# FINAL SUPPLEMENT FOR THE Salinas General Plan Final Program EIR SCH# 2007031055

November 19, 2007

City of Salinas 200 Lincoln Avenue Salinas, CA 93901



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### FINAL SUPPLEMENT FOR THE SALINAS GENERAL PLAN FINAL PROGRAM EIR

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Prepared for:

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## **1.0 INTRODUCTION**

The Final Supplement for the Salinas General Plan Final Program EIR (SEIR) is used by the City in assessing impacts of the proposed Project. The Final SEIR includes comments and responses to comments received on the Draft SEIR, which was circulated for a 45-day public review from September 4, 2007 to October 18, 2007. Comments received during the comment period and responses are found in Section 8 of this Final SEIR. Text that has been added to this document appears in an underline format. Text that has been deleted from this document appears in strikeout format.

This Final Supplement for the Salinas General Plan Final Program Environmental Impact Report analyzes the environmental impacts that may result from a proposal by the City of Salinas (City) for a Sphere of Influence Amendment and Annexation (SOI Amendment and Annexation) of unincorporated Monterey County land to the City of Salinas (Project). From this point forward, this document is referred to as the Final Supplemental Environmental Impact Report (SEIR). In 2002, the City of Salinas adopted its most recent General Plan and associated Final Program Environmental Impact Report (Final Program EIR). To plan for and manage future growth, the General Plan identifies areas primarily to the north and east of Salinas, currently outside of the City's boundaries, as the "Future Growth Area" (FGA).

The Project is an SOI Amendment and Annexation of a portion of the FGA. The City's certified General Plan Final Program EIR addresses the SOI Amendment and Annexation. However, issues related to certain environmental topics addressed in the certified Final Program EIR were identified through a preapplication process with the Monterey County Local Agency Formation Committee (LAFCO) in September 2005. In addition, AB 32, the California Global Warming Solution Act of 2006, has become law since the Final Program EIR was certified. Thus, the proposed SOI Amendment and Annexation (the Project) requires additional environmental documentation to further evaluate certain issues previously addressed in the certified Final Program EIR and to address global climate change.

The proposed SOI Amendment and Annexation is considered a project under the California Environmental Quality Act (CEQA), and the City of Salinas is the Lead Agency for CEQA purposes. Section 21067 of the CEQA Statutes defines a Lead Agency as the public agency that has the principal responsibility for carrying out or approving a project that may have a significant effect on the environment. The City of Salinas has the principal responsibility for approving the proposed Project; thus, the City will serve as the Lead Agency and has the authority to oversee and complete the environmental review documentation and process for the proposed Project.

*Lead Agency name and address* City of Salinas 200 Lincoln Avenue Salinas, CA 93901

*Contact person and phone number* Robert Richelieu Planning Manager (831) 758-7357

Monterey County LAFCO is responsible for reviewing, modifying, approving or disapproving requests for changes in organization (annexation) and sphere of influence amendments, in accordance with Government Code Section 56375. Thus, LAFCO will serve as a Responsible Agency.

#### LEGAL REQUIREMENTS

CEQA requires that state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects (Public Resources Code Section 21000 et seq.). CEQA also requires that each public agency avoid or mitigate to less-than-significant levels, wherever feasible, the significant environmental effects of projects it approves or implements.

An EIR is an informational document used in state and local decision-making processes to meet the environmental review requirements of CEQA. This environmental document has been prepared in accordance with CEQA and the Guidelines for Implementation of CEQA published by the Resources Agency of the State of California (California Administrative Code Section 15000 et seq.).

This report was prepared by professional environmental consultants under contract to the City of Salinas. As noted above, the City of Salinas is the lead agency for the preparation of the environmental document as defined by CEQA (Public Resources Code Section 21067 as amended), and the content of the document reflects the independent judgment of the City.

#### PURPOSES OF THE SUPPLEMENTAL EIR

An SEIR is required when substantial changes in a project, substantial changes in circumstances, or the discovery of new information of substantial importance occurs after an EIR has been certified and when "only minor additions or changes would be necessary to make the previous EIR adequately apply to the project in the changed situation" (State CEQA Guidelines Sections 15162).

Through the preparation of an Initial Study for the Sphere of Influence Amendment and Annexation, the City of Salinas determined that for certain environmental issues, either minor changes occurred in the circumstances of the proposed Project, and/or new information of substantial importance is available for the following environmental issue areas:

- Traffic/Circulation regional transportation system;
- Public Services and Utilities regional wastewater treatment plant capacity;
- Hydrology/Water Quality water supply and storm water drainage; and
- Air Quality Global Climate Change.

Therefore, the City of Salinas has determined that an SEIR to the Final Program EIR certified by the Salinas City Council on September 17, 2002, for the Salinas General Plan is the appropriate environmental document for the proposed Project.

This SEIR is intended to provide additional information to public agencies, the general public, and decision makers regarding potential environmental impacts related to adoption and implementation of the proposed Project.

#### FOCUS OF THE SEIR

A Notice of Preparation (NOP) of an EIR, which is required by CEQA, is the first effort to involve the public and interested agencies in the environmental review process. An NOP for the preparation of a Draft Program EIR for the City of Salinas General Plan update was released on November 20, 2001. The NOP described the proposed General Plan, indicated the types of environmental effects that could result from implementation of the Plan, and announced the start of an EIR review process under CEQA. The NOP for the General Plan Program EIR encouraged public participation in the environmental evaluation. In addition, a community scoping session on the project was held to inform the public of the proposed project, solicit comments, and identify areas of concern. The issues raised in response to that NOP and scoping session were addressed and incorporated into the Final Program EIR for the General Plan.

