand projected over nine years equals or exceeds the estimated dependable supply.
LOS II	Level II for a water resource occurs when water demand projected over seven years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply.
LOS III	A Level of Severity III exists when water demand equals the available resource; the amount of consumption has reached the dependable supply of the resource.

BACKGROUND

According to the 2002 report on the Paso Robles groundwater basin (the basin) prepared by Fugro, Inc., the basin encompasses an area of approximately 505,000 acres (790 square miles). The basin extends from the Garden Farms area south of Atascadero to San Ardo in Monterey County, and from the Highway 101 corridor east to Shandon (See Attachment 1). Internally, the Atascadero sub-basin was defined as a single hydrologically distinct sub basin (see Fugro 2002 for an explanation of the distinction between the basin and sub-basin). It encompasses the Salinas River corridor area south of Paso Robles and includes the communities of Garden Farms, Atascadero, Templeton and a portion of the City of Paso Robles' water supply.

The basin also contains "sub-areas" (as opposed to the sub-basin) that are identified for management purposes only (see Attachment 1). They do not constitute separate sub-basins such as the Atascadero Sub-basin. These sub-areas do not have perennial yields separate from the basin as a whole. Due to the complexity of the hydrogeology at the sub-area boundaries and the amount of data that would be needed to determine the behavior at those boundaries, it is not currently possible to establish a perennial yield for these sub-areas.

However, it is possible to draw conclusions regarding the proportions of total basin pumping by sub–area. This RCS addresses this issue below.

What is the "perennial yield" of a groundwater basin?

There are several definitions of perennial (or safe) yield available from the California Dept of Water Resources and the hydro geologic literature. For purposes of this RCS and to be consistent with the technical work already completed on the basin, the definition of perennial (and safe) yield will be taken from Fugro 2002 and Fugro 2005.

The Fugro 2002 Report text (pg 138, Hydrologic Budget section):

> *"The perennial yield of a groundwater basin may be defined as the rate in which water can be pumped from wells year after year without decreasing the groundwater in storage. Many definitions of perennial yield tie the acceptable level of extractions to a negative economic impact. However, for the purposes of this study, the perennial yield is tied more closely to the rate of replenishment or recharge to the basin that will not result in diminished storage. The Paso Robles Groundwater Basin has a very large amount of groundwater in storage that can be used as carryover storage during years when there is little to no recharge. The drought of the late 1980's is an example."*

The Fugro 2002 report also defines perennial yield in its glossary:

> Perennial yield:
>
> *"...the amount of usable water of a groundwater basin that can be withdrawn and consumed economically each year for an indefinite period of time. It cannot exceed the sum of the natural recharge, artificial recharge, and incidental recharge, without causing depletion of the basin."*

How are groundwater levels related to the perennial yield of a groundwater basin?

Groundwater levels in wells fluctuate over time, representing the continuous adjustment of groundwater in storage to changes in recharge and discharge. Groundwater levels may fluctuate seasonally and over a period of years, reflecting the net effect of changes in recharge (e.g., percolation of precipitation and streamflow, infiltration of applied water, and subsurface inflow) and changes in outflow (e.g., pumping and subsurface outflow). Groundwater level changes

also may be sustained. A long-term trend of groundwater level declines would indicate an imbalance of outflows over inflows.

A water level analysis is based on empirical measurement of water levels in both production wells and monitoring wells. Water levels in individual wells are compared to levels in other wells throughout a basin to create a contour map showing elevations of the groundwater surface. Contour maps are useful for estimating the direction and rate of flow of groundwater within an aquifer. They are also used for estimating the amount of groundwater in storage. Observation of water levels over time can illuminate trends and implications about the long-term prospects for a basin. A series of groundwater elevation maps have been developed for the basin over the years. The maps show contour lines of equal water level elevation (see Attachments 2 and 3).

In general, long-term observation of groundwater levels has found a large area of drawdown. This area of concern is located roughly east and north of the City of Paso Robles, both north and south of State Highway 46. Data collected and analyzed from 1980 to 2006 indicate that the area of drawdown is growing both horizontally and vertically.

Annual recharge of groundwater from precipitation, as well as resulting streamflow, is highly variable; therefore, a long-term analysis of water level trends must include representative periods of above average, below average and average rainfall. Determination of trends is based on a period of observation that is not biased by an unusually dry or wet year or series of years. The data available from the 2002 Fugro report and the 2009 pumping update by Todd Engineers covers the time period 1980 to 2006, an adequate span of time to include varied conditions.

The basin's perennial yield has been calculated by Fugro to be 97,700 acre feet/year (afy). The Atascadero Sub-basin's perennial yield has been calculated at 16,400 afy. That means that over a given period of time, which in this case is 1980-1997, outflows of 97,700 acre feet/year can be offset by the same amount of inflow. This will not occur each year (i.e. inflow might not total 97,700 acre feet in any given year). However, when considering the balance of inflows and outflows over a long period of time, 97,700 afy of water can be removed on average, with no long-term decrease in storage. If outflows over a longer term basis are greater than 97,700 acre feet per year, it is assumed that water cannot be replaced and the process of "mining" groundwater has occurred. Mining of groundwater means that the water removed can never be replaced. Outflows would have to be lower than the perennial yield in a future year(s) to the same degree that outflows exceeded the perennial yield in order for mining of groundwater to not occur.

The most important thing to remember is that given a reliable perennial yield figure, as is the case in the basin, control of outflows so that they never reach perennial yield is critical to the health of the basin. As explained above, outflows exceeding the perennial yield cannot be replaced through normal inflow conditions unless outflows are brought under the perennial yield by the same amount in a future year(s). Therefore, while below or above-average rainfall and attendant basin inflow might have short-term or temporary effects on groundwater levels; in the long-term, basin health is dependent on keeping outflows under the perennial yield.

Information Base

This Resource Capacity Study now has three methods to estimate present and forecasted groundwater supply and demand and the state of the basin:

- A water balance and water balance analysis from 1998 to 2025 (Fugro 2010).
- 2006 and projected 2025 Paso Robles Groundwater Basin Pumping (Todd 2009).
- Observed change in the level of groundwater over 30 years. (Fugro 2005 and Todd 2009).

The information base must be used carefully as many assumptions have gone into the gathering and reporting of data. The data used to calculate present and future demand in the agriculture, rural, small commercial and small community systems is based on estimated factors or "water duties" for each pumping sector. It is important to note that water demand and groundwater pumping may be reported to a fraction of an acre foot, but these levels are not purported to be accurate to that degree.

The City of Paso Robles has recently released a peer review of the conclusions reached in published reports on the groundwater basin since the year 2000. The peer review recommends future courses of action that include: 1) increased well monitoring; 2) update and enhance previous models; 3) secure supplemental water such as Nacimiento Project water; and 4) cooperatively manage the basin.

BASIN WATER SUPPLY AND DEMAND

Basin-wide Supply and Demand

The 2005 Fugro report estimated that the perennial yield of the basin is approximately 97,700 afy. The report estimated that annual pumping had reached approximately 82,600 afy as of the year 2000. The pumping estimate was updated by the 2009 Todd Report (using the 2006 water year), and compared the 2006 pumping estimates with pumping estimates for 1997 and

2000. In 2010, Fugro estimated total pumping in the basin and sub-basin as of the year 2009. These estimates show total outflows of 91,838 afy to 96,723 afy in the basin and 15,255 afy to 16,012 afy in the Atascadero Sub-basin. The ranges are due to use of two different water duties for rural pumping: 1.0 afy and 1.7 afy.

Estimated Basin Pumping by Users

There are five different groups of groundwater "users" included in the supply/demand analysis:

- Agriculture
- Municipal
- Rural
- Small Community Systems
- Small Commercial Systems (e.g. golf courses, wineries, institutional uses)

Table 1
Total Groundwater Pumping by User (1997, 2000, 2006) (afy)

Groundwater User	1997	2000	2006
Net Agriculture	49,683 afy	56,551 afy	58,680 afy
Urban	13,513	14,629	15,665
Rural	9,400	9,993	10,891
Small Community	---	----	594
Small Commercial	1,465	1,465	2,323
Total	**74,061**	**82,638**	**88,153**

Small Community was included in Rural in 1997 and 2000.

As a matter of comparison, the estimated perennial yield of the basin is approximately 97,700 afy, while the estimated 2006 total basin pumping was 88,153 afy, or 90% of the perennial yield. Fugro 2010 estimates are that the basin has reached 91,838 afy to 96,723 afy (94% - 99% of perennial yield) and the Atascadero Sub-basin has reached approximately 15,255 afy to 16,012 afy (93% - 98% of perennial yield). Stated another way, approximate inflows are 977 acre feet/year to 5,862 acre feet/year more than outflows in the basin.

The Todd Report identified the amount of groundwater pumping by each user group. The report also explains the methods used to estimate groundwater pumping where actual pumping records do not exist.

Municipal Pumping

Municipal pumping includes four public water purveyors: 1) City of Paso Robles; 2) Atascadero Mutual Water Co. (AMWC); 3) Templeton Community Services District (CSD); and 4) San Miguel Community Services District. Pumping records from each jurisdiction were used to calculate total municipal pumping.

The City of Paso Robles pumps from both the Atascadero Sub-basin and the Estrella sub-area portion of the main groundwater basin. Well records were used to accurately determine the volume of pumping from the sub-basin and Paso Robles groundwater basin. The AMWC and the Templeton CSD pump from the Atascadero Sub-basin. The San Miguel CSD pumps from the Estrella sub-area portion of the main Paso Robles groundwater basin. The data for municipal pumping are the most accurate of all uses, as they are based on well pumping records.

In 2010, Fugro updated the estimated municipal pumping figures for the years 2007-2009:

Table 2
Urban Pumping 2007-2009

	AMWC	Paso Robles	Templeton	San Miguel	Total
2007	6210	7668	1673	354	15905
2008	6200	7850	1727	367	16144
2009	6189	8032	1782	379	16382

An important point to consider regarding urban pumping is the location of the Atascadero Sub-basin wells. As is identified in Table 7 below, a substantial amount of urban pumping in the sub-basin is from the Salinas River alluvium. According to Fugro 2010 and further reinforced by the expert testimony at the November 9, 2010 joint Board/Commission hearing, pumping from this shallower portion of the sub-basin does not have the same effect on groundwater levels as does pumping from the deeper Paso Robles Formation.

Agricultural Pumping

Estimating the amount of agricultural pumping is more complex than for other basin users. Agricultural pumping was estimated using acreage and water demands of different types of crops. Crop data show that irrigated acreage rose from 20,172 acres in 1997 to 40,836 acres in 2006. Table 1 (above) shows that although irrigated acreage increased by approximately 100% from 1997-2006, water use increased by less than 20% in the same time frame.

The following is Fugro's 2010 straight line projection for agricultural pumping for the years 2007-2009:

Table 3
Agricultural Pumping 2007-2009

2007	2008	2009
61,026 afy	62,052 afy	63,077 afy

Small Community Systems

This water use sector includes mutual water companies, county service areas, and mobilehome parks. For small community systems that report groundwater pumping, well records were used to accurately determine their pumping. Using these reports, estimates were derived for the systems that do not report their water use.

Small Commercial Systems

The small commercial pumping sector includes such users as wineries, golf courses and schools. Estimates of water use had to be derived for most of the users, as no data are reported in this sector (only Atascadero State Hospital and the California Youth Authority reported pumping). Water use estimates are based on factors from the Pacific Institute and information from consultation with winery operators.

Rural Pumping

This sector is domestic water use by development in the rural areas. No data exist to measure groundwater pumping by rural domestic users. An estimate was derived by using parcel data and applying a water use factor or "water duty." The assumed water duty of 1.7 afy/dwelling unit was taken from Fugro 2002 and Todd 2009.

There are two alternative water duties for rural pumping used in Fugro's 2010 report. Water duties of 1.00 and 1.7 afy/dwelling were used to calculate rural pumping. These two water duties were used in order to observe the sensitivity of outflows to changes in rural water duties. This Resource Capacity Study uses 1.7 afy, except where noted to reflect the wide range of land uses and parcel sizes and associated water use rates in the rural pumping category.

Table 4
Total Basin Pumping by Sector
Perennial yield = 97,700 afy

Groundwater User	1997	2000	2006	2009
Net Agriculture	49,683 afy	56,551 afy	58,680 afy	63,077
Urban	13,513	14,629	15,665	16,382
Rural	9,400	9,993	10,891	11,817
Small Community	---	-----	594	----
Small Commercial	1,465	1,465	2,323	2631
Total	**74,061**	**82,638**	**88,153**	**93,907**

Sub-basin and Sub-area Pumping

Groundwater pumping is not uniform throughout the basin. Most pumping (39% of the basin total) takes place in the Estrella sub-area. The Atascadero Sub-basin is next in pumping volume at 18% of the basin total, and the Shandon sub-area is third at 13% of total basin pumping The Estrella sub-area is where the most serious groundwater level declines have been identified (see Attachment 1 for the basin and its sub-areas and sub-basin).

The Estrella sub-area does not have its own perennial yield estimate, as it is hydrologically part of the larger basin. The Atascadero Sub-basin, however, is hydrologically distinct from the rest of the basin. Its perennial yield is estimated at 16,400 afy (Fugro, 2000). Estimated pumping in the Atascadero Sub-basin has reached 93%-98% of its perennial yield in 2006 and reached its perennial yield in 2008 (Todd, 2009; Fugro, 2010). A separate LOS can be assigned to the sub-basin based on the definitions in the RMS, because the sub-basin is hydrologically distinct from the entire basin and has its own perennial yield.

Staff has identified an area of the basin--made up of a portion of the Estrella sub-area and the northern portion of the Creston sub-area--that has shown the greatest and most consistent drawdown of water levels since 1980. This area is identified as the "Estrella/Creston Area of Concern" (see Attachment 4).

Atascadero Sub-basin

The Atascadero Sub-basin is a long and narrow strip that extends from the south end of Paso Robles to Santa Margarita on both the east and west sides of the Salinas River (see Attachment 1). Pumping in the sub-basin in 2006 is estimated by Todd (2009) as tabulated below. The percentage of total sub-basin pumping is also shown for each type of user.

Table 5
Atascadero Sub-basin Pumping, 2006

Groundwater User	Amount (afy)	% of Total Sub-basin
Agriculture	1,348	9%
Municipal	11,582	75%
Small Community	213	1.3%
Small Commercial	430	2.7%
Rural	1,819	12%
Total	**15,392**	**100%**

Perennial yield estimated at 16,400 afy

Municipal pumpers are the primary groundwater users of the Atascadero Sub-basin. The City of Paso Robles pumps approximately 3,896 afy and Atascadero Mutual Water Company (AMWC) pumps approximately 6,221 afy from the sub-basin. This is approximately 62% of the perennial yield of the basin.

Table 6 shows Fugro's 2010 estimated water use in the sub-basin for the years 2007-2009. Total pumping in the sub-basin is approaching the safe yield.

Table 6
Estimated Atascadero Sub-basin Pumping 2007-2009

Groundwater User	2007	2008	2009
Agriculture	1384 afy	1420 afy	1456 afy
Municipal	11,717 afy	11,852 afy	11,987 afy
Rural/Sm. Community	1832 afy	1836 afy	1839 afy
Small Commercial	444 afy	459 afy	473 afy
Total	15,377 afy	15567 afy	15755 afy

Perennial yield estimated at 16,400 afy

The municipal pumping in the sub-basin occurs in both the alluvium of the Salinas River and in the deeper Paso Robles Formation.

Table 7
Pumping in the Atascadero Sub basin

Calendar Year	Salinas River Underflow (acre-feet)	Paso Robles Formation (acre-feet)	Total (acre-feet)
2006	3,316	2,905	6,221
2007	3,004	3,817	6,821
2008	3,014	3,563	6,577
2009	2,180	3,523	5,703

According to Fugro 2010, pumping of the alluvium does not have the same effect on groundwater levels as does pumping from the deeper Paso Robles Formation. Fugro 2010 also recommends that the alluvium's perennial yield be established separately from the deeper Paso Robles Formation. Furthermore, according to expert testimony at a joint hearing on November 9, 2010, municipal use makes up most of the pumping in the sub-basin. Agencies such as the City of Paso Robles and large purveyors such as the AMWC can mange their pumping more effectively than the thousands of individual users in the main basin.

Estrella Subarea

The Estrella sub-area is not a hydrologically separate part of the basin as is the Atascadero Sub-basin. Therefore, no separate perennial yield figure is available

for the sub-area. The area that has shown the most severe and constant lowering of groundwater levels since 1980 is located in the southern Estrella sub-area and the northern Creston sub-area. As shown below, the Todd Report estimated the breakdown of pumping in the Estrella sub-area in terms of afy and as a percentage of the total pumping:

Table 8
Estrella Sub area Pumping, 2006

Groundwater User	Amount (afy)	% of Total Sub-basin
Agriculture	23,110	68%
Municipal	3,930	11.5%
Small Community	156	0.45%
Small Commercial	1,603	5%
Rural	5,277	15.5%
Total	**34,076**	**100%**

In 2006, agriculture was the primary user of water in this sub-area, at 68% of total water use. Rural pumping accounts for 15.5% of total water use and urban use 11.5%.

The Estrella sub-area represents approximately 16% of the total land area in the basin. According to Todd (2009), pumping in the sub-basin accounts for approximately 40% of the total amount of water pumped from the entire basin. This proportion will be considered in development of recommended actions in this RCS.

Basin Water Balance

This RCS has been updated to include a groundwater basin water balance continued from 2006 through 2009 and then 2009 through 2025. The water balance update was developed specifically to gauge the effect of varying the rural water duty factor on the overall water balance for the years 1998 through 2009 and of the introduction of Nacimiento Project water into the basin and sub-basin from 2009 through 2025.

In Tables 14 and 15 of the Fugro report, all other pumping is held constant and urban pumping is varied according to the delivery schedules of the Nacimiento Project. The water balance shows that urban pumping in the basin grows slowly over the period 2010 to 2016 and is then offset as additional Nacimiento Project water is used in the basin.

In order to see the effects of different assumptions for pumping and growth rates on the water balance, staff developed several different scenarios using different assumptions for water duty (e.g. 1.7 afy vs. 1.0 afy for rural pumping; 1.25 afy/ac

for vineyards vs. 0.75 afy/ac.) and forecasted growth in each pumping sector and corresponding return flows. These water balance projections or scenarios each forecast the status of the basin to the year 2025. A summary of the scenarios, including the projected year when overdraft is reached for each scenario, is as follows (see attachments 5-13 for the scenario spreadsheets):

1. Scenario 1
   a. Agricultural pumping increases 1.5% per year.
   b. Rural\Small Community increases 1.7% per year.
   c. Small commercial pumping increases 4% per year.
   d. Perennial yield reached in 2011

2. Scenario 2
   a. Agricultural pumping increases 3.0% per year.
   b. Rural\Small Community increases 3.47% per year.
   c. Small commercial pumping increases 8% per year.
   d. Perennial yield reached in 2010

3. Scenario 3
   a. Same rate of increase as Scenario 1.
   b. Vineyards use decreased by 0.25 afy/ac.
   c. Perennial yield reached in 2019

4. Scenario 4
   a. Same rate of increase as Scenario 1.
   b. Vineyards use decreased by 0.50 afy/ac.
   c. Perennial yield reached in 2025

5. Scenario 5
   a. Same rate of increase as Scenario 2
   b. Vineyard use decreases by 0.25 afy/ac.
   c. Perennial yield reached in 2014

6. Scenario 6
   a. Same rate of increase as Scenario 2
   b. Vineyard use decreases by 0.50 afy/ac.
   c. Perennial yield reached in 2019

7. Scenario 7
   a. Same rate of increase as Scenario 1.
   b. Rural pumping uses 1.0 afy vs. 1.7 afy.
   c. Perennial yield reached in 2014

8. Scenario 8
   a. Same rate of increase as Scenario 2.

b. Rural pumping uses 1.0 afy vs. 1.7 afy.
c. Perennial yield reached in 2011

These eight scenarios all result in reaching perennial yield of the basin anywhere from the year 2010 to 2025. The scenarios that exhibit the greatest effect on when perennial yield is reached are those that reduce vineyard water use from 1.25 and 1.50 afy/acre to 1.00 and 1.25 afy/acre and to 0.75 and 1.00 afy/acre.

Atascadero Sub-basin Water Balance

The water balance in the Atascadero Sub-basin differs from the Paso Robles basin in that a majority of the sub-basin pumping is in the urban sector (cities of Paso Robles, Atascadero and the Templeton Community Services District (CSD). The City of Paso Robles receives half of its water supply from wells in the sub-basin, while the Templeton CSD and the AMWC receive all their water from the sub-basin. Together, these groundwater users account for more than 65% of the water use in the sub-basin.

These jurisdictions will import Nacimiento Project water into the basin. This imported water resource will keep urban pumping fairly constant through the year 2019 (10,673 afy in 2010 vs. 11,683 afy in 2019). After the year 2019, urban pumping will increase again to 12,567 afy. Outflows in the sub-basin are estimated to consistently exceed perennial yield (16,400 afy) in year 2021 and thereafter.

Attachment 13 contains the water balance forecasts for the sub-basin. Urban pumping values are from Fugro (2010) and are based on a schedule of Nacimiento Project water delivery to the three urban water purveyors. However, it is important to point out that approximately half the pumping in the sub-basin is from the Salinas River alluvium. As described above, pumping the alluvium does not have the same effect on groundwater levels as does pumping in the deeper Paso Robles Formation.

Summary of the Problem

a. The 2009 Todd Report found that water demand in both the basin and sub-basin is approaching perennial yields.
b. Groundwater level contour maps have shown consistent lowering of groundwater levels in a wide area east of the City of Paso Robles. Specific well locations and their groundwater levels over time are as follows (from draft public review materials for the Paso Robles Groundwater Basin Management Plan that is under development):

Table 9
Selected Groundwater Elevations

Well No.	Location	Long Term decline	1997-2009 decline
25S/12E- 26K01	North of Airport Rd	80 feet	40 feet
26S/13E- 5D01	North of Jardine Rd	120 feet	90 feet
27S/12E- 2F02	Southwest corner of City	110 feet	95 feet
26S/12E- 15N01	North of City	60' to stable	80 feet

c. The Fugro 2010 Water Balance review finds that the basin is approaching the average annual perennial yield in 2010, and the introduction of Nacimiento Project water into the basin will cumulatively offset approximately 66,798 afy of pumping by the year 2025.

d. Increases in outflows in pumping sectors lead the basin into overdraft notwithstanding the introduction of Nacimiento Project water.

e. According to the Scenarios 7 and 8 above, use of alternative water duties for rural pumping (1.7 afy vs. 1.0 afy) does not result in substantive change to the water balance and the estimated time to reach the basin's perennial yield.

f. Introduction of Nacimiento Project water into the Atascadero Sub-basin will keep outflows at or just above perennial yield through 2016. Outflows will be greater than inflows after 2016.

Estrella/Creston Area of Concern

An area of the basin - the southern portion of the Estrella sub-area and the northern portion of the Creston sub-area - has shown the greatest and most consistent decline of water levels since 1980 (see Attachment 4). This area is being called the "Estrella/Creston Area of Concern." There is no perennial yield estimate for this area. Sustained groundwater level declines represent a stressing of the groundwater resource, may cause water quality problems, and may require groundwater users to lower wells as groundwater levels decline.

The Estrella sub-area (most of which is in the Area of Concern) represents approximately 16% of the area of the groundwater basin. However, approximately 40% of all groundwater pumping takes place within this area. The amount of pumping has caused a substantial drop in groundwater elevations since 1980. The preceding Table 9 is based on data from the Groundwater Management Plan in development by the District. It shows both short and longer-term declines in wells in the Area of Concern.

Conservation and Data Collection Efforts

Both agricultural and municipal groundwater users have made substantial strides in water efficiency and conservation. Vineyards in the basin have reduced their water use due to economic conditions, more efficient vine and soil management and a commitment to sustainable operations. According to information from the Paso Robles Wine Country Alliance (PRWCA), vineyard water use on a per-acre basis has been dropping in the last 10 years. Many vineyards have adopted the "Code of Sustainable Winegrowing Practices" that covers sustainable operations in water, energy, ecosystem management, solid waste reductions and other areas. The result of this multi-year effort is seen in the declining amount of water used on each acre of vineyard. According to the PRWCA, water use in vineyards has been reduced in some cases to less than one acre-foot/acre/year. The Alliance states that ten years ago, vineyard water use was over two acre-feet/acre/year.

Conservation efforts have also been applied in a winery setting. For example, J. Lohr Vineyards has an aggressive water efficiency and conservation program at its facilities. Water use at this winery has been reduced from 3.5 gallons of water/gallon of wine to 1.2 gallons of water/gallon of wine (2003-2007); a 66% reduction at this facility.

U.C. Extension has commenced a three year study of vineyard water use. It is hoped that this study will more accurately estimate water use in the vineyards. Attachments 5-13 are water balance forecasts using different outflows and water duty assumptions. These scenarios include 0.25-0.50 afy/acre reductions in vineyard water use.

Additionally, the Department has worked with the PRWCA to develop Best Management Practices (BMPs) for water conservation by wineries. These BMPs will address new wineries and will identify actions existing wineries can take to be more water efficient.

The City of Paso Robles has recently embarked on a far-reaching water conservation effort. Mandatory three-day water use restrictions for residential customers were implemented in April 2009, and the City is committing substantial funds to its water conservation program. A comprehensive long-range water conservation plan is in development with the goal of achieving significant reductions in future per capita water use.

Atascadero Mutual Water Company (AMWC) has promoted water conservation since 1993. According to AMWC, the water conservation program has reduced per capita indoor water use and the use of potable water for landscape irrigation. AMWC provides educational resources on its website, in its offices, and in periodic brochures included with water bills. AMWC made a further commitment

to conservation in 1997, signing an MOU with the California Urban Conservation Council and continues to implement and meet the goals of Best Management Practices for Water Conservation including

- Conservation Rate Structure (i.e. Tier Water Rates)
- Turf conversion rebates
- Lawn aeration rebates
- Sprinkler nozzle replacement rebates
- Irrigation controller rain sensor rebates
- Weather based irrigation controller and soil moisture sensor rebates
- High efficiency clothes washing machine rebates
- High efficiency toilet rebates
- School education programs
- Free seminars on water conserving landscape design and plant selection
- Free landscape/home water surveys
- Annual Water-Conserving Landscape awards

Atascadero MWC is a member of the California Urban Water Conservation Council, Groundwater Guardian Program, Alliance for Water Efficiency, Water Education Foundation, and SLO County Partners in Water Conservation.

The Templeton CSD currently promotes water conservation throughout its service area. The Templeton CSD has a full time water conservation coordinator who works to educate the public through informational workshops, literature, handouts, and occasional rebate programs. Recently, the Templeton CSD has revised their Water Conservation Ordinance to ensure that conservation standards for the Templeton CSD remain current and efficient. The Templeton CSD is an active member in the SLO County Partners in Water Conservation, Central Coast Partners in Water Quality, and the California Urban Water Conservation Council.

Decision–Making Constraints

There are several possible actions available to address the potential for overdraft. However, there are over-arching issues that complicate any action the County might wish to take:

1. The County has limited regulatory authority in water use, especially by cities and agriculture. Therefore, it will be difficult for the County to directly affect the use of water by the two primary groundwater users.
2. The County's primary regulatory role is land use and building.

3. The major portion of basin outflows are not measured, but are estimated. While municipal pumping is measured, agricultural, rural, and most small community/commercial pumping is estimated. This adds to the uncertainty regarding actual groundwater use.
4. Identification of changing groundwater levels is based on limited data.

Consistency with the General Plan

As noted above, the County's primary regulatory role is land use regulation and issuance of building permits. The recommended actions below emphasize this regulatory role. These recommended land use and building actions must be consistent with any applicable general plan policies. The Water Resource chapter of the Conservation and Open Space Element (COSE) contains goals, policies and implementation strategies that will affect the recommended actions in this RCS. Policies in the Agriculture Element address the preeminence of agricultural water supply.

Conservation and Open Space Element (COSE)

Goal 1 of the COSE Water Resources chapter states:

> *The County will have a reliable and secure regional water supply.*

Policies in support of this goal include:

> **Policy WR 1.13 Density increases in rural areas**- Do not approve General Plan amendments or land divisions that increase the density or intensity of non-agricultural uses in rural areas that have a recommended or certified Level of Severity II or III for water supply until a Level of Severity I or better is reached, unless there is an overriding public need.
>
> **Policy WR 1.14 Avoid net increase in water use** - Avoid a net increase in non-agricultural water use in groundwater basins that are recommended or certified as Level of Severity II or III for water supply. Place limitations on further land divisions in these areas until plans are in place and funded to ensure that the perennial yield will not be exceeded.
>
> **Policy WR 1.2 Conserve Water Resources** - Water conservation is acknowledged to be the primary method to serve the county's increasing population. Water conservation programs should be implemented countywide before more expensive and environmentally costly forms of new water are secured.

Policy WR 1.7 Agricultural operations - Groundwater management strategies will give priority to agricultural operations. Protect agricultural water supplies from competition by incompatible development through land use controls.

Implementation Strategy WR 1.7.1 Protect agricultural water supplies - Consider adopting land use standards, such as growth management ordinance limits for non-agriculturally-related development on certain rural areas, larger minimum parcel sizes in certain rural areas, and merger of substandard rural parcels, in order to protect agricultural water supplies from competing land uses.

Implementation Strategy WR 1.12.2 Require water supply assessments - Require applications for land divisions, which would increase density or intensity in groundwater basins with recommended or certified Levels of Severity II or III for water supply or water systems and are not in adjudication, to include a water supply assessment (WSA) prepared by the applicable urban water supplier (as defined by California Water Code Section 10617). The WSA should:

a. Determine whether the total projected water supplies for the project during the next 20 years will meet the projected water demand associated with the proposed project, in addition to existing and planned future uses, including agricultural uses.
b. If water supplies will be insufficient, the WSA should include the water purveyor's plans for acquiring additional water supplies.
c. If there is no water purveyor, then the County will direct the preparation of the WSA at the subdivider's expense.

Goal 2 of the COSE Water Resources chapter states:

The County will collaboratively manage groundwater resources to ensure sustainable supplies for all beneficial uses.

Policies and Implementation Strategies in support of this goal include:

a. **Implementation Strategy WR 2.2.2 Improve well permit data collection** - Improve data obtained from well permit applications regarding location, depth, yield, use, flow direction, and water levels.

b. **Implementation Strategy WR 2.2.3 Pursue data collection from all groundwater wells** - Secure right of access to all new key wells together with retaining voluntary access to existing wells having useful histories to ensure that the County's investment in these records is protected. Develop a data collection program by seeking permission from each of the well owners for County use with identification of the land owner protected from public or other uses and individual data shall remain confidential.

c. **Implementation Strategy WR 2.2.4 Groundwater data collection from water purveyors** - Require, to the extent feasible, all water purveyors with five or more connections to report monthly pumping data to the Department of Planning and Building on an annual basis for use in the Resource Management System.

d. **Implementation Strategy WR 2.2.5 Groundwater data collection for new development** - Condition discretionary land use permits for new, nonagricultural uses in groundwater basins with a recommended or certified Level of Severity I, II, or III to monitor and report water use to the Department of Planning and Building on an annual basis for use in the Resource Management System.

Agriculture Element

The Agriculture Element addresses priority of groundwater use. The Element states:

AGP11: Agricultural Water Supplies.

a. Maintain water resources for production agriculture, both in quality and quantity, so as to prevent the loss of agriculture due to competition for water with urban and suburban development.

b. Do not approve proposed general plan amendments or rezonings that result in increased residential density or urban expansion if the subsequent development would adversely affect: (1) water supplies and quality, or (2) groundwater recharge capability needed for agricultural use.

c. Do not approve facilities to move groundwater from areas of overdraft to any other area, as determined by the Resource Management System in the Land Use Element.

LOS Criteria

For water supply, the RMS defines levels of severity in relation to the time it would take for the resource to be used to its capacity, as follows:

LOS I	Level I is reached for a water resource when increasing water demand projected over nine years equals or exceeds the estimated dependable supply.
LOS II	Level II for a water resource occurs when water demand projected over seven years (or other lead time determined by a resource capacity study) equals or exceeds the estimated dependable supply.
LOS III	A Level of Severity III exists when water demand equals the available resource; the amount of consumption has reached the dependable supply of the resource.

According to the above table, a Level of Severity III (LOS III) can be established if a basin has reached its perennial yield *or dependable supply will be depleted before new supplies are developed* (emphasis added). The water forecasts in Attachments 5-12 indicate that perennial yield will be reached in the Paso Robles basin anywhere from 2010 to 2025. With the exception of unallocated Nacimiento Project water, no additional supplemental water supplies are on the horizon.

A Level of Severity I is recommended for the Atascadero Sub-basin. According to the sub-basin water balance scenario (Attachment 13), perennial yield will be reached in the years 2019-2021. This nine-year period corresponds to an LOS I.

RECOMMENDATIONS

A Level of Severity III is recommended for the Paso Robles Groundwater Basin. Recommended actions are divided into monitoring and land use measures.

A. Paso Robles Groundwater Basin

Recommended Level of Severity: **III**

Recommended Monitoring Actions: (The following actions A1-6 also apply to the Atascadero Sub basin)

1. The County should initiate the development of a groundwater monitoring program for approval by the Board of Supervisors and with elements that can be adopted by ordinance. The program should, at a minimum, address groundwater level and usage data collection. Effort to develop the program should include town-hall meetings to ensure stakeholder involvement. Issues to be addressed during the development of the program would include, but not be limited to, gaps in the existing monitoring network, voluntary versus non-voluntary participation, distinguishing how different users (urban, agricultural, rural) would be involved/affected/not affected, education and outreach, understanding what other amendments to County Code related to groundwater data collection are being developed, and the legal authorities of the County/District. The program should be consistent with the following:

    a. California Statewide Groundwater Elevations Monitoring Program (CASGEM – Senate Bill X7 6)

    b. District and stakeholder efforts on the Groundwater Management Plan now under preparation.

    c. The Countywide Master Water Plan

    d. Current monitoring programs of the Department of Public Works

2. Continue studies of the groundwater basin and stakeholder coordination efforts including the update and improvement of the numerical groundwater model and establishing a mechanism to fund these ongoing efforts (e.g. zone of benefit; groundwater district).

3. The County will develop and implement, in collaboration with other water purveyors within the Paso Robles Groundwater Basin and the Atascadero Sub-basin, a water conservation outreach and education program for the rural area. The outreach program will inform rural groundwater users of the state of the basin, include suggested conservation and efficiency measures, and if possible, provide incentives to water conservation and efficiency efforts.

4. The District will continue to conduct biannual groundwater measurements to chart the scope of groundwater level changes.

5. Title 8 of the County Code will be amended in accordance with the recommendations in the Resource Management System Annual Summary Report.

6. The County will require that the new wells be a part of the District groundwater level measuring program if needed.

Recommended Land Use Actions: The following actions 7, 8, 9, 10 and 12 do not apply to the Atascadero Sub basin.