An NOP for the SEIR was released on March 5, 2007, for a 30-day public review period to provide the public and agencies an opportunity for comment on the scope of this SEIR. The City sent the NOP to responsible and trustee agencies and to other agencies and persons with potential interest in the proposed Project and developed a mailing list of agencies, organizations, and individuals that expressed interest in receiving future notices related to the Project. The SEIR NOP list was also used for distribution of this SEIR. The NOP was released in March 2007 and copies of all NOP comment letters are included in Appendix A.

All significant environmental comments received in response to the SEIR NOP were considered in developing the scope and contents of this SEIR. Based on changes in project circumstances and/or new information, and input received during the scoping process, the City determined that the following issues should be addressed in the SEIR:

- Regional Transportation System;
- Regional Wastewater Treatment Plant Capacity;

- Water Supply;
- Storm Water Drainage; and
- Global Climate Change.

A summary of the findings concerning the bulleted issues above is included in Chapter 2.0, **Table 2-1**, of this document. Issue areas that do not require revisions or updates in this SEIR are Aesthetics, Agricultural Resources, Air Quality (other than Global Climate Change), Biological Resources, Cultural Resources, Geology/Soils, Hazards/Hazardous Materials, Hydrology/Water Quality (other than storm water drainage), Land Use/Planning, Mineral Resources, Noise, Population/Housing, Public Services and Utilities (other than Regional Wastewater Treatment Plant Capacity), and Recreation. These issue areas were analyzed in the Initial Study (Appendix B) and were determined not to require additional analysis and inclusion in the SEIR per State CEQA Guidelines Sections 15162. Reviewers should refer to the Salinas General Plan Final Program EIR summary in the Initial Study (Appendix B) for analyses of impacts and mitigation associated with the aforementioned issue areas mentioned in this paragraph.

Technical documents prepared for the proposed Project are also included in Appendices C through J. These documents were used as reference material in the analysis of environmental impacts.

#### STRUCTURE OF THE SEIR

This SEIR is organized into nine sections. Section 1.0 is this Introduction. The Executive Summary, provided in Section 2.0 includes a brief project description and summarizes project impacts and mitigation measures. Section 3.0 provides a detailed description of the proposed Project. The general environmental setting is provided in Section 4.0. Section 5.0 analyzes project impacts and identifies mitigation measures designed to reduce significant impacts. Section 6.0 provides an analysis of alternatives to the proposed project. An analysis of cumulative impacts, growth-inducing impacts, significant irreversible environmental impacts and areas of no significant impact is provided in Section 7.0. Section 8.0 contains comments and responses to comments received on the Draft SEIR. Section 9.0 contains reference information.

The appendices consist of the Notice of Preparation, Responses to the Notice of Preparation; the Initial Study; and technical documents included as supporting information to the SEIR. In compliance with Public Resources Section 21081.6, a mitigation monitoring and reporting program will be prepared as a separately bound document that will be adopted in conjunction with the certification of the Final SEIR and Project approval.

#### **INCORPORATION BY REFERENCE**

In accordance with Section 15150 of the State CEQA Guidelines, this SEIR incorporates the Salinas General Plan Final Program EIR by reference. The Final Program EIR (SCH #1987012703) is referenced and sections are discussed and summarized throughout this SEIR. Copies of the General Plan Final Program EIR are available from the City of

Salinas and its contents are summarized in the Initial Study included as Appendix B of this SEIR.

#### ENVIRONMENTAL REVIEW PROCESS

Consistent with the requirements of CEQA, a good faith effort has been made during the preparation of this SEIR to contact and consult with responsible and trustee agencies and other affected agencies, organizations, and persons who may have an interest in this project. This included the circulation of an NOP on March 5, 2007, which began a 30-day comment period, and circulation of the Draft SEIR on September 4, 2007 which began a 45-day comment period.

The City of Salinas filed a Notice of Completion (NOC) with the Governor's Office of Planning and Research, State Clearinghouse indicating that the Draft SEIR was completed and was available for review and comment by the public. A public hearing on the Project and its associated SEIR will be held at the City of Salinas City Hall. A Notice of Availability (NOA) of the SEIR was published concurrently with distribution of this document. A 45-day review period (from the date of the NOA) was provided for the SEIR.

Comments were made on the SEIR in writing, before the end of the comment period. . Following the close of the public comment period, written responses to comments on the SEIR were prepared and published in Section 8.0. . The SEIR text and technical appendices, together with the written responses to the comments, constitute the Final SEIR.

According to State CEQA Guidelines Section 15163(b), this written SEIR need include only the information necessary to make the previous environmental document adequate for the Project. As a result, it is not necessary to recirculate the entire Salinas General Plan Final Program EIR, only the portions that constitute the Supplement to the EIR (State CEQA Guidelines Section 15163[d]). The SEIR must, however, meet all CEQA requirements for public notice and circulation of a draft EIR (State CEQA Guidelines Section 15163[c]). This SEIR is not considered a full revision, but summarizes and supplements the certified General Plan Final Program EIR where project circumstances have changed and/or where new information has become available. As permitted by the State CEQA Guidelines, the SEIR may be circulated by itself; the City is not recirculating the certified General Plan Final Program EIR.

Copies of the certified Final Program EIR are available for review during normal business hours at the City Clerk's Office at City Hall, 200 Lincoln Avenue; Steinbeck Library, 350 Lincoln Avenue; Cesar Chavez Library, 615 Williams Road; and El Gabilan Library, 1400 North Main Street. Documents may be reviewed during regular business hours. The certified General Plan Final Program EIR has also been posted at the City's website at www.ci.salinas.ca.us/.

Following the 45-day period of circulation and review of the SEIR, all comments and the City's responses to the comments have been incorporated into this Final SEIR. The City will review the Final SEIR for adequacy when read in conjunction with the Salinas General Plan Final Program EIR and consider the Final SEIR for certification pursuant to the requirements of Section 15090 of the State CEQA Guidelines. If the City certifies the SEIR and decides to approve the Project, findings on the feasibility of reducing or avoiding significant environmental effects will be made and a Statement of Overriding Considerations will be prepared. If the City approves the Project following completion of these tasks, a Notice of Determination (NOD) will be prepared and filed with the State Clearinghouse. The NOD will include a description of the Project, the date of approval, an indication that findings and a Statement of Overriding Considerations were prepared, and the address where the Final SEIR and record of Project approval are available for review.

# 2.0 EXECUTIVE SUMMARY

#### THE PROJECT

The Project analyzed in this SEIR is a proposal by the City of Salinas (City) for (1) a sphere of influence (SOI) amendment (hereinafter referred to as SOI Amendment); and (2) an annexation of unincorporated Monterey County land to the City of Salinas (hereinafter referred to as Annexation). The Project is currently within the jurisdiction of the County of Monterey and consists of two overlapping geographic areas described in Figure 3-4 of this SEIR.

The SOI Amendment area totals approximately 3,347 gross acres (2,845 net acres) and is planned for up to 14,318 dwelling units and up to 9.023 million square feet of commercial/retail/mixed use, general industrial uses and public/semi-public uses. The Annexation area includes approximately 2,388 gross acres (2,030 net acres) and is planned for up to 11,485 total dwellings and 3.992 million square feet of commercial/retail/mixed use and public/semi-public uses. The portion of the SOI Amendment area that is not also within the Annexation area (hereinafter referred to as the Remainder) totals approximately 958 gross acres (815 net acres) and is planned for up to 2,833 dwellings and 5.032 million square feet of mixed use, general industrial, and public/semi-public uses.

This SEIR only includes the information necessary to make the previous certified Salinas General Plan Final Program EIR adequate for the revised project. The SEIR is not considered a full revision to the certified Final Program EIR but summarizes and supplements the certified Final Program EIR where information or circumstances have changed.

#### **PROJECT LOCATION**

The SOI Amendment and Annexation areas are located to the north and east of the existing City boundary. The Annexation area is generally bounded by Rogge Road and a future extension of Russell Road on the north (with the exception of the "Settrini property" generally east of Natividad Road and south of the future extension of Russell Road), Old Stage Road on the northeast, Williams Road on the southeast, Boronda Road on the south, and San Juan Grade Road on the west. In addition to its overlap with the Annexation area, the SOI Amendment area also includes land south of Williams Road, and generally east of the City boundary and Salinas Municipal Airport, and the Settrini property as defined above.

#### ENVIRONMENTAL IMPACTS

The City of Salinas determined that an SEIR is required pursuant to the CEQA Guidelines Sections 15162 and 15163. A summary of the environmental impacts and

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mitigation measures is provided in **Table 2-1**. Based on the data and conclusions of this SEIR, the City of Salinas finds that the project will result in the following significant project-level and cumulative impacts that cannot be fully mitigated:

- Regional Transportation (project-level and cumulative);
- Water Supply (project-level and cumulative);
- Global Climate Change (cumulative); and
- Growth Inducing.

If the City of Salinas chooses to approve the project, it must adopt a "Statement of Overriding Considerations" pursuant to Sections 15093 and 15126 (b) of the CEQA Guidelines.

The Salinas General Plan Final Program EIR also identified the following significant project-level and cumulative impacts that cannot be fully mitigated for which a Statement of Overriding Considerations was previously adopted:

- Traffic regional roadway system (project-level and cumulative)
- Noise vehicular traffic (project-level and cumulative)
- Air Quality consistency with the AQMP (project-level and cumulative) and construction (project level)
- Hydrology/Water Quality groundwater (project-level and cumulative
- Cultural Resources historic and archaeological resources (project-level and cumulative)
- Agricultural Resources loss of Important Farmlands (project-level and cumulative)
- Public Services and Utilities parkland (cumulative); solid waste, and water quality and supply (project-level and cumulative)

#### POTENTIAL AREAS OF CONTROVERSY

The State CEQA Guidelines require that potential areas of controversy be identified in the Executive Summary. Responses to the NOP indicate potential areas of controversy including:

- Air quality impacts
- Loss of agricultural land
- Consistency with State, regional, and local land use and planning regulations
- Open space impacts
- Traffic/Circulation
- Availability of water
- Impacts to municipal services