7. In urban areas (defined as lands located within the County Land Use Element's Urban Reserve Lines) that do not have access to supplemental water (e.g. Nacimiento Project water), require new discretionary development that uses groundwater to use the California Urban Water Conservation Council's (CUWCC) best management practices for water conservation and offset 100 percent of its new water use with non-agricultural water.

   No land use restrictions are imposed on development applications by this RCS in urban areas (defined as lands located within the County's Urban Reserve Lines) of the basin, including LAFCo Spheres of Influence for incorporated cities, if the following requirements are met:

   a. the project has access to supplemental water;
   b. the development application is accompanied by a "will-serve" letter from a water purveyor that has access to supplemental water; and
   c. the site of the proposed development will be annexed and developed within a city.

8. In unincorporated rural areas of the basin defined as lands located outside the County Land Use Element's Urban Reserve Lines:

   a. Do not approve General Plan amendments that result in a net increase in the non-agricultural use of groundwater;
   b. Prohibit new land divisions in the rural areas of the basin;
   c. All discretionary development shall offset its water use with non-agricultural water, except that proposed Agricultural Processing uses (as defined in the Land Use Ordinance), including outdoor and other appurtenant water use, shall be subject to project- specific land use and/or water conservation mitigation measures required by the review authority based on environmental review.

9. New wineries shall use best management practices consistent with the BMP's identified in Attachment 14.

10. Revise the Growth Management Ordinance and the Resource Management System to substantially limit yearly non-agricultural development in the rural areas of the basin.

11. The County will develop a landscape ordinance that will limit the amount of turf and other high-water use features on all parcels within the Paso Robles Groundwater Basin, Including the Atascadero Sub-basin.

12. The Department shall work with stakeholders to develop best management practices for prevalent land uses in the basin similar to the winery BMP developed by the Paso Robles Wine County Alliance.

B. Atascadero Sub-basin

Recommended Level of Severity: I

1. Support and actively facilitate collaborative efforts among the Atascadero Mutual Water Company, the Templeton CSD and the City of Paso Robles in their efforts, to develop recycled water programs and subscribe to and deliver additional Nacimiento Water as needed to help keep outflows from exceeding inflows to continue to expand their water conservation efforts.

Attachments:

1. Map of the Basin and subareas
2. Groundwater elevations (2000)
3. Groundwater elevations (2006)
4. Estrella/Creston Area of Concern
5. Scenario 1
6. Scenario 2
7. Scenario 3
8. Scenario 4
9. Scenario 5
10. Scenario 6
11. Scenario 7
12. Scenario 8
13. Atascadero Sub-basin Scenario
14. Winery Best Management Practices

References:

1. Todd Engineers; Update for the Paso Robles Groundwater Basin, December 2007

2. Fugro; Final Report; Paso Robles Groundwater Basin Study – Phase II; February 2005

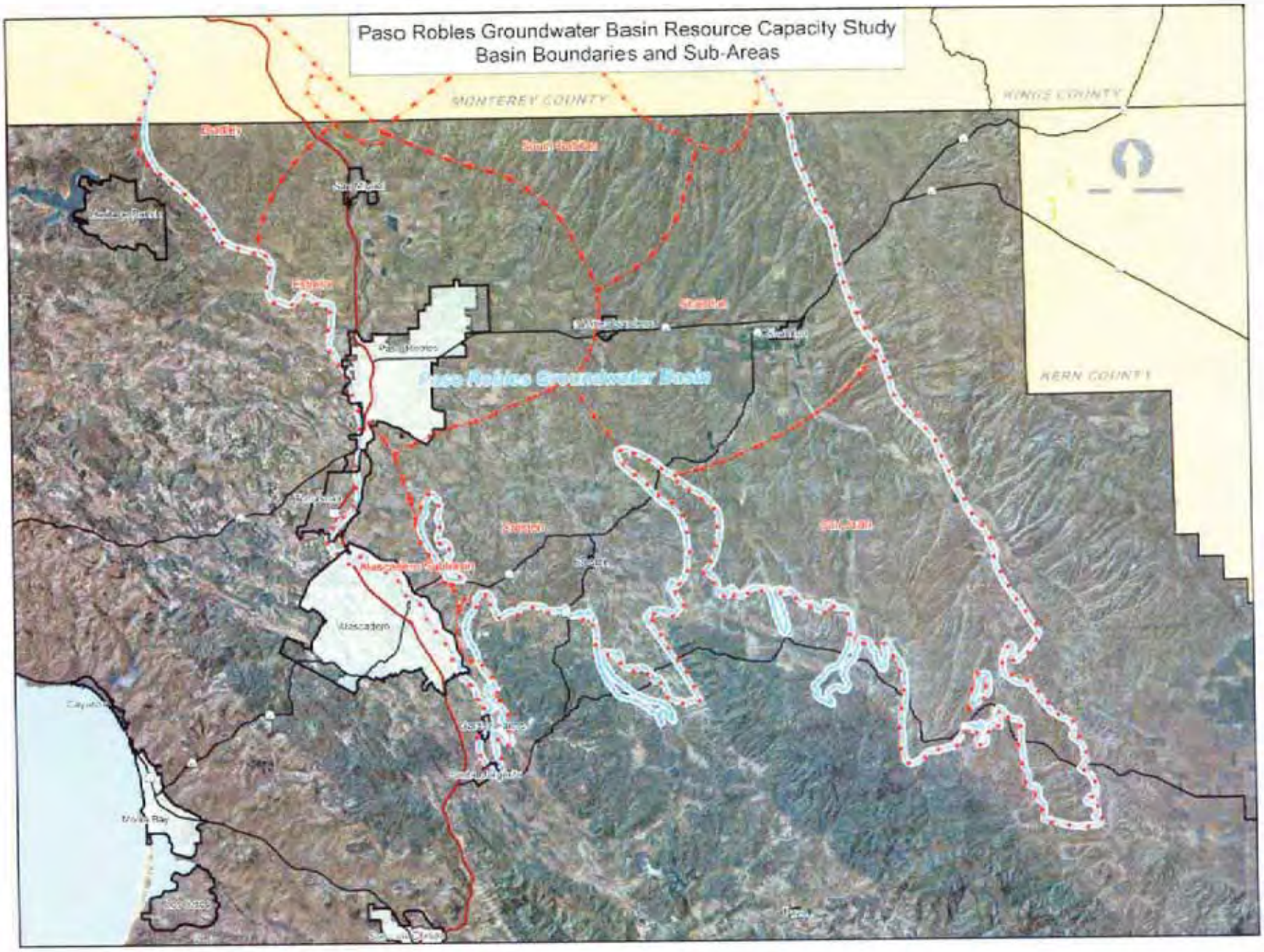
3. Fugro; Final Report; Paso Robles Groundwater Basin Study – Phase I; August 2002

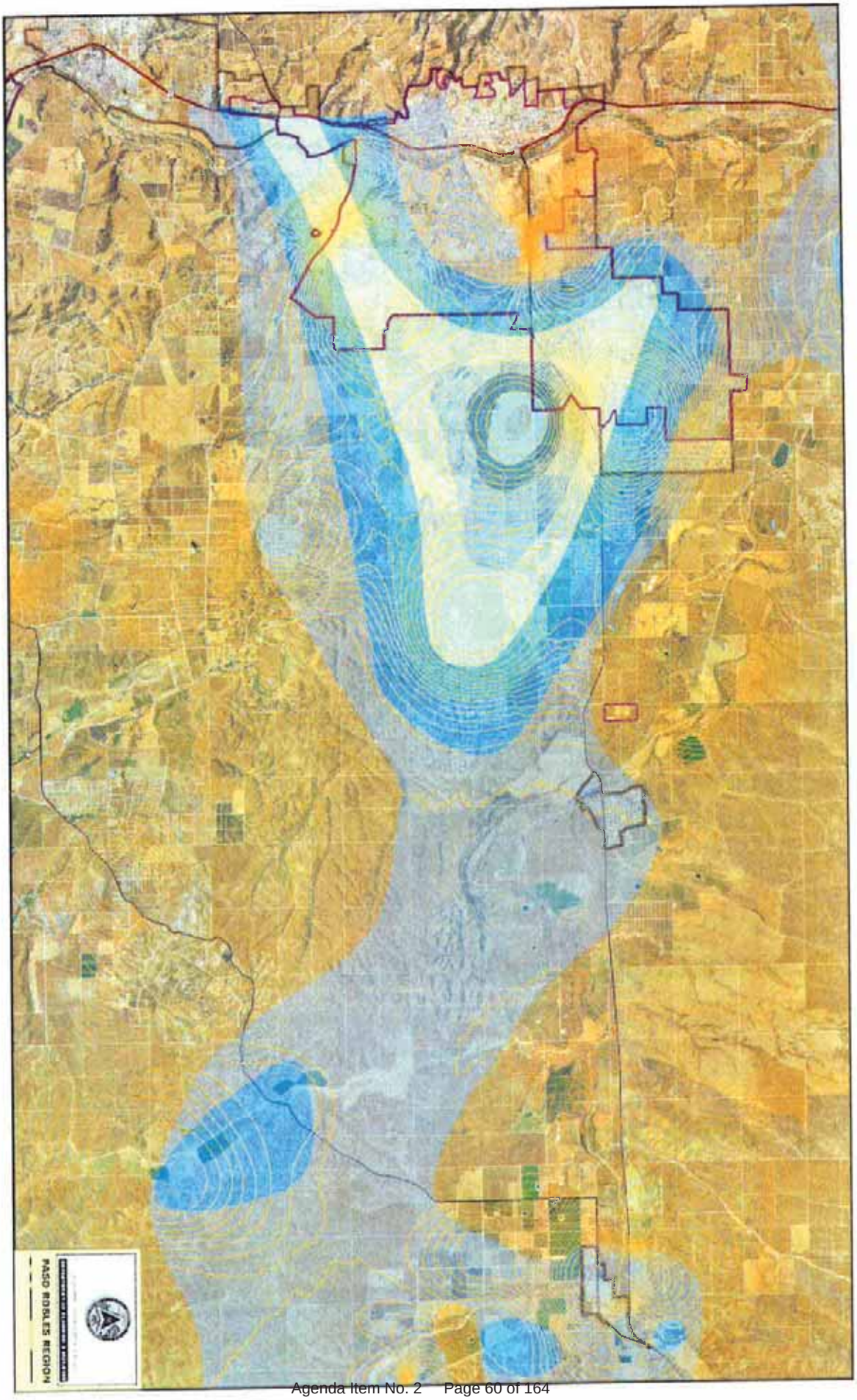
5. Todd Engineers; Evaluation of Paso Robles Groundwater Basin Pumping, Water Year 2006; May 2009

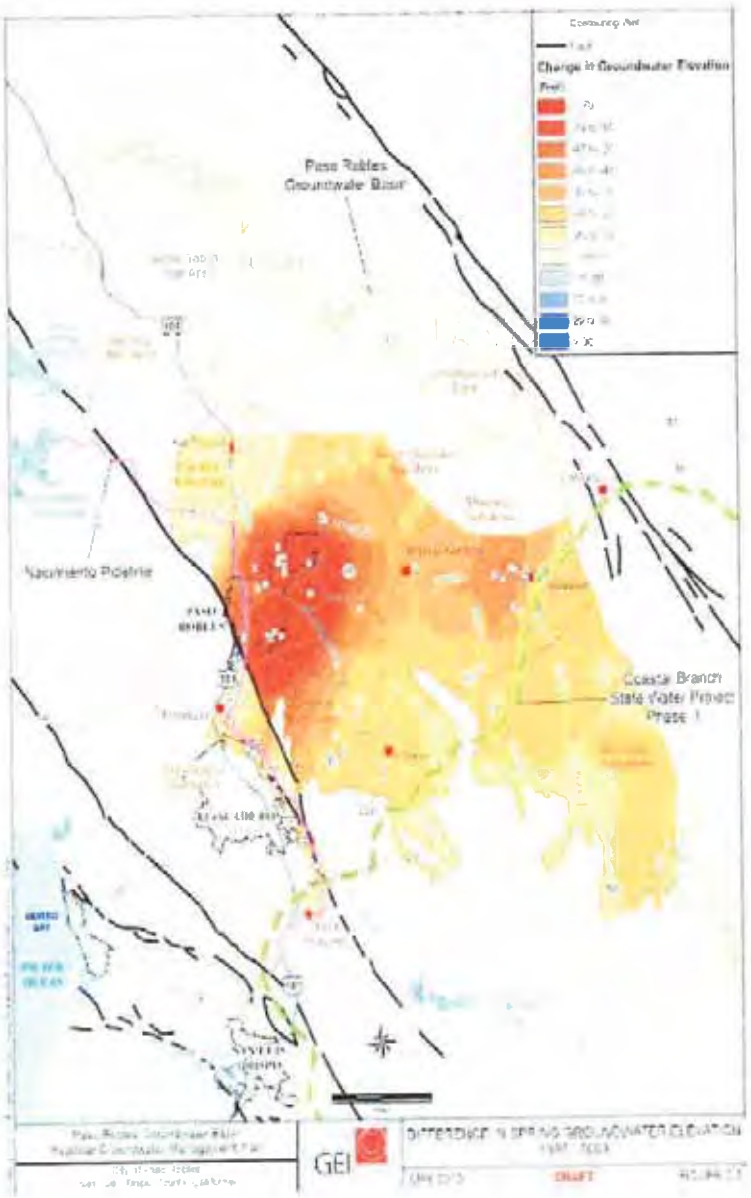
6. Fugro; Paso Robles Groundwater Basin Water Balance Review and Update; March 2010

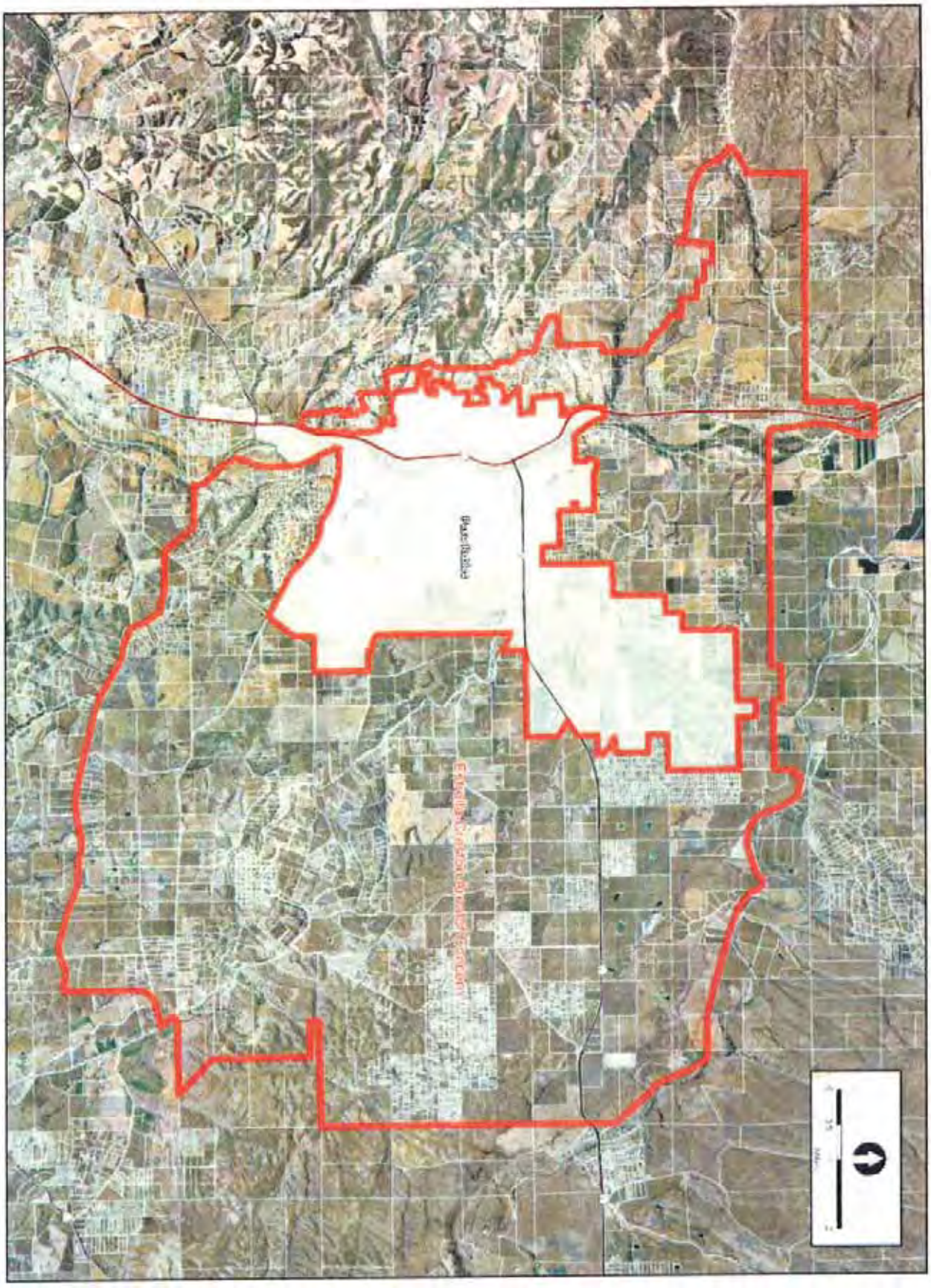
7. Yates; Peer Review of Paso Robles Groundwater Studies

All of these technical studies are available on the Flood Control and Water Conservation District's website at www.slocountywater.org


Paso Robles Groundwater Basin Resource Capacity Study
Basin Boundaries and Sub-Areas
MONTEREY COUNTY
KINGS COUNTY
KERN COUNTY
Paso Robles Groundwater Basin


PASO ROBLES REGION


Change in Groundwater Elevation
Paso Robles
Groundwater Basin
Nacimiento Pipeline
Coastal Branch
State Water Project
Phase II
GEI
DRAFT



Attachment 5
Paso Robles Groundwater Basin
Scenario 1

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural\Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural\Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,409	4,961	6,009	1,368	**32,157**	600	64,023	14,720	12,018	2,736	1,728	**95,825**	-63,669	-63,669
2011	11,810	339,592	108,688	1,430	5,062	6,111	1,423	**474,116**	600	64,984	13,970	12,222	2,846	6,390	**101,011**	373,104	309,435
2012	7,577	321	51,092	1,451	5,111	6,215	1,480	**73,247**	600	65,958	14,606	12,430	2,960	3,938	**100,492**	-27,245	282,191
2013	8,828	3,373	68,771	1,473	5,194	6.321	1,539	**95,498**	600	66,948	13,677	12,641	3,078	4,660	**101,604**	-6,105	276,085
2014	12,511	318,645	103,408	1,495	5,317	6,428	1,601	**449,405**	600	67,952	15,141	12,856	3,201	6,784	**106,534**	342,870	618,956
2015	5,142	0	26,644	1,517	5,437	6,537	1,665	**46,942**	600	68,971	15,107	13,075	3,329	2,533	**103,615**	-56,673	562,283
2016	6,876	12	44,369	1,540	5,561	6,649	1,731	**66,738**	600	70,006	16,066	13,297	3,462	3,536	**106,967**	-40,229	522,054
2017	7,573	8,986	35,181	1,563	5,687	6,762	1,800	**67,552**	600	71,056	13,503	13,523	3,601	3,936	**106,219**	-38,666	483,387
2018	3,626	0	14,269	1,587	5,817	6,876	1,872	**34,048**	600	72,122	12,860	13,753	3,745	1,659	**104,738**	-70,691	412,697
2019	4,599	0	41,206	1,610	5,950	6,993	1,947	**62,306**	600	73,203	14,859	13,987	3,895	2,220	**108,764**	-46,458	366,239
2020	3,943	0	12,734	1,635	6,085	7,112	2,025	**33,534**	600	74,301	14,528	14,225	4,050	1,842	**109,546**	-76,012	290,227
2021	13,033	214,856	98,220	1,659	6,225	7,233	2,106	**343,332**	600	75,416	15,230	14,466	4,212	7,085	**117,010**	226,323	516,550
2022	8,751	12,997	49,650	1,684	6,368	7,356	2,190	**88,997**	600	76,547	15,699	14,712	4,381	4,615	**116,554**	-27,558	488,992
2023	3,510	0	1,500	1,709	6,515	7,481	2,278	**22,994**	600	77,695	15,922	14,962	4,556	1,592	**115,328**	-92,334	396,658
2024	6,499	316	41,834	1,735	6,665	7,608	2,369	**67,026**	600	78,861	15,244	15,217	4,738	3,316	**117,976**	-50,949	345,708
2025	4,691	0	19,386	1,761	6,820	7,738	2,464	**42,860**	600	80,044	16,750	15,475	4,928	2,273	**120,070**	-77,210	268,498

Shaded areas represent outflows greater than safe yield.
Safe yield is 97,700 AFY.

- Agricultural Groundwater Pumping increase by 1.5%/yr
- Rural/Small Community Groundwater Pumping increase by 1.7%/yr
- Small Commercial Groundwater Pumping increase by 4%/yr
- Vineyard water use 1.25-1.50 acre-feet/year/acre
- Rural pumping 1.7 acre-feet/year/acre

Attachment 6
Paso Robles Groundwater Basin
Scenario 2

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural/Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural/Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,429	4,961	6,109	1,421	**32,330**	600	64,969	14,720	12,219	2,841	1,728	**97,078**	-64,747	-64,747
2011	11,810	339,592	108,688	1,472	5,062	6,317	1,534	**474,476**	600	66,918	13,970	12,634	3,069	6,390	**103,581**	370,894	306,147
2012	7,577	321	51,092	1,516	5,111	6,532	1,657	**73,806**	600	68,926	14,606	13,064	3,314	3,938	**104,448**	-30,642	275,506
2013	8,828	3,373	68,771	1,562	5,194	6,754	1,790	**96,272**	600	70,994	13,677	13,508	3,579	4,660	**107,018**	-10,747	264,759
2014	12,511	318,645	103,408	1,609	5,317	6,984	1,933	**450,406**	600	73,124	15,141	13,967	3,866	6,784	**113,482**	336,925	601,684
2015	5,142	0	26,644	1,657	5,437	7,221	2,088	**48,189**	600	75,317	15,107	14,442	4,175	2,533	**112,174**	-63,986	537,698
2016	6,876	12	44,369	1,707	5,561	7,467	2,255	**68,246**	600	77,577	16,066	14,933	4,509	3,536	**117,221**	-48,975	488,723
2017	7,573	8,986	35,181	1,758	5,687	7,720	2,435	**69,340**	600	79,904	13,503	15,441	4,870	3,936	**118,254**	-48,913	439,809
2018	3,626	0	14,269	1,811	5,817	7,983	2,630	**36,135**	600	82,301	12,860	15,966	5,259	1,659	**118,645**	-82,510	357,299
2019	4,599	0	41,206	1,865	5,950	8,254	2,840	**64,714**	600	84,770	14,859	16,509	5,680	2,220	**124,638**	-59,924	297,375
2020	3,943	0	12,734	1,921	6,085	8,535	3,067	**36,285**	600	87,313	14,528	17,070	6,135	1,842	**127,488**	-91,203	206,173
2021	13,033	214,856	98,220	1,979	6,225	8,825	3,313	**346,450**	600	89,933	15,230	17,650	6,625	7,085	**137,123**	209,327	415,500
2022	8,751	12,997	49,650	2,038	6,368	9,125	3,578	**92,507**	600	92,631	15,699	18,250	7,155	4,615	**138,951**	-46,444	369,056
2023	3,510	0	1,500	2,099	6,515	9,435	3,864	**26,923**	600	95,410	15,922	18,871	7,728	1,592	**140,122**	-113,199	255,857
2024	6,499	316	41,834	2,162	6,665	9,756	4,173	**71,405**	600	98,272	15,244	19,513	8,346	3,316	**145,290**	-73,885	181,972
2025	4,691	0	19,386	2,227	6,820	10,088	4,507	**47,719**	600	101,220	16,750	20,176	9,014	2,273	**150,033**	-102,314	79,658

Shaded areas represent outflows greater than safe yield.
Safe yield is 97,700.

- Agricultural Groundwater Pumping increase by 3.0%/yr
- Rural/Small Community Groundwater Pumping increase by 3.4%/yr
- Small Commercial Groundwater Pumping increase by 8.0%/yr
- Vineyard water use 1.25-1.50 acre-feet/year/acre
- Rural pumping 1.7 acre-feet/year/acre

Attachment 7
Paso Robles Groundwater Basin
Scenario 3

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural/Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural/Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,218	4,961	6,009	1,368	**31,966**	600	55,362	14,720	12,018	2,736	1,728	**87,164**	-55,198	-55,198
2011	11,810	339,592	108,688	1,236	5,062	6,111	1,423	**473,922**	600	56,192	13,970	12,222	2,846	6,390	**92,220**	381,702	326,504
2012	7,577	321	51,092	1,255	5,111	6,215	1,480	**73,051**	600	57,035	14,606	12,430	2,960	3,938	**91,569**	-18,518	307,985
2013	8,828	3,373	68,771	1,274	5,194	6,321	1,539	**95,299**	600	57,891	13,677	12,641	3,078	4,660	**92,547**	2,752	310,738
2014	12,511	318,645	103,408	1,293	5,317	6,428	1,601	**449,202**	600	58,759	15,141	12,856	3,201	6,784	**97,341**	351,861	662,599
2015	5,142	0	26,644	1,312	5,437	6,537	1,665	**46,737**	600	59,641	15,107	13,075	3,329	2,533	**94,284**	-47,547	615,051
2016	6,876	12	44,369	1,332	5,561	6,649	1,731	**66,529**	600	60,535	16,066	13,297	3,462	3,536	**97,496**	-30,967	584,084
2017	7,573	8,986	35,181	1,352	5,687	6,762	1,800	**67,341**	600	61,443	13,503	13,523	3,601	3,936	**96,606**	-29,265	554,819
2018	3,626	0	14,269	1,372	5,817	6,876	1,872	**33,833**	600	62,365	12,860	13,753	3,745	1,659	**94,982**	-61,149	493,670
2019	4,599	0	41,206	1,393	5,950	6,993	1,947	**62,088**	600	63,300	14,859	13,987	3,895	2,220	**98,861**	-36,772	456,898
2020	3,943	0	12,734	1,413	6,085	7,112	2,025	**33,313**	600	64,250	14,528	14,225	4,050	1,842	**99,495**	-66,182	390,716
2021	13,033	214,856	98,220	1,435	6,225	7,233	2,106	**343,108**	600	65,214	15,230	14,466	4,212	7,085	**106,807**	236,301	627,017
2022	8,751	12,997	49,650	1,456	6,368	7,356	2,190	**88,769**	600	66,192	15,699	14,712	4,381	4,615	**106,199**	-17,430	609,587
2023	3,510	0	1,500	1,478	6,515	7,481	2,278	**22,762**	600	67,185	15,922	14,962	4,556	1,592	**104,817**	-82,055	527,532
2024	6,499	316	41,834	1,500	6,665	7,608	2,369	**66,792**	600	68,192	15,244	15,217	4,738	3,316	**107,307**	-40,516	487,016
2025	4,691	0	19,386	1,523	6,820	7,738	2,464	**42,621**	600	69,215	16,750	15,475	4,928	2,273	**109,242**	-66,620	420,396

Shaded areas represent outflows greater than safe yield.
Safe yield is 97,700 AFY

- Agricultural Groundwater Pumping increase by 1.5%/yr
- Rural/Small Community Groundwater Pumping increase by 1.7%/yr
- Small Commercial Groundwater Pumping increase by 4%/yr
- Vineyard water use 1.00-1.25 acre-feet/year/acre
- Rural pumping 1.7 acre-feet/year/acre

Attachment 8
Paso Robles Groundwater Basin
Scenario 4

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural/Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural/Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,026	4,961	6,009	1,368	**31,774**	600	46,621	14,720	12,018	2,736	1,728	**78,423**	-46,649	-46,649
2011	11,810	339,592	108,688	1,041	5,062	6,111	1,423	**473,727**	600	47,320	13,970	12,222	2,846	6,390	**83,348**	390,379	343,729
2012	7,577	321	51,092	1,057	5,111	6,215	1,480	**72,852**	600	48,030	14,606	12,430	2,960	3,938	**82,564**	-9,711	334,018
2013	8,828	3,373	68,771	1,073	5,194	6,321	1,539	**95,098**	600	48,751	13,677	12,641	3,078	4,660	**83,407**	11,691	345,710
2014	12,511	318,645	103,408	1,089	5,317	6,428	1,601	**448,998**	600	49,482	15,141	12,856	3,201	6,784	**88,064**	360,934	706,644
2015	5,142	0	26,644	1,105	5,437	6,537	1,665	**46,530**	600	50,224	15,107	13,075	3,329	2,533	**84,868**	-38,338	668,306
2016	6,876	12	44,369	1,122	5,561	6,649	1,731	**66,319**	600	50,977	16,066	13,297	3,462	3,536	**87,939**	-21,620	646,686
2017	7,573	8,986	35,181	1,138	5,687	6,762	1,800	**67,127**	600	51,742	13,503	13,523	3,601	3,936	**86,905**	-19,778	626,909
2018	3,626	0	14,269	1,155	5,817	6,876	1,872	**33,616**	600	52,518	12,860	13,753	3,745	1,659	**85,135**	-51,519	575,390
2019	4,599	0	41,206	1,173	5,950	6,993	1,947	**61,868**	600	53,306	14,859	13,987	3,895	2,220	**88,866**	-26,998	548,392
2020	3,943	0	12,734	1,190	6,085	7,112	2,025	**33,090**	600	54,106	14,528	14,225	4,050	1,842	**89,350**	-56,261	492,131
2021	13,033	214,856	98,220	1,208	6,225	7,233	2,106	**342,882**	600	54,917	15,230	14,466	4,212	7,085	**96,511**	246,371	738,502
2022	8,751	12,997	49,650	1,226	6,368	7,356	2,190	**88,539**	600	55,741	15,699	14,712	4,381	4,615	**95,748**	-7,209	731,293
2023	3,510	0	1,500	1,245	6,515	7,481	2,278	**22,529**	600	56,577	15,922	14,962	4,556	1,592	**94,209**	-71,681	659,612
2024	6,499	316	41,834	1,263	6,665	7,608	2,369	**66,555**	600	57,426	15,244	15,217	4,738	3,316	**96,541**	-29,986	629,626
2025	4,691	0	19,386	1,282	6,820	7,738	2,464	**42,381**	600	58,287	16,750	15,475	4,928	2,273	**98,313**	-55,932	573,694

Shaded areas represent outflows greater than safe yield.
Safe yield is 97,700 AFY.

- Agricultural Groundwater Pumping increase by 1.5%/yr
- Rural/Small Community Groundwater Pumping increase by 1.7%/yr
- Small Commercial Groundwater Pumping increase by 4%/yr
- Vineyard water use 0.75-1.00 acre-feet/year/acre
- Rural pumping 1.7 acre-feet/year/acre

Attachment 9
Paso Robles Groundwater Basin
Scenario 5

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural/Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural/Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,218	4,961	6,109	1,421	**32,119**	600	55,362	14,720	12,219	2,841	1,728	**87,470**	-55,351	-55,351
2011	11,810	339,592	108,688	1,255	5,062	6,317	1,534	**474,258**	600	57,023	13,970	12,634	3,069	6,390	**93,686**	380,572	325,221
2012	7,577	321	51,092	1,292	5,111	6,532	1,657	**73,582**	600	58,734	14,606	13,064	3,314	3,938	**94,256**	-20,673	304,548
2013	8,828	3,373	68,771	1,331	5,194	6,754	1,790	**96,041**	600	60,496	13,677	13,508	3,579	4,660	**96,520**	-479	304,068
2014	12,511	318,645	103,408	1,371	5,317	6,984	1,933	**450,168**	600	62,310	15,141	13,967	3,866	6,784	**102,668**	347,500	651,568
2015	5,142	0	26,644	1,412	5,437	7,221	2,088	**47,944**	600	64,180	15,107	14,442	4,175	2,533	**101,037**	-53,093	598,475
2016	6,876	12	44,369	1,454	5,561	7,467	2,255	**67,993**	600	66,105	16,066	14,933	4,509	3,536	**105,749**	-37,756	560,719
2017	7,573	8,986	35,181	1,498	5,687	7,720	2,435	**69,080**	600	68,088	13,503	15,441	4,870	3,936	**106,438**	-37,358	523,361
2018	3,626	0	14,269	1,543	5,817	7,983	2,630	**35,867**	600	70,131	12,860	15,966	5,259	1,659	**106,475**	-70,608	452,753
2019	4,599	0	41,206	1,589	5,950	8,254	2,840	**64,439**	600	72,235	14,859	16,509	5,680	2,220	**112,103**	-47,664	405,089
2020	3,943	0	12,734	1,637	6,085	8,535	3,067	**36,001**	600	74,402	14,528	17,070	6,135	1,842	**114,576**	-78,575	326,514
2021	13,033	214,856	98,220	1,686	6,225	8,825	3,313	**346,158**	600	76,634	15,230	17,650	6,625	7,085	**123,825**	222,333	548,847
2022	8,751	12,997	49,650	1,737	6,368	9,125	3,578	**92,205**	600	78,933	15,699	18,250	7,155	4,615	**125,253**	-33,047	515,800
2023	3,510	0	1,500	1,789	6,515	9,435	3,864	**26,613**	600	81,301	15,922	18,871	7,728	1,592	**126,014**	-99,401	416,399
2024	6,499	316	41,834	1,842	6,665	9,756	4,173	**71,086**	600	83,740	15,244	19,513	8,346	3,316	**130,759**	-59,673	356,726
2025	4,691	0	19,386	1,898	6,820	10,088	4,507	**47,389**	600	86,252	16,750	20,176	9,014	2,273	**135,065**	-87,675	269,051

Shaded areas represent outflows greater than safe yield.
Safe yield is 97,700 AFY.