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures  |            |   |  |  |
|---|------------|---|--|--|
| Potential Impacts   |            | Mitigation Measures   | Conclusion   |  |
|   |            | PROJECT-LEVEL IMPACTS   |  |  |
|   |            | SIGNIFICANT AND UNAVOIDABLE IMPACTS   |  |  |
|   |            | 5.1 Regional Transportation   |  |  |
| Regional Roadway Network<br>Implementation of the Project would<br>result in project-level impacts to some<br>local and regional roadway network<br>segments and ramps that would cause<br>traffic congestion and delays at<br>unacceptable levels. These impacts<br>would be considered significant. | C3.<br>C5. | The City will implement General Plan Implementation Program C-2. Implementation<br>Program C-2 requires the City to update the Traffic Fee Ordinance to reflect projected<br>circulation needs and apply the revised ordinance to applicable developments. The City<br>will consider including alternative modes of transportation (bicycle and pedestrian) as<br>projects eligible for use of Traffic Impact Fees. The City will also work with other local<br>agencies, as well as the Transportation Agency for Monterey County (TAMC) and Caltrans<br>on development of a regional traffic impact fee, to assist in the funding of regional<br>transportation improvements throughout Monterey County.<br>The City will implement General Plan Implementation Program C-5. Implementation<br>Program C-5 requires the City to reduce expenditure, improve design, and minimize traffic<br>disruption by working with TAMC, Caltrans, MST, AMBAG, Monterey Bay Unified Air<br>Pollution Control District, and other regional transportation agencies to coordinate local<br>street improvements with major transportation system improvement projects such as<br>improvements to Highway 101. In addition, the impacts of discretionary development<br>projects and major transportation projects will be monitored by the City and mitigation<br>may be required.<br>The City will continue to monitor the planning process for regional circulation<br>improvements to analyze how they would impact the Salinas circulation system. Regional<br>roadway system impacts will be considered when making land use decisions for major<br>development proposals within the City. If necessary, the City will revise the General Plan<br>Circulation System to address the impact from regional circulation system improvements. | Implementation of<br>Mitigation Measures C3,<br>C5, C7, and SEIR-RT1,<br>through SEIR-RT4 would<br>reduce the project-level<br>impacts for some local<br>and regional roadway<br>segments to a level less<br>than significant, although<br>other local and regional<br>roadway segments will<br>not be able to reduce their<br>impacts because the<br>mitigation is infeasible.<br>Therefore, the project-<br>level impacts associated<br>with the implementation<br>of the Sphere of Influence<br>Amendment and<br>Annexation to the<br>following roadway<br>segments would remain<br>significant and<br>unavoidable: |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures |   |  |  |
|--|---|--|--|
| Potential Impacts  | Mitigation Measures   | Conclusion   |  |
|  | In addition to mitigation measures C3, C5, and C7 contained in the Salinas General Plan Final<br>Program EIR, the City shall implement the following mitigation measures to reduce a potentially<br>significant impact associated with the regional transportation network identified in this SEIR:<br>SEIR-RT1. In addition to the roadway improvements identified in <b>Table 5.1-11</b> , the City will<br>implement the roadway improvements identified in <b>Table 5.1-14</b> , where feasible, to<br>provide LOS D or better along City roadways. For future development within the<br>Annexation area and Settrini property, this mitigation may be satisfied by the payment of<br>the City of Salinas Traffic Impact Fee Program, or constructing said improvements and<br>receiving City Traffic Fee credit. This program would require the specific development<br>within the Project area to be responsible for payment of a fee proportional to the<br>development's impact on identified local roadway segments, or the project developers may<br>provide the specific roadway segment improvements. The extent and timeline of the<br>proportional mitigation will be specifically refined through the Specific Plans directing the<br>development of the Annexation area and Settrini property. The project developers will<br>also be responsible for payment of a Regional Development/Traffic Impact Fee, when the<br>overall financing program is developed/approved by TAMC and this program is adopted<br>by TAMC. The regional fee could also supplement funds for certain roadway<br>improvements along Caltrans designated roadways within the City.<br>SEIR-RT2. In addition to the roadway improvements identified in <b>Table 5.1-11</b> , the City will<br>work with the County of Montrey and TAMC to implement the roadway improvements<br>identified in <b>Table 5.1-17</b> , where feasible, to provide acceptable levels of service along<br>County two-lane roadways. The City shall work with the County in developing fee<br>programs as described in the 2006 Greater Salinas Area Memorandum of Understanding,<br>agreed to by the City and County, and outlined in City Growth agree | <ul> <li>Boronda Road<br/>between McKinnon<br/>Street and El Dorado<br/>Drive;</li> <li>W. Market Street<br/>(SR 183) between N.<br/>Davis Road and Clark<br/>Street;</li> <li>John Street (SR 68)<br/>between Abbott Street<br/>and US 101;</li> <li>North Main Street<br/>(SR 68) between US<br/>101 and Rossi Street;</li> <li>South Main Street<br/>(SR 68) between San<br/>Miguel Avenue and<br/>Blanco Road; and</li> <li>Blanco Road west of<br/>Davis Road.</li> </ul> |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures |   |            |  |  |
|--|---|------------|--|--|
| Potential Impacts  | Mitigation Measures   | Conclusion |  |  |
|  | for the Salinas Area will be a priority and a nexus study and hearing process should be completed."   |            |  |  |
|  | This mitigation may be satisfied by the implementation of a Regional Development/Traffic<br>Impact Fee Program and County fee program. When the Regional program is adopted, a<br>specific project development within the Annexation area and Settrini property would be<br>responsible for payment of a fee proportional to the development's impact on a given road<br>segment, or the project developers may provide the necessary improvements for an<br>impacted roadway segment. The extent and timeline of the proportional mitigation will be<br>established by the Regional and County Development/Traffic Impact Fee Program. In<br>addition to the Regional Development/Traffic Impact Fee, the City of Salinas Traffic<br>Impact Fee Program may supplement funds for certain County two-lane roadway segment<br>improvements located within the municipal boundaries of the City of Salinas. |            |  |  |
|  | SEIR-RT3. In addition to the roadway improvements identified in Table 5.1-11, the City will work with the County of Monterey, TAMC, and Caltrans to implement the roadway improvements identified in Table 5.1-21, where feasible, to provide an acceptable level of service along regional freeway segments. The City shall work with the County in developing fee programs as described in the 2006 Greater Salinas Area Memorandum of Understanding, agreed to by the City and County, and outlined in City Growth agreements 9 and 10:  |            |  |  |
|  | "The City and County agree to support fees and taxes needed to mitigate the collective impact of new and existing development on the regional transportation system to the extent that the fees and taxes reflect the overall financing program adopted by TAMC the City and County agree that County will develop a County-wide Traffic Impact fee program for the improvement of major County roads in accordance with the County's adopted General Plan. The County will not rely upon the imposition of an ad hoc traffic fee on City development. The development of a Traffic Impact fee for the Salinas Area will be a priority and a nexus study and hearing process should be completed."  |            |  |  |
|  | This mitigation may be satisfied by the implementation of a Regional Development/Traffic Impact Fee Program and County fee program described above. When the Regional   |            |  |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures   |   |  |  |  |
|--|---|--|--|--|
| Potential Impacts  | Mitigation Measures   | Conclusion   |  |  |
|  | program is adopted, a specific project development within the Annexation area and Settrini<br>property would be responsible for payment of a fee proportional to the development's<br>impact on a given road segment, or the project developers may provide the necessary<br>improvements for an impacted roadway segment. The extent and timeline of the<br>proportional mitigation will be established by the Regional and County<br>Development/Traffic Impact Fee Programs. In addition to the Regional and County<br>Development/Traffic Impact Fees, the City of Salinas Traffic Impact Fee Program may<br>supplement funds for certain regional freeway segment improvements located within the<br>municipal boundaries of the City of Salinas.  |  |  |  |
|  | SEIR-RT4. The same performance measures, methods of analysis of impacts, and mitigation will<br>be applied to any future annexation and Specific Plan development proposal for the area<br>within the proposed Sphere of Influence Amendment, south of Williams Road.   |  |  |  |
|  | 5.3 Water Supply  |  |  |  |
| Water Supply<br>Implementation of the Project would<br>potentially result in project-level impacts<br>to the local water supply, and the potential<br>impacts (i.e., over-drafting or seawater<br>intrusion) associated with increased<br>pumping of groundwater would be<br>considered significant.<br>Construction-Related Impacts for New<br>or Expanded Water Facilities | <ul> <li>HW4. The City will continue to implement General Plan Implementation Program COS-3 on an ongoing basis. Implementation Program COS-3 requires the City, to cooperate with Monterey County, the Regional Water Quality Control Board Central Coast (Region 3) and the Monterey County Water Resources Agency (MCWRA), providing technical assistance when necessary to help identify, protect, and preserve critical aquifer recharge areas so that their function is maintained and ground water quality is not further degraded.</li> <li>HW9. The City will continue to implement General Plan Implementation Program LU-14 on an ongoing basis and in response to development proposals. Implementation Program LU-14 requires the City to review development proposals and require necessary studies and water conservation and mitigation measures to ensure adequate water and sewer service.</li> </ul> | Water Supply<br>Implementation of<br>Mitigation Measures HW<br>4, HW9 through HW13,<br>SEIR WS1, and SEIR<br>WS2 will reduce the<br>potential water supply<br>impacts to a degree;<br>however, the potential<br>impacts (i.e., over-<br>drafting or seawater |  |  |
| Environmental impacts of constructing<br>new wells or deepening existing wells<br>may generally consist of noise, dust and<br>traffic on local roads and other impacts.  | HW10. The City will continue to implement General Plan Implementation Program COS-2 on an ongoing basis. Implementation Program COS-2 requires the City to continue to cooperate with the Monterey County Water Resources Agency (MCWRA), the Army Corps of Engineers (ACOE), State Water Resources Control Board (SWRCB), and the Regional Water Quality Control Board (RWQCB) to find a solution to halt seawater intrusion   | intrusion) associated with<br>the increased pumping of<br>groundwater will remain<br>significant and<br>unavoidable.   |  |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures   |  |   |  |
|--|--|---|--|
| Potential Impacts  | Mitigation Measures  | Conclusion  |  |