- Agricultural Groundwater Pumping increase by 3.0%/yr
- Rural/Small Community Groundwater Pumping increase by 3.4%/yr
- Small Commercial Groundwater Pumping increase by 8.0%/yr
- Vineyard water use 1.00-1.25 acre-feet/year/acre
- Rural pumping 1.7 acre-feet/year/acre

Attachment 10
Paso Robles Groundwater Basin
Scenario 6

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural\Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural\Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,026	4,961	6,109	1,421	**31,927**	600	46,621	14,720	12,219	2,841	1,728	**78,729**	-46,802	-46,802
2011	11,810	339,592	108,688	1,056	5,062	6,317	1,534	**474,060**	600	48,020	13,970	12,634	3,069	6,390	**84,683**	389,377	342,575
2012	7,577	321	51,092	1,088	5,111	6,532	1,657	**73,378**	600	49,460	14,606	13,064	3,314	3,938	**84,982**	-11,604	330,971
2013	8,828	3,373	68,771	1,121	5,194	6,754	1,790	**95,830**	600	50,944	13,677	13,508	3,579	4,660	**86,968**	8,862	339,833
2014	12,511	318,645	103,408	1,154	5,317	6,984	1,933	**449,952**	600	52,472	15,141	13,967	3,866	6,784	**92,830**	357,122	696,954
2015	5,142	0	26,644	1,189	5,437	7,221	2,088	**47,721**	600	54,047	15,107	14,442	4,175	2,533	**90,904**	-43,183	653,771
2016	6,876	12	44,369	1,225	5,561	7,467	2,255	**67,764**	600	55,668	16,066	14,933	4,509	3,536	**95,312**	-27,548	626,223
2017	7,573	8,986	35,181	1,261	5,687	7,720	2,435	**68,844**	600	57,338	13,503	15,441	4,870	3,936	**95,688**	-26,844	599,379
2018	3,626	0	14,269	1,299	5,817	7,983	2,630	**35,624**	600	59,058	12,860	15,966	5,259	1,659	**95,402**	-59,778	539,601
2019	4,599	0	41,206	1,338	5,950	8,254	2,840	**64,188**	600	60,830	14,859	16,509	5,680	2,220	**100,698**	-36,510	503,091
2020	3,943	0	12,734	1,378	6,085	8,535	3,067	**35,743**	600	62,655	14,528	17,070	6,135	1,842	**102,829**	-67,087	436,004
2021	13,033	214,856	98,220	1,420	6,225	8,825	3,313	**345,892**	600	64,534	15,230	17,650	6,625	7,085	**111,725**	234,167	670,171
2022	8,751	12,997	49,650	1,462	6,368	9,125	3,578	**91,931**	600	66,470	15,699	18,250	7,155	4,615	**112,790**	-20,859	649,312
2023	3,510	0	1,500	1,506	6,515	9,435	3,864	**26,331**	600	68,465	15,922	18,871	7,728	1,592	**113,177**	-86,847	562,465
2024	6,499	316	41,834	1,551	6,665	9,756	4,173	**70,795**	600	70,518	15,244	19,513	8,346	3,316	**117,537**	-46,742	515,723
2025	4,691	0	19,386	1,598	6,820	10,088	4,507	**47,090**	600	72,634	16,750	20,176	9,014	2,273	**121,447**	-74,357	441,366

Shaded areas represent outflows greater than safe yield.
Safe yield is 97,700 AFY.

- Agricultural Groundwater Pumping increase by 3.0%/yr
- Rural/Small Community Groundwater Pumping increase by 3.4%/yr
- Small Commercial Groundwater Pumping increase by 8.0%/yr
- Vineyard water use 0.75-1.00 acre-feet/year/acre
- Rural pumping 1.7 acre-feet/year/acre

Attachment 11
Paso Robles Groundwater Basin
Scenario 7

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural/Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural/Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,409	4,961	3,535	1,368	**29,682**	600	64,023	14,720	7,069	2,736	1,728	**90,877**	-61,194	-61,194
2011	11,810	339,592	108,688	1,430	5,062	3,595	1,423	**471,599**	600	64,984	13,970	7,190	2,846	6,390	**95,979**	375,621	314,426
2012	7,577	321	51,092	1,451	5,111	3,656	1,480	**70,688**	600	65,958	14,606	7,312	2,960	3,938	**95,374**	-24,686	289,740
2013	8,828	3,373	68,771	1,473	5,194	3,718	1,539	**92,896**	600	66,948	13,677	7,436	3,078	4,660	**96,399**	-3,503	286,238
2014	12,511	318,645	103,408	1,495	5,317	3,781	1,601	**446,758**	600	67,952	15,141	7,562	3,201	6,784	**101,240**	345,517	631,755
2015	5,142	0	26,644	1,517	5,437	3,846	1,665	**44,250**	600	68,971	15,107	7,691	3,329	2,533	**98,231**	-53,981	577,774
2016	6,876	12	44,369	1,540	5,561	3,911	1,731	**64,000**	600	70,006	16,066	7,822	3,462	3,536	**101,492**	-37,492	540,283
2017	7,573	8,986	35,181	1,563	5,687	3,977	1,800	**64,768**	600	71,056	13,503	7,955	3,601	3,936	**100,650**	-35,882	504,400
2018	3,626	0	14,269	1,587	5,817	4,045	1,872	**31,216**	600	72,122	12,860	8,090	3,745	1,659	**99,075**	-67,859	436,541
2019	4,599	0	41,206	1,610	5,950	4,114	1,947	**59,426**	600	73,203	14,859	8,227	3,895	2,220	**103,004**	-43,578	392,963
2020	3,943	0	12,734	1,635	6,085	4,184	2,025	**30,605**	600	74,301	14,528	8,367	4,050	1,842	**103,689**	-73,084	319,879
2021	13,033	214,856	98,220	1,659	6,225	4,255	2,106	**340,354**	600	75,416	15,230	8,510	4,212	7,085	**111,053**	229,301	549,181
2022	8,751	12,997	49,650	1,684	6,368	4,327	2,190	**85,968**	600	76,547	15,699	8,654	4,381	4,615	**110,496**	-24,529	524,652
2023	3,510	0	1,500	1,709	6,515	4,401	2,278	**19,913**	600	77,695	15,922	8,801	4,556	1,592	**109,167**	-89,254	435,398
2024	6,499	316	41,834	1,735	6,665	4,476	2,369	**63,894**	600	78,861	15,244	8,951	4,738	3,316	**111,710**	-47,817	387,581
2025	4,691	0	19,386	1,761	6,820	4,552	2,464	**39,673**	600	80,044	16,750	9,103	4,928	2,273	**113,698**	-74,024	313,557

Shaded areas represent outflows greater than safe yield.
Safe yield is 97,700 AFY

- Agricultural Groundwater Pumping increase by 1.5%/yr
- Rural/Small Community Groundwater Pumping increase by 1.7%/yr
- Small Commercial Groundwater Pumping increase by 4%/yr
- Vineyard water use 1.25-1.50 acre-feet/year/acre
- Rural pumping 1.0 acre-feet/year/acre

Attachment 12
Paso Robles Groundwater Basin
Scenario 8

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural/Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural/Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,429	4,961	3,594	1,421	**29,815**	600	64,969	14,720	7,188	2,841	1,728	**92,046**	-62,231	-62,231
2011	11,810	339,592	108,688	1,472	5,062	3,716	1,534	**471,875**	600	66,918	13,970	7,432	3,069	6,390	**98,379**	373,495	311,264
2012	7,577	321	51,092	1,516	5,111	3,842	1,657	**71,117**	600	68,926	14,606	7,685	3,314	3,938	**99,069**	-27,952	283,312
2013	8,828	3,373	68,771	1,562	5,194	3,973	1,790	**93,491**	600	70,994	13,677	7,946	3,579	4,660	**101,456**	-7,966	275,346
2014	12,511	318,645	103,408	1,609	5,317	4,108	1,933	**447,531**	600	73,124	15,141	8,216	3,866	6,784	**107,730**	339,800	615,147
2015	5,142	0	26,644	1,657	5,437	4,248	2,088	**45,215**	600	75,317	15,107	8,495	4,175	2,533	**106,228**	-61,012	554,134
2016	6,876	12	44,369	1,707	5,561	4,392	2,255	**65,171**	600	77,577	16,066	8,784	4,509	3,536	**111,072**	-45,901	508,234
2017	7,573	8,986	35,181	1,758	5,687	4,541	2,435	**66,161**	600	79,904	13,503	9,083	4,870	3,936	**111,896**	-45,734	462,499
2018	3,626	0	14,269	1,811	5,817	4,696	2,630	**32,848**	600	82,301	12,860	9,392	5,259	1,659	**112,071**	-79,223	383,276
2019	4,599	0	41,206	1,865	5,950	4,855	2,840	**61,316**	600	84,770	14,859	9,711	5,680	2,220	**117,840**	-56,525	326,751
2020	3,943	0	12,734	1,921	6,085	5,021	3,067	**32,771**	600	87,313	14,528	10,041	6,135	1,842	**120,459**	-87,688	239,063
2021	13,033	214,856	98,220	1,979	6,225	5,191	3,313	**342,816**	600	89,933	15,230	10,383	6,625	7,085	**129,856**	212,961	452,024
2022	8,751	12,997	49,650	2,038	6,368	5,368	3,578	**88,749**	600	92,631	15,699	10,736	7,155	4,615	**131,436**	-42,686	409,337
2023	3,510	0	1,500	2,099	6,515	5,550	3,864	**23,038**	600	95,410	15,922	11,101	7,728	1,592	**132,352**	-109,314	300,024
2024	6,499	316	41,834	2,162	6,665	5,739	4,173	**67,388**	600	98,272	15,244	11,478	8,346	3,316	**137,256**	-69,868	230,156
2025	4,691	0	19,386	2,227	6,820	5,934	4,507	**43,565**	600	101,220	16,750	11,868	9,014	2,273	**141,725**	-98,160	131,996

Shaded areas represent outflows greater than safe yield.
Safe yield is 97,700 AFY.

- Agricultural Groundwater Pumping increase by 3.0%/yr
- Rural/Small Community Groundwater Pumping increase by 3.4%/yr
- Small Commercial Groundwater Pumping increase by 8.0%/yr
- Vineyard water use 1.25-1.50 acre-feet/year/acre
- Rural pumping 1.0 acre-feet/year/acre

Attachment 13
Atascadero Subbasin

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural/Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural/Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	398	0	6,966	33	1,542	924	244	**10,107**	150	1,492	10,673	1,848	487	81	**14,732**	-4,625	-4,625
2011	1,203	14,712	17,591	33	1,547	940	253	**36,279**	150	1,515	10,306	1,880	507	301	**14,658**	21,621	16,996
2012	781	1,548	11,083	34	1,554	956	263	**16,219**	150	1,538	11,385	1,912	527	185	**15,696**	523	17,519
2013	905	5,439	13,080	34	1,560	972	274	**22,264**	150	1,561	10,362	1,944	548	219	**14,784**	7,481	25,000
2014	1,273	16,893	16,994	35	1,571	989	285	**38,039**	150	1,584	11,692	1,977	570	320	**16,293**	21,746	46,746
2015	538	11	8,320	35	1,577	1,005	296	**11,783**	150	1,608	11,519	2,011	593	119	**15,999**	-4,216	42,530
2016	711	509	10,323	36	1,583	1,022	308	**14,493**	150	1,632	12,337	2,045	616	166	**16,946**	-2,454	40,077
2017	780	1,537	9,285	36	1,588	1,040	321	**14,587**	150	1,656	10,629	2,080	641	185	**15,341**	-754	39,322
2018	386	0	6,922	37	1,593	1,058	333	**10,329**	150	1,681	9,837	2,115	667	77	**14,527**	-4,198	35,124
2019	483	0	9,965	38	1,599	1,075	347	**13,507**	150	1,706	11,683	2,151	693	104	**16,488**	-2,981	32,143
2020	418	0	6,748	38	1,603	1,094	361	**10,261**	150	1,732	11,195	2,188	721	86	**16,072**	-5,810	26,333
2021	1,325	18,515	16,408	39	1,607	1,112	375	**39,381**	150	1,758	11,736	2,225	750	334	**16,953**	22,428	48,761
2022	898	5,198	10,920	39	1,611	1,131	390	**20,188**	150	1,784	12,040	2,263	780	217	**17,234**	2,954	51,715
2023	375	0	5,071	40	1,615	1,151	406	**8,657**	150	1,811	12,093	2,301	811	74	**17,240**	-8,583	43,131
2024	673	332	10,036	40	1,619	1,170	422	**14,292**	150	1,838	11,241	2,340	844	156	**16,569**	-2,277	40,855
2025	493	0	7,500	41	1,623	1,190	439	**11,286**	150	1,866	12,567	2,380	877	106	**17,946**	-6,660	34,194

Shaded areas represent outflows greater than safe yield.
Safe yield is 16,400 AFY.

- Agricultural Groundwater Pumping increase by 2.5%/yr
- Rural/Small Community Groundwater Pumping increase by 0.5%/yr
- Small Commercial Groundwater Pumping increase by 3%/yr
- Vineyard water use 1.25-1.50 acre-feet/year/acre
- Rural pumping 1.7 acre-feet/year/acre

Attachment 14

Winery Water Conservation Best Management Practices
Prepared for the Paso Robles Wine Community
By the Wine Industry Water Committee established July 20th, 2010

1. Conducting a Water Audit:

Water usage should be measured and tracked annually through a Water Audit to increase the potential for saving water by identifying areas where water is wasted or could be reused. The following steps should be used as a general guide to conducting a water audit.

- Identify the major water lines. Determine the quality, quantity, and temperature of water carried by each line.
- Identify all points where water is used, including hose connections. Determine the quantity of water used at each point.
- Determine the capacity and frequency of emptying for each water-containing unit.
- Determine the capacity of each continuous discharge not yet being reused.
- Determine flow rates in floor gutters and whether in the flows are adequate to prevent accumulation of solids.
- Review water use in visitor-serving areas (restrooms, kitchen, and outdoor paved areas).

Results of the audit should be used to make decisions on maintenance, capital improvements and employee training.

2. Employee Training:

Employees, managers, and operators should be encouraged to practice good water conserving measures and taught the importance of water conservation from a resource and business standpoint. Feedback on performance (i.e. monthly water usage) needs to be shared and discussed regularly.

3. Winemaking Operations:

Water conserving measures should be used for activities during the winemaking process including crush operations, press, tank, and barrel washing and barrel soaking. These measures should include, but not be limited to: a) conducting crush and press activities outside and covered wherever feasible to reduce "baking" of waste material on equipment surface; b) pre-cleaning with appropriate tools (e.g. a stiff brush or squeegee) should occur to loosen and remove large material before wash-down; c) use of a timing system, shut-off valve and/or hot water on high pressure washers or hoses for cleaning processing equipment, tanks, floors, etc. should be installed wherever feasible; d) wash down and barrel soaking is conducted with knowledge of wastewater or septic system capacity.

4. Written Procedures:

All written winery procedures should have water conservation elements included with specifics spelled out for rinse times, wash down, water conserving measures, etc.

5. Landscape:

a) Landscaping is drip-irrigated from recycled water, whenever feasible, and has automatic irrigation that is set to water all of the plants on an alternating day frequency; b) Irrigation lines are checked monthly for leaks, as well as defective emitters and sprinkler heads; c) 50% of the landscaping utilizes drought-tolerant plants; d) Mulch or compost is applied once a year; e) Turf is minimized.

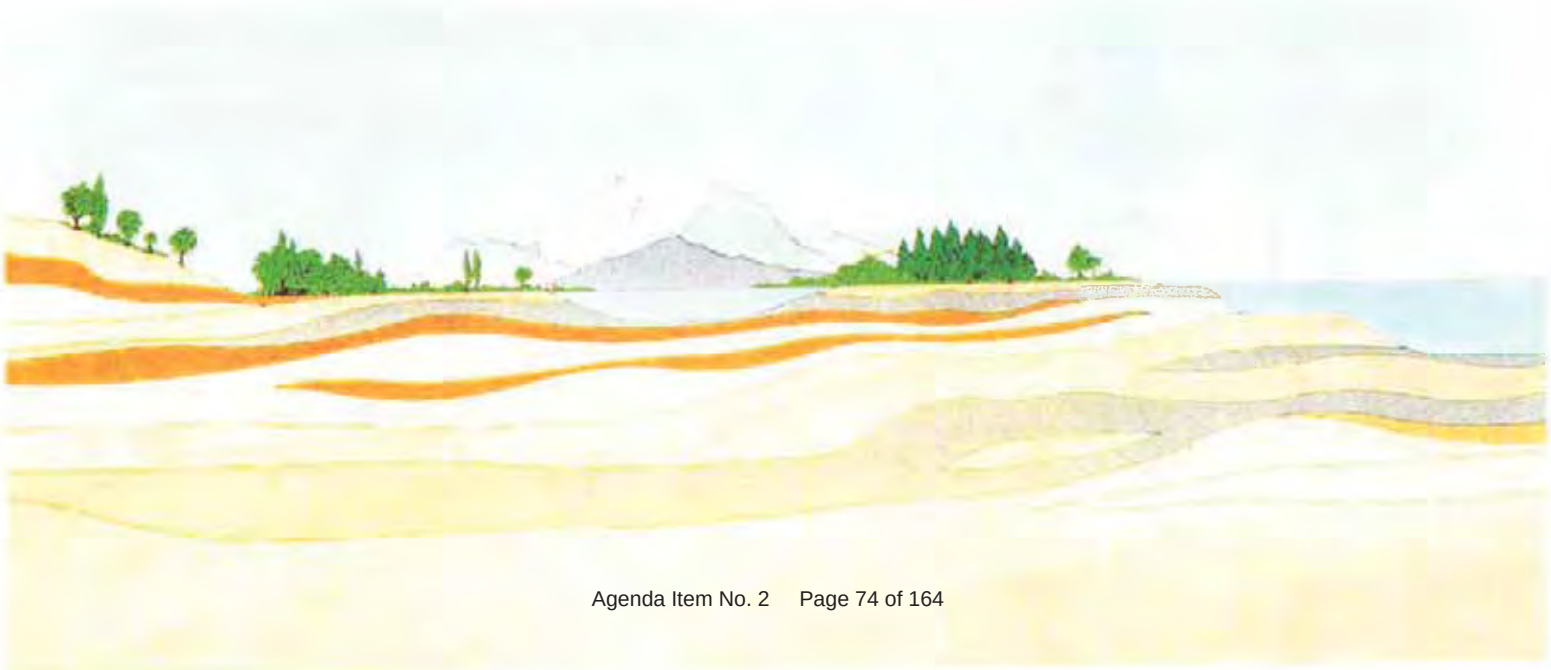
EXHIBIT 4

FUGRO WEST, INC.

PASO ROBLES GROUNDWATER BASIN WATER BALANCE REVIEW AND UPDATE

Prepared for:
County of San Luis Obispo, Department of Public Works
City of Atascadero
Atascadero Mutual Water Company
Templeton Community Services District
City of Paso Robles

March 2010



FUGRO WEST, INC.

660 Clarion Court, Suite A
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Tel: (805) 542-0797
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March 4, 2010
Project No. 3014.036

County of San Luis Obispo
Public Works Department
County Government Center, Room 207
San Luis Obispo, California 93408

Attention: *Ms. Courtney Howard*

Subject: **Paso Robles Groundwater Basin Water Balance Review and Update**

Dear Ms. Howard:

This report presents an update of the water balance for the Paso Robles Groundwater Basin and the Atascadero Subbasin for the water years of 1998 to 2009, as well as a projected water balance for both the Basin and Subbasin for the future period of 2010 to 2025.

The water balance calculations presented in this report show that demand in both the Atascadero Subbasin and the Paso Robles Groundwater Basin as a whole is approaching the average annual perennial yield. Given the degree of uncertainty of the estimates of inflow and outflow components of the water balance equation, it may be advisable to assume that the Basin is essentially in balance by a small margin.

Total annual groundwater outflow (i.e., total groundwater pumping) in the Paso Robles Groundwater Basin and the Atascadero Subbasin increased during the period from 1998 to 2009. In 2009, the water balance calculation (assuming a rural domestic water demand of 1.0 acre feet per year per dwelling unit (AFY/DU)) shows that total groundwater outflow in the Basin was approximately 91,915 AF (or approximately 94% of the perennial yield of 97,700 AFY). The water balance for the scenario that assumes a rural domestic water demand of 1.7 AFY/DU indicates total groundwater outflow of 96,781 AF in 2009 (or approximately 99% of the perennial yield).

In the Atascadero Subbasin, the water balance calculation (assuming a rural domestic demand of 1.0 AFY/DU) shows that total groundwater outflow in the Subbasin in 2009 was approximately 15,255 AF (or about 93% of the perennial yield of 16,400 AFY). The water balance calculation for the scenario that assumes a rural domestic demand of 1.7 AFY/DU indicates total groundwater outflow in the Subbasin in 2009 of 16,012 AF (or approximately 98% of the perennial yield).

With outflows in the Basin and Subbasin approaching the perennial yield values, it may be appropriate in future investigations to evaluate groundwater in storage separately for the three different aquifer regimes (shallow alluvial aquifers, the Paso Robles Formation in the Subbasin, and the Paso Robles Formation within the entire Basin). Given the significant

groundwater in storage in the alluvium within the Subbasin relative to the storage in the Paso Robles Formation in the Subbasin, it is appropriate that future studies account for annual groundwater extractions in the Subbasin from the alluvium separately from those from the Paso Robles Formation. For example, the City of Paso Robles produces approximately one-half of their groundwater production from the alluvial aquifer in the Atascadero Subbasin. Such pumping has little to no impact on water levels within the Paso Robles Formation in the Subbasin. The perennial yield for the Subbasin theoretically applies to combined groundwater extractions from the shallow alluvium and deeper Paso Robles Formation. Exceeding the perennial yield in the Subbasin may not necessarily be reflected by decreasing groundwater levels in the Paso Robles Formation since significant pumping occurs in the alluvium, as evidenced by the pumping totals of the City of Paso Robles. Therefore, the overdraft status of the Subbasin needs to be evaluated by assessment of groundwater level changes in both the alluvium and the Paso Robles Formation relative to the respective pumping from those aquifers.

The results of this study reinforce the need for implementation of an effective basin monitoring and management plan. The results also demonstrate the need to update the County's numerical groundwater flow model, which was developed by Fugro and is based on data through 1997. An update and recalibration of the model would help to refine the many uncertainties and assumptions that were used throughout this water balance update.

Please let us know if you have any questions.

Sincerely,

FUGRO WEST, INC.

Nels Ruud, Ph.D
Project Hydrogeologist

Paul A. Sorensen, P.G., CHg
Principal Hydrogeologist

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PASO ROBLES GROUNDWATER BASIN WATER BALANCE REVIEW AND UPDATE

1.0 INTRODUCTION

This report presents an update of the annual water balance for the Paso Robles Groundwater Basin (Basin) and the Atascadero Groundwater Subbasin (Subbasin) for the period of 1998 to 2009 (Plate 1). The purpose of the report is to provide the County of San Luis Obispo (County) with updated information to assist in the preparation of a Resource Capacity Study (RCS) for the Basin and Subbasin and ongoing Basin and Subbasin management efforts. This update is a continuation of the water balance that was estimated as part of the Paso Robles Groundwater Basin Study (Fugro and Cleath 2002). That study consisted of data collection, conceptualization of the basin hydrogeology, and estimation of a water balance from 1981 to 1997. Phase II of that study (Fugro, ETIC, and Cleath 2005) consisted of the development of a numerical groundwater flow model for the Basin that was used to evaluate several future scenarios of water supply and demand in the Basin. The results of Phase I were documented in a report entitled "*Final Report Paso Robles Groundwater Basin Study*" (Fugro West, 2002). Similarly, the findings of Phase II were documented in a report entitled "*Final Report Paso Robles Groundwater Basin Study, Phase II Numerical Model Development, Calibration, and Application*" (Fugro West, 2005). A major application of the groundwater model during Phase II was to estimate the perennial yields of the Basin and the Subbasin, which were estimated to be 97,700 acre-feet per year (AFY) and 16,400 AFY, respectively.

Groundwater pumping in the Basin during the 2006 water year was recently estimated in a study performed by Todd Engineering for the City of Paso Robles and the County (Todd, 2009). The results of that study were documented in a report entitled "*Evaluation of Paso Robles Groundwater Basin Pumping, Water Year 2006*" (Todd, 2009). The water balance update performed in this study expands on the work of Fugro and Cleath (Fugro West, 2002) and Todd (2009). The water balance consists of the quantification of the major natural and anthropogenic sources of groundwater recharge and discharge in the Basin and Subbasin from 1998 to 2009. The 1998 to 2009 water balance was then combined with the 1981 to 1997 water balance from Fugro (2002). Cumulative groundwater storage changes in the Basin and Subbasin from 1981 to 2009 were calculated from their respective water balances.

In addition to updating the water balances from 1998 to 2009, this report also provides a projected water balance for both the Basin and Subbasin for the future period of 2010 to 2025. These projected water balances include future water demand estimates of the major urban communities in the Basin and Subbasin (the projections do not include estimates of future changes in agricultural pumping, which constitutes the single largest component of groundwater pumping in the Basin). Within the next few years, the cities of Paso Robles and Atascadero and the community of Templeton each anticipate receiving surface water supplies from the Nacimiento Water Project. These supplies will be used in conjunction with pumped groundwater to satisfy local urban water demands in the future. In addition to providing an alternative and reliable source of water supply, these surface water deliveries will also reduce the future groundwater pumping demands of these communities.

Numerous uncertainties and assumptions are used, by necessity, in the calculation of the water balance. Additional detailed studies that might refine the methodologies used to develop the assumptions, or the development of new data that might reduce the uncertainties, could potentially significantly affect the results of these calculations. Furthermore, the projected water balances from 2010 to 2025 are not intended to provide absolute predictions of future groundwater recharge and discharge rates, and subsequent groundwater storage changes. Instead, they provide for a general assessment of anticipated future groundwater pumping demands with respect to current estimates of perennial yield given assumed trends in agricultural, urban, and rural water use and future climate. The specific assumptions used in the calculation of the water balances for the Basin and Subbasin from 2010 to 2025 are discussed in this report.

The groundwater supplies in the Basin and Subbasin are predominantly derived from aquifer storage of the Salinas River alluvium and the Paso Robles Formation (Plate 2). Although these aquifers are hydraulically connected, the recharge and discharge processes operating on them are not identical. Therefore, this report also provides a qualitative discussion of the interaction between the underflow in the Salinas River alluvium and the groundwater reservoir of the Paso Robles Formation. That discussion provides clarification of the perennial yield concept with respect to the groundwater flow and storage characteristics of the alluvium and the Paso Robles Formation.

2.0 BACKGROUND AND SETTING

2.1 STUDY AREA

The Paso Robles Groundwater Basin is 505,000 acres in size and spans southern Monterey County and northern San Luis Obispo County (Plate 1). The Paso Robles Groundwater Basin is divided into eight sub-areas: 1) Atascadero Groundwater Subbasin, 2) Bradley Subarea, 3) Creston Subarea, 4) Estrella Subarea, 5) North Gabilan Subarea, 6) San Juan Subarea, 7) Shandon Subarea, and 8) South Gabilan Subarea. The Atascadero Groundwater Subbasin is 14,577 acres in size.

The four major urban communities in the Basin are the cities of Paso Robles and Atascadero, and the communities of Templeton and San Miguel (Plate 1). The City of Paso Robles is the water purveyor to its resident population and also operates the associated wastewater treatment plant. The Templeton Community Services District (CSD) and the San Miguel CSD each also provide both potable water service and wastewater treatment for their respective communities. The Atascadero Mutual Water Company (MWC) is the water purveyor to the City of Atascadero, however wastewater treatment is provided by the City of Atascadero.

2.2 RECENT CLIMATE

Measured annual precipitation from 1998 to 2009 at seven rainfall gauge stations located in the Basin is presented in Table 1 (data obtained from County of San Luis Obispo Department of Public Works). The locations of the seven gauge stations are shown on Plate 1. (Four instances of missing annual precipitation measurements are indicated by "red" cells in

Table 1. For those instances, annual precipitation was estimated using correlation relationships with the other gauge stations.) Overall, average annual precipitation over the seven stations varied from 9.6 inches at Camatta Canyon Station No. 138 to 30.3 inches at Santa Margarita Station No. 95 (Table 1).

An annual reference precipitation time series for the Basin was calculated as the average of annual precipitation from six of the seven stations. The Santa Margarita station was omitted from the average calculation because rainfall levels at that station were considered significantly higher, and thus non-representative, than those measured in the valley or otherwise lower lying areas in the Basin. The calculated average of the annual reference precipitation from 1998 to 2009 was 12.9 inches (Table 1).

Based on designated water year types, the water years of 2007 and 2008 were considered 'critical'; 2001, 2002, 2004, and 2009 were considered 'dry'; 2003 was 'below normal'; 1999 and 2000 were 'above normal'; and 1998, 2005, and 2006 were 'wet' water years. Given these water year types and the average annual reference precipitation for the Basin (i.e., 12.9 inches), seven of the twelve years from 1998 to 2009 were below the average annual reference precipitation while the other five years were above.

A long-term average annual precipitation of 17.6 inches per year was computed for the Atascadero MWC Station No. 34 using annual precipitation totals from 1916 to 2009 (Figure 1). Measured annual precipitation for each year from 1998 to 2009 was subtracted from the long-term average of 17.6 inches per year (i.e., to generate the annual departure from the long-term mean) and these departures are presented in Table 2. These departures were then summed to calculate the cumulative change in precipitation from 1998 to 2009 with respect to the long-term average (Table 2). From 1998 to 2009, the cumulative departure of precipitation from the long-term average was –10.4 inches. This negative cumulative departure indicates that the region from 1998 to 2009 received less precipitation on an average annual basis (i.e., 0.9 inches per year less) in comparison to its long-term annual average. The cumulative departure curve for the Atascadero MWC Station No. 34 over the long-term period of 1916 to 2009 is presented on Figure 2.

3.0 ESTIMATED WATER BALANCES FROM 1998 TO 2009

The water balances for the Basin and Subbasin consist of the major groundwater recharge and discharge processes that occur in these areas. In general, the major groundwater recharge components of each water balance are: 1) subsurface inflows, 2) deep percolation of precipitation, 3) streambed percolation, 4) agricultural irrigation return flows, and 5) discharge of treated wastewater. Conversely, the major groundwater discharge components of each water balance are: 1) subsurface outflows, 2) agricultural pumping, 4) urban pumping, 5) small commercial pumping, 6) rural domestic pumping, and 7) phreatophyte extraction. Of note, the County water year begins on July 1 and ends after June 30. For example, the 2006 water year began on July 1, 2005 and ended after June 30, 2006. Therefore, the 12-year study period in this water balance update is from July 1, 1997 to June 30, 2009.

As directed, most of the components of the water balance were based on the assumptions and values presented in the previous Basin study (Fugro, 2002), and were either held constant throughout the water balance update or modified according to a straight-line interpolation between the two known data points of 1997 and 2006. The primary components that were modified as part of this study include the water duty factor of rural domestic pumping (Section 3.2.5) and wastewater discharge and return flows (Section 3.1.5).

As described in Section 3.2.5 – Rural Domestic and Small Community Pumping, two different sets of water duty factors were used to estimate rural domestic pumping in the Basin and Subbasin. This resulted in the development of two water balances for the Basin (Tables 3 and 4) and two water balances for the Subbasin (Tables 5 and 6) from 1998 to 2009. Tables 3 and 4 differ only in the estimation of rural domestic pumping in the Basin. Likewise, Tables 5 and 6 also differ only in the estimation of rural domestic pumping in the Subbasin. These tables are introduced here and are referenced in the subsequent sections that describe the estimation of the individual components in the Basin and Subbasin.

It should be noted that the precision of the results estimated by the methods employed in this study and subsequently presented in the report text and tables do not imply a similar level of accuracy. In other words, a number of assumptions were invoked in the estimation of the recharge and discharge components. These estimated components therefore represent approximations that lie within a reasonable range of expected values. The values of the estimated components were presented "as is" in the report text and tables rather than being subjected to numerical rounding.

3.1 GROUNDWATER RECHARGE

3.1.1 Subsurface Inflows

Annual subsurface inflow in the Basin from 1998 to 2009 was calculated using a linear regression equation developed between estimated annual subsurface inflow and annual measured precipitation at Atascadero MWC Station No. 34 from 1981 to 1997 (Table 1). As part of the regression equation parameter estimation, a multiple R-square statistic is calculated. The multiple R-square statistic is the correlation coefficient of a predicted dependent variable and the measured dependent variable used in the regression equation to estimate the prediction. This statistic provides a measure of the amount of variation that the independent variable (i.e., annual precipitation) can account for of the dependent variable (i.e., subsurface inflow) in the regression relationship. In other words, the multiple R-square statistic provides a measure of how well predictions are made by the regression equation. The multiple R-square statistic varies between 0 and 1, where a value close to 0 indicates that the regression equation is a poor predictor of the dependent variable and a value close to 1 indicates that the regression equation is a good predictor. The computed multiple R-square statistic between annual subsurface inflow and annual precipitation from 1981 to 1997 is 0.94. The regression equation line and the paired values of annual subsurface inflow and annual precipitation from 1981 to 1997 are plotted together on Figure 3. Annual subsurface inflow in the Basin was then estimated from 1998 to 2009 using this regression equation and varied from 3,510 AF in 2007 to 13,033 AF in 2005, with an average annual value of 6,729 AF (Tables 3 and 4).

A similar linear regression relationship was also developed between annual estimated subsurface inflow in the Subbasin and annual measured precipitation at Atascadero MWC Station No. 34 from 1981 to 1997. The associated multiple R-square was also 0.94. The regression equation line and the paired values of annual subsurface inflow and annual precipitation from 1981 to 1997 are plotted together on Figure 4. From 1998 to 2009, estimated subsurface inflows in the Subbasin varied from 375 AF in 2007 to 1,325 AF in 2005, with an average annual value of 696 AF (Tables 5 and 6).

3.1.2 Deep Percolation of Precipitation

Annual deep percolation of precipitation in the Basin from 1998 to 2009 was estimated using a methodology developed by Blaney (1933). The Blaney method was also used in the Phase I Report to estimate deep percolation of precipitation in the Basin from 1981 to 1997 (Fugro West, 2002). Originally, Blaney (1933) measured the amount of precipitation that percolated beyond the root zone for different categories of vegetative cover and for different amounts of precipitation. Using the measured data, Blaney developed a linear regression relationship between the rate of deep percolation of precipitation and the rate of precipitation falling on the ground surface for each of the vegetative cover categories. The applicable vegetative cover categories from the Blaney study used in this update are: 1) grasses and weeds, 2) truck, alfalfa, and miscellaneous crops, 3) non-irrigated grain crops, and 4) deciduous tree crops. The associated linear regression equations developed by Blaney for these four categories are displayed on Figure 5. As noted in the Phase I Report, regression equations were not developed specifically for urban, rural, and suburban land uses, and vineyard crops. As in the Phase I Report, it is assumed here that deep percolation of precipitation for urban, rural, and suburban land uses is modeled by the regression equation for grasses and weeds. Similarly, deep percolation of precipitation for vineyards is modeled using the regression equation for deciduous tree crops.

The total acreage for each of the four vegetative cover categories listed above in the Basin from 1998 to 2009 is presented in Table 7. A reference annual precipitation used here in the Blaney method was calculated as the average annual precipitation of all the gauged stations in Table 1 (excluding the data from the Santa Margarita Station No. 95 (see Section 2.1 – Recent Climate for discussion)). Applying the Blaney method, annual deep percolation of precipitation in the Basin was estimated to be negligible or small during the water years of 1999, 2000, 2002 to 2004, and 2007 to 2009. For the two wettest water years, annual deep percolation of precipitation was estimated to be 321,785 AF in 1998 and 215,760 AF in 2005 (Tables 3 and 4).

Annual deep percolation of precipitation in the Subbasin was also estimated using the regression equations developed by Blaney (1933). The total acreage for each of the four vegetative cover categories is presented in Table 8. Again, annual precipitation used in the Blaney method was calculated as the average annual precipitation of all the gauged stations in Table 1, except for Santa Margarita Station No. 95. Similar to the Basin, annual deep percolation of precipitation in the Subbasin was estimated to be negligible or small during 1999, 2000, 2002 to 2004, and 2007 to 2009. For the two wettest water years, annual deep

percolation of precipitation was estimated to be 16,803 AF in 1998 and 18,478 AF in 2005 (Tables 5 and 6).

It should be noted that the annual estimate of deep percolation of precipitation for a particular year is not identical to the amount of precipitation that recharges the aquifer system during that same year. The recharge rate of precipitation that has percolated into the subsurface is a function of the thickness and transmissive properties of the unsaturated zone. For example, groundwater recharge from precipitation in the shallow Salinas River alluvium likely occurs within the same year that the precipitation infiltrates into the coarse-grained sediments associated with the alluvium. However, the downward flow of precipitation is generally slower through the deeper and lesser permeable sediments of the unsaturated zone associated with a large area of the Paso Robles Formation. As such, the unsaturated zone attenuates the rate at which deep percolation of precipitation recharges the underlying aquifer. The significant volume of precipitation that percolates into the subsurface during a particular year may take several years to recharge the aquifer.

3.1.3 Streambed Percolation

Annual streambed percolation in the Basin from 1998 to 2009 was also estimated using a linear regression relationship developed between estimated annual streambed percolation and annual measured precipitation at Santa Margarita Booster Station No. 95 from 1981 to 1997. The calculated multiple R-square statistic in this regression relationship was 0.82. The regression equation line and the paired values of annual streambed percolation and measured precipitation from 1981 to 1997 are plotted together on Figure 6. Annual streambed percolation in the Basin was then estimated from 1998 to 2009 using this regression equation and varied from 1,500 AF in 2007 to 103,408 AF in 1998, with an average annual value of 40,700 AF (Tables 3 and 4).

A similar linear regression relationship was also developed between annual estimated streambed percolation in the Subbasin and annual measured precipitation at Santa Margarita Booster Station No. 95 from 1981 to 1997. The associated multiple R-square was 0.77. The regression equation line and the paired values of annual streambed percolation and annual precipitation from 1981 to 1997 are plotted together on Figure 7. From 1998 to 2009, estimated streambed percolation in the Subbasin varied from 5,071 AF in 2007 to 16,994 AF in 1998, with an average annual value of 9,874 AF (Tables 5 and 6).

3.1.4 Agricultural Irrigation Return Flows

Annual agricultural irrigation return flows in the Basin from 1998 to 2009 were estimated as a percentage of the gross annual agricultural groundwater pumping (i.e., applied irrigation water). During 1997, irrigation return flows in the Basin were estimated in the Phase I Report to be an average of about 2.2 percent of the gross agricultural pumping demand. From a practical standpoint, it is unlikely that inefficiencies could be reduced below this percentage loss by further improvements to irrigation methods. Therefore, annual irrigation return flows from 1998 to 2009 were estimated as 2.2 percent of annual gross agricultural pumping. Using this percentage loss, annual irrigation return flows in the Basin increased annually from 1,139 AF in

1998 to 1,388 AF in 2009, with an average annual value of 1,264 AF (Table 9). In the Subbasin, annual irrigation return flows increased from 23 AF in 1998 to 32 AF in 2009, with an average annual value of 28 AF (Table 9).

3.1.5 Wastewater Discharge

Wastewater discharge includes discharge of treated effluent from wastewater treatment plants and discharge from on-site septic systems. The City of Paso Robles, City of Atascadero, Templeton CSD, and San Miguel CSD each discharge treated wastewater effluent in the Salinas River alluvium from their respective treatment facilities. Annual discharge volumes of treated wastewater from 1998 to 2009 from these four treatment facilities are presented in Table 10 (a complete data set for 1998 to 2001 was not available from San Miguel CSD and are annual discharge values are estimated. Wastewater discharge by the Templeton CSD began in 2003). The City of Paso Robles and San Miguel CSD discharge to areas in the Salinas River alluvium that are located in the Basin but downstream of the Subbasin. Conversely, the City of Atascadero and Templeton CSD discharge treated wastewater in areas of the alluvium within the Subbasin. The combined annual discharge of treated wastewater in the Basin by all four treatment facilities varied from 4,102 AF in 1999 to 4,862 AF in 2005, with an average annual value of 4,497 AF (Table 10). The annual discharge of treated wastewater in the Subbasin by the City of Atascadero and Templeton CSD varied from 1,030 AF in 2000 to 1,423 in 2005, with an average annual value of 1,178 AF (Table 10).

Small commercial enterprises that provide their own water supply by private wells (see 3.2.4 – Small Commercial Pumping) are assumed to discharge their wastewater in on-site septic systems. Similarly, rural residences and small community water systems that operate private wells (see 3.2.5 – Rural Domestic and Small Community System Pumping) are also assumed to discharge their wastewater in on-site septic systems. For both small commercial and rural domestic/small community private well systems, annual wastewater discharge is further assumed to be 50 percent of the annual pumped volume. Consequently, annual wastewater discharge from small commercial systems increased from 751 AF in 1998 to 1,315 in 2009 in the Basin (Tables 3 and 4) and from 157 AF in 1998 to 237 AF in 2009 in the Subbasin (Tables 5 and 6).

As described later in 3.2.5 – Rural Domestic and Small Community System Pumping, two different sets of water duty factors were used to estimate annual pumping by rural domestic private wells. Under water duty factor Set No. 1, annual wastewater discharge from rural domestic/small community systems increased from 2,824 AF in 1998 to 3,476 AF in 2009 in the Basin (Table 3) and from 530 AF in 1998 to 541 AF in 2009 in the Subbasin (Table 5). Conversely, under water duty factor Set No. 2 annual wastewater discharge from rural domestic/small community systems increased from 4,801 AF in 1998 to 5,909 AF in 2009 in the Basin (Table 4) and from 902 AF in 1998 to 919 AF in 2009 in the Subbasin (Table 6).

3.2 GROUNDWATER DISCHARGE

3.2.1 Subsurface Outflows

Annual subsurface outflow in the Basin from 1981 to 1997 was estimated as a constant value of 600 AF. This estimate for the Basin was also applied to each year from 1998 to 2009 (Tables 3 and 4). Similarly, annual subsurface outflow in the Subbasin from 1981 to 1997 was estimated as a constant value of 150 AF and was also applied to each year from 1998 to 2009 (Tables 5 and 6).

3.2.2 Agricultural Pumping

Gross agricultural pumping in the Basin and Subbasin during 2006 was estimated to be 60,000 and 1,348 AF, respectively (Todd, 2009). Estimated gross agricultural pumping in the Basin during 1997 by Fugro and Cleath (Fugro West, 2005) was used in conjunction with the corresponding Todd estimate during 2006 to estimate via straight-line interpolation the annual gross agricultural pumping in the Basin from 1998 to 2005. Annual gross agricultural pumping from 2007 to 2009 was subsequently estimated by extrapolation from the 2006 estimate by Todd (2009). Similarly, annual gross agricultural pumping in the Subbasin from 1998 to 2005 and from 2007 to 2009 was also estimated by straight-line interpolation and extrapolation, respectively.

By this methodology, annual gross agricultural pumping in the Basin increased from 51,794 AF in 1998 to 63,077 AF in 2009 (Table 10). In a similar manner, annual gross agricultural pumping in the Subbasin increased monotonically from 1,059 AF in 1998 to 1,456 AF in 2009 (Table 10).

3.2.3 Urban Pumping

Annual urban pumping from 1998 to 2009 by the City of Paso Robles, Atascadero MWC, Templeton CSD, and San Miguel CSD is presented in Table 11. Production wells operated by the Atascadero MWC and Templeton CSD are located entirely within the Subbasin whereas the production wells operated by San Miguel CSD are located entirely within the Estrella Sub-area of the Basin. The City of Paso Robles Thunderbird well field is located in the shallow alluvium within the Subbasin whereas the City's other shallow and deep production wells are located in the Estrella Sub-area of the Basin. According to historical data, approximately 50 percent of the City's total groundwater extraction occurs in the Thunderbird well field. Therefore, for this study it is assumed that 50 percent of the City's annual extraction from 1998 to 2009 occurs within the Subbasin and the other 50 percent occurs in the Estrella Sub-area.

Annual urban pumping from 1998 to 2009 for the City of Paso Robles, Templeton CSD, and San Miguel CSD were estimated by straight-line interpolation using reported pumped volumes for 1997 and 2006. Annual pumping by the Atascadero MWC was instead reported for each calendar year from 1998 to 2009. In Table 11, annual pumping by the City of Paso Robles increased from 6,026 AF in 1998 to 8,032 AF in 2009; increased from 1,181 AF in 1998 to 1,782 AF in 2009 for Templeton CSD; and increased from 239 AF in 1998 to 379 AF in 2009 for San

Miguel CSD. Annual pumping by the Atascadero MWC varied from 6,189 AF in 2009 to 6,307 AF in 1998, with an average annual pumping rate of 6,248 AF. Total annual urban pumping in the Basin by all four purveyors increased from 13,752 AF in 1998 to 16,382 AF in 2009, whereas the total annual urban pumping in the Subbasin increased from 10,500 AF in 1998 to 11,987 AF in 2009 (Table 11).

3.2.4 Small Commercial Pumping

Small commercial pumping in the Basin and Subbasin during 2006 was estimated to be 2,323 and 430 AF, respectively, by Todd (2009). Similarly, small commercial pumping in the Basin and Subbasin during 1997 was estimated to be 1,400 and 300 AF, respectively, by Fugro and Cleath (Fugro West, 2002). These estimates during 1997 and 2006 were used to estimate, via straight-line interpolation, the annual small commercial pumping in the Basin and Subbasin from 1998 to 2005. Annual small commercial pumping in the Basin and Subbasin from 2007 to 2009 was subsequently estimated by extrapolation from the corresponding estimates for 2006 by Todd (2009). Using this approach, annual small commercial pumping in the Basin increased from 1,503 AF in 1998 to 2,631 AF in 2009 (Tables 3 and 4). Similarly, annual small commercial pumping in the Subbasin increased from 314 AF in 1998 to 473 AF in 2009 (Tables 5 and 6).

3.2.5 Rural Domestic and Small Community Pumping

Rural domestic pumping for the 2006 water year was estimated by Todd (2009) for the eight major sub-areas of the Basin. For this, Todd performed a survey of the dwelling unit types associated with the rural parcels in each sub-area and assumed that each dwelling unit pumped groundwater at a water duty factor of 1.7 acre-foot per year per dwelling unit (AFY/DU). As of the 2006 water year, there were 6,596 dwelling units in the Basin and 1,076 dwelling units within the Subbasin. The parcels surveyed by Todd included those serviced by small community water systems. Therefore, the rural domestic pumping demand estimated by Todd represented both actual rural domestic demand as well as small community pumping demand. Similarly, the rural domestic pumping demand estimated in this study will also include actual rural domestic demand and small community pumping demand.

Rural domestic pumping in the Basin and Subbasin during 1997 in the Phase I Report was also estimated using a water duty factor of 1.7 AFY/DU. The Phase I Report estimate of rural domestic pumping during 1997 was 9,400 AF whereas the estimate for the Subbasin was 1,800 AF. Dividing these two pumping rates by 1.7 AFY/DU results in 5,529 dwelling units in the Basin and 1,059 dwelling units in the Subbasin. The number of dwelling units for each year from 1998 to 2005 in the Basin was then estimated by interpolating between the calculated number of dwelling units during 1997 and the surveyed number from Todd (2009) for 2006. The number of dwelling units for 2007 to 2009 was simply extrapolated from the 2006 number. A similar approach was also used to estimate the number dwelling units for each year in the Subbasin from 1998 to 2005 and from 2007 to 2009.

Rural domestic pumping was estimated for two different sets of water duty factors. Set No. 1 consisted of a single water duty factor of 1.0 AFY/DU that was applied to all dwelling units

in the Basin (i.e., all dwelling units in the seven sub-areas and the Subbasin). Set No. 2 similarly consisted of a single water duty factor of 1.7 AFY/DU that was also applied to all dwelling units in the Basin.

Annual rural domestic pumping in the Basin increased linearly from 1998 to 2009 for both sets of water duty factors. For Set No. 1, rural domestic pumping increased from 5,648 AF in 1997 to 6,951 AF in 2009 (Table 12). For Set No. 2, rural domestic pumping increased from 9,601 AF in 1997 to 11,817 AF in 2009 (Table 13).

Annual rural domestic pumping in the Subbasin also increased linearly from 1998 to 2009 for both sets of water duty factors. For Set No. 1, rural domestic pumping increased from 1,061 AF in 1997 to 1,082 AF in 2009 (Table 12). For Set No. 2, rural domestic pumping increased from 1,803 AF in 1997 to 1,839 AF in 2009 (Table 13).

3.2.6 Phreatophyte Extraction

Phreatophyte extraction refers to consumptive use by vegetation along the riparian corridors in the Basin. Areas of riparian vegetation in the Basin were mapped as part of the Phase I Report and a water duty factor was subsequently applied in that study to estimate the annual consumptive use of the phreatophytes. In this study, annual phreatophyte extraction in the Basin from 1998 to 2009 was estimated using a linear regression equation developed between estimated annual phreatophyte extraction in the Basin and annual measured precipitation at Atascadero MWC Station No. 34 from 1981 to 1997 (Figure 8). The calculated multiple R-square statistic in this regression relationship was 0.96. From 1998 to 2009 estimated phreatophyte extraction in the Basin varied from 1,592 AF in 2007 to 7,085 AF in 2005, with an average annual value of 3,449 AF (Tables 3 and 4).

A similar linear regression equation was developed between annual phreatophyte extraction in the Subbasin and measured precipitation at Atascadero MWC Station No. 34 from 1981 to 1997 (Figure 9). The calculated multiple R-square statistic in this regression relationship was 0.9. Using this relation, estimated subsurface inflows in the Subbasin from 1998 to 2009 varied from 74 AF in 2007 to 334 AF in 2005, with an average annual value of 162 AF (Tables 5 and 6).

3.3 GROUNDWATER STORAGE CHANGES AND BASIN OVERDRAFT STATUS

3.3.1 Groundwater Storage Changes

Annual groundwater storage change is equal to the difference between annual recharge and annual discharge. Cumulative groundwater storage change is equal to the sum of the annual changes in groundwater storage over the study period.

Annual and cumulative groundwater storage changes in the Basin from 1998 to 2009 for rural domestic water duty factor sets No. 1 and No. 2 are presented in Tables 3 and 4. Under Set No. 1 (rural domestic pumping of 1.0 AFY/DU), annual groundwater storage change varied from a decrease of 72,736 AF in 2007 to an increase of 366,756 AF in 1998, with an average

annual change of 19,108 AF. Cumulatively, groundwater storage increased by 229,292 AF under Set No. 1 from 1998 to 2009. Under Set No. 2 (rural domestic pumping of 1.7 AFY/DU), annual groundwater storage change varied from a decrease of 75,086 AF in 2007 to an increase of 364,779 AF in 1998, with an average annual change of 16,903 AF. Cumulatively, groundwater storage increased by 202,834 AF under Set No. 2 from 1998 to 2009.

Annual and cumulative groundwater storage changes in the Subbasin from 1998 to 2009 for rural domestic water duty factor sets No. 1 and No. 2 are presented in Tables 5 and 6. Under Set No. 1, annual groundwater storage change varied from a decrease of 7,508 AF in 2007 to an increase of 23,711 AF in 1998, with an average annual change of 1,804 AF. Cumulatively, groundwater storage increased by 21,646 AF under Set No. 1 from 1998 to 2009. Under Set No. 2, annual groundwater storage change varied from a decrease of 7,885 AF in 2007 to an increase of 23,339 AF in 1998, with an average annual change of 1,429 AF. Cumulatively, groundwater storage increased by 17,147 AF under Set No. 2 from 1998 to 2009.

3.3.2 Groundwater Basin Overdraft Status

The perennial yields of the Basin and Subbasin were estimated during Phase II of the Paso Robles Groundwater Basin Study as 97,700 and 16,400 AFY, respectively (Fugro 2005). The water balance calculation from 1998 to 2009 for water duty factor set No. 1 (which assumes a rural domestic water duty factor of 1.0 AFY/DU) shows an estimated total groundwater outflow in 2009 of 91,915 AF (equal to approximately 94% of the perennial yield). The water balance calculation for set No. 2 (rural domestic water factor of 1.7 AFY/DU) suggests an estimated total groundwater outflow in 2009 of 96,781 AF (or approximately 99% of the perennial yield).

For the Subbasin, the water balance from 1998 to 2009 for water duty factor set No. 1 indicated a total groundwater outflow in the Subbasin in 2009 of 15,255 AF (or approximately 93% of the perennial yield). The water balance for set No. 2 suggests a total groundwater outflow in the Subbasin in 2009 of 16,012 AF (or approximately 98% of the perennial yield).

4.0 PROJECTED WATER BALANCES FROM 2010 TO 2025

Projected water balances in the Basin and Subbasin for the future period of 2010 to 2025 were also computed for this study. For this, projected water demands of the four urban areas were provided by staff representatives of these communities (Table 16). In addition to groundwater pumping, the City of Paso Robles, the City of Atascadero, and the community of Templeton each anticipate receiving surface water supplies from the Nacimiento Water Project starting in 2010 or 2011. These surface water supplies are used in conjunction with pumped groundwater to satisfy local urban water demands. In addition to providing an alternative source of water supply, these surface water deliveries will also offset the future groundwater pumping demands of these communities. Table 16 summarizes the anticipated future water demands of the four urban communities (as represented by information provided to us by staff) and the distribution of anticipated Nacimiento deliveries and groundwater pumping. As urban demands increase (according to the projections shown on Table 16), treated wastewater discharge also increases as shown on Table 17.

In the projected water balances for the Basin and Subbasin, the values of the following recharge and discharge components from 2010 to 2025 are assumed to equal their respective 2009 values: 1) irrigation return flows, 2) subsurface outflows, 3) gross agricultural pumping, 4) rural domestic/small community pumping, and 5) small commercial pumping. The 15-year climate (i.e., annual precipitation) from 1994 to 2009 is also assumed to repeat itself from 2010 to 2025. Therefore, the precipitation-dependent and runoff-dependent components of subsurface inflow, streambed percolation, and phreatophyte extraction from 2010 to 2025 are estimated using the annual estimates from 1994 to 2009. For the projected water balance, land use in the Basin during 2009 is assumed to remain the same for each year from 2010 to 2025. Consequently, annual deep percolation of precipitation from 2010 to 2025 is estimated by the Blaney method using this fixed land use distribution and the annual precipitation totals from 1994 to 2009.

It should be reiterated here that these projected water balances from 2010 to 2025 are not intended to provide absolute predictions of future groundwater recharge and discharge rates, and subsequent groundwater storage changes. Instead, they are meant to provide a general assessment of anticipated future groundwater pumping demands with respect to current estimates of perennial yield given assumed trends in urban groundwater use, which takes into account estimates of urban groundwater pumping, water conservation, and the importation of Nacimiento water. Moreover, the projected water balance assumes that future climate patterns will be similar to historical patterns observed over the original 1981 to 1997 base period. As such, the projected water balance did not attempt to account for possible impacts of theorized global climate change (e.g., long-term upward or downward trends in annual rainfall), or future changes in pumping by agricultural, rural/community, or small commercial pumping.

The projected water balance for the Basin is presented in Table 14. The average annual total groundwater outflow in the Basin from 2010 to 2025 is calculated to be 96,625 AF, and ranges from 92,645 AF to as high as 100,441 AF. Based on an average annual Basin outflow of 96,625 AF, the cumulative change in groundwater storage in the Basin from 2010 to 2025 is 406,943 AF (Table 14). Offsets of urban groundwater pumping by supplemental surface water supplies provided by the Nacimiento Water Project amounted to 66,798 AF from 2010 to 2025. Similarly, aquifer recharge from wastewater discharge in rural domestic/small community and small commercial septic systems accounted for 115,585 AF from 2010 to 2025 or an average of 6 percent of total annual recharge. The combined impacts of the Nacimiento Water Project and the inclusion of wastewater discharges from rural domestic/small community and small commercial operations equate to 44 percent of the 406,943 AF increase in groundwater storage from 2010 to 2025. On an annual average basis, deep percolation of precipitation and streambed percolation accounted for 46 and 37 percent of total annual recharge. Irrigation return flows and wastewater discharge from urban, small commercial, and rural domestic/small community systems accounted for 12 percent of total annual recharge. Subsurface inflows accounted for the remaining 5 percent of total annual recharge. On an annual average basis, agricultural groundwater pumping accounted for 65 percent of total annual discharge. Urban, rural domestic/small community water systems, and small commercial pumping accounted for 15, 12, and 3 percent of total annual discharge. Subsurface outflows and phreatophyte extraction accounted for the remaining 1 and 4 percent of total annual discharge.

The projected water balance for the Subbasin is presented in Table 15. The average annual total groundwater outflow in the Subbasin from 2010 to 2025 is calculated to be 15,420 AF, and ranges from 13,833 AF to 16,592 AF. The cumulative change in groundwater storage in the Subbasin from 2010 to 2025 is 41,224 AF (Table 15). Supplemental surface water supplies provided by the Nacimiento Water Project resulted in an offset of urban groundwater pumping of 43,298 AF from 2010 to 2025. Similarly, aquifer recharge from wastewater discharge in rural domestic/small community and small commercial septic systems amounted to 18,496 AF from 2010 to 2025. On an annual average basis, deep percolation of precipitation and streambed percolation accounted for 22 and 58 percent of total annual recharge. Irrigation return flows and wastewater discharge from urban, small commercial, and rural domestic/small community systems accounted for 14 percent of total annual recharge. Subsurface inflows accounted for the remaining 4 percent of total annual recharge. On an annual average basis, urban groundwater pumping accounted for 73 percent of total annual discharge. Agricultural, rural domestic/small community water systems, and small commercial pumping accounted for 9, 12, and 3 percent of total annual discharge. Subsurface outflows and phreatophyte extraction each accounted for 1 percent of total annual discharge.

5.0 INTERACTION OF SHALLOW ALLUVIUM AND PASO ROBLES FORMATION

The aquifer system in the Paso Robles Groundwater Basin consists of the Paso Robles Formation and the shallow alluvial aquifers associated with the Salinas River, Estrella River, Huer Huero Creek, and other tributary creeks. The aquifer system in the Atascadero Groundwater Subbasin consists of a stretch of the Salinas River alluvium and a region of the Paso Robles Formation. The Atascadero Subbasin is a subbasin within the Paso Robles Basin. The Rinconada Fault acts as a hydraulic barrier within the Paso Robles Formation and represents the boundary that separates the Subbasin from the rest of the Basin. However, the Rinconada Fault does not act similarly as a hydraulic barrier to groundwater flow in the Salinas River alluvium. As such, groundwater flow in the alluvium is continuous along the stretch of the Salinas River that traverses the entire Basin.

Groundwater in storage should be calculated separately for three different subsurface regions: 1) the shallow alluvial aquifers, 2) the Paso Robles Formation within the Subbasin, and 3) the Paso Robles Formation within the entire Basin. The alluvial aquifers are a significant source of recharge to the Paso Robles Formation, particularly along the western region of the Basin and Subbasin where the Salinas River alluvium is located. Although the shallow alluvium and the underlying Paso Robles Formation are distinctly different aquifers, the low permeable layer that separates them varies spatially in terms of thickness and permeability. Consequently, recharge of the Paso Robles Formation from alluvium underflow varies along the stretches of alluvial deposits in the Basin and Subbasin. In addition to the thickness and permeability of the sediments separating the alluvium from the Paso Robles Formation, the rate of recharge is also dependent on the hydraulic head gradient across these sediments (i.e., difference in groundwater levels between the alluvium and the Paso Robles Formation). Pumping in the Paso Robles Formation may result in significant drawdown of groundwater levels in this aquifer, thus increasing the hydraulic gradient and subsequently the recharge rate from the overlying alluvium.

Groundwater flow between the alluvium and the Paso Robles Formation can occur either in the upward or downward direction. The downward direction of groundwater flow occurs in the form of recharge from the alluvium into the Paso Robles Formation. Recharge occurs when a hydraulic head gradient exists between the shallow alluvium and the underlying formation in the downward direction, in other words, when groundwater levels in the alluvium are greater than levels in the Paso Robles Formation. Upward flows of groundwater from the Paso Robles Formation into the shallow alluvium can also occur if the hydraulic head gradient between the two aquifers is in the upward direction. This occurs when the groundwater pressure in the Paso Robles Formation is greater than the hydraulic head in the shallow alluvium. The hydraulic head gradient between the aquifers in a particular area can be determined by measuring groundwater levels in wells screened in the alluvium and subtracting those from measured groundwater levels in nearby wells screened in the Paso Robles Formation.

The actual amount of groundwater in storage in the Paso Robles Formation is significantly greater than that of the shallow alluvial aquifers. Groundwater in storage within the Paso Robles Formation in the Basin from 1981 to 1997 was estimated to be 30,534,000 AF on an average annual basis. The combined area of alluvium in the Basin (i.e., including the Salinas River, Estrella River, Huer Huero Creek, San Juan Creek, and other small creeks in the Basin) is 49,500 acres. Using the spatial distribution of specific yield and groundwater levels during the water year of 1980 from the Basin groundwater flow model, the volume of groundwater in storage in the combined area of alluvium was estimated to be 681,974 AF. In particular, the Salinas River alluvium and its tributaries accounted for 447,480 AF of this storage volume while the Estrella River and its tributaries accounted for 234,494 AF of this total. The combined groundwater in storage for both the alluvial aquifers and the underlying Paso Robles Formation is on the order of 31,215,974 AF. Overall, groundwater in storage in the alluvial aquifers within the Basin accounts for only about 2.1 percent of the total groundwater in storage in the entire Basin.

Groundwater in storage within the Paso Robles Formation in the Subbasin from 1981 to 1997 was estimated to be 513,600 AF on an average annual basis. Within the Subbasin, groundwater in storage in the Salinas River alluvium was estimated to be 134,274 AF. The combined groundwater in storage for both the Salinas River alluvium and the underlying Paso Robles Formation within the Subbasin is on the order of 647,874 AF. Overall, groundwater in storage in the alluvium within the Subbasin accounts for 21 percent of the total groundwater in storage in the Subbasin. In contrast to the Basin where the total groundwater in storage is predominantly in the Paso Robles Formation, the alluvium in the Subbasin accounts for a significant percentage of the total groundwater storage in the Subbasin.

Although the total groundwater in storage in the alluvial aquifers is small relative to the Paso Robles Formation, the alluvial aquifers are a significant source of recharge to the underlying Paso Robles Formation. For example, streambed percolation in the Basin accounts for approximately 38 percent of the total annual recharge on an average annual basis. Moreover, in the Subbasin streambed percolation accounts for as much as 62 percent of the total annual recharge on average.

Due to its large storage capacity, the Paso Robles Formation represents a more robust groundwater reservoir than the shallow alluvial aquifers of the rivers and creeks. Storage changes in the Paso Robles Formation due to annual variations in climate are buffered to a greater degree than those in the alluvial aquifers. By contrast, groundwater storage in the alluvium fluctuates in direct response to annual variations in climate. Consequently, the estimation of a perennial yield for the alluvial aquifers is problematic due to the extreme year-to-year fluctuations in annual precipitation, runoff, and streamflow that provide recharge to the alluvial aquifers. A separate estimated perennial yield for the alluvial aquifers would therefore not provide a measure of the reliable amount of groundwater that could be sustainably extracted from them on an annual basis.

Total annual pumping from the shallow alluvial aquifers and the Paso Robles Formation can be assessed against the estimated perennial yield for the Basin. However, given the large volume of groundwater in storage in the Basin, successive annual exceedences of the perennial yield may not be immediately reflected by decreases in groundwater levels in the Paso Robles Formation in all areas of the Basin.

Given the significant groundwater in storage in the alluvium within the Subbasin relative to the storage in the Paso Robles Formation in the Subbasin, annual groundwater extractions in the Subbasin from the alluvium should be accounted for separately from those from the Paso Robles Formation. Changes in groundwater levels in the alluvium should be evaluated with respect to annual extractions from the alluvium. Similarly, changes in groundwater levels in the Paso Robles Formation within the Subbasin should be evaluated with respect to annual extractions from the Paso Robles Formation within the Subbasin. The perennial yield for the Subbasin theoretically applies to combined groundwater extractions from the shallow alluvium and deeper Paso Robles Formation. Exceeding the perennial yield in the Subbasin may not necessarily be reflected by decreasing groundwater levels in the Paso Robles Formation since significant pumping occurs in the alluvium. Therefore, the overdraft status of the Subbasin needs to be evaluated by assessment of groundwater level changes in both the alluvium and the Paso Robles Formation relative to the respective pumping from those aquifers.

6.0 SUMMARY AND CONCLUSIONS

In this report, the water balances from 1981 to 1997 for the Basin and Subbasin, as originally estimated by Fugro and Cleath (Fugro West, 2002), were updated for the period from 1998 to 2009. Each water balance consisted of the estimated major natural and anthropogenic sources of groundwater recharge and discharge in the Basin and Subbasin from 1998 to 2009. As part of this update, two different sets of water duty factors were used to estimate rural domestic pumping in the Basin and Subbasin. This resulted in the development of two water balances for the Basin (Tables 3 and 4) and two water balances for the Subbasin (Tables 5 and 6) from 1998 to 2009. This report also provided a projected water balance for both the Basin and Subbasin for the future period of 2010 to 2025 (see Tables 14 and 15). The projected water balances, in particular, evaluated the impacts on Basin and Subbasin groundwater storage of offsetting urban groundwater pumping by supplemental surface water supplies from the Nacimiento Water Project for the City of Paso Robles, Atascadero MWC, and Templeton CSD. The major conclusions of the study include:

- The water balance calculations presented in this report show that demand in both the Atascadero Subbasin and the Paso Robles Groundwater Basin as a whole is approaching the average annual perennial yield. Given the degree of uncertainty of the estimates of inflow and outflow components of the water balance equation, the Basin should be considered to be essentially in balance by a small margin.

- Total annual groundwater outflow (i.e., total groundwater pumping) in the Paso Robles Groundwater Basin and the Atascadero Subbasin increased during the period from 1998 to 2009. In 2009, the water balance for the scenario which assumes a rural domestic water demand of 1.0 AFY/DU suggests a total groundwater outflow in the Basin of 91,915 AF (or approximately 94% of the perennial yield of 97,700 AFY). The water balance for the scenario that assumes a rural domestic water demand of 1.7 AFY/DU suggests a total groundwater outflow of 96,781 AF in 2009 (or approximately 99% of the perennial yield).

- In the Atascadero Subbasin, the water balance for water duty factor set No. 1 (assuming a rural domestic demand of 1.0 AFY/DU) and No. 2 (assuming a rural domestic demand of 1.7 AFY/DU) shows total groundwater outflows in the Subbasin during 2009 of 15,255 and 16,012 AF, respectively (or approximately 93% and 98% of the perennial yield of 16,400 AF).

- The two different sets of water duty factors used in the estimation of annual rural domestic pumping resulted in significantly different estimates of cumulative groundwater storage change in the Subbasin from 1998 to 2009. This finding illustrates the need to more accurately quantify the of water duty factors for rural domestic water use throughout the Basin.

- Groundwater in storage in the Basin and Subbasin increased from 1998 to 2009, partly because total groundwater outflow was slightly less than the perennial yield, but also partly because significant recharge from percolation of precipitation occurred in two of these years (1998 and 2005). The overall increase in groundwater storage in both the Basin and Subbasin from 1981 to 2009 generally supports the conclusion that estimated total annual groundwater outflows for each year in the Basin and Subbasin were less than their respective perennial yield values. It should be noted that short-term periods when pumpage might exceed the perennial yield do not necessarily constitute an overdraft condition.

- In the projected water balances from 2010 to 2025, offsets of urban groundwater pumping by supplemental surface water supplies from the Nacimiento Water Project to the City of Paso Robles, Atascadero MWC, and Templeton CSD resulted in beneficial impacts to groundwater storage for the Basin and Subbasin. Offsets of urban groundwater pumping by supplemental surface water supplies of the Nacimiento Water Project from 2010 to 2025 amounted to 66,798 AF in the Basin and 43,298 AF in the Subbasin.

- It should be noted that the future basin outflow figures shown in the water balance projections through 2025 may understate actual future Basin and Subbasin outflows because, in the projections, rural domestic, commercial, and agricultural pumping were held constant at 2009 rates (this was done in order to illustrate the potential effects of importing Nacimiento Water on urban pumping). Growth or changes in water demand from rural domestic, commercial, or agricultural market changes could result in total basin demand exceeding perennial yield in the future. Furthermore, the water balance projections through 2025 assume a repeat of precipitation patterns from 1994 to 2009. This prior 16-year rainfall record may or may not reflect long-term conditions.

- The projected water balances from 2010 to 2025 were not intended to provide absolute predictions of future groundwater recharge and discharge and subsequent groundwater storage changes. Instead, they provide a general assessment of anticipated future groundwater pumping demands with respect to current estimates of perennial yield given assumed trends in urban groundwater use, which takes into account estimates of urban groundwater pumping, water conservation, and the importation of Nacimiento Water. Moreover, the projected water balance assumed that future climate patterns will be similar to historical patterns observed over the original 1981 to 1997 base period. As such, the projected water balance did not attempt to account for possible impacts of theorized global climate change (e.g., long-term upward or downward trends in annual rainfall), or future changes in pumping by agricultural, rural/small community, or small commercial pumping.

- Percolation of precipitation is a major source of basin recharge that is accompanied by a large degree of uncertainty. The effect of rainfall recharge may not immediately result in a water level change in wells that are located in areas of highest pumping (that is, in areas of depressed water levels). Additional monitoring wells located in recharge areas of the Basin are recommended to monitor the effects of percolation of precipitation in these areas and in the Basin as a whole.

- Streambed percolation is a major component of basin recharge, with large annual fluctuations depending on yearly rainfall. Additional monitoring wells in shallow alluvial aquifers associated with the Salinas River, Estrella River, Huer Huero Creek, and other tributary creeks as well as deep monitoring wells in the Paso Robles Formation adjacent to the streams, and monitoring of water level data in those wells, are recommended to develop data to refine estimates of streambed percolation.

- The results of this study reinforce the need for implementation of an effective basin monitoring and management plan. The results also demonstrate the need to update the numerical groundwater flow model, which is based on data through 1997. An update and recalibration of the Fugro (2005) model would help to refine the many uncertainties and assumptions that were used throughout this water balance update.

- It should be noted that the precision of the results estimated by the methods employed in this study and subsequently presented in the report text and tables do not imply a similar

level of accuracy. In other words, a number of assumptions were invoked in the estimation of the recharge and discharge components. These estimated components therefore represent approximations that lie within a reasonable range of expected values. The values of the estimated components were presented "as is" in the report text and tables rather than being subjected to numerical rounding.

7.0 REFERENCES

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Todd Engineers (2009), Evaluation of Paso Robles Groundwater Basin Pumping Water Year 2006, report prepared for the City of Paso Robles and San Luis Obispo County Department of Public Works, May.