| Details of these impacts and required<br>mitigation measures will be addressed as<br>part of project-level environmental<br>review. Future environmental analysis<br>associated with new water lines and other<br>water facilities and infrastructure would<br>determine the precise environmental<br>impacts and identify appropriate<br>mitigation measures to reduce any<br>significant environmental impacts<br>associated with construction of the<br>facilities. | <ul> <li>toward Salinas.</li> <li>HW11. The City will continue to implement General Plan Implementation Program COS-5 on an ongoing basis. Implementation Program COS-5 requires the City to cooperate with the County of Monterey Water Resources Agency and water service providers, providing technical assistance when necessary, to continue to monitor urban and agricultural well usage rates and quality of the groundwater.</li> <li>HW12. The City will continue to implement General Plan Implementation Program COS-6 on an ongoing basis. Implementation Program COS-6 requires the City, in cooperation with the state, regional, and local water agencies and suppliers, participate in programs that seek to limit the spread of seawater intrusion into the groundwater basins through the recycling of wastewater. Specifically, the City shall support the expansion of the use of recycled water for urban and agricultural irrigation and cooperate with these agencies to establish standards and regulations for the use of recycled water in development projects.</li> <li>HW13. The City will continue to implement General Plan Implementation Program COS-7 in the General Plan on an ongoing basis. Implementation Program COS-7 requires the City to encourage water conservation throughout Salinas in the following ways:</li> <li>Implementing the Salinas Urban Water Conservation Plan, the purpose of which is to reduce pumping of water from the Salinas Valley Groundwater Basin for urban uses to the maximum extent feasible and to reduce overall pumping from the Salinas Valley Groundwater Basin by 15 percent from the pumping that occurred in 1987;</li> <li>Regulating development with the City's Landscaping and Irrigation Ordinance, which requires developments to apply xeriscape principles including such techniques and materials as native or low water use plants and low precipitation sprinkler heads, bubblers, drip irrigation systems and timing devices;</li> <li>Supporting the production of recycled water and developing new uses for recycled water; an</li></ul> | Construction-Related<br>Impacts for New or<br>Expanded Water<br>Facilities<br>Because future<br>environmental analysis<br>associated with new water<br>lines and other water<br>facilities would be<br>required, impacts<br>including noise, dust, or<br>traffic generation on local<br>roads cannot be<br>determined to be below a<br>level of significance for<br>this program level of<br>analysis, and therefore<br>these impacts remain<br>significant and<br>unavoidable. |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures   |   |   |  |  |
|--|---|---|--|--|
| Potential Impacts  | Mitigation Measures   | Conclusion  |  |  |
|  | toilets, flow restriction devices and water conserving appliances in new public and private development and rehabilitation projects.  |   |  |  |
|  | In addition to the above mitigation measures contained in the Salinas General Plan Final Program EIR, the City shall implement the following mitigation measures to reduce significant impacts associated with water supply:  |   |  |  |
|  | SEIR WS1. The City shall implement 15 percent water conservation measures for development within the Project area as described in General Plan Final Program EIR mitigation measure HW13.   |   |  |  |
|  | SEIR WS2. The City shall confirm the availability of adequate water supply and infrastructure to ensure that development does not outpace the available water supply/infrastructure in accordance with SB 610 and SB 221.   |   |  |  |
|  | IMPACTS MITIGATED TO A LEVEL LESS THAN SIGNIFICANT  |   |  |  |
|  | 5.2 Regional Wastewater Treatment Capacity  |   |  |  |
| <b>Regional Treatment Plant Capacity</b><br>Although the Regional Treatment Plant<br>(RTP) has adequate capacity to serve the<br>Project for some time into the future, the<br>Project will result in the need for an<br>eventual expansion of the RTP. A<br>significant impact associated with this | <ul> <li>PSU2. The City will implement General Plan Implementation Program LU-16, which requires the City to continue to work with the Monterey Regional Water Pollution Control Agency (MRWPCA) to plan for and ensure adequate capacity for sewage treatment facilities.</li> <li>PSU3. The City will implement General Plan Implementation Program LU-14, which requires the City to review development proposals and require necessary studies, as appropriate, and water conservation and mitigation measures to ensure adequate water and sewer service.</li> </ul> | Implementation of<br>Mitigation Measures<br>PSU2, PSU3, PSU4,<br>SEIR WW1, and SEIR<br>WW2 will reduce the<br>impact associated with<br>exceeding the RTP<br>capacity to a level less |  |  |
| issue may occur.   | PSU4. The City will implement General Plan Implementation Program LU-15, which requires the City to continue to implement and update the Sewer and Drainage Master Plan as necessary. In addition, as part of the Master Plan update, the City will analyze the need  | than significant.   |  |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures   |   |  |  |  |
|--|---|--|--|--|
| Potential Impacts  | Mitigation Measures   | Conclusion   |  |  |
|  | for additional pump station capacity and identify methods to reduce the wet weather flows.<br>In addition to mitigation measures PSU2, PSU3, and PSU4 contained in the Salinas General Plan   |  |  |  |
|  | Final Program EIR, the City shall implement the following mitigation measures to reduce a potentially significant impact associated with regional wastewater treatment plant capacity:  |  |  |  |
|  | SEIR WW1. The City shall implement 15 percent water conservation measures for development within the Project area.  |  |  |  |
|  | SEIR WW2. The City shall confirm the availability of adequate sewage treatment capacity prior to the approval of each tentative subdivision map within the Project area.  |  |  |  |
|  | 5.4 Stormwater Drainage   |  |  |  |
| Surface Hydrology<br>Future development identified in the<br>Salinas General Plan, including the<br>Project area, will modify the surface<br>runoff generated from the Project area<br>local watershed that is tributary to the<br>receiving waters or adjacent creek<br>systems compared to the natural runoff<br>conditions. This condition creates a<br>potentially significant drainage (surface | <ul> <li>HW5. The City will implement General Plan Implementation Program LU-17 which requires, as a condition of Project approval, new development to provide adequate storm water and flood management facilities to control direct and indirect erosion and discharges of pollutants and/or sediments so that "no net increase in runoff" occurs as a result of the proposed Project. To determine the facility and Best Management Practices (BMPs) needs, the City will require, when necessary, a hydrological/drainage analysis to be performed by a certified and City-approved engineer, with the cost of said analysis the responsibility of the Project applicant.</li> <li>In addition to mitigation measure HW5 above, surface hydrology impacts associated with future development within the Project area will be fully mitigated prior to discharging to the natural</li> </ul> | Implementation of<br>Mitigation Measures<br>HW5, SEIR SD1, and<br>SEIR SD2 will reduce the<br>surface hydrology<br>impacts associated with<br>altering the drainage<br>pattern of the Project area<br>and the additional runoff<br>associated with<br>development of the |  |  |
| hydrology) impact.   | drainage courses through central drainage facilities and land planning features within the development using the following approach:  | Project area to a level less than significant.   |  |  |
|  | SEIR SD1. Future development within the Project area shall utilize a combined flow control system to achieve the hydrologic mitigation and water quality requirements that follows similar agency/industry hydro-modification recommendations. The proposed flow control  |  |  |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures |  |            |  |
|--|--|------------|--|
| Potential Impacts  | Mitigation Measures  | Conclusion |  |
|  | system will include one or more of the following components, which are illustrated in the schematic below and include (1) duration control/water quality treatment basin, (2) pretreatment wetlands, (3) retention/infiltration basin, (4) diversion outlet to either the retention basin or the downstream receiving waters, and (5) sediment forebays to trap small amounts of sediment entering the Project area.   |            |  |
|  | The flow control facility will provide hydraulic distribution of flows for water quality treatment, duration/volume control and peak flow attenuation. The facility will provide temporary runoff storage volume to attenuate the peak flow rate and will also incorporate "extended detention" to provide water quality treatment for storm flows as part of the hydraulic detention time for stored runoff. Extended detention is designed with outlets that hydraulically limit the release of the stored runoff volume specifically for the water quality design storm volume (e.g. 85th percentile 24-hour storm) for some minimum time (e.g., 48 hours) to allow particles to settle. The flow control facility will also incorporate a pre-settling zone to provide additional treatment and mitigate nuisance/dry-weather flows. The facility will also provide "retention" that is separate and hydraulically independent of the "detention" zone. The retention feature will store the difference in runoff volume between the pre- and post-development conditions. The flow control facility may consist of single or multiple basins; or equivalent device(s) meeting these hydraulic and water quality performance requirements. |            |  |
|  | Water quality treatment for storm water runoff and urban dry-weather flows will also be provided through the detention/retention basins system within the flow control facility portion.   |            |  |
|  | SEIR SD2. Future development within the Project area will include Low Impact Development (LID) features to be implemented through site design techniques within the Project area land plan as design elements. LID features will use natural vegetation and small-scale treatment systems to treat and infiltrate storm water runoff close to its origin.  |            |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures  |  |  |  |
|---|--|--|--|
| Potential Impacts   | Mitigation Measures  | Conclusion   |  |
|   | CUMULATIVE IMPACTS   |  |  |
|   | SIGNIFICANT AND UNAVOIDABLE CUMULATIVE IMPACTS   |  |  |
|   | 5.1 Regional Transportation  |  |  |
| Regional Roadway Network<br>In conjunction with traffic impacts<br>resulting from projects outside of the<br>Project area, implementation of the<br>Project would cumulatively contribute to<br>impacts on some local and regional<br>roadway network segments and ramps<br>that would cause traffic congestion and<br>delays at unacceptable levels. These<br>cumulative impacts would be considered<br>significant. | Mitigation Measures are identified above in Significant and Unavoidable Project-Level Impacts. | Implementation of<br>Mitigation Measures C3,<br>C5, C7, and SEIR-RT1,<br>through SEIR-RT4 would<br>reduce the cumulative<br>impacts for some local<br>and regional roadway<br>segments to a level less<br>than significant, although<br>other local and regional<br>roadway segments will<br>not be able to reduce their<br>impacts because the<br>mitigation is infeasible or<br>alternate mitigation would<br>be required. Therefore,<br>the cumulative impacts<br>associated with the<br>implementation of the<br>Sphere of Influence<br>Amendment and<br>Annexation to the<br>regional roadway network |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures           |  |  |  |
|--|--|--|--|
| Potential Impacts  | Mitigation Measures  | Conclusion   |  |
|  |  | <ul> <li>would remain significant<br/>and unavoidable for the<br/>following roadway<br/>segments:</li> <li>Boronda Road<br/>between McKinnon<br/>Street and El Dorado<br/>Drive;</li> <li>W. Market Street<br/>(SR 183) between N.<br/>Davis Road and Clark<br/>Street;</li> <li>John Street (SR 68)<br/>between Abbott Street<br/>and US 101;</li> <li>North Main Street<br/>(SR 68) between US<br/>101 and Rossi Street;</li> <li>South Main Street<br/>(SR 68) between San<br/>Miguel Avenue and<br/>Blanco Road; and</li> <li>Blanco Road west of<br/>Davis Road.</li> </ul> |  |
|  | 5.3 Water Supply   |  |  |
| Water Supply<br>In conjunction with water supply impacts<br>resulting from projects outside of the | Mitigation Measures are identified above in Significant and Unavoidable Project-Level Impacts. | Implementation of<br>Mitigation Measures HW<br>4, HW9 through HW13,<br>SEIR WS1, and SEIR  |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures   |   |   |  |
|--|---|---|--|
| Potential Impacts Mitigation Measures  |   | Conclusion  |  |
| Project area, implementation of the<br>Project would potentially result in<br>cumulative impacts to the local water<br>supply, and the potential impacts (i.e.,<br>over-drafting or seawater intrusion)<br>associated with increased pumping of<br>groundwater would be considered<br>significant.   |   | WS2 will reduce the<br>potential water supply<br>impacts to a degree;<br>however, the potential<br>cumulative impacts (i.e.,<br>over-drafting or seawater<br>intrusion) associated with<br>the increased pumping of<br>groundwater will remain<br>significant and<br>unavoidable.   |  |