TABLES

Table 1. Precipitation Measurements at Seven Gauge Stations from 1998 to 2009

Water Year	Paso Robles CDF Station No. 101 (inches)	Atascadero MWC Station No. 34 (inches)	Creston 4.5 NW Station No. 52.1 (inches)	Shandon Station No. 73 (inches)	Santa Margarita Station No. 95 (inches)	San Miguel Station No. 125 (inches)	Camatta Canyon. Station No. 138 (inches)	Estimated Reference (inches)
1998	30.8	33.1	25.5	21.8	57.4	23.2	23.8	26.3
1999	10.5	12.2	8.2	6.9	24.4	7.1	7.4	8.7
2000	14.9	17.2	11.3	8.4	32.0	10.2	7.4	11.6
2001	22.8	19.1	14.6	13.1	28.1	15.3	11.1	16.0
2002	7.5	7.9	5.1	6.1	19.1	5.1	4.9	6.1
2003	13.8	10.7	9.9	10.6	30.7	11.2	9.0	10.9
2004	10.9	8.8	7.4	8.8	18.4	7.3	7.2	8.4
2005	32.6	34.6	21.7	17.5	55.2	22.3	13.0	23.6
2006	23.4	22.5	17.6	15.5	34.3	12.9	10.6	17.1
2007	7.1	7.6	6.3	5.6	12.1	4.4	4.7	5.9
2008	15.3	16.1	11.2	11.4	31.0	10.8	9.1	12.3
2009	9.0	11.0	6.0	7.3	21.3	6.4	6.7	7.7
Minimum	7.1	7.6	5.1	5.6	12.1	4.4	4.7	5.9
Maximum	32.6	34.6	25.5	21.8	57.4	23.2	23.8	26.3
Average	16.5	16.7	12.1	11.1	30.3	11.3	9.6	12.9

Note: Precipitation data obtained from County of San Luis Obispo Department of Public Works

Table 2. Cumulative Departure of Annual Precipitation from 1998 to 2009

Water Year	Annual Precipitation Atascadero MWC Station No. 34 (inches)	Average Annual Precipitation (1916 to 2009) (inches)	Annual Departure from Long-term Annual Average (inches)	Cumulative Departure from Long-term Annual Average (inches)
1998	33.1	17.6	15.5	15.5
1999	12.2	17.6	-5.4	10.2
2000	17.2	17.6	-0.5	9.7
2001	19.1	17.6	1.5	11.3
2002	7.9	17.6	-9.7	1.6
2003	10.7	17.6	-6.9	-5.3
2004	8.8	17.6	-8.8	-14.1
2005	34.6	17.6	17.0	2.9
2006	22.5	17.6	4.9	7.8
2007	7.6	17.6	-10.0	-2.2
2008	16.1	17.6	-1.5	-3.7
2009	11.0	17.6	-6.7	-10.4
Minimum	7.6	--	-10.0	--
Maximum	34.6	--	17.0	--
Average	16.7	--	-0.9	--

Table 3. Water Balance for the Paso Robles Groundwater Basin from 1998 to 2009 for Rural Domestic Water Duty Factor Set No. 1

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural\Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural\Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
1998	12,511	321,755	103,408	1,139	4,416	2,824	751	446,837	600	51,794	13,752	5,644	1,503	9,784	83,081	363,756	363,756
1999	5,142	0	28,844	1,162	4,102	2,883	883	40,736	600	52,820	13,901	5,766	1,805	2,533	77,315	-36,579	327,177
2000	5,676	11	44,389	1,185	4,239	2,942	854	69,476	600	53,846	14,230	5,885	1,708	3,536	79,804	-10,328	316,849
2001	7,573	8,642	35,381	1,207	4,393	3,002	905	61,103	600	54,871	14,469	6,003	1,810	3,936	81,690	-20,587	296,261
2002	3,625	0	14,269	1,230	4,327	3,061	956	27,469	600	55,897	14,709	6,122	1,913	1,659	80,899	-53,431	242,831
2003	4,599	0	41,206	1,252	4,487	3,120	1,008	55,672	600	56,923	14,948	6,240	2,015	2,220	82,946	-27,275	215,556
2004	3,943	0	12,734	1,275	4,500	3,179	1,059	26,690	600	57,948	15,187	6,359	2,118	1,842	84,054	-57,364	158,192
2005	13,655	215,760	88,220	1,297	4,862	3,239	1,110	317,3230	600	58,974	15,426	6,477	2,220	7,085	90,783	245,739	403,930
2006	8,751	13,119	49,650	1,320	4,744	3,298	1,162	82,043	600	60,000	15,665	6,596	2,323	4,515	89,799	-7,756	396,174
2007	3,510	0	1,500	1,343	4,604	3,357	1,213	15,526	600	61,026	15,904	6,714	2,426	1,552	88,262	-72,736	323,439
2008	6,499	312	41,854	1,365	4,675	3,416	1,264	59,385	600	62,052	16,143	6,833	2,528	3,316	91,472	-32,107	291,332
2009	4,691	9	18,386	1,388	4,620	3,476	1,315	34,875	600	63,077	16,382	6,951	2,631	2,275	91,915	-57,040	234,292
Minimum	3,510	0	1,500	1,139	4,102	2,824	751	15,526	600	51,794	13,752	5,644	1,503	1,552	77,315	-72,736	–
Maximum	13,033	321,755	103,408	1,388	4,862	3,476	1,315	446,837	600	63,077	16,382	6,951	2,631	7,085	91,915	363,756	–
Average	6,729	46,852	40,708	1,264	4,497	3,150	1,033	104,029	600	57,436	15,067	6,300	2,067	3,449	84,913	19,108	–

Table 4. Water Balance for the Paso Robles Groundwater Basin from 1998 to 2009 for Rural Domestic Water Duty Factor Set No. 2

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural\Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural\Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
1998	12,511	221,795	103,409	1,109	4,418	4,801	751	448,814	600	51,794	13,752	9,601	1,503	6,784	84,034	364,779	364,779
1999	3,142	0	26,644	1,162	4,102	4,901	803	42,754	600	52,820	13,991	9,803	1,605	2,533	81,352	-38,598	326,182
2000	6,876	11	44,369	1,185	4,239	5,002	854	62,536	600	53,845	14,230	10,004	1,708	3,536	83,923	-21,388	304,794
2001	7,573	8,842	35,181	1,207	4,393	5,103	905	63,204	600	54,871	14,469	10,206	1,810	3,936	85,893	-22,689	282,105
2002	3,626	0	14,269	1,230	4,327	5,204	956	29,611	600	55,897	14,709	10,407	1,913	1,659	85,185	-55,573	226,532
2003	4,590	0	41,206	1,252	4,487	5,304	1,008	57,856	600	56,923	14,948	10,609	2,015	2,220	87,315	-29,459	197,073
2004	3,943	0	12,734	1,275	4,588	5,405	1,059	28,915	600	57,948	15,187	10,810	2,118	1,842	88,505	-59,590	137,483
2005	13,033	215,760	98,220	1,297	4,862	5,506	1,110	339,789	600	58,974	15,426	11,012	2,220	7,085	95,317	244,472	381,955
2006	9,751	13,119	48,650	1,320	4,744	5,607	1,162	84,351	600	60,000	15,665	11,213	2,323	4,615	94,416	-10,065	371,890
2007	3,510	0	1,500	1,343	4,604	5,707	1,213	17,876	600	61,026	15,904	11,415	2,426	1,592	92,962	-75,086	296,805
2008	6,499	312	41,834	1,365	4,875	5,808	1,264	61,756	600	62,052	16,143	11,616	2,528	3,316	96,255	-34,498	262,306
2009	4,691	0	19,386	1,388	4,830	5,909	1,315	37,308	600	63,077	16,382	11,817	2,631	2,273	96,781	-59,473	202,834
Minimum	3,510	0	1,500	1,109	4,102	4,801	751	17,876	600	51,794	13,752	9,601	1,503	1,592	81,352	-75,086	–
Maximum	13,033	221,795	103,409	1,388	4,862	5,909	1,315	448,814	600	63,077	16,382	11,817	2,631	7,085	96,781	364,779	–
Average	6,729	46,652	40,700	1,264	4,497	5,355	1,033	106,231	600	57,436	15,067	10,709	2,067	3,449	89,328	16,903	–

Table 5. Water Balance for the Atascadero Groundwater Subbasin from 1998 to 2009 for Rural Domestic Water Duty Factor Set No. 1

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural\Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural\Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
1998	1,273	16,800	16,994	25	1,334	530	157	37,115	150	1,059	10,500	1,061	314	320	13,404	23,711	23,711
1999	538	4	8,120	24	1,040	531	164	10,621	150	1,095	10,635	1,063	329	119	13,391	-2,769	20,941
2000	711	519	10,323	25	1,030	532	172	13,312	150	1,131	10,771	1,065	343	166	13,626	-314	20,627
2001	780	1,549	9,285	26	1,101	533	179	13,456	150	1,167	10,906	1,066	358	185	13,832	-377	20,250
2002	386	0	6,922	28	1,032	534	186	9,087	150	1,204	11,041	1,068	372	77	13,912	-4,826	15,424
2003	453	0	9,965	27	1,255	535	193	12,473	150	1,240	11,176	1,070	387	104	14,127	-1,653	13,771
2004	415	0	6,748	28	1,188	536	201	9,118	150	1,276	11,311	1,072	401	86	14,296	-5,178	8,593
2005	1,325	18,478	16,408	29	1,423	537	208	38,409	150	1,312	11,446	1,074	416	334	14,732	23,676	32,269
2006	898	5,195	10,970	30	1,272	538	215	19,067	150	1,348	11,582	1,076	430	217	14,803	4,255	36,534
2007	375	0	5,071	30	1,192	539	222	7,339	150	1,384	11,717	1,078	444	74	14,847	-7,508	29,026
2008	673	332	10,936	31	1,152	540	229	13,904	150	1,420	11,852	1,080	459	156	15,116	-2,122	26,904
2009	493	0	7,500	32	1,195	541	237	9,997	150	1,456	11,987	1,082	473	106	15,255	-5,258	21,646
Minimum	375	0	5,071	25	1,030	530	157	7,339	150	1,059	10,500	1,061	314	74	13,391	-7,508	–
Maximum	1,325	18,478	16,994	32	1,423	541	237	38,409	150	1,456	11,987	1,082	473	334	15,255	23,711	–
Average	656	3,573	9,874	28	1,178	536	197	16,082	150	1,258	11,244	1,071	394	162	14,278	1,804	–

Table 6. Water Balance for the Atascadero Groundwater Subbasin from 1998 to 2009 for Rural Domestic Water Duty Factor Set No. 2

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural\Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural\Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
1998	1,373	15,603	16,994	23	1,334	902	157	37,486	150	1,059	10,500	1,803	314	320	14,147	23,339	23,339
1999	538	4	8,329	24	1,040	903	164	10,993	150	1,095	10,635	1,806	329	119	14,135	-3,141	20,196
2000	711	519	10,323	25	1,030	905	172	13,685	150	1,131	10,771	1,810	343	166	14,371	-686	19,511
2001	780	1,549	9,285	26	1,103	906	179	13,829	150	1,167	10,906	1,813	358	185	14,579	-750	18,761
2002	386	0	8,922	26	1,032	908	186	9,461	150	1,204	11,041	1,816	372	77	14,660	-5,200	13,562
2003	483	0	9,965	27	1,268	910	193	12,848	150	1,240	11,176	1,819	387	104	14,876	-2,028	11,533
2004	418	0	9,746	28	1,168	911	201	9,494	150	1,276	11,311	1,823	401	56	15,047	-5,553	5,980
2005	1,325	18,478	16,408	29	1,423	913	208	38,783	150	1,312	11,446	1,826	416	334	15,484	23,300	29,280
2006	898	5,195	10,920	30	1,272	915	215	19,444	150	1,348	11,582	1,829	430	217	15,556	3,888	33,169
2007	375	0	5,071	30	1,102	916	222	7,716	150	1,384	11,717	1,832	444	74	15,602	-7,885	25,283
2008	673	332	10,036	31	1,152	918	229	13,372	150	1,420	11,852	1,836	459	156	15,872	-2,500	22,783
2009	493	0	7,500	32	1,195	919	237	10,376	150	1,456	11,987	1,839	473	106	16,012	-5,636	17,147
Minimum	375	0	5,071	23	1,030	902	157	7,716	150	1,059	10,500	1,803	314	74	14,135	-7,885	–
Maximum	1,325	18,478	16,994	32	1,423	919	237	38,783	150	1,456	11,987	1,839	473	334	16,012	23,339	–
Average	696	3,573	9,874	28	1,178	910	197	16,457	150	1,258	11,244	1,821	394	162	15,028	1,429	–

Table 7. Land Use Categorization in the Paso Robles Groundwater Basin from 1998 to 2009 for use by the Blaney Method

Water Year	Grasses, Weeds (acres)	Truck, Alfalfa Misc. Crops (acres)	Non-irrigated Grain (acres)	Deciduous Trees (acres)	Total Area (acres)
1998	436,966	4,984	44,603	18,448	505,000
1999	437,404	5,074	41,974	20,548	505,000
2000	437,841	5,165	39,345	22,649	505,000
2001	438,279	5,255	36,716	24,750	505,000
2002	438,717	5,346	34,087	26,851	505,000
2003	439,155	5,436	31,458	28,951	505,000
2004	439,593	5,527	28,829	31,052	505,000
2005	440,030	5,617	26,200	33,153	505,000
2006	440,468	5,707	23,571	35,253	505,000
2007	440,906	5,798	20,942	37,354	505,000
2008	441,344	5,888	18,314	39,454	505,000
2009	441,782	5,978	15,685	41,555	505,000

Note: As described in the text, acreages were estimated by straight-line interpolation using reported pumped values for 1997 and 2006.

Table 8. Land Use Categorization in the Atascadero Groundwater Subbasin from 1998 to 2009 for use by the Blaney Method

Water Year	Grasses, Weeds (acres)	Truck, Alfalfa Misc. Crops (acres)	Non-irrigated Grain (acres)	Deciduous Trees (acres)	Total Area (acres)
1998	11,892	75	1,958	652	14,577
1999	11,912	90	1,968	608	14,577
2000	11,931	105	1,978	563	14,577
2001	11,950	120	1,988	518	14,577
2002	11,969	136	1,999	473	14,577
2003	11,989	151	2,009	428	14,577
2004	12,008	166	2,019	384	14,577
2005	12,027	182	2,029	339	14,577
2006	12,046	197	2,040	294	14,577
2007	12,065	212	2,050	250	14,577
2008	12,085	227	2,060	205	14,577
2009	12,104	243	2,070	160	14,577

Note: As described in the text, acreages were estimated by straight-line interpolation using reported pumped values for 1997 and 2006.

Table 9. Agricultural Groundwater Pumping and Irrigation Return Flows from 1998 to 2009

	Paso Robles Groundwater Basin			Atascadero Groundwater Subbasin		
Water Year	Gross Agricultural Groundwater Pumping (acre-feet)	Irrigation Return Flows (acre-feet)	Net Agricultural Groundwater Pumping (acre-feet)	Gross Agricultural Groundwater Pumping (acre-feet)	Irrigation Return Flows (acre-feet)	Net Agricultural Groundwater Pumping (acre-feet)
1998	51,794	1,139	50,654	1,059	23	1,036
1999	52,820	1,162	51,658	1,095	24	1,071
2000	53,845	1,185	52,661	1,131	25	1,106
2001	54,871	1,207	53,664	1,167	26	1,142
2002	55,897	1,230	54,667	1,204	26	1,177
2003	56,923	1,252	55,670	1,240	27	1,212
2004	57,948	1,275	56,674	1,276	28	1,248
2005	58,974	1,297	57,677	1,312	29	1,283
2006	60,000	1,320	58,680	1,348	30	1,318
2007	61,026	1,343	59,683	1,384	30	1,354
2008	62,052	1,365	60,686	1,420	31	1,389
2009	63,077	1,388	61,690	1,456	32	1,424

Note: As described in the text, gross agricultural pumping figures were estimated by straight-line interpolation using reported values for 1997 and 2006.

Table 10. Discharge of Treated Urban Wastewater from 1998 to 2009

Water Year	City of Paso Robles (acre-feet)	City of Atascadero (acre-feet)	Templeton CSD (acre-feet)	San Miguel CSD (acre-feet)	Atascadero Subbasin (acre-feet)	Paso Robles Basin (acre-feet)
1998	2,969	1,334	--	115	1,334	4,418
1999	2,948	1,040	--	115	1,040	4,102
2000	3,094	1,030	--	115	1,030	4,239
2001	3,174	1,103	--	115	1,103	4,393
2002	3,180	1,032	--	115	1,032	4,327
2003	3,097	1,125	144	121	1,268	4,487
2004	3,187	1,021	166	125	1,188	4,500
2005	3,303	1,241	182	137	1,423	4,862
2006	3,296	1,037	235	176	1,272	4,744
2007	3,342	965	137	160	1,102	4,604
2008	3,389	1,018	134	134	1,152	4,675
2009	3,291	1,050	144	134	1,195	4,620
Minimum	2,948	965	134	115	1,030	4,102
Maximum	3,389	1,334	235	176	1,423	4,862
Average	3,189	1,083	163	130	1,178	4,497

Note: A complete data set of annual discharge was not available for San Miguel CSD for 1998 through 2001; data shown for 1998 through 2001 are estimated values.

Table 11. Urban Groundwater Pumping from 1998 to 2009

	Atascadero Subbasin Urban Pumping				Paso Robles Basin Urban Pumping		
Water Year	City of Paso Robles (Thunderbird wells) (acre-feet)	Atascadero MWC (acre-feet)	Templeton CSD (acre-feet)	Total Atascadero Subbasin (acre feet)	City of Paso Robles (all wells excluding Thunderbird wells) (acre feet)	San Miguel CSD (acre-feet)	Total Paso Robles Basin (acre-feet)
1998	3,013	6,307	1,181	10,500	3,013	239	13,752
1999	3,104	6,296	1,235	10,635	3,104	251	13,991
2000	3,195	6,285	1,290	10,771	3,195	264	14,230
2001	3,287	6,275	1,345	10,906	3,287	277	14,469
2002	3,378	6,264	1,399	11,041	3,378	290	14,709
2003	3,469	6,253	1,454	11,176	3,469	303	14,948
2004	3,560	6,242	1,509	11,311	3,560	315	15,187
2005	3,651	6,232	1,563	11,446	3,651	328	15,426
2006	3,743	6,221	1,618	11,582	3,743	341	15,665
2007	3,834	6,210	1,673	11,717	3,834	354	15,904
2008	3,925	6,200	1,727	11,852	3,925	367	16,143
2009	4,016	6,189	1,782	11,987	4,016	379	16,382
Minimum	3,013	6,189	1,181	10,500	3,013	239	13,752
Maximum	4,016	6,307	1,782	11,987	4,016	379	16,382
Average	3,515	6,248	1,481	11,244	3,515	309	15,067

Note: As described in the text, urban pumping figures were estimated by straight-line interpolation using reported pumped volumes for 1997 and 2006. Additionally, pumping for the City of Paso Robles was assumed, for the purposes of this analysis, to be split 50/50 between pumping from the Thunderbird wells and pumping from all other City wells. The locations of the Thunderbird wells overlie the Atascadero Subbasin; all other City wells overlie the Basin.

Table 12. Rural Domestic Pumping in the Paso Robles Groundwater Basin and the Atascadero Groundwater Subbasin for Water Duty Factor Set No. 1

Water Year	Atascadero Subbasin Rural Parcel Dwelling Units (DU)	Atascadero Subbasin Rural Parcel Water Duty Factor (acre-feet/DU)	Atascadero Subbasin Rural Parcel Groundwater Pumping (acre-feet)	Atascadero Subbasin Rural Parcel Wastewater Return Flows (acre-feet)	Seven Sub-areas Rural Parcel Dwelling Units (DU)	Seven Sub-areas Rural Parcel Water Duty Factor (acre-feet/DU)	Seven Sub-areas Rural Parcel Groundwater Pumping (acre-feet)	Paso Robles Basin Rural Parcel Groundwater Pumping (acre-feet)	Paso Robles Basin Rural Parcel Wastewater Return Flows (acre-feet)
1998	1,061	1.0	1,061	530	4,587	1.0	4,587	5,648	2,824
1999	1,063	1.0	1,063	531	4,704	1.0	4,704	5,766	2,883
2000	1,065	1.0	1,065	532	4,820	1.0	4,820	5,885	2,942
2001	1,066	1.0	1,066	533	4,937	1.0	4,937	6,003	3,002
2002	1,068	1.0	1,068	534	5,054	1.0	5,054	6,122	3,061
2003	1,070	1.0	1,070	535	5,170	1.0	5,170	6,240	3,120
2004	1,072	1.0	1,072	536	5,287	1.0	5,287	6,359	3,179
2005	1,074	1.0	1,074	537	5,403	1.0	5,403	6,477	3,239
2006	1,076	1.0	1,076	538	5,520	1.0	5,520	6,596	3,298
2007	1,078	1.0	1,078	539	5,637	1.0	5,637	6,714	3,357
2008	1,080	1.0	1,080	540	5,753	1.0	5,753	6,833	3,416
2009	1,082	1.0	1,082	541	5,870	1.0	5,870	6,951	3,476

Table 13. Rural Domestic Pumping in the Paso Robles Groundwater Basin and the Atascadero Groundwater Subbasin for Water Duty Factor Set No. 2

Water Year	Atascadero Subbasin Rural Parcel Dwelling Units (DU)	Atascadero Subbasin Rural Parcel Water Duty Factor (acre-feet/DU)	Atascadero Subbasin Rural Parcel Groundwater Pumping (acre-feet)	Atascadero Subbasin Rural Parcel Wastewater Return Flows (acre-feet)	Seven Sub-areas Rural Parcel Dwelling Units (DU)	Seven Sub-areas Rural Parcel Water Duty Factor (acre-feet/DU)	Seven Sub-areas Rural Parcel Groundwater Pumping (acre-feet)	Paso Robles Basin Rural Parcel Groundwater Pumping (acre-feet)	Paso Robles Basin Rural Parcel Wastewater Return Flows (acre-feet)
1998	1,081	1.7	1,803	901	4,587	1.7	7,798	9,601	4,801
1999	1,083	1.7	1,806	903	4,704	1.7	7,996	9,803	4,901
2000	1,085	1.7	1,810	905	4,829	1.7	8,105	10,004	5,002
2001	1,086	1.7	1,813	906	4,937	1.7	8,393	10,206	5,103
2002	1,088	1.7	1,816	908	5,054	1.7	8,591	10,407	5,204
2003	1,090	1.7	1,819	910	5,170	1.7	8,789	10,609	5,304
2004	1,093	1.7	1,823	911	5,287	1.7	8,985	10,810	5,405
2005	1,094	1.7	1,826	913	5,403	1.7	9,186	11,012	5,506
2006	1,096	1.7	1,829	915	5,520	1.7	9,384	11,213	5,607
2007	1,098	1.7	1,832	916	5,637	1.7	9,582	11,415	5,707
2008	1,080	1.7	1,836	918	5,753	1.7	9,780	11,616	5,808
2009	1,082	1.7	1,839	919	5,870	1.7	9,979	11,817	5,908

Table 14. Projected Water Balance for the Paso Robles Groundwater Basin from 2010 to 2025

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural\Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural\Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	3,746	0	14,664	1,388	4,961	5,909	1,315	30,667	600	63,077	14,720	11,817	2,631	1,728	94,574	-63,907	-63,907
2011	11,815	239,592	109,698	1,355	5,062	5,906	1,315	472,449	600	63,077	13,970	11,817	2,631	6,390	98,486	373,963	310,055
2012	7,577	321	51,092	1,388	5,111	5,909	1,315	71,398	600	63,077	14,606	11,817	2,631	3,938	96,670	-25,272	284,784
2013	8,828	3,373	68,771	1,388	5,194	5,909	1,315	93,463	600	63,077	13,677	11,817	2,631	4,660	96,463	-3,000	281,783
2014	12,511	318,645	102,408	1,388	5,317	5,909	1,315	447,177	600	63,077	15,141	11,817	2,631	6,784	100,051	347,126	628,909
2015	5,142	0	25,644	1,388	5,437	5,909	1,315	44,519	600	63,077	15,107	11,817	2,631	2,533	95,766	-51,246	577,663
2016	6,876	12	44,369	1,388	5,561	5,909	1,315	64,114	600	63,077	16,066	11,817	2,631	3,536	97,727	-33,613	544,050
2017	7,573	8,986	35,151	1,388	5,687	5,909	1,315	64,724	600	63,077	13,503	11,817	2,631	3,936	95,565	-30,841	513,210
2018	3,626	0	14,259	1,388	5,817	5,909	1,315	31,008	600	63,077	12,860	11,817	2,631	1,659	92,645	-61,637	451,572
2019	4,599	0	41,206	1,388	5,950	5,909	1,315	59,052	600	63,077	14,859	11,817	2,631	2,220	95,205	-36,154	415,418
2020	3,943	0	12,734	1,388	6,085	5,909	1,315	30,059	600	63,077	14,528	11,817	2,631	1,842	94,496	-64,437	350,981
2021	13,033	214,856	98,270	1,388	6,225	5,909	1,315	339,631	600	63,077	15,230	11,817	2,631	7,085	100,441	239,190	590,171
2022	8,751	12,697	49,650	1,388	6,368	5,909	1,315	85,062	600	63,077	15,699	11,817	2,631	4,615	98,440	-13,378	576,792
2023	3,510	0	1,500	1,388	6,515	5,909	1,315	18,821	600	63,077	15,922	11,817	2,631	1,592	95,640	-76,819	499,974
2024	6,499	316	41,834	1,388	6,665	5,909	1,315	62,611	600	63,077	15,244	11,817	2,631	3,316	96,686	-34,076	465,898
2025	4,691	0	19,386	1,388	6,820	5,909	1,315	38,193	600	63,077	16,750	11,817	2,631	2,273	97,149	-58,956	406,943
Minimum	3,510	0	1,500	1,388	4,961	5,909	1,315	18,821	600	63,077	12,860	11,817	2,631	1,592	92,645	-76,819	
Maximum	13,033	339,592	109,698	1,388	6,820	5,909	1,315	472,449	600	63,077	16,750	11,817	2,631	7,085	100,441	373,963	
Average	7,045	56,194	45,726	1,388	5,798	5,909	1,315	122,059	600	63,077	14,868	11,817	2,631	3,632	96,625	25,434	

Note: Projected inflow estimates including subsurface inflow, percolation of precipitation, and streambed percolation are based on a repeat of the rainfall pattern from 1994 to 2009.
Water balance projections assume no increases from 2009 pumping levels in agricultural pumping, rural residential growth, and small commercial pumping. This does not reflect past growth trends in these outflow components to the water balance, and could understate future pumping.

Table 15. Projected Water Balance for the Atascadero Groundwater Subbasin from 2010 to 2025

Water Year	Subsurface Inflow (acre-feet)	Precipitation Percolation (acre-feet)	Streambed Percolation (acre-feet)	Irrigation Return Flow (acre-feet)	Urban Wastewater Discharge (acre-feet)	Rural\Small Community Wastewater Discharge (acre-feet)	Small Commercial Wastewater Discharge (acre-feet)	Total Inflow (acre-feet)	Subsurface Outflow (acre-feet)	Agricultural Groundwater Pumping (acre-feet)	Urban Groundwater Pumping (acre-feet)	Rural\Small Community Groundwater Pumping (acre-feet)	Small Commercial Groundwater Pumping (acre-feet)	Phreatophyte Extraction (acre-feet)	Total Outflow (acre-feet)	Annual Storage Change (acre-feet)	Cumulative Storage Change (acre-feet)
2010	398	0	6,988	32	1,542	919	237	10,055	150	1,456	10,673	1,839	473	81	14,672	-4,577	-4,577
2011	1,263	14,712	17,591	32	1,547	919	237	36,241	150	1,456	10,306	1,839	473	301	14,525	21,715	17,138
2012	781	1,548	11,083	32	1,554	919	237	16,153	150	1,456	11,385	1,839	473	185	15,489	664	17,802
2013	805	5,439	13,080	32	1,568	919	237	22,173	150	1,456	10,362	1,839	473	219	14,500	7,672	25,475
2014	1,373	16,893	16,994	32	1,571	919	237	37,819	150	1,456	11,692	1,839	473	320	15,930	21,989	47,464
2015	538	11	8,320	32	1,577	919	237	11,634	150	1,456	11,519	1,839	473	119	15,556	-3,922	43,541
2016	711	509	10,323	32	1,583	919	237	14,313	150	1,456	12,337	1,839	473	166	16,421	-2,108	41,433
2017	780	1,557	9,285	32	1,588	919	237	14,378	150	1,456	10,629	1,839	473	185	14,732	-355	41,079
2018	386	0	6,922	32	1,593	919	237	10,089	150	1,456	9,837	1,839	473	77	13,833	-3,744	37,334
2019	483	0	9,965	32	1,599	919	237	13,236	150	1,456	11,683	1,839	473	104	15,706	-2,470	34,865
2020	418	0	6,748	32	1,603	919	237	9,957	150	1,456	11,195	1,839	473	86	15,200	-5,243	29,622
2021	1,325	18,515	16,498	32	1,607	919	237	39,043	150	1,456	11,736	1,839	473	334	15,989	23,055	52,676
2022	998	5,198	10,920	32	1,611	919	237	19,914	150	1,456	12,040	1,839	473	217	16,176	3,639	56,315
2023	375	0	5,071	32	1,615	919	237	8,250	150	1,456	12,093	1,839	473	74	16,085	-7,836	48,479
2024	673	332	10,036	32	1,619	919	237	13,849	150	1,456	11,241	1,839	473	156	15,315	-1,466	47,013
2025	493	0	7,500	32	1,623	919	237	10,804	150	1,456	12,567	1,839	473	106	16,592	-5,789	41,224
Minimum	375	0	5,071	32	1,542	919	237	8,250	150	1,456	9,837	1,839	473	74	13,833	-7,836	–
Maximum	1,325	18,515	17,591	32	1,623	919	237	39,043	150	1,456	12,567	1,839	473	334	16,592	23,055	–
Average	727	4,043	10,451	32	1,587	919	237	17,997	150	1,456	11,331	1,839	473	171	15,420	2,577	–

Note: Projected inflow estimates including subsurface inflow, percolation of precipitation, and streambed percolation are based on a repeat of the rainfall pattern from 1994 to 2009
Water balance projections assume no increases from 2009 pumping levels in agricultural pumping, rural residential growth, and small commercial pumping. This does not reflect past growth trends in these outflow components to the water balance, and could understate future pumping.

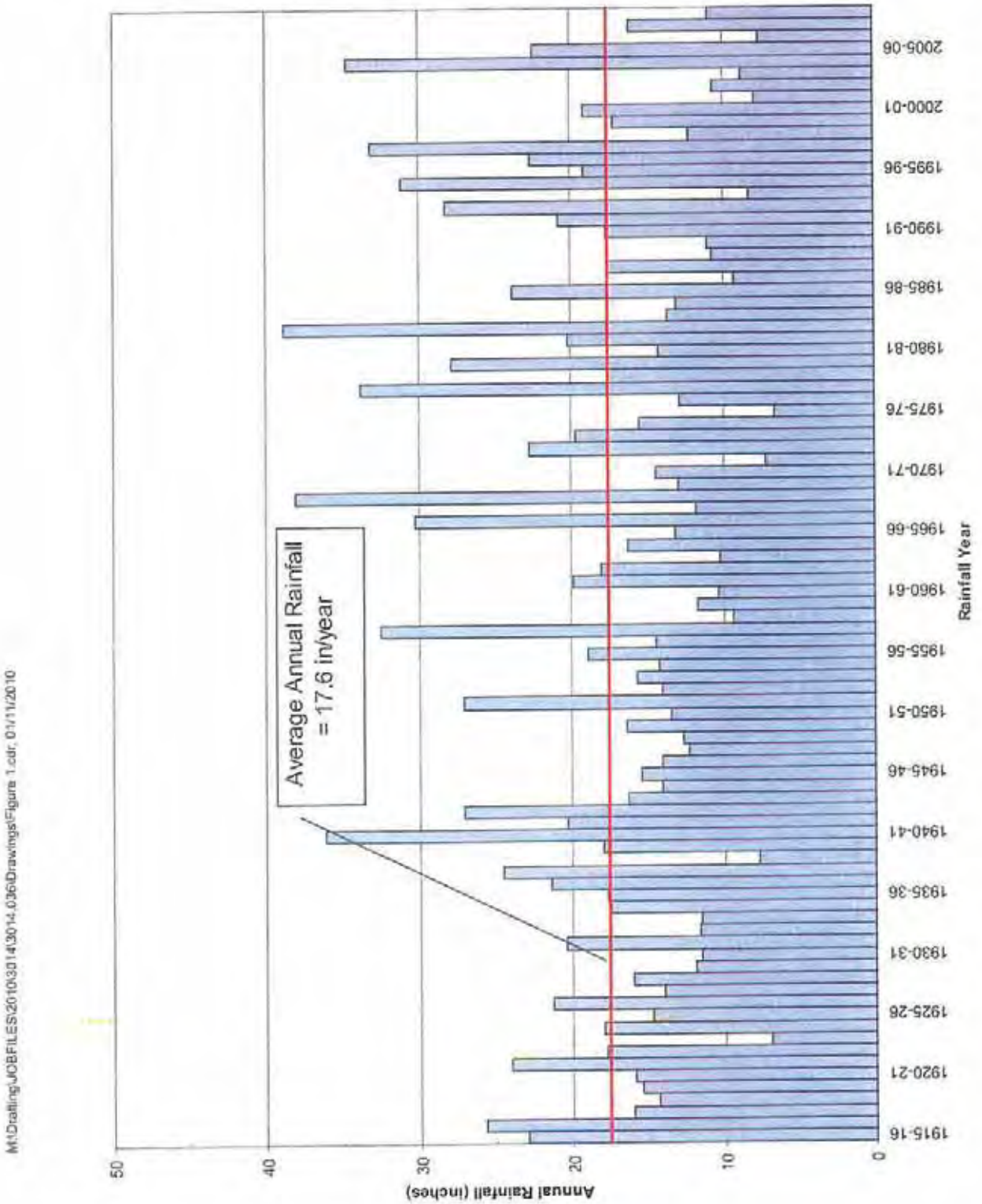
Table 16. Projected Urban Groundwater Pumping and Nacimiento Water Project Deliveries from 2010 to 2025

Water Year	City of Paso Robles			Atascadero MWC			Templeton CSD			San Miguel CSD		
	Groundwater Pumping (acre-feet)	Nacimiento Project Water (acre-feet)	Total Water Demand (acre-feet)	Groundwater Pumping (acre-feet)	Nacimiento Project Water (acre-feet)	Total Water Demand (acre-feet)	Groundwater Pumping (acre-feet)	Nacimiento Project Water (acre-feet)	Total Water Demand (acre-feet)	Groundwater Pumping (acre-feet)	Nacimiento Project Water (acre-feet)	Total Water Demand (acre-feet)
2010	7,299	0	7,299	5,557	2,000	7,557	1,467	250	1,717	398	0	398
2011	6,496	1,000	7,496	5,567	2,000	7,567	1,491	250	1,741	416	0	416
2012	5,471	2,000	7,571	7,075	500	7,575	1,524	250	1,774	435	0	435
2013	5,723	2,000	7,723	5,944	1,639	7,583	1,558	250	1,808	454	0	454
2014	5,955	2,000	7,955	7,091	498	7,589	1,624	250	1,874	472	0	472
2015	6,193	2,000	8,193	6,765	828	7,593	1,657	250	1,907	491	0	491
2016	6,439	2,000	8,439	7,427	170	7,597	1,690	250	1,940	509	0	509
2017	4,692	4,000	8,692	6,559	1,040	7,599	1,724	250	1,974	528	0	528
2018	4,953	4,000	8,953	5,604	1,996	7,600	1,757	250	2,007	547	0	547
2019	5,221	4,000	9,221	7,276	324	7,600	1,797	250	2,047	565	0	565
2020	5,498	4,000	9,498	6,623	975	7,598	1,823	250	2,073	584	0	584
2021	5,783	4,000	9,783	6,988	607	7,595	1,856	250	2,106	603	0	603
2022	6,077	4,000	10,077	7,112	479	7,591	1,890	250	2,140	621	0	621
2023	6,379	4,000	10,379	6,980	605	7,585	1,925	250	2,173	640	0	640
2024	6,690	4,000	10,690	5,940	1,639	7,578	1,956	250	2,206	658	0	658
2025	7,011	4,000	11,011	7,075	498	7,571	1,989	250	2,239	677	0	677

Table 17. Projected Urban Discharge of Treated Urban Wastewater from 2010 to 2025

Water Year	Treated Wastewater Discharge					
	City of Paso Robles (acre-feet)	City of Atascadero (acre-feet)	Templeton CSD (acre-feet)	San Miguel CSD (acre-feet)	Atascadero Subbasin (acre-feet)	Paso Robles Basin (acre-feet)
2010	3,212	1,285	258	207	1,542	4,961
2011	3,298	1,286	261	216	1,547	5,062
2012	3,331	1,288	266	226	1,554	5,111
2013	3,398	1,289	271	236	1,560	5,194
2014	3,500	1,290	281	246	1,571	5,317
2015	3,605	1,291	286	255	1,577	5,437
2016	3,713	1,291	291	265	1,583	5,561
2017	3,825	1,292	296	275	1,588	5,687
2018	3,939	1,292	301	284	1,593	5,817
2019	4,057	1,292	307	294	1,599	5,950
2020	4,179	1,292	311	304	1,603	6,085
2021	4,305	1,291	316	313	1,607	6,225
2022	4,434	1,290	321	323	1,611	6,368
2023	4,567	1,290	326	333	1,615	6,515
2024	4,704	1,288	331	342	1,619	6,665
2025	4,845	1,287	336	352	1,623	6,820

FIGURES



ANNUAL RAINFALL AT THE ATASCADERO MWC
STATION NO. 34 FROM 1916 TO 2009

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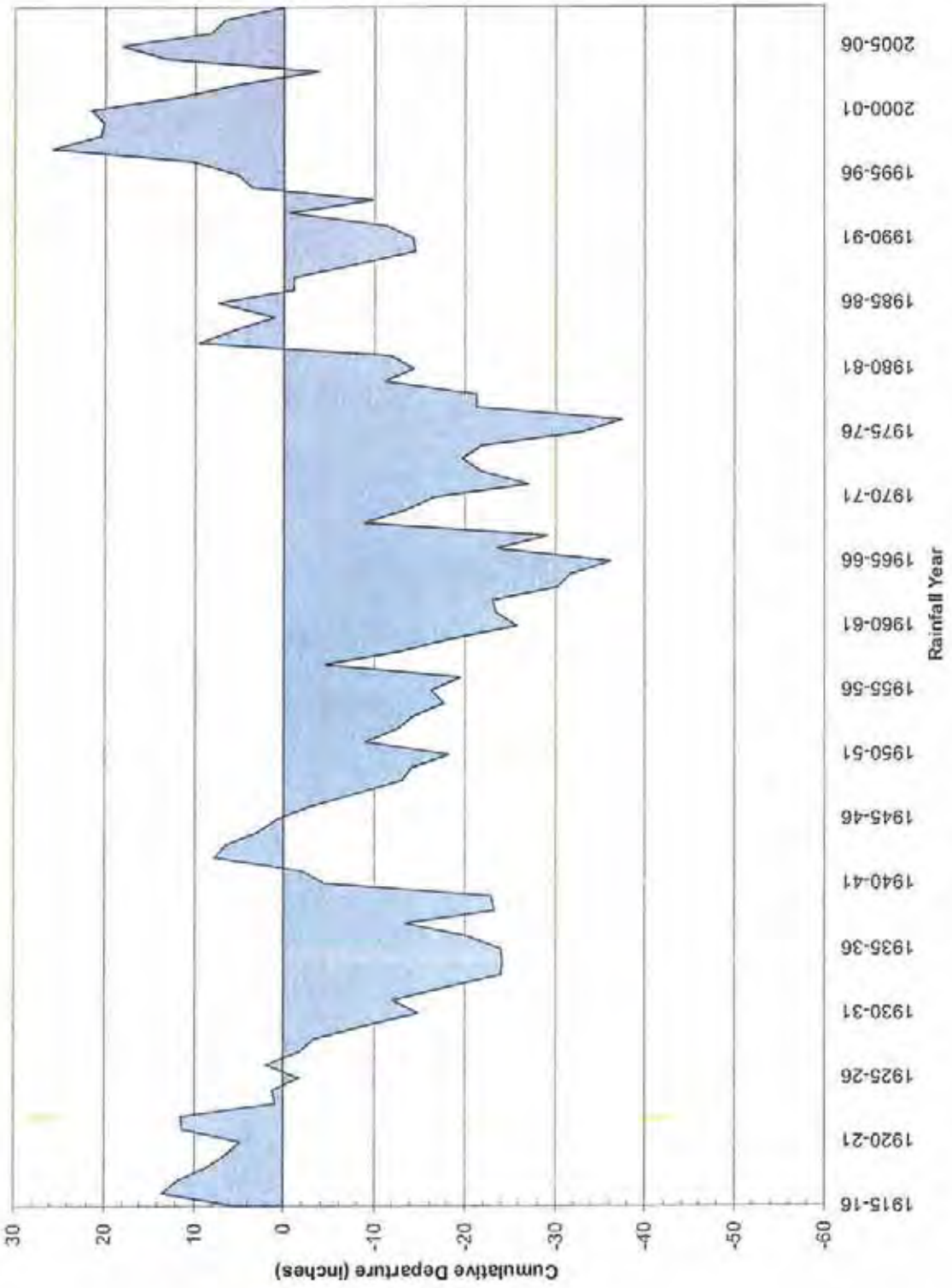
FIGURE 1.



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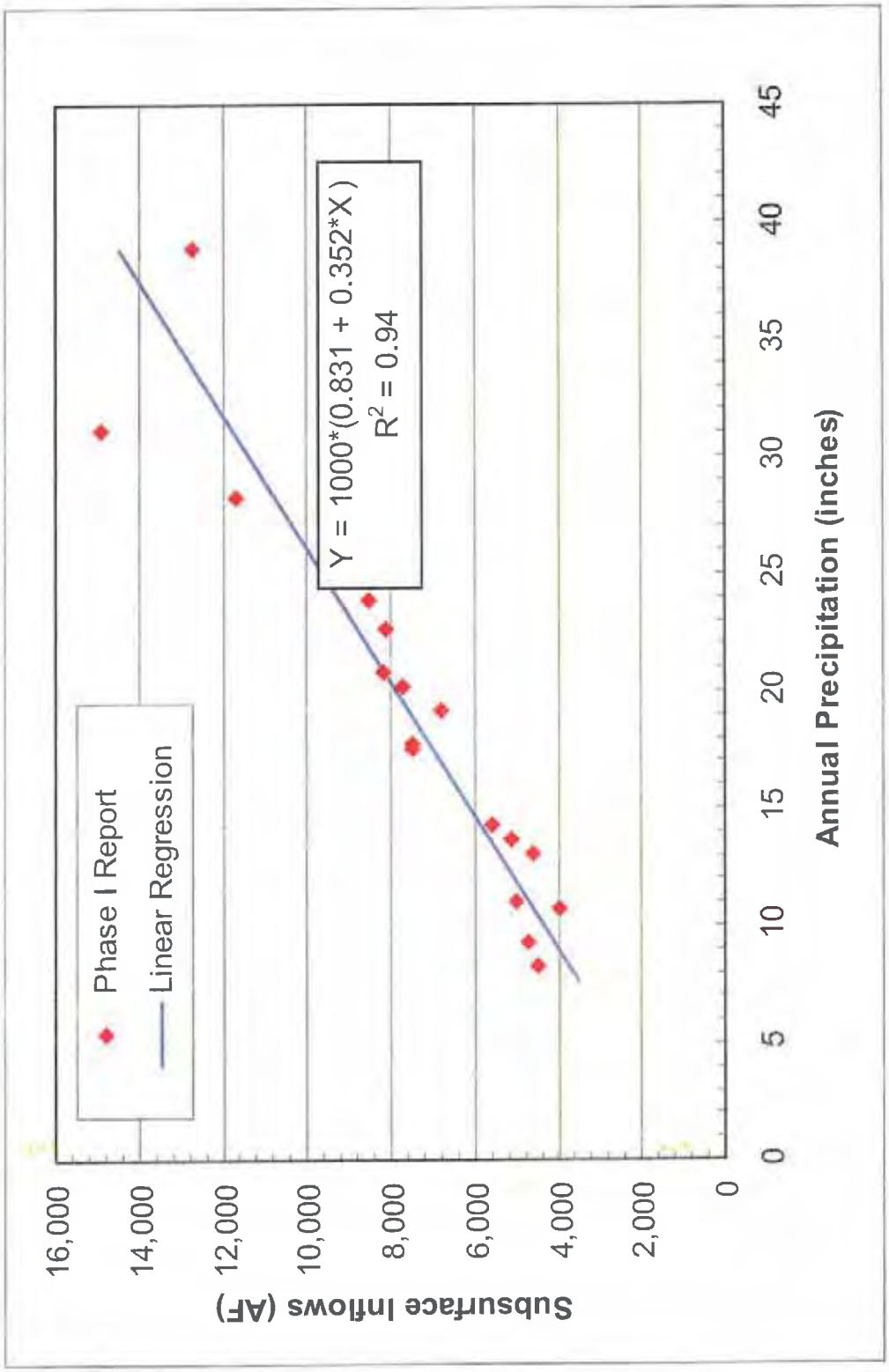
CUMULATIVE DEPARTURE OF ANNUAL RAINFALL AT THE ATASCADERO MWC STATION NO. 34 FROM AVERAGE ANNUAL RAINFALL FROM 1916 TO 2009

FIGURE 2.



LINEAR REGRESSION OF ESTIMATED SUBSURFACE INFLOW ON MEASURED PRECIPITATION IN THE PASO ROBLES GROUNDWATER BASIN FROM 1981 TO 1997

FIGURE 3.

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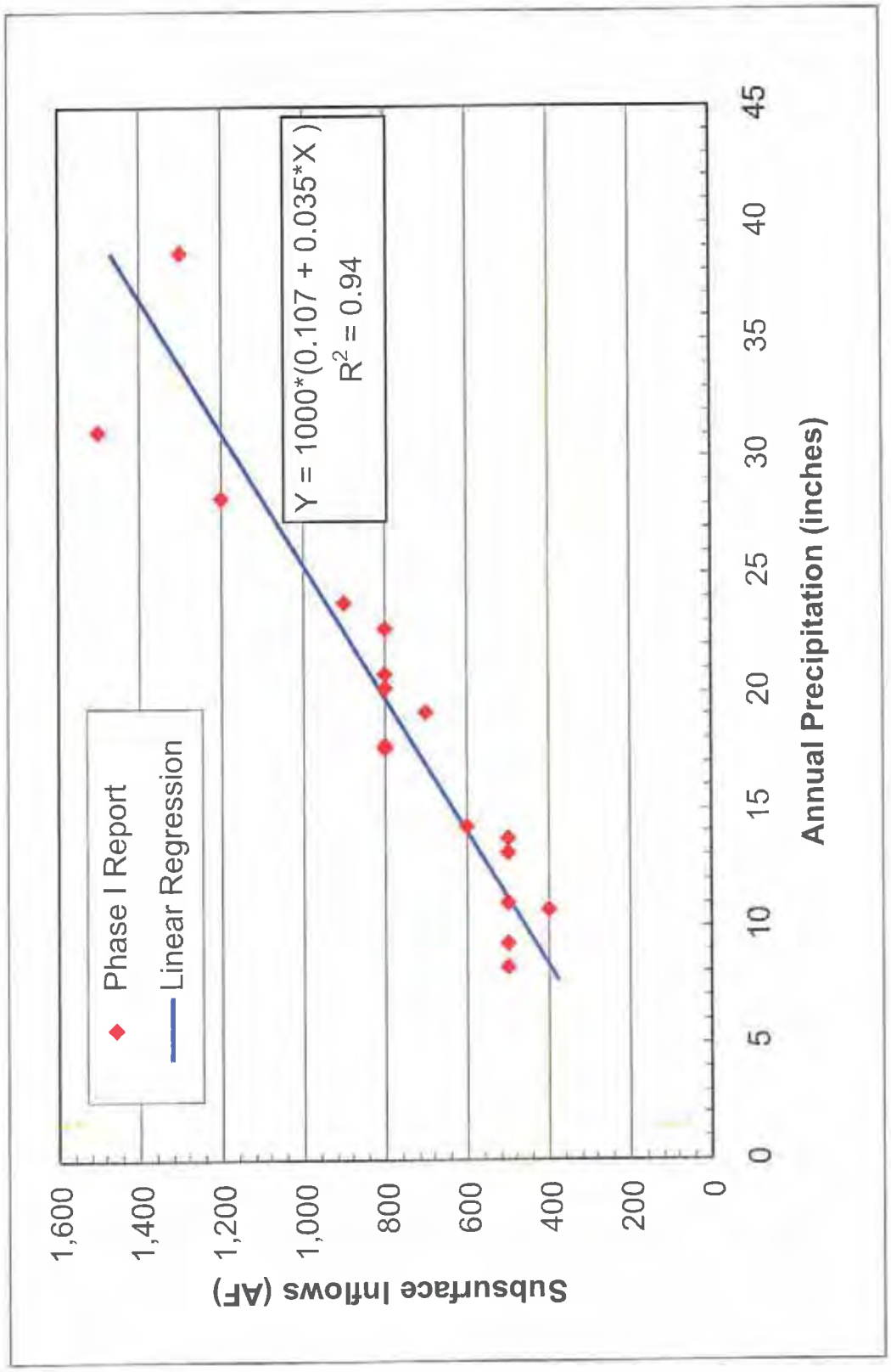

LINEAR REGRESSION OF ESTIMATED SUBSURFACE INFLOW ON MEASURED PRECIPITATION IN THE ATASCADERO SUBBASIN FROM 1981 TO 1997

FIGURE 4.

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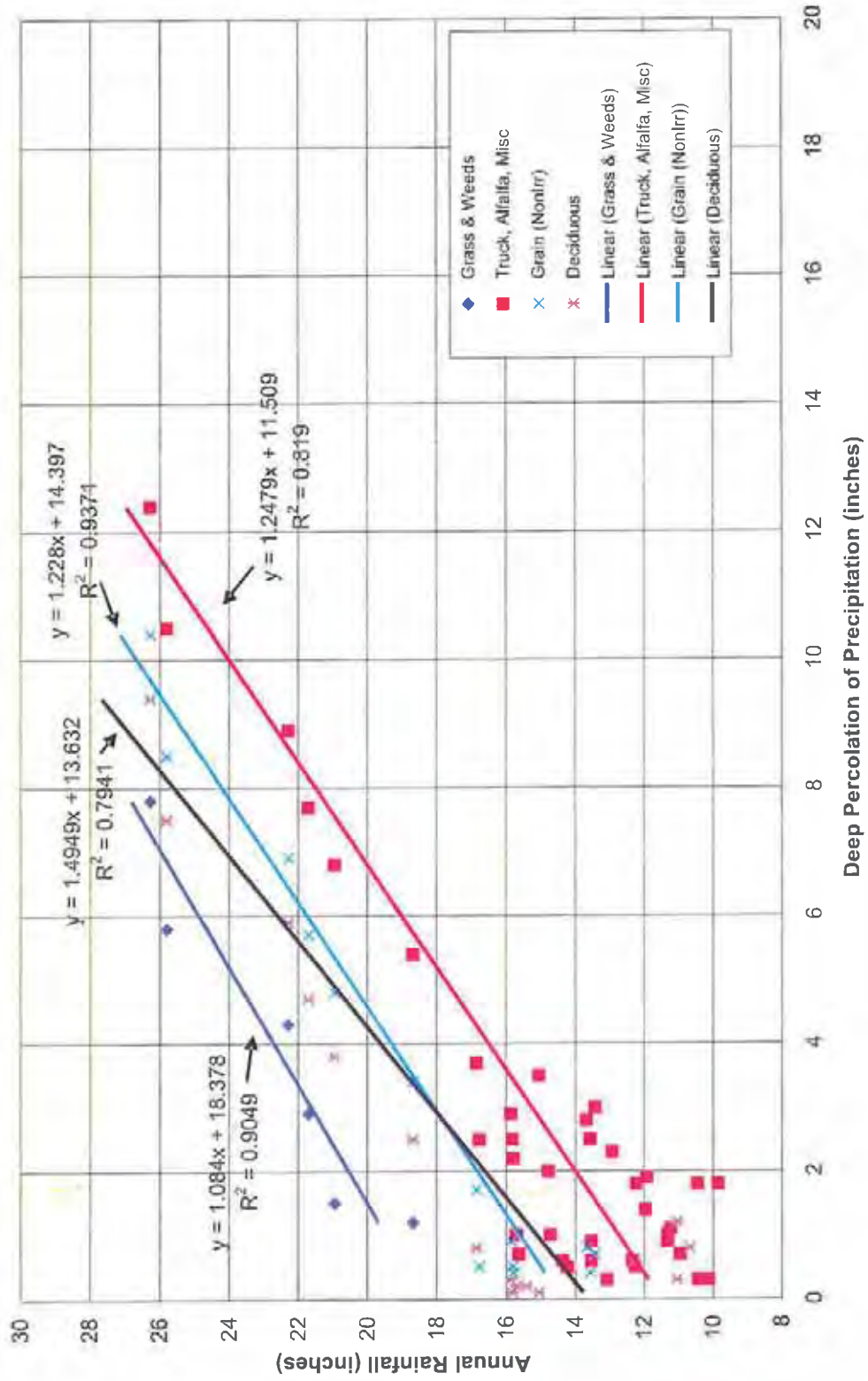

LINEAR REGRESSION OF DEEP PERCOLATION OF PRECIPITATION ON MEASURED RAINFALL FOR FOUR DIFFERENT LAND USE CATEGORIES

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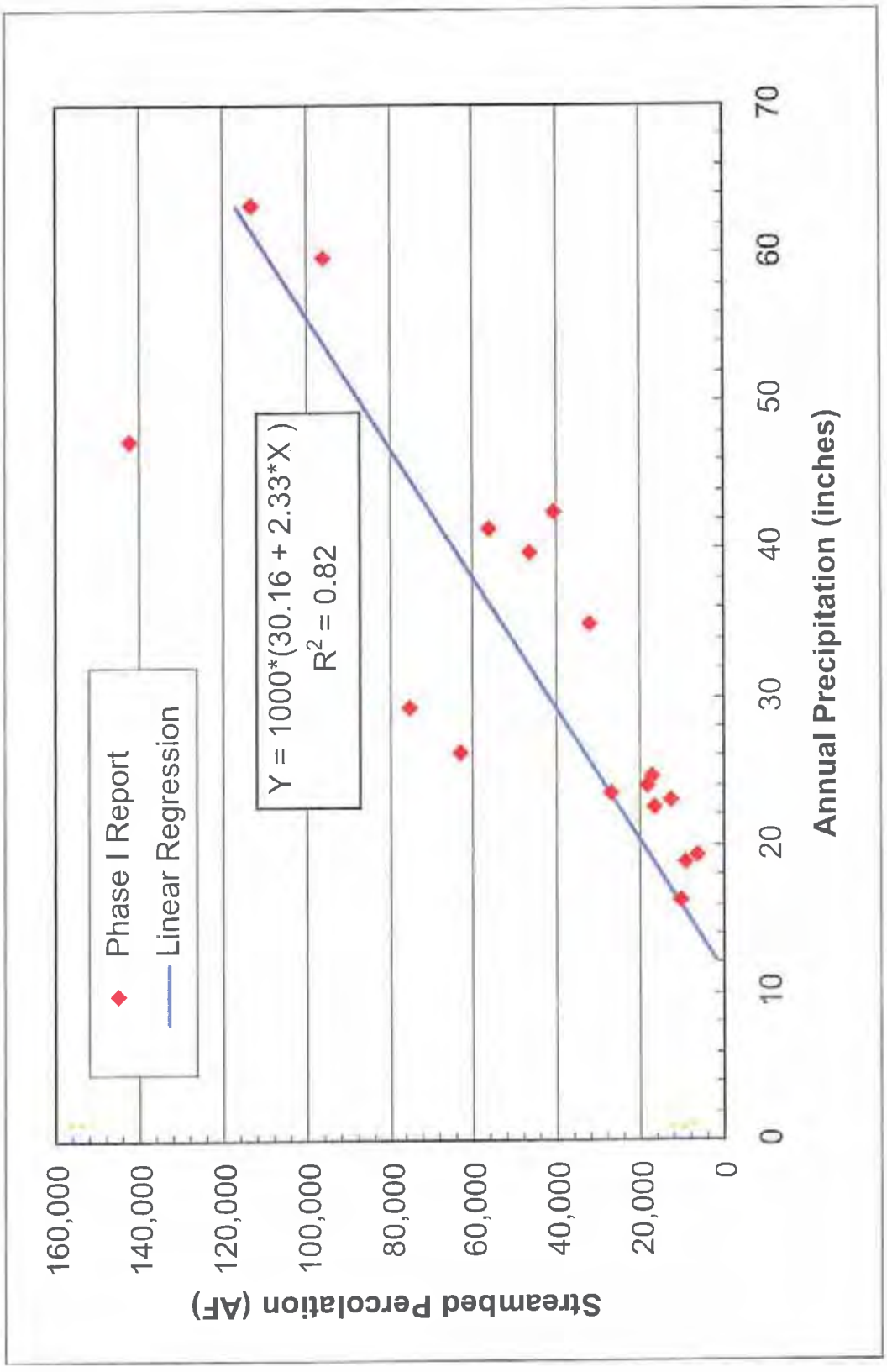
FIGURE 5.



LINEAR REGRESSION OF STREAMBED PERCOLATION ON MEASURED PRECIPITATION IN THE PASO ROBLES GROUNDWATER BASIN FROM 1981 TO 1997

FIGURE 6.

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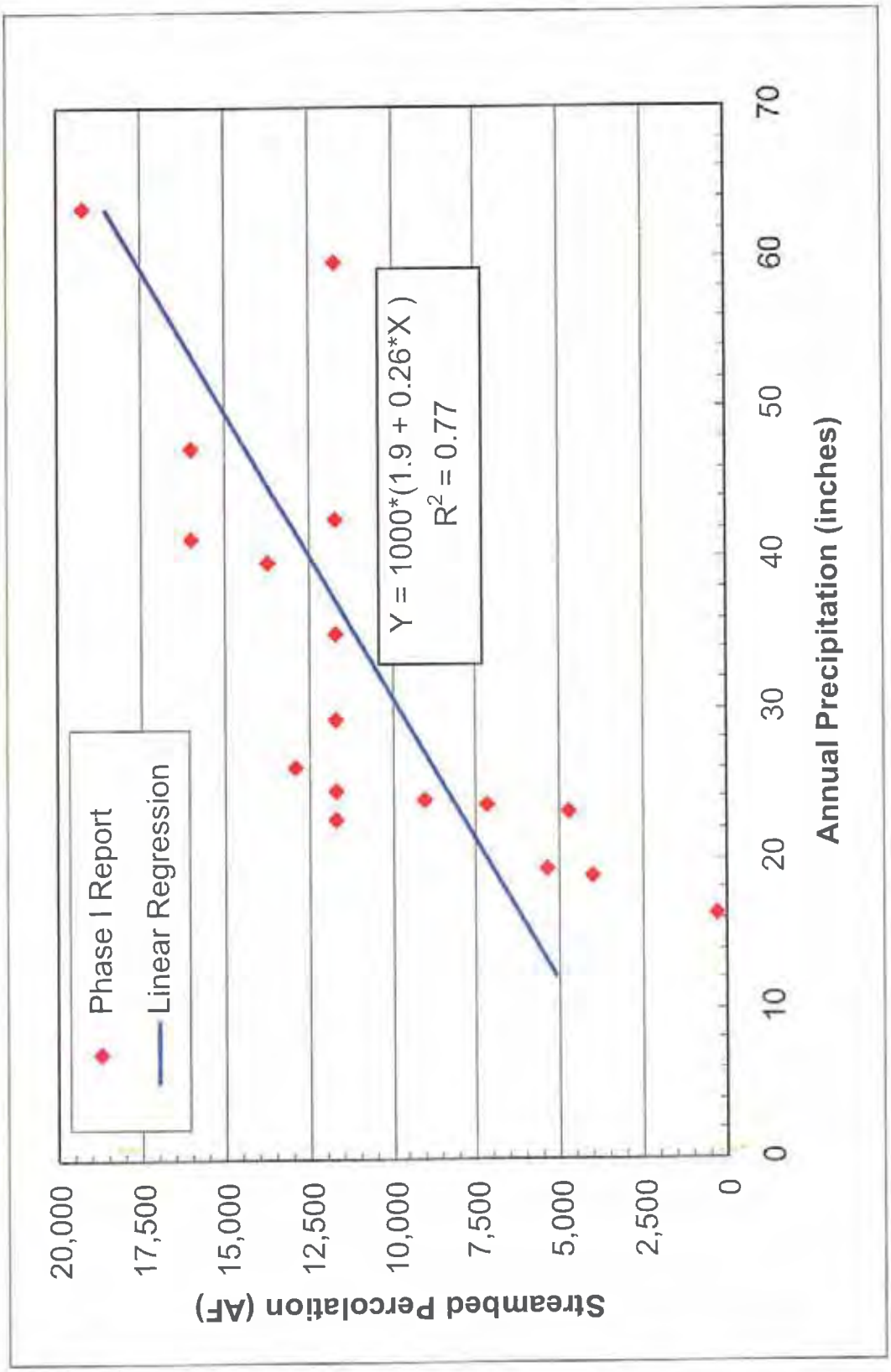
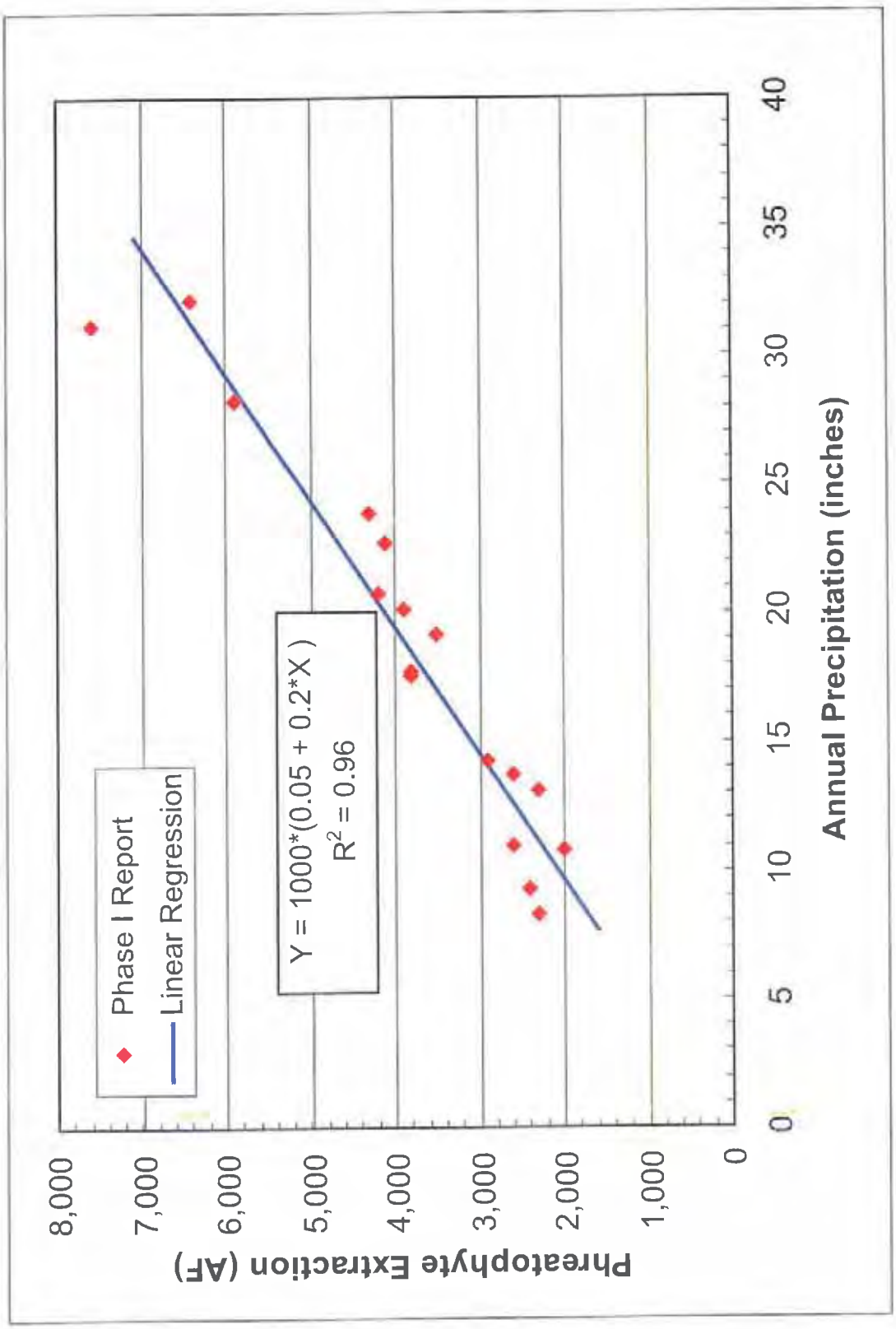


LINEAR REGRESSION OF STREAMBED PERCOLATION ON MEASURED PRECIPITATION IN THE ATASCADERO SUBBASIN FROM 1981 TO 1997

FIGURE 7.

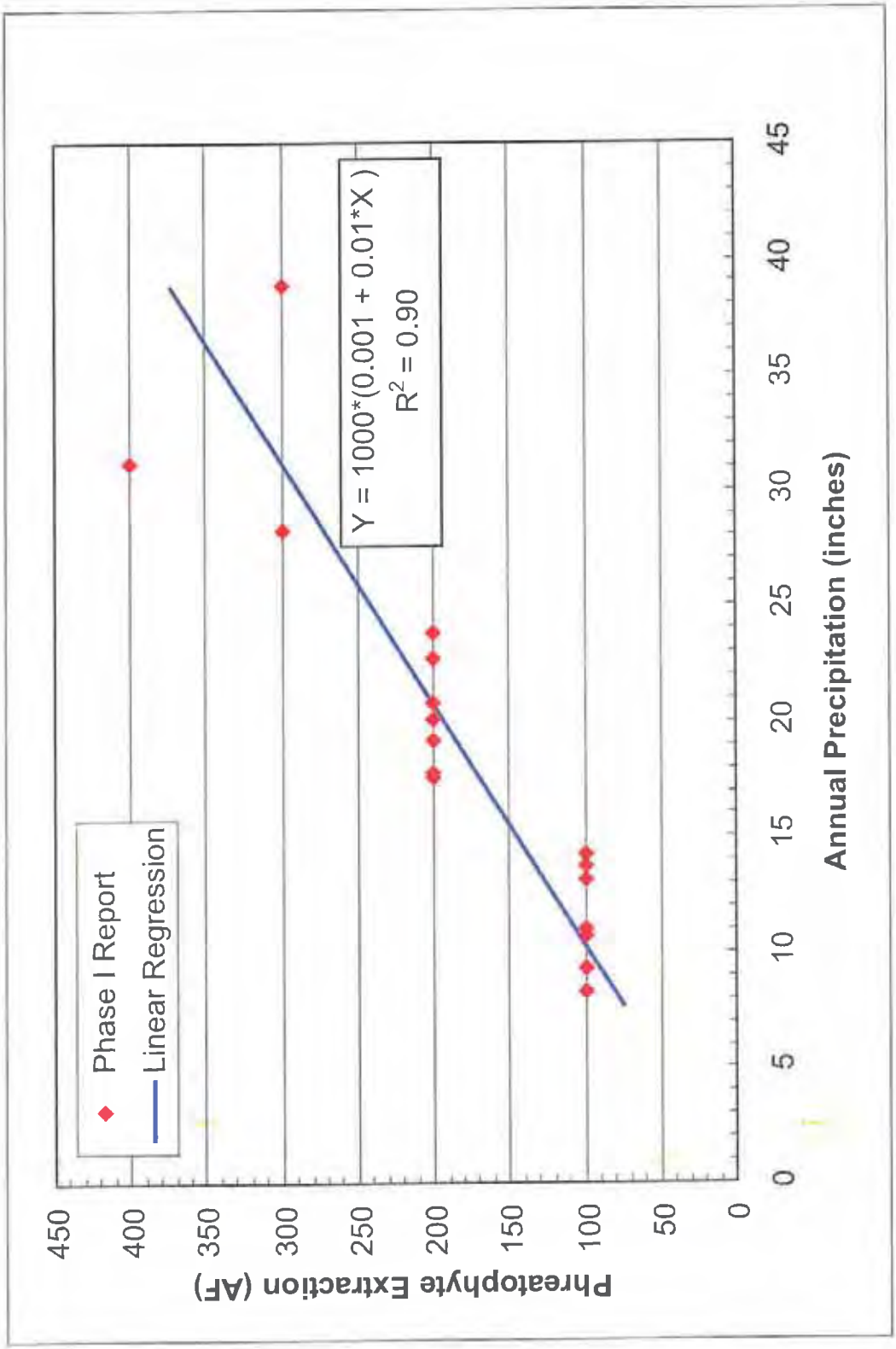
M:\Drafting\JOBFILES\2010\3014\3014.036\Drawings\Figure 7.cdr, 01/12/2010



LINEAR REGRESSION RELATIONSHIP BETWEEN MEASURED PRECIPITATION AND PHREATOPHYTE EXTRACTION IN THE PASO ROBLES GROUNDWATER BASIN FROM 1981 TO 1997

M:\Drafting\JOBFILES\2010\3014\3014 036\Drawings\Figure 8.cdr, 01/11/2010

FIGURE 8.



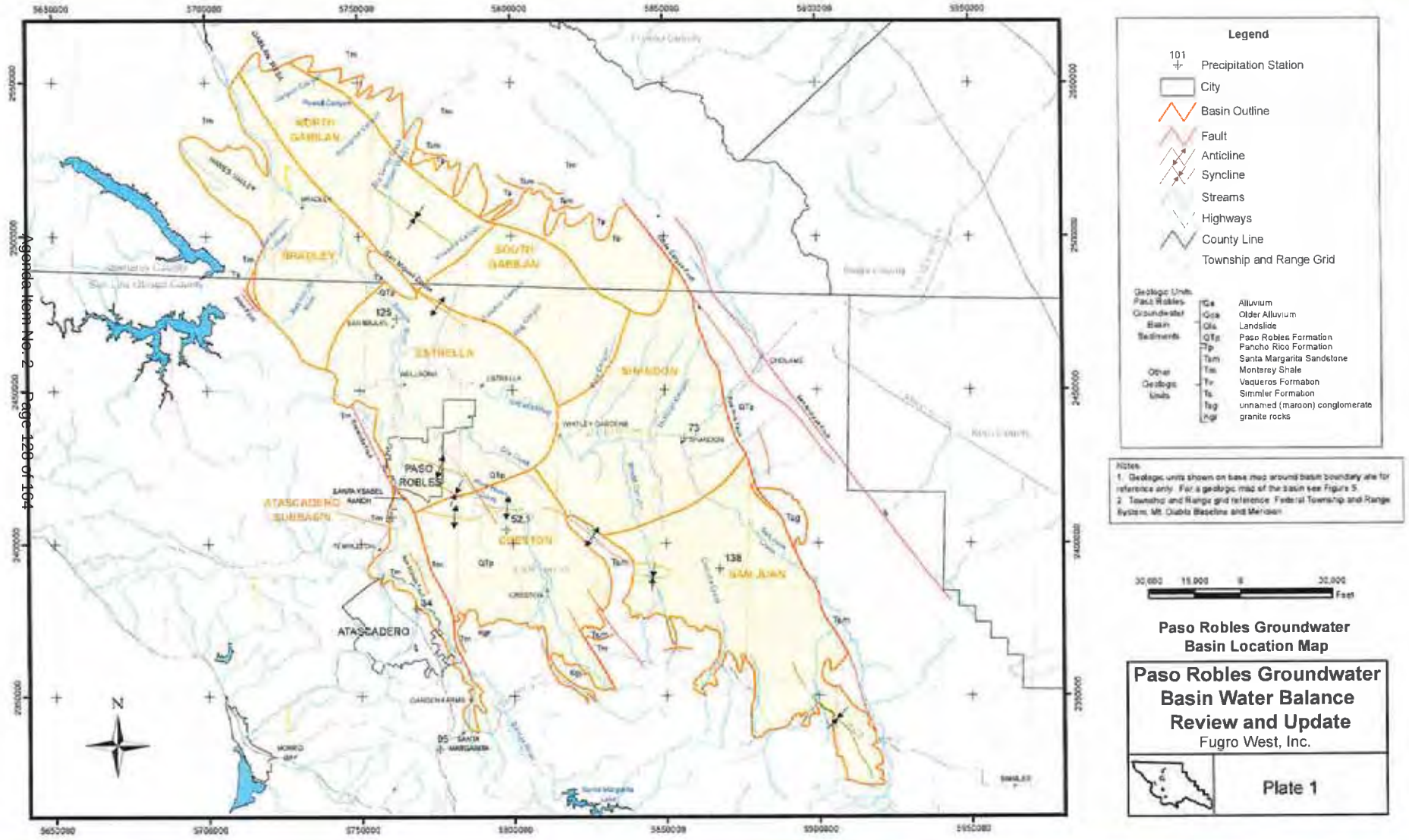
LINEAR REGRESSION RELATIONSHIP BETWEEN MEASURED PRECIPITATION AND PHREATOPHYTE EXTRACTION IN THE ATASCADERO SUBBASIN FROM 1981 TO 1997

FIGURE 9.

M:\Drafting\JOBFILES\2010\3014\3014 036\Drawings\Figure 9.cdr, 01/11/2010

PLATES

March 2010
Project No. 3014.036



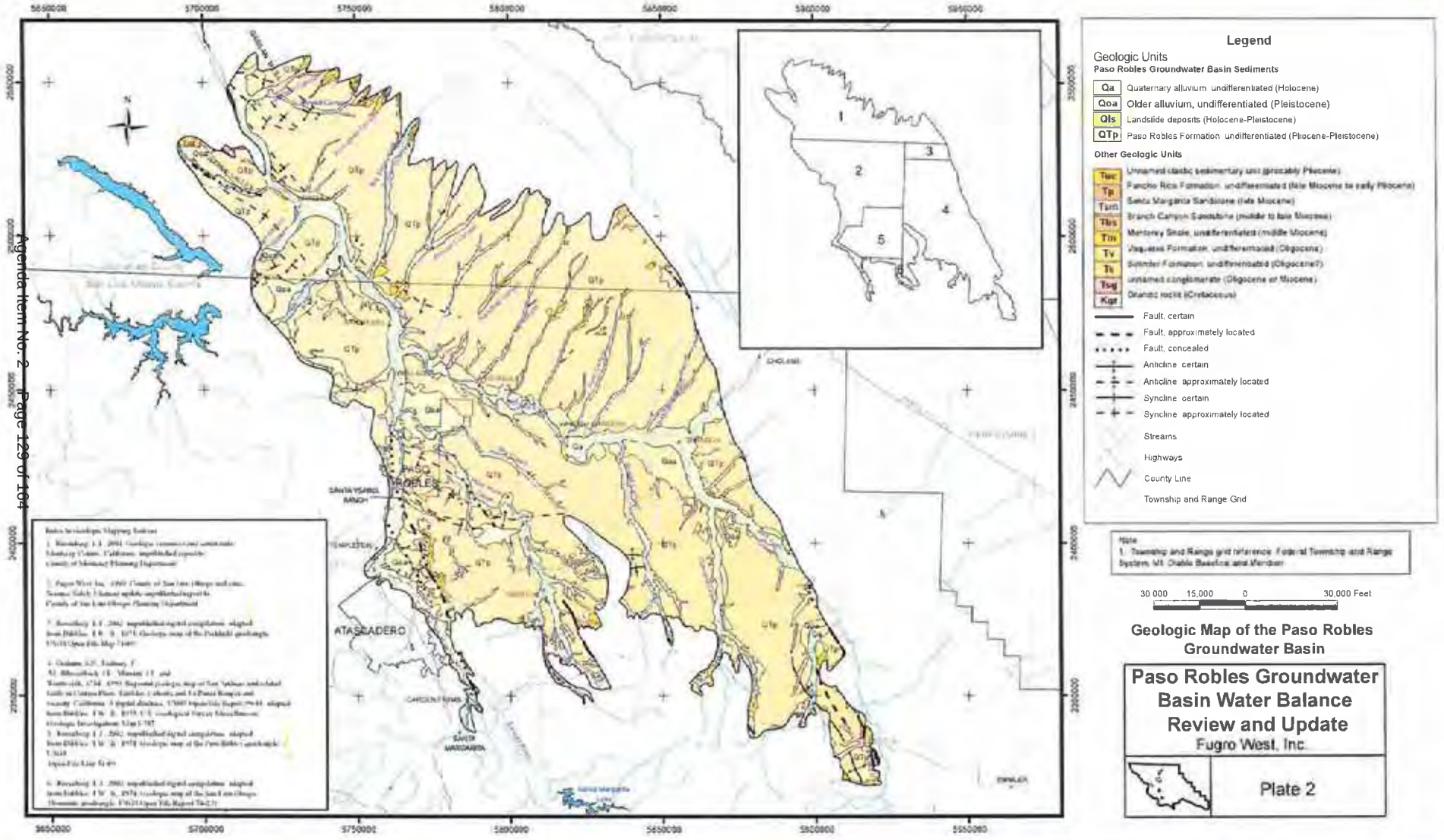
Paso Robles Groundwater Basin Location Map

Paso Robles Groundwater Basin Water Balance Review and Update

Fugro West, Inc.

Plate 1

March 2010
Project No. 3014.036



Geologic Map of the Paso Robles Groundwater Basin

Paso Robles Groundwater Basin Water Balance Review and Update
Fugro West, Inc.

Plate 2

EXHIBIT 5

RESOLUTION NO. 05-232

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF PASO ROBLES DENYING AN APPEAL BY QUORUM REALTY FUNDS III, LLC APPROVING PLANNED DEVELOPMENT 05-010 FOR THE INNS AT VINTNERS VILLAGE HOTEL PROJECT (CENCO INVESTMENT - APN 009-631-011)

WHEREAS, Planned Development 05-010 has been filed by R2L Architects on behalf of CENCO Investment, LLC & Alexander Samardzich to construct a 138 room, four story (55-foot tall) hotel with bungalows and ancillary parking lot and landscaping; and

WHEREAS, the Project site is located in the vicinity of the northwest corner of Highway 46 West and South Vine Street; and

WHEREAS, the General Plan land use designation of the Project site is Regional Commercial (RC) and the Zoning designation is Highway Commercial, Planned Development Overlay (C2-PD); and

WHEREAS, Section 21.13.030 of the Zoning Code which requires approval of a Conditional Use Permit for commercial use of C2 PD-zoned properties in the Theatre Drive area so as to ensure that land uses will not have a significant adverse effect on the economic vitality of the downtown as required by Ordinance 568 N.S.; and

WHEREAS, in conjunction with Planned Development 05-010, R2L Architects on behalf of CENCO Investment, LLC, has filed Conditional Use Permit 05-006, seeking authorization to operate a hotel in the C2 PD (Highway Commercial, Planned Development) Zoning District; and

WHEREAS, at its September 13, 2005 meeting, the Planning Commission held a duly noticed public hearing on the Project to accept public testimony on the proposal including Planned Development 05-010 and related applications; and

WHEREAS, at its September 13, 2005 meeting, the Planning Commission on a 5-1 vote (one Commissioner in opposition and one Commissioner was absent) adopted the resolution approving Planned Development 05-010; and

WHEREAS, on October 6, 2005, Gregory W. Sanders, Esq. on behalf or Quorum Realty Funds III, LLC, appealed the Vintners Village Project; and

WHEREAS, at its November 15, 2005 meeting, the City Council held a duly noticed public hearing on the appeal application filed by Quorum Realty Funds III, LLC, to accept public testimony on the appeal of Planned Development, Conditional Use Permit and environmental review therefore; and

WHEREAS, pursuant to the Statutes and Guidelines of the California Environmental Quality Act (CEQA), and the City's Procedures for Implementing CEQA, an Initial Study was prepared and circulated for public review and comment; and

WHEREAS, based on the information and analysis contained in the Initial Study, a determination has been made that the proposed Project qualifies for adoption of a Mitigated Negative Declaration; and

WHEREAS, based upon the facts and analysis presented in the staff report and the attachments thereto, the public testimony received, and subject to the Conditions of Approval listed below, the City Council makes the following findings:

1. The proposed Project will not be detrimental to the City's efforts to revitalize Downtown Paso Robles since the Project is a destination resort hotel with ancillary/related land uses consistent with the City's Economic Strategy.

2. The proposed Planned Development is consistent with the purpose, intent and regulations set forth in Chapter 21.16A (Planned Development Overlay District Regulations) as follows:

   A. The granting of the Planned Development (PD) will not adversely affect the policies, spirit and intent of the General Plan, the Zoning Ordinance, and the policies and plans of the City. Rather, the PD for the Project implements the City's goals as expressed in its General Plan and its Economic Strategy to develop Paso Robles into an "end-destination" tourist attraction.

   B. The Project maintains and enhances the significant natural resources on the site. This has been accomplished through the use of extensive landscaping, and establishment of enhanced architecture.

   C. The Project is designed to be sensitive to, and blend in with, the character of the site and surrounding area. This has been accomplished through the use of extensive landscaping, and establishment of enhanced architecture.

   D. The Project is consistent with the purpose and intent of the Planned Development Chapter of the Zoning Ordinance and the Project is not contrary to the public health, safety and welfare.

3. The requirement for the dedication for the public right-of-way for the extension of Vine Street westerly through the subject property is in accordance with Municipal Code Section 11.12.030, which has been established in order to protect the public health, safety and welfare, and the requirement for this dedication is not only necessary to provide orderly development of this area of the City, but is also in direct proportion to the impacts that will be created by the 138 room hotel project that will be added to this area of the City which is already impacted.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of El Paso de Robles does hereby deny the appeal, thereby approving Planned Development 05-010, subject to the following conditions:

STANDARD CONDITIONS

1. The Project shall comply with all Conditions of Approval and Exhibits contained in this Resolution and the associated Resolutions for the above-referenced Conditional Use Permit 05-006.

2. The Project shall comply with the checked standard Conditions of Approval, attached hereto as Exhibit A and incorporated by reference herein.

PLANNING SITE SPECIFIC CONDITIONS

NOTE: In the event of conflict or duplication between standard and site-specific conditions, the site-specific condition shall supersede the standard condition.

3. The Project shall be constructed in substantial conformance with the Conditions of Approval established by this Resolution and it shall be constructed in substantial conformance with the following Exhibits:

EXHIBIT	DESCRIPTION
A	Standard Conditions of Approval
B	Project Data Sheet
C	Conceptual Site Plan
D	Grading & Drainage Plan
E	Grading Cross Sections
F	Tree Removal Plan
G	Landscape Plan
H1-H6	Architectural Elevations
I	Project Arborist Report
J	Color and Materials Board (on file in the Community Development Dept.)

4. This Development Plan for PD 05-010, together with the application for Conditional Use Permit 05-006, allows for development and operation of the 69,225 square foot, 118 room, four story hotel and a 20 bungalow rooms totaling 12,450 square feet (total of 138 rooms) with ancillary pool, landscaping, and parking. All other phases of the conceptual development will need to be reviewed under a separate development plan application as well as a separate environmental/traffic analysis.

5. Prior to issuance of a Building Permit for the Project, the following plans shall be filed with the City for Development Review Committee review and approval:

   a. The Final Development Plan submittal is to be accompanied by submittal of the detailed plans of:

(1) the site landscaping, including details for transformer and backflow device screening; (2) the architectural elevations showing four-sided architectural detail, including the painting of the air conditioner vents to match the building (if applicable); (3) details for retaining walls, boundary walls and any other walls/fencing; (4) the signage program; (5) specific exterior light fixture details, including type and height of parking lot pole lights, landscape lighting along South Vine Street, and the on-site walkways; (6) the precise grading and drainage; and (7) the street improvements.

b. The landscaping plan needs be revised to incorporate terracing which may need to include decorative retaining walls. The intent is to provide additional grading techniques, decorative walls and landscape material to "break-up" the long expanse of the steep slope along South Vine Street.

c. The final details for the television antenna and accessories and the method proposed for screening of the antenna and accessories.

d. The Final Plans and the accompanying detailed plans are to be in substantial conformance with Exhibits A through I, which Exhibits have been incorporated into this Resolution as per Site Specific Condition No. 3.

e. All accessory elements including, but in no way limited to, trash enclosures, mechanical screens, decorative paving, fountains, outdoor lighting, building mounted lighting, tables, chairs, benches, and wall/fences shall be consistent with the architectural theme established for the Vintners Village Project as shown on the Exhibits B through I

f. The proposed light fixtures shown on Exhibit H6 do not appear to meet the City Standards for fully shielded fixtures. Please provide additional light cut sheets that can be reviewed to insure proper light shielding.

g. A revised off street parking plan that complies with the City Zoning Code Standards and accommodates the required dedication for the realignment of Vine Street through the subject property in a manner consistent with the Caltrans approved Project Study Report, in a manner subject to approval by the City Engineer.

6. No underground or aboveground storage of hazardous materials shall be allowed on-site without first obtaining City approval. (This provision is not intended to prevent small containers of fuel or maintenance chemicals normally associated with commercial lodging and/or landscape maintenance).

7. All existing and new overhead utilities shall be placed underground.

8. Temporary construction noise levels in excess of 60 dBLdn shall be restricted to the daylight hours of 7am to 6pm. Noise levels shall be measured or monitored from site boundaries or the nearest adjoining residential use to determine compliance.

9. The applicant shall agree not to protest the formation of an Assessment District to construct any future improvements at the intersections of Highway 46 West and 101 for the area served by Theatre Drive, Ramada Drive and South Vine Street. The agreement shall be in a

form approved by the City Attorney. The applicant shall pay his pro-rata share based on the benefit to the hotel project. The agreement shall be fully executed prior to the issuance of a Certificate of Occupancy.

10. No Certificates of Occupancy or use of any building or structure will be issued until such time as Caltrans has accepted the Interim Improvements and has approved public use of these facilities.

11. All development impact fees, including signalization and bridge impact fees that are in effect at the time of building permit issuance, shall be paid in conjunction with the issuance of the building permit.

AIR POLLUTION CONDITIONS

12. The project shall be conditioned to comply with all applicable District regulations pertaining to the control of fugitive dust (PM-10) as contained in section 6.5 of the Air Quality Handbook. All site grading and demolition plans noted shall list the following regulations:

    a. Reduce the amount of the disturbed area where possible.

    b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (non-potable) water should be used whenever possible.

    c. All dirt stockpile areas should be sprayed daily as needed.

    d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.

    e. Exposed ground areas that are to be reworked at dates greater than one month after initial grading should be sown with a fast-germinating native grass seed and watered until vegetation is established.

    f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD.

    g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

    h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.

i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.

j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.

k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible

13. Provide the following standard recommendations for commercial and industrial projects include site design and energy efficiency standards:

a. Provide on-site bicycle parking. One bicycle parking space for every ten car parking spaces in considered appropriate;
b. Provide on-site eating, refrigeration and food vending facilities to reduce lunch time trips;
c. Provide shower and locker facilities to encourage employees to bike and/or walk to work typically one shower and three lockers for every 25 employees.

OAK TREE MITIGATION

14. All requirements/mitigation as described in the Arborist report prepared by E. Wesley Conner, dated May 30, 2005 (attached as Exhibit I) shall be complied with.

15. Prior to the issuance of a Grading Permit, a letter from the Project Arborist shall be submitted to the City indicating that all oak tree preservation requirements have been installed per the Arborist recommendations and that construction is ready to commence.

16. Prior to occupancy of the hotel or any other building, a letter from the Project Arborist shall be submitted to the City indicating that all mitigation has been complied with to his satisfaction and the Certificate of Occupancy can be released.

ENGINEERING SITE SPECIFIC CONDITIONS

17. Prior to issuance of building permits, the applicant will provide the City with an irrevocable and perpetual offer of dedication for public right-of-way for the extension of Vine Street westerly through the subject property in accordance with Municipal Code Section 11.12.030I. The width of the offer shall be 68 feet. The horizontal alignment of the offer shall be subject to the approval of the City Engineer.

18. Prior to occupancy, the applicant shall improve the existing Vine Street frontage in accordance with Municipal Code Section 11.12.030. Frontage improvements shall include pavement widening to accommodate a center turning lane. Beginning at the north boundary of the project, Vine Street shall be widened in accordance with the Theatre Drive standard

south to the point where the Vine Street dedication turns to the west. All work shall be completed in accordance with plans approved by the City Engineer.

19. Prior to occupancy, the applicant shall extend an 8-inch sewer line in the existing Vine Street right-of-way to the north boundary of the property in accordance with Municipal Code Section 14.08.070C5 and plans approved by the City Engineer.

20. Prior to occupancy, the applicant shall extend a 16-inch water main in the existing Vine Street right-of-way to the north boundary of the property in accordance with plans approved by the City Engineer. The applicant will be eligible for reimbursement for oversizing in accordance with Code Section 14.04.040.

ADOPTED by the City Council of the City of El Paso de Robles at a regular meeting of said Council held on this 15th day of November 2005 by the following vote:

AYES: Heggarty, Nemeth, Picanco, Strong, and Mecham
NOES: None
ABSTAIN: None
ABSENT: None

Frank R. Mecham, Mayor

ATTEST:

Sharilyn M. Ryan, Deputy City Clerk

EXHIBIT 6

RESOLUTION NO.: 05-087

A RESOLUTION OF THE PLANNING COMMISSION
OF THE CITY OF EL PASO DE ROBLES
APPROVING PLANNED DEVELOPMENT 05-010 FOR THE
INNS AT VINTNERS VILLAGE HOTEL PROJECT
(CENCO Investment)

APN: 009-631-011

WHEREAS, Planned Development 05-010 has been filed by R2L Architects on behalf of CENCO Investment, LLC & Alexander Samardzich to construct a 138 room, four story (55-foot tall) hotel with bungalows and ancillary parking lot and landscaping; and

WHEREAS, the proposed project being studied at this time with PD 05-010 & CUP 05-006 is Phase 1 of a conceptual multi-phase master plan that would include additional hotel buildings as well as commercial/retail facilities, all other phases will need to be reviewed under a separate development plan including a separate environmental analysis; and

WHEREAS, the Project site is located in the vicinity of the northwest corner of Highway 46 West and South Vine Street; and

WHEREAS, the General Plan land use designation of the Project site is Regional Commercial (RC) and the Zoning designation is Highway Commercial, Planned Development Overlay (C2-PD); and

WHEREAS, Section 21.13.030 of the Zoning Code which requires approval of a Conditional Use Permit for commercial use of C2 PD-zoned properties in the Theatre Drive area so as to ensure that land uses will not have a significant adverse effect on the economic vitality of the downtown as required by Ordinance 568 N.S.; and

WHEREAS, in conjunction with Planned Development 05-010, R2L Architects on behalf of CENCO Investment, LLC, has filed Conditional Use Permit 05-006, seeking authorization to operate a hotel in the C2 PD (Highway Commercial, Planned Development) Zoning District; and

WHEREAS, at its September 13, 2005 meeting, the Planning Commission held a duly noticed public hearing on the Project, to accept public testimony on the proposal including Planned Development 05-010 and related applications; and

WHEREAS, pursuant to the Statutes and Guidelines of the California Environmental Quality Act (CEQA), and the City's Procedures for Implementing CEQA, an Initial Study was prepared and circulated for public review and comment; and

WHEREAS, based on the information and analysis contained in the Initial Study, a determination has been made that the proposed Project qualifies for adoption of a Mitigated Negative Declaration; and

WHEREAS, based upon the facts and analysis presented in the staff report and the attachments thereto, the public testimony received, and subject to the Conditions of Approval listed below, the Planning Commission makes the following findings:

1. The proposed Project will not be detrimental to the City's efforts to revitalize Downtown Paso Robles since the Project is a destination resort hotel with ancillary/related land uses consistent with the City's Economic Strategy.

2. The proposed Planned Development is consistent with the purpose, intent and regulations set forth in Chapter 21.16A (Planned Development Overlay District Regulations) as follows:

   A. The granting of the Planned Development (PD) will not adversely affect the policies, spirit and intent of the General Plan, the Zoning Ordinance, and the policies and plans of the City. Rather, the PD for the Project implements the City's goals as expressed in its General Plan and its Economic Strategy to develop Paso Robles into an "end-destination" tourist attraction.

   B. The Project maintains and enhances the significant natural resources on the site. This has been accomplished through the use of extensive landscaping, and establishment of enhanced architecture.

   C. The Project is designed to be sensitive to, and blend in with, the character of the site and surrounding area. This has been accomplished through the use of extensive landscaping, and establishment of enhanced architecture.

   D. The Project is consistent with the purpose and intent of the Planned Development Chapter of the Zoning Ordinance and the Project is not contrary to the public health, safety and welfare.

3. The requirement for the dedication for the public right-of-way for the extension of Vine Street westerly through the subject property is in accordance with Municipal Code Section 11.12.030I. The requirement for this dedication is in direct proportion to the impacts that will be created by the 138 room hotel project that will be added to this area of the City which is already impacted.

NOW, THEREFORE, BE IT RESOLVED, that the Planning Commission of the City of El Paso de Robles does hereby approve Planned Development 05-010, and recommends that the City Council allow the building to be constructed to the proposed 55-foot tall height, subject to the following conditions:

STANDARD CONDITIONS:

1. The Project shall comply with all Conditions of Approval and Exhibits contained in this Resolution and the associated Resolutions for the above-referenced Conditional Use Permit 05-006.

2. The Project shall comply with the checked standard Conditions of Approval, attached hereto as Exhibit A and incorporated by reference herein.

PLANNING SITE SPECIFIC CONDITIONS:

NOTE: In the event of conflict or duplication between standard and site-specific conditions, the site-specific condition shall supersede the standard condition.

The Project shall be constructed in substantial conformance with the Conditions of Approval established by this Resolution and it shall be constructed in substantial conformance with the following Exhibits:

EXHIBIT	DESCRIPTION
A	Standard Conditions of Approval
B	Project Data Sheet
C	Conceptual Site Plan
D	Grading & Drainage Plan
E	Grading Cross Sections
F	Tree Removal Plan
G	Landscape Plan
H1-H6	Architectural Elevations
I	Project Arborist Report
J	Color and Materials Board (on file in the Community Development Dept.)

4. This Development Plan for PD 05-010, together with the application for Conditional Use Permit 05-006 allows for development and operation of the 69,225 square foot, 118 room, four story hotel and a 20 bungalow rooms totaling 12,450 square feet (total of 138 rooms) with ancillary pool, landscaping, and parking. All other phases of the conceptual development will need to be reviewed under a separate development plan application as well as a separate environmental/traffic analysis.

5. Prior to issuance of a Building Permit for the Project, the following plans shall be filed with the City for Development Review Committee review and approval:

   a. The Final Development Plan submittal is to be accompanied by submittal of the detailed plans of:

      (1) the site landscaping, including details for transformer and backflow device screening; (2) the architectural elevations showing four-sided architectural detail, including the painting of the air conditioner vents to match the building (if applicable); (3) details for retaining walls, boundary walls and any other walls/fencing; (4) the signage program; (5) specific exterior light fixture details, including type and height of parking lot pole lights, landscape lighting along South Vine Street, and the on-site walkways; (6) the precise grading and drainage; and (7) the street improvements.

   b. The landscaping plan needs be revised to incorporate terracing which may need to include decorative retaining walls. The intent is to provide additional grading techniques, decorative walls and landscape material to "break-up" the long expanse of the steep slope along South Vine Street.

   c. The final details for the television antenna and accessories and the method proposed for screening of the antenna and accessories.

   d. The Final Plans and the accompanying detailed plans are to be in substantial conformance with Exhibits A through I, which Exhibits have been incorporated into this Resolution as per Site Specific Condition No. 3.

   e. All accessory elements including, but in no way limited to, trash enclosures, mechanical screens, decorative paving, fountains, outdoor lighting, building mounted lighting, tables, chairs, benches, and wall/fences shall be consistent with the architectural theme established for the Vintners Village Project as shown on the Exhibits B through I.

   f.. The proposed light fixtures shown on Exhibit H6 do not appear to meet the City Standards for fully shielded fixtures. Please provide additional light cut sheets that can be reviewed to insure proper light shielding.

6. No underground or aboveground storage of hazardous materials shall be allowed on-site without first obtaining City approval. (This provision is not intended to prevent small containers of fuel or maintenance chemicals normally associated with commercial lodging and/or landscape maintenance).

7. All existing and new overhead utilities shall be placed underground.

8. Temporary construction noise levels in excess of 60 dBLdn shall be restricted to the daylight hours of 7am to 6pm. Noise levels shall be measured or monitored from site boundaries or the nearest adjoining residential use to determine compliance.

9. The applicant shall agree not to protest the formation of an Assessment District to construct any future improvements at the intersections of Highway 46 West and 101 for the area served by Theatre Drive, Ramada Drive and South Vine Street. The agreement shall be in a form approved by the City Attorney. The applicant shall pay his pro-rata share based on the benefit to the hotel project. The agreement shall be fully executed prior to the issuance of a Certificate of Occupancy.

10. No Certificates of Occupancy or use of any building or structure will be issued until such time as Caltrans has accepted the Interim Improvements and has approved public use of these facilities.

11. All development impact fees, including signalization and bridge impact fees that are in effect at the time of building permit issuance, shall be paid in conjunction with the issuance of the building permit.

AIR POLLUTION CONDITIONS:

12. The project shall be conditioned to comply with all applicable District regulations pertaining to the control of fugitive dust (PM-10) as contained in section 6.5 of the Air Quality Handbook. All site grading and demolition plans noted shall list the following regulations:

    a. Reduce the amount of the disturbed area where possible.

    b. Use of water trucks or sprinkler systems in sufficient quantities to prevent airborne dust from leaving the site. Increased watering frequency would be required whenever wind speeds exceed 15 mph. Reclaimed (nonpotable) water should be used whenever possible.

    c. All dirt stockpile areas should be sprayed daily as needed.

    d. Permanent dust control measures identified in the approved project revegetation and landscape plans should be implemented as soon as possible following completion of any soil disturbing activities.

    e. Exposed ground areas that are to be reworked at dates greater than one month after initial grading should be sown with a fast-germinating native grass seed and watered until vegetation is established.

    f. All disturbed soil areas not subject to revegetation should be stabilized using approved chemical soil binders, jute netting, or other methods approved in advance by the APCD.

    g. All roadways, driveways, sidewalks, etc. to be paved should be completed as soon as possible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.

    h. Vehicle speed for all construction vehicles shall not exceed 15 mph on any unpaved surface at the construction site.

i. All trucks hauling dirt, sand, soil, or other loose materials are to be covered or should maintain at least two feet of freeboard (minimum vertical distance between top of load and top of trailer) in accordance with CVC Section 23114.

j. Install wheel washers where vehicles enter and exit unpaved roads onto streets, or wash off trucks and equipment leaving the site.

k. Sweep streets at the end of each day if visible soil material is carried onto adjacent paved roads. Water sweepers with reclaimed water should be used where feasible

13. Provide the following standard recommendations for commercial and industrial projects include site design and energy efficiency standards:

a. Provide on-site bicycle parking. One bicycle parking space for every ten car parking spaces in considered appropriate;
b. Provide on-site eating, refrigeration and food vending facilities to reduce lunch time trips;
c. Provide shower and locker facilities to encourage employees to bike and/or walk to work typically one shower and three lockers for every 25 employees.

OAK TREE MITIGATION:

14. All requirements/mitigation as described in the Arborist report prepared by E. Wesley Conner, dated May 30, 2005 (attached as Exhibit I) shall be complied with.

15. Prior to the issuance of a Grading Permit, a letter from the Project Arborist shall be submitted to the City indicating that all oak tree preservation requirements have been installed per the Arborist recommendations and that construction is ready to commence.

16. Prior to occupancy of the hotel or any other building, a letter from the Project Arborist shall be submitted to the City indicating that all mitigation has been complied with to his satisfaction and the Certificate of Occupancy can be released.

ENGINEERING SITE SPECIFIC CONDITIONS:

17. Prior to issuance of building permits, the applicant will provide the City with an irrevocable and perpetual offer of dedication for public right-of-way for the extension of Vine Street westerly through the subject property in accordance with Municipal Code Section 11.12.030I. The width of the offer shall be 68 feet. The horizontal alignment of the offer shall be subject to the approval of the City Engineer.

18. Prior to occupancy, the applicant shall improve the existing Vine Street frontage in accordance with Municipal Code Section 11.12.030. Frontage improvements shall include pavement widening to accommodate a center turning lane. Beginning at the north boundary of the project, Vine Street shall be

widened in accordance with the Theatre Drive standard south to the point where the Vine Street dedication turns to the west. All work shall be completed in accordance with plans approved by the City Engineer.

19. Prior to occupancy, the applicant shall extend an 8-inch sewer line in the existing Vine Street right-of-way to the north boundary of the property in accordance with Municipal Code Section 14.08.070C5 and plans approved by the City Engineer.

20. Prior to occupancy, the applicant shall extend a 16-inch water main in the existing Vine Street right-of-way to the north boundary of the property in accordance with plans approved by the City Engineer. The applicant will be eligible for reimbursement for oversizing in accordance with Code Section 14.04.040.

PASSED AND ADOPTED THIS 27th day of September, 2005 by the following Roll Call Vote:

AYES: Johnson, Mennath, Mattke, Hamon, Holstine

NOES: Flynn

ABSENT: Steinbeck

ABSTAIN: None

VICE CHAIRMAN ERIC MATTKE

ATTEST:

ROBERT A. LATA, PLANNING COMMISSION SECRETARY

h:darren/PD/PD05-010Resolution

NOSSAMAN LLP

ATTORNEYS AT LAW

18101 Von Karman Avenue
Suite 1800
Irvine, CA 92612
T 949.833.7800
F 949.833.7878

Gregory W. Sanders
gsanders@nossaman.com

Refer To File #: 290324-0001

VIA FEDEX

March 28, 2014

Chairman Vince Vanderlip
City of Paso Robles Planning Commission
1000 Spring Street
Paso Robles, CA 93446

Re: **Supplemental Comments on Initial Study and Draft Mitigated Negative Declaration for the Marriott Residence Inn Proposed at 121 Wilmar Place (PD 13-005) (PR 13-0109) (OTR 13-008)**

Dear Chairman Vanderlip and Commissioners,

On behalf of Quorum Realty Fund IV, LLC (successor in interest to Quorum Realty Fund III, LLC) we are submitting the following supplemental comments on the Initial Study and draft Mitigated Negative Declaration ("Draft MND") circulated for public comment by the City of Paso Robles ("City"), regarding the Marriott Residence Inn proposed to be constructed at 121 Wilmar Place, Paso Robles, California ("Project"). In addition to the concerns addressed in our March 24, 2014 letter to the Planning Commission, for the reasons set forth below, the Draft MND fails to comply with the California Environmental Quality Act ("CEQA"),[1] the CEQA Guidelines,[2] the City's Zoning Code,[3] and the General Plan. Because the Draft MND is legally insufficient, and because the Project is inconsistent with the governing planning documents, the Draft MND and the Project cannot be approved by the City. Moreover, because substantial evidence demonstrates that the mitigation measures may not reduce all impacts of the Project to a level of insignificance -- particularly with respect to aesthetics, transportation/traffic, noise, biology, and hydrology/water quality -- an Environmental Impact Report ("EIR") must be prepared for the Project.

1. THE DRAFT MND VIOLATES CEQA BECAUSE IT RELIES ON LEGALLY INSUFFICIENT MITIGATION MEASURES.

The Traffic Impact Study relied on in the Draft MND concludes that the Project will have significant impacts on traffic circulation both at the intersection of Vine Street and U.S. 101/State Route 46, and at the intersection of Ramada Drive and U.S. 101/State Route 46 . (Traffic Impact Study, Table 10 and Table 13.) The Draft MND states on page 23 that the Project applicant will need to mitigate for these impacts "by participating in future improvements to the intersection of South Vine Street and Highway 101, and operations of Highway 101." The Draft

1 Public Resources Code, section 21000 et seq.
2 California Code of Regulations, title 14, section 15000 et seq.
3 City of Paso Robles Municipal Code, title 21.

MND proposes to mitigate for these impacts through the applicant's payment of Development Impact Fees. However, because the proposed Development Impact Fees will not be earmarked for the specific improvements necessary to mitigate for the Project's significant impacts, it is an inadequate mitigation measure under CEQA.

There are six requirements for a mitigation measure to be legally sufficient under CEQA:

(1) the measure must be feasible (CEQA Guideline, § 15126.4(a)(1));

(2) the measure must be fully enforceable (CEQA Guideline, § 15126.4(a)(2));

(3) the measure must be consistent with all applicable constitutional requirements (CEQA Guideline, § 15126.4(a)(4));

(4) the measure must be effective, and there must be evidence in the record showing that the measure will be effective (*Gray v. County of Madera* (2008) 167 Cal.App.4th 1099);

(5) the measure must be specific, not vague, incomplete, untested, remote, or speculative (*Federation of Hillside & Canyon Ass'ns v. City of Los Angeles* (2000) 83 Cal.App.4th1252); and

(6) formulation of the mitigation measure should not be deferred until some future time (CEQA Guideline, § 15126.4(a)(1)(B)).

The proposed imposition of Development Impact Fees fails to meet these requirements. Because the fees will not be earmarked for improvements to the intersection of South Vine Street and Highway 101 or improvements to operations of Highway 101, there is no guarantee that the paying of such fees will be effective. (See *Save our Peninsula Committee v. Monterey County Bd. of Supervisors* (2001) 87 Cal.App.4th 99, 140 ["a commitment to pay fees without any evidence that mitigation will actually occur is inadequate"]; *accord Kings County Farm Bureau v. City of Hanford* (1990) 221 Cal. App. 3d 692). In assuming the impact fees paid by the Project applicant will go toward improvements of the U.S. 101, the Draft MND relies on a mitigation measure that is wholly speculative and thus inadequate. (See *Anderson First Coalition v. City of Anderson* (2005) 130 Cal.App.4th 1173, 1189 [mitigation measure requiring the payment of impact fees was too speculative and thus inadequate when EIR assumed a specific improvement to a freeway interchange would be made but provided no evidence that the specific improvement would actually be made]).

Moreover, CEQA requires that the Planning Commission assure that mitigation measures are fully enforceable through permit conditions, agreements, or other measures as well as adopt a monitoring program to ensure that the mitigation measures are implemented. (*Federation of Hillside and Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1260-1261). No agreement has been made earmarking the impact fees for improvements to the U.S. 101, and no monitoring program has been implemented to ensure that the impact fees will actually go toward the required improvements. Thus, the proposed Development Impact Fees are an inadequate mitigation measure.

Because the proposed imposition of Development Impact Fees is not sufficiently tied to any actual mitigation of the Project's particular significant impacts on traffic, the Project has a significant impact on traffic, and the Draft MND cannot be approved. (Pub. Resources Code, § 21100 [an environmental impact report must be prepared for any project that may have a significant effect on the environment]).

2. THE PROPOSED LOT SPLIT DOES NOT PRECLUDE A DEDICATION REQUIREMENT SPECIFIED IN THE GENERAL PLAN AND NECESSARY TO MITIGATE FOR THE PROJECT'S SIGNIFICANT TRAFFIC IMPACTS.

As we demonstrated in our letter of March 24, 2014, the Project is incompatible with the City's General Plan, and therefore approval of the Project or the Draft MND is impossible. (See *Resource Defense Fund v. County of Santa Cruz* (1982) 133 Cal.App.3d 800, 806 ["the propriety of virtually any local decision affecting land use and development depends upon consistency with the applicable general plan and its elements"]; *Napa Citizens for Honest Gov't v. Napa County* (2001) 91 Cal.App.4th 342, 379 [it is an abuse of discretion to approve a project that "frustrate[s] the General Plan's goals and policies"].) Specifically, as set forth in our prior letter, the Project is inconsistent with the General Plan because the applicant is not required to dedicate the right-of-way necessary for the realignment of South Vine Street, as specified in the City's Circulation Master Plan. (See City of Paso Robles Circulation Element (2011) at p. CE-1, Policy CE-1A [Action Item 3]; *id.* at p. CE-7 [Circulation Master Plan].)

Moreover, as we explained in our prior letter, by failing to require this dedication, the Project is not only inconsistent with the General Plan, but it is also inconsistent with CEQA, as the Draft MND fails to mitigate for the Project's significant cumulative impacts. As concluded in the project proponent's own traffic study, "the Marriott Residence Inn ***Project would contribute to a significant cumulative impact*** at the SR 46W/U.S. 101 SB-SR 46 W/Vine Street intersections. ***Realignment of Vine Street would be required to mitigate this impact*** (see Mitigation Measures section of report)." (Traffic Impact Study (Attachment 12 of the Draft MND) at p. 18, emphasis added.) Further, this conclusion is consistent with the City's longstanding position that the dedication is not only necessary to provide orderly development of this area of the City, but it is also in direct proportion to the impacts that will be created" by the project. (City of Paso Robles City Council Resolution No. 05-232, attached hereto as Exhibit 5, emphasis added; see also City of Paso Robles Planning Commission Resolution No. 05-087, attached hereto as Exhibit 6 ["dedication is in direct proportion to the impacts that will be created by the 138 room hotel project that will be added to this are of the City which is already impacted"], emphasis added.)

The City Attorney has asserted that because the dedication area identified in the General Plan for the realignment of South Vine Street will be on a "remainder" parcel, the City cannot require the dedication as a condition of approving the Project or Draft MND. This assertion, however, is both contrary to law and contradicted by the evidence.

As an initial matter, the proposed lot split does not result in a "remainder." A "remainder" is a defined term under the Subdivision Map Act, and therefore it has a specific legal meaning. Specifically, under the Subdivision Map Act, a "subdivider may designate as a remainder that portion which is not divided for the purpose of sale, lease, or financing." (Gov. Code, § 66424.6, subd. (a).) In this case, in addition to the proposed construction of a 4-story 125-room hotel, the

Project applicant proposes to subdivide the current 12.6 acre property into two parcels: the applicant proposes to construct the hotel on what would be identified as parcel 1, a 3.17 acre parcel, and identify the other 9.43 acres as a "remainder." The applicant's proposal to identify the 9.43 acres as a "remainder," however, is not permitted under the law. In 2005, the applicant proposed to develop a nearly identical project (a 138-room hotel). At that time, the applicant acknowledged that the proposed project was merely "Phase I" of a multiple phase master plan. (See City of Paso Robles – Planning Division Initial Study [Exhibit 1 to our March 24, 2014 Letter] at p. 1.) At present, however, in an apparent attempt to support the identification of a "remainder," the applicant and City staff have stated that "[n]o development is proposed for the remainder lot at this time." (See March 25, 2014 Staff Report to City Planning Commission at p. 2.) While this may be an accurate statement, it is not determinative with respect to whether the resulting 9.43 acres is a "remainder." This is because a subdivider may ***not*** designate a parcel of land as a "remainder" if the subdivider intends, now ***or in the future***, to sell, lease, or finance the property. (See *Pescosolido v. Smith* (1983) 142 Cal.App.3d 964; 77 Ops. Cal. Atty. Gen. 185 (1994).) In this case, the evidence demonstrates that the applicant has a future intent to sell, lease, or finance the property. And, as such, the 9.43 acres cannot be considered a "remainder."

Moreover, even if the 9.43 acres could be legally identified as a "remainder," contrary to the City Attorney's assertion, this would not prevent the imposition of a dedication requirement. The Government Code expressly authorizes a local agency to require the construction of any improvements on a "remainder" parcel that are necessary for (i) the public health and safety, or (ii) the orderly development of the surrounding area. (Gov. Code, § 66424.6, subd. (a)(2)(A) and (B).) Moreover, the case law confirms that this authorization includes the imposition of dedication requirements. (See *Ayres v. City Council of Los Angeles* (1949) 34 Cal.2d 31, 40-41; *Fripp v. Walters* (2005) 132 Cal.App.4th 656, 663-664, fn. 2.) Accordingly, consistent with the requirements of CEQA and the General Plan, and therefore the orderly development of the surrounding area, the City can, and must, require the applicant to dedicate the area necessary for the realignment of South Vine Street, as specifically called out in the City's Circulation Element and Circulation Master Plan, in order to approve the Project or Draft MND.

Furthermore, if, despite the statutory authority and case law discussed above, the Planning Commission still has some concern with respect to imposing a dedication requirement on a "remainder" parcel, assuming one is found to exist, the Planning Commission can simply deny the lot split and avoid the issue entirely.

3. THE CITY CANNOT APPROVE THE PROJECT OR DRAFT MND WITHOUT THE DEDICATION REQUIREMENT AS IT IS ROUGHLY PROPORTIONAL TO THE PROJECT'S IMPACTS.

The City Attorney has also asserted that the dedication requirement should not be enforced because the dedication requirement is not roughly proportional to the impacts generated by the Project. This assertion is based on the premise that the Project proponent's Traffic Study "found that by 2035, whether the project is built or not, increases in regional traffic will degrade operations at that interchange to unacceptable levels." (See City Attorney's March 18, 2014 Letter re: Proposed Marriott Residence Inn Project and South Vine Street Alignment at p. 2, emphasis in original.) However, this statement, and therefore the City Attorney's entire assertion, is simply wrong. As expressly set forth in the Traffic Impact Study, cumulative

impacts without the Project will result in a level of service rating "C," which is acceptable and therefore not significant. (See Traffic Impact Study at p. 17 [Table 10].) By contrast, when the Project impacts are included with the cumulative impacts, the level of service rating drops to "D," which is unacceptable and therefore a significant impact. (*Ibid.*) Furthermore, again contrary to the City Attorney's erroneous statement, the Traffic Impact Study expressly acknowledges the Project's significant traffic impacts, stating that "the ***Marriot Residence Inn Project would contribute to a significant cumulative impact*** at the SR 46W/U.S. 101 SB-SR 46W/Vine Street Intersections," and that "[r]ealignment of Vine Street would be require to mitigate this impact." (Traffic Impact Study at p. 18.) Accordingly, contrary to the City Attorney's unsupported assertion, the Project results in a significant traffic impact, and the dedication requirement is roughly proportional. (See *Associated Home Builders etc., Inc. v. City of Walnut Creek* (1971) 4 Cal.3d 633, 638; *Whaler's Village Club v. Cal. Coastal Com.* (1985) 173 Cal.App.3d 240, 261 [accessway may be required because of project's cumulative impact]; *Nollan v. Cal. Coastal Com.* (1987) 483 U.S. 825, 836 [Coastal Commission could have imposed condition directed at remedying the project's cumulative impact].)

Moreover, the City has already concluded that:

> The requirement for the dedication for the public right-of-way for the extension of Vine Street westerly through the subject property is in accordance with Municipal Code Section 11.12.0301, which has been established in order to protect the public health, safety and welfare, and the ***requirement for this dedication is not only necessary to provide orderly development of this area of the City, but is also in direct proportion to the impacts that will be created*** by the 138 room hotel project that will be added to this area of the City which is already impacted.

(City of Paso Robles City Council Resolution No. 05-232, attached to our March 24, 2014 Letter as Exhibit 5, emphasis added; see also City of Paso Robles Planning Commission Resolution No. 05-087, attached to our March 24, 2014 Letter as Exhibit 6 ["The requirement for the dedication for the public right-of-way for the extension of Vine Street westerly through the subject property is in accordance with Municipal Code Section 11.12.030l. The requirement for this ***dedication is in direct proportion to the impacts that will be created*** by the 138 room hotel project that will be added to this are of the City which is already impacted."], emphasis added.)

The City Attorney attempts to sidestep the impact of this oft-repeated conclusion by asserting that the traffic impacts from the previous ***138*** room project are drastically different than the traffic impacts from the current ***125*** room project (note, there is a difference of only 13 rooms). Again, however, there is simply no support for this assertion. For example, the traffic study for the 138 room hotel project states that the project would result in an average of 84 trips during the P.M. peak hour period (see Attachment A to this Letter [2005 Traffic Study] at p. 6), whereas the traffic study for the 125 room hotel project states that the Project would result in an average of 88 trips during the P.M. peak hour period (see Traffic Impact Study at p. 10). Thus, according to the technical data, the current Project would actually result in more trips during P.M. peak hour period. Moreover, looking at the delay for the Theatre and Vine Street intersections, the traffic study for the 138 room hotel estimated that the project would result in a

delay per vehicle of 1.36 seconds during the P.M. peak hour period (see Attachment A to this Letter [2005 Traffic Study] at p. 7), whereas the traffic study for the 125 room hotel estimated that the Project would result in average delay of 1.1 seconds during the P.M. peak hour period (see Traffic Impact Study at p. 13). Accordingly, the City Attorney's assertion is simply not supported by the facts. Moreover, there is no analysis in the Draft MND to support the City Attorney's conclusion.

Finally, the City Attorney asserts, impliedly-acknowledging that the Project results in significant impacts, that the Project proponent will pay the City $630,000 (it is not clear whether the City Attorney believes the Project proponent has paid or will pay this amount), and that as such "the developer will have made its proportionate contribution to the traffic mitigation measures related to the project." (See City Attorney's March 18, 2014 Letter re: Proposed Marriott Residence Inn Project and South Vine Street Alignment at p. 2.) However, as explained above in Section 2 of this letter, the mere payment of money is not adequate to mitigate for the Project's impacts. Moreover, there is absolutely no discussion of how this figure was arrived at, or any condition of approval assuring that the proposed mitigation measure is fully enforceable through permit conditions, agreements, or other measures, nor a monitoring program to ensure that the mitigation measure is implemented. (*Federation of Hillside and Canyon Associations v. City of Los Angeles*, *supra*, 83 Cal.App.4th at pp. 1260-1261.) Furthermore, as the General Plan requires that the right of way identified in the Circulation Master Plan be dedicated in addition to the payment of traffic mitigation fees (see City of Paso Robles Circulation Element (2011) at p. CE-1, Policy CE-1A [Action Items 1 and 3]; *id.* at p. CE-7 [Circulation Master Plan]), even assuming that the City conditioned its approval on the payment of $630,000, the Project and the MND would be inconsistent with the General Plan, and therefore could not be approved. (See *Resource Defense Fund v. County of Santa Cruz*, *supra*, 133 Cal.App.3d at p. 806; *Napa Citizens for Honest Gov't v. Napa County*, *supra*, 91 Cal.App.4th at p. 379.)

4. THE CITY MUST FORM AN ASSESSMENT DISTRICT TO MITIGATE FOR THE CUMULATIVE IMPACTS OF THE PROJECT ON TRANSPORTATION/TRAFFIC.

As discussed above, the Traffic Study Report relied on in the Draft MND concludes that the Project will have significant cumulative impacts on traffic circulation at the intersection of Vine Street and U.S. 101/State Route 46 and at the intersection of Ramada Drive and U.S. 101/State Route 46 . (Traffic Impact Study at p. 17 [Table 10] and p. 23 [Table 13].) To mitigate for these impacts, the Traffic Impact Study indicates that three improvements to the U.S. 101 interchange must be made: (1) realignment of Theatre Drive and Vine Street; (2) construction of a roundabout at the U.S. 101 SB/SR 46W intersection; and (3) construction of a roundabout at the U.S. 101 NB/SR 46W/Ramada Drive intersection. (Traffic Impact Study at p. 24.) The report also notes that the U.S. 101 will eventually need to be widened from a four-lane to a six-lane highway. (Traffic Impact Study at p. 28.)

These improvements to the U.S. 101 are needed to mitigate for the Project's cumulative impacts on traffic circulation. Other projects that have also contributed to the significant cumulative impact on traffic circulation surrounding the U.S. 101 interchange include the Arco gas station at 1900 Ramada Drive, La Bellasera Hotel at 206 Alexa Court, the Hampton Inn at 212 Alexa Court, and the Target Center on Theatre Drive. All of these projects were approved with a mitigation measure, in the form of a condition of approval, that stated that the project

applicant would not protest the formation of an Assessment District, the purpose of which was to construct future improvements at the intersections of Highway 46 West and 101 to benefit the area served by Theatre Drive, Ramada Drive, and South Vine Street. After formation of an Assessment District, each project was to pay its pro-rata share based on the benefit to the project. Such a measure was initially included as a condition of approval for this Project. (See City of Paso Robles City Council Resolution No. 05-232, attached as Exhibit 5 to our March 24, 2014 Letter Planning, Site Specific Condition 9.)

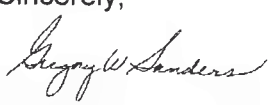
The City has refused to create the Assessment District, thereby ignoring the conditions of approval imposed on the prior projects and leaving the required mitigation measures unimplemented, in violation of CEQA. (*Federation of Hillside and Canyon Associations v. City of Los Angeles* (2000) 83 Cal.App.4th 1252, 1261 [agency must take steps to ensure mitigation measures "are fully enforceable through permit conditions, agreements, or other measures."]; Pub. Resources Code, § 21081.6.) By not creating an Assessment District, the City has allowed the previously approved projects to have a cumulative, significant impact on traffic circulation without mitigating for those impacts. In effect, the projects have been inappropriately let off the hook for the monetary contributions they were required to make as conditions of their approval.

Instead of enforcing the conditions of approval, the City is instead thrusting the costs of mitigation for ***all*** of the cumulative impacts on traffic circulation from ***all*** of the combined projects onto Quorum Realty, even though Quorum Realty's project is but one potential contributor to these cumulative impacts. For example, on page 2, the Draft MND contemplates a realignment of Vine Street that will go entirely through Quorum Realty's property. Requiring Quorum Realty to bear the entire burden of realignment is not only unfair, it is unconstitutional. To pass constitutional muster, the burden of implementing a mitigation measure must be roughly proportional to the extent of a project's impacts. (*Dolan v. City of Tigard* (1994) 512 U.S. 374; *Ehrlich v. City of Culver City* (1996) 12 Cal. 4th 854). Imposing the entire burden for mitigating for many projects' cumulative impacts cannot satisfy the rough proportionality requirement established by the U.S. Supreme Court.

Because a realignment of Vine Street and any future improvements to the U.S. 101 will mitigate for the cumulative effects that past, present, and future projects have on traffic circulation in the area, the City must create an Assessment District to ensure that each project pays its roughly proportional share of improvement costs.

For the foregoing reasons, as well as those stated in our letter of March 24, 2014, we respectfully submit that the Planning Commission and City Council cannot lawfully approve the Project or the Draft MND. Furthermore, we urge the Planning Commission to take no further action on the Project until, in accordance with CEQA, the City prepares a legally adequate EIR for the Project, and the Project is modified so that it conforms with the requirements established by the City's Code and General Plan.

Sincerely,



Gregory W. Sanders
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EXHIBIT A

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05068R01.WP

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TRAFFIC IMPACT STUDY FOR
THE INNS AT VINTNERS VILLAGE PROJECT, CITY OF PASO ROBLES

Associated Transportation Engineers (ATE) has prepared the following traffic study for The Inns at Vintners Village Project, located northwest of the Route 46(W)/Route 101 Interchange. The project is proposing to construct a 118-room hotel plus 20 rooms in 5 bungalows, for a total of 138 rooms.

The study addresses potential impacts to the Route 46 (W)/Route 101 Interchange, using near-term traffic forecasts developed for the *Route 46 West/Route 101 Capacity and Level of Service Analyses* (Associated Transportation Engineers, August 2002) and subsequent traffic studies for projects proposed in the vicinity of the interchange. Trip generation estimates were calculated for The Inns at Vintners Village Project and the project's traffic was added to the Route 46 (W)/Route 101 Interchange. Levels of service were calculated assuming the near-term improvements that are planned for the interchange. The results found that the near-term improvements would accommodate the proposed project's traffic, with LOS D being maintained at the interchange.

The traffic generated by The Inns at Vintners Village Project would be 13% of the future traffic at the Route 46 (W)/Route 101 interchange, based on the list of approved projects shown on Table 7. The project's share of the near-term improvement costs will be determined in the future based upon the number of projects that are included in the program and the cost of design and construction.

EXHIBIT B
Traffic Study
PD 05-010 & CUP 05-006
(CENCO Investment, LLC)

EXISTING CONDITIONS

Table 1 shows the Existing Weekday Midday, Weekday P.M., Friday P.M., and Saturday P.M. peak hour levels of service for the intersections comprising the Route 46 (W)/Route 101 interchange. Peak hour traffic volumes for the interchange were collected in June 2002 and updated with counts completed in August 2004 and April 2005. The new counts include the number of trucks using the interchange and the levels of service are based on the improved geometry implemented by Caltrans in the Summer of 2004 (Caltrans restriped the Route 101 Southbound Off-Ramp to include one left-turn lane, one shared through-right lane, and one right-turn lane).

Table 1
Route 46 (W)/Route 101 Interchange
Existing Peak Hour Levels of Service

Intersection	Seconds Delay Per Vehicle/LOS			
	Weekday Midday	Weekday P.M.	Friday P.M.	Saturday P.M.
Rt 46(W)/Theatre-Vine/Rt 101 SB	34.1/LOS C	35.6/LOS D	35.1/LOS D	35.0/LOS C
Rt 46(W)/Rt 101 NB	14.5/LOS B	14.6/LOS B	14.5/LOS B	14.4/LOS B
Rt 46(W)/Ramada	15.8/LOS C	15.5/LOS C	16.3/LOS C	11.3/LOS B

LOS based on average delay per vehicle in seconds pursuant to the Highway Capacity Manual Operations Methodology. LOS for Rt 46(W)/Theatre-Vine & Rt 46(W)/Rt 101 SB based on average delay per vehicle for all movements using the two intersections since they operate as a single unit.

The Route 46 (W)/Theatre-Vine/Route 101 SB intersection operates at LOS C-D during the peak time periods. The two intersections comprising the east side of the interchange operate at LOS B-C.

NEAR-TERM CONDITIONS

Near-term traffic conditions were forecasted for the interchange assuming the additional traffic that will be generated by the approved projects in the vicinity of the interchange, along with the near-term improvements planned for the interchange. The following section details the near-term level of service forecasting for the interchange.

Approved Projects

There are several projects that will add traffic to the study-area street system in the near-term that are approved. Table 2 shows the approved projects in the area.

Table 2
Route 46 (W)/Route 101 Interchange - Approved Projects

Project	Land Use	Size
San Luis Bay Motors	Auto Sales	3,500 SF
Sky River RV	RV Sales	6,800 SF
Target Center[a]	Shopping Center	29,540 SF
Hampton Inn	Motel	81 Rooms
Hastings/Aiken	Retail	4,990
Hastings/Aiken	Retail	4,990
Knight's Carpet	Retail	5,000
La Vorgna Storage	Storage	2.8 Acres
McDonalds/Chevron	Fast-Food Restaurant Gas Station w/Car Wash	3,152 SF 12 Pumps/1 Wash
Laughlin RV Park	Recreation RV Park	85 Spaces
Gheza Mini-Storage	Storage	3.75 Acres
Alexa Court Restaurant	Restaurant	6,300 SF
250 Gahan Place	Retail	12,750 SF
Theatre Drive Retail	Mixed Retail Self-Storage	39,650 SF 62,000 SF
Bellesara Suites Project	Lodging	62-Unit Hotel
1331 Vendels Circle - Benny Simmons	Light Industrial	6,000 SF
1160 Ramada Drive - True Tube	Light Industrial	6,900 SF
1375 Ramada Drive - Lavorgna	Light Industrial	46,684 SF
1500 Ramada Drive - Pokrajac	Light Industrial/Warehouse	42,800 SF

[a] Development of remaining pads/stores.

Route 46 (W)/Route 101 Improvements

Improvements to the Route 46 (W)/Route 101 Interchange were identified in the Route 101 Corridor Study prepared for the San Luis Obispo Council of Governments (SLOCOG) in 1999 as needed to improve the operation and traffic flow on Route 101 in the Paso Robles area. Without significant long-term mitigation measures being implemented to handle increased local and regional traffic, the Route 101/Route 46 West interchange is forecasted to operate at LOS F with 20-year volumes. The existing configuration is a tight diamond with closely spaced frontage roads (Vine Street-Theatre Drive on the west and Ramada Drive on the east). Traffic growth within the area of the interchange will occur as a result of future developments served by Vine Street, Theatre Drive and Ramada Drive, as well as regional growth on Route 101 and Route 46.

The cooperative agreement between the City of Paso Robles, Caltrans, County of San Luis Obispo and SLOCOG called for completion of a Project Study Report (PSR) to analyze alternatives that would accommodate long-term traffic forecasts (20-Year volumes). The PSR has been completed and the project is now moving to the next phase, which is the Project Report and Environmental Document (PA & ED).

The City commissioned a traffic study of the interchange in the Summer of 2002. That study analyzed traffic conditions at the interchange and included improvements to provide additional capacity at the interchange in the near term prior to the long-term improvement project. The near-term improvements (enumerated as Improvement Set 2) in the August 2002 traffic report include the following components. These improvements are being designed and are expected to be implemented in Summer-Fall of 2005.

1) ▸ Provide Additional Right Turn Lane on Route 101 SB Off-Ramp. Stripe the ramp to provide 2 right-turn lanes. This requires relocating the traffic signal pole, modifying/relocating drainage facilities and providing additional signs on the ramp. (Caltrans restriped the ramp in the Summer of 2004. The inside right-turn lane is now designated for southbound Theatre Drive and the outside lane is designated for Route 46 (W) & Vine Street.)

2) ▸ Modify Route 101 SB Off-Ramp. Lengthen the ramp storage lanes to provide 500-550 feet of storage. This improvement is expected to be implemented in Summer-Fall of 2005.

3) ▸ Modify Curb Return on Northeast Corner of SB Off-Ramp. Modify the curb return to accommodate truck turns. This improvement is expected to be implemented in Summer-Fall of 2005.

4) ▸ Signalize Route 46 (W)/Ramada. Install traffic signals at this location. This improvement is expected to be implemented in Summer-Fall of 2005.

5) ▸ Signal Interconnect & Coordination. Provide for interconnection of all of the traffic signals in the interchange and provide a timing plan for signal coordination. This improvement is expected to be implemented in Summer-Fall of 2005.

Levels of Service

Table 3 shows the near-term level of service forecasts for the Route 46 (W)/Route 101 Interchange assuming the near-term traffic volume projections for the Existing + Approved Projects scenario and the near-term improvements listed above.

Table 3
Route 46 (W)/Route 101 Interchange - Near-Term Levels of Service

Intersection	Seconds Delay Per Vehicle/LOS			
	Weekday Midday	Weekday P.M.	Friday P.M.	Saturday P.M.
Rt 46(W)/Theatre-Vine/Rt 101 SB	37.1/LOS D	41.1/LOS D	40.0/LOS D	43.1/LOS D
Rt 46(W)/Rt 101 NB	22.4/LOS C	18.8/LOS B	19.8/LOS C	16.5/LOS B
Rt 46(W)/Ramada	11.3/LOS B	11.6/LOS B	10.3/LOS B	11.8/LOS B

The Route 46 (W)/Theatre-Vine/Route 101 SB intersection is forecast to operate at LOS D during the various peak periods with the near-term developments and improvements. The two intersections comprising the east side of the interchange are forecast to operate at LOS B-C.

PROJECT IMPACTS

Trip Generation

Trip generation estimates were calculated for The Inns at Vintners Village Project based on ITE, Caltrans and SANDAG rates. Tables 4 summarizes the trip generation calculations for the Weekday Midday, Weekday P.M., Friday P.M., and Saturday P.M. peak hour periods.

Table 4
Project Trip Generation

Use	Size	Peak Hour Period	Trips
Hotel	118 Rooms 20 Suites	Weekday Midday	132
		Weekday P.M.	81
		Friday P.M.	81
		Saturday P.M.	99

Trip generation rates derived from ITE, SANDAG & Caltrans studies.

The trips that will be generated by the project were distributed and assigned to the Route 46 (W)/Route 101 Interchange using the distribution percentages shown in Table 5. These percentages were developed from marketing data/traffic studies of other commercial projects in the area, as well as consideration of the street system and the surrounding residential and commercial centers. Most of the patrons are expected to/from Route 101 (70%) with the remainder via Route 46(W) and local trips on the surface streets in the area.

Table 5
Project Trip Distribution

Origin/Destination	Direction	Percent
Route 101	North	35%
Route 101	South	35%
Vine Street	North	5%
SR 46 West	West	10%
Theatre Drive s/o SR 46 West	South	10%
Ramada Drive n/o SR 46 West	East	3%
Ramada Drive s/o SR 46 West	East	2%
Total		**100%**

NEAR-TERM + PROJECT LEVELS OF SERVICE

Table 6 shows the near-term + project level of service forecasts for the Route 46 (W)/Route 101 Interchange. The levels of service assume the traffic volume projections for the Existing + Approved + Project condition.

Table 6
Route 46 (W)/Route 101 Interchange
Near-Term + Project Peak Hour Levels of Service

Intersection	Seconds Delay Per Vehicle/LOS			
	Weekday Midday	Weekday P.M.	Friday P.M.	Saturday P.M.
Rt 46(W)/Theatre-Vine/Rt 101 SB	40.9/LOS D	42.7/LOS D	41.4/LOS D	43.5/LOS D
Rt 46(W)/Rt 101 NB	18.6/LOS B	18.8/LOS B	20.4/LOS C	16.8/LOS B
Rt 46(W)/Ramada	12.7/LOS B	11.7/LOS B	10.0/LOS B	11.7/LOS B

The Inns at Vintners Village Project would result in small increases in the delays at the interchange, but would not change the levels of service. The Route 46 (W)/Theatre-Vine/Route 101 SB Intersection is forecast to operate at LOS D during the various peak periods. The intersections comprising the east side of the interchange are forecast to operate at LOS B-C.

ROUTE 46 (W)/ROUTE 101 SB OFF-RAMP QUEUING

The maximum queues forecasted on the Route 101 SB off-ramp will occur during the Friday and Saturday P.M. peak hour periods. With the additional traffic from the approved projects and the Inns at Vintners Village Project, the maximum queues are forecasted at 535 feet during the Friday P.M. peak hour period and 480 feet during the Saturday P.M. peak hour period assuming the near-term improvements that are planned. The near-term improvements include lengthening the ramp to provide 550 feet of storage. Thus, the additional traffic on the southbound off-ramp could be accommodated with the longer ramp.

PROJECT SHARE OF NEAR-TERM IMPROVEMENTS

Table 7 shows the percentage contribution of traffic at the Route 46 (W)/Route 101 interchange for each of the projects that would contribute to the improvements, including the Inns at Vintners Village Project.

Table 7
Route 46 (W)/Route 101 Interchange
Traffic Contributions from Near-Term Projects

Project	Traffic Contribution	% Share
McDonalds/Chevron	214 PHT	35.8%
Laughlin RV Park	36 PHT	6.0%
Gheza Mini-Storage	15 PHT	2.5%
Alexa Court Restaurant	33 PHT	5.5%
250 Gahan Place	28 PHT	5.0%
Theatre Drive Retail/Storage	71 PHT	11.9%
Bellesara Suites	34 PHT	5.7%
1331 Vendels Circle Project - Benny Simmons	6 PHT	1.0%
1160 Ramada Drive Project - True Tube	7 PHT	1.2%
1375 Ramada Drive - Lavorgna	46 PHT	7.7%
1500 Ramada Drive - Pokrajac	30 PHT	5.0%
Inns at Vintners Village Project	77 PHT	13.0%
Total	597 PHT	100%

Traffic Contribution based on weekday peak hour trips (PHT) entering the interchange. interchange for each project.

The traffic generated by The Inns at Vintners Village Project would be 13% of the future interchange traffic. The project's share of the near-term improvement costs will be determined in the future based upon the number of projects that are included in the program and the cost of design and construction.

Thank you for your assistance during the course of the study.

Associated Transportation Engineers

By: Richard L. Pool, P.E.
President

RLP/DLD

attachments

NEAR TERM + PROJECT
WEEKDAYS 12-1 PM - WITH IMPROVEMENT SET 2

	SR 46/THEATER-VINE						SR 46/RT 101 SB				
MOVEMENT	SBL	SBTR	NBLT	NBR	EBL	EBTR	SBL	SBTR	SBR	WBL	WBT
ADJ LANE GROUP FLOW	77	224	380	255	75	192	197	249	248	75	398
DELAY PER VEHICLE	30.7	26.5	39.8	28.7	35.2	42.2	35.8	60.0	59.5	27.2	41.8
TOTAL MOVEMENT DELAY	2363.9	5936.0	15124.0	7318.5	2640.0	8102.4	7052.6	14940.0	14756.0	2040.0	16636.4

TOTAL DELAY FOR ALL MOVEMENTS	96909.8
TOTAL VEHICLES	2370
DELAY/VEHICLE	40.9
COMPOSITE LOS	LOS D

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width	12	16	12	12	12	12	12	12	14	12	16	12
Total Lost time (s)	3.0	3.0		5.0	5.0			5.0	5.0	5.0	5.0	
Lane Util. Factor	1.00	1.00		1.00	1.00			1.00	1.00	1.00	1.00	
Frt	1.00	0.97		1.00	0.93			1.00	0.85	1.00	0.96	
Flt Protected	0.95	1.00		0.95	1.00			0.99	1.00	0.95	1.00	
Satd. Flow (prot)	1736	2011		1736	1692			1816	1656	1770	2035	
Flt Permitted	0.95	1.00		0.95	1.00			0.91	1.00	0.28	1.00	
Satd. Flow (perm)	1736	2011		1736	1692			1669	1656	516	2035	
Volume (vph)	69	143	34	382	222	215	43	306	235	71	156	50
Peak hour factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	75	155	37	415	241	234	47	333	255	77	170	54
RTOR Reduction (vph)	0	0	0	0	0	0	0	0	0	0	0	0
Lane Group Flow (vph)	75	192	0	415	475	0	0	380	255	77	224	0
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	4%	4%	4%	2%	2%	2%
Turn Type	Split			Split			Perm		Prot	Perm		
Protected Phases	6	6		9	9			3	3		3	
Permitted Phases					9		3	3		3	3	
Actuated Green, G (s)	10.9	10.9		37.5	37.5			22.7	22.7	22.7	22.7	
Effective Green, g (s)	12.9	12.9		38.7	38.7			25.4	25.4	25.4	25.4	
Actuated g/C Ratio	0.14	0.14		0.43	0.43			0.28	0.28	0.28	0.28	
Clearance Time (s)	5.0	5.0		6.2	6.2			7.7	7.7	7.7	7.7	
Vehicle Extension (s)	3.0	3.0		3.0	3.0			3.0	3.0	3.0	3.0	
Lane Grp Cap (vph)	249	288		746	728			471	467	146	574	
v/s Ratio Prot	0.04	c0.10		0.24	c0.28				0.15		0.11	
v/s Ratio Perm								c0.23		0.15		
v/c Ratio	0.30	0.67		0.56	0.65			0.81	0.55	0.53	0.39	
Uniform Delay, d1	34.5	36.5		19.2	20.3			30.0	27.4	27.2	26.1	
Progression Factor	1.00	1.00		0.13	0.14			1.00	1.00	1.00	1.00	
Incremental Delay, d2	0.7	5.7		0.5	1.1			9.8	1.3	3.4	0.4	
Delay (s)	35.2	42.2		2.9	3.9			39.8	28.7	30.7	26.5	
Level of Service	D	D		A	A			D	C	C	C	
Approach Delay (s)		40.3			3.4			35.3			27.6	
Approach LOS		D			A			D			C	

Intersection Summary			
HCM Average Control Delay	21.3	HCM Level of Service	C
HCM Volume to Capacity ratio	0.71		
Actuated Cycle Length (s)	90.0	Sum of lost time (s)	13.0
Intersection Capacity Utilization	76.3%	ICU Level of Service	D
Analysis Period (min)	15		
c Critical Lane Group			