|  | 5.5 Global Climate Change   |   |  |
| Since future (i.e., future development<br>capacity condition in 2020) annual GHG<br>emissions under the proposed Project are<br>projected to exceed existing levels by the<br>substantial margin of 46 percent, the<br>proposed Project would contribute to the<br>exacerbation of climate change and the<br>significant adverse environmental effects<br>thereof. Furthermore, increased GHG<br>emissions associated with the proposed<br>Project could potentially impede<br>implementation of the State's mandatory<br>requirement under AB 32 to reduce<br>statewide GHG emissions to 1990 levels<br>by the same year. Therefore, the<br>incremental GHG emissions associated<br>with development under the proposed<br>Project would cause a cumulatively<br>considerable incremental contribution to | <ul> <li>SEIR GCC1. Within 36 months, the City shall establish a global climate change action plan that includes a baseline inventory of all GHG emissions associated with all residences, businesses, industries, agriculture, municipal operations, and other sources within the City limits; establishment of a GHG emissions reduction target; development of enforceable, feasible GHG emissions reduction measures to meet the established target; and performance monitoring of the GHG emissions reduction measures shall occur every 3 years to ensure the emissions reductions are being achieved.</li> <li>SEIR GCC2. Prioritized parking within new commercial and retail areas shall be given to electric vehicles, hybrid vehicles, and alternative fuel vehicles.</li> <li>SEIR GCC3. The City shall require that new or major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) for residential projects of 6 units or more comply with at least one of the following:</li> <li>Participate in the CEC's New Solar Homes Partnership (this program provides rebates to developers of 6 units or more who offer solar power in 50 percent of new units), or a similar program with solar power requirements equal to or greater than those of the CEC's New Solar Homes Partnership as demonstrated to the City by the project</li> </ul> | Implementation of<br>Mitigation Measures<br>SEIR GCC-1 through<br>SEIR GCC-9 would<br>substantially reduce the<br>incremental GHG<br>emissions associated with<br>the General Plan and SOI<br>Amendment and<br>Annexation, although not<br>to a level less than<br>cumulatively significant.<br>Therefore, the<br>cumulatively considerable<br>incremental contribution<br>to the worldwide increase<br>in GHG emissions<br>represented by<br>development that is |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures   |  |  |  |
|--|--|--|--|
| Potential Impacts  | Mitigation Measures  | Conclusion   |  |
| the significant cumulative (worldwide)<br>impacts when viewed in connection with<br>worldwide GHG emissions. By<br>generating increased emissions that<br>contribute to global climate change,<br>development that occurs in accordance<br>with the General Plan and SOI<br>Amendment and Annexation would<br>incrementally contribute to the adverse<br>economic, public health, natural<br>resources, and other environmental<br>impacts projected to occur in California<br>and throughout the world as a result of<br>global climate change. | <ul> <li>applicant.</li> <li>Design, construct, or retrofit 50 percent of the square footage of the building(s) that are part of the project capable of being certified under one of the following Leadership in Energy and Environmental Design (LEED) or equivalent building rating systems: LEED for New Construction; LEED for Existing Buildings, LEED for Homes, LEED for Core &amp; Shell, or any Application Guides of these rating systems. However, no formal LEED certification shall be required, and the City Manager or his/her designee shall make the determination that the potential for LEED certification has been achieved. All credits used to demonstrate capability to meet one of the above certifications must directly or indirectly result in a reduction in GHG emissions.</li> <li>SEIR GCC4. The City shall require that new or major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) of commercial, office, or industrial development greater than or equal to 25,000 square feet in size must incorporate renewable energy generation (on- or off-site) to provide 15 percent or more of the project's energy needs.</li> <li>SEIR GCC5. The City shall require new development or redevelopment projects in excess of 10 acres in size be capable of meeting the certification requirements of the LEED for Neighborhood Development Rating System Pilot Version (February 2007) ("LEED ND"). However, no formal certification shall be required, and the City Manager or his/her designee shall make the determination that the potential for certification has been achieved. All credits used to demonstrate capability to meet the LEED ND certification must directly or indirectly result in a reduction in GHG emissions.</li> <li>SEIR GCC5. The City shall require that the design or purchase of any new street lights and water and wastewater pumps and treatment systems achieve a 10 percent reduction hesyond an estimated baseline energy use for this infrastructure. All new traffic lights insta</li></ul> | anticipated to occur with<br>implementation of the<br>General Plan and SOI<br>Amendment and<br>Annexation is considered<br>significant and<br>unavoidable. |  |

| Table 2-1           Summary of Significant Environmental Impacts and Mitigation Measures |  |            |
|--|--|------------|
| Potential Impacts  | Mitigation Measures  | Conclusion |
|  | and demolition debris. To implement this requirement, a construction waste management<br>plan identifying materials to be diverted from disposal and whether the materials will be<br>stored on-site or commingled shall be developed and implemented by the applicant for said<br>development or rehabilitation. Excavated soil and land-clearing debris do not contribute to<br>this credit. Calculation can be done by weight or volume but must be consistent<br>throughout.   |            |
|  | SEIR GCC8. The City shall require all new development and major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) projects to incorporate any combination of the following strategies to reduce heat gain for 50 percent of the nonroof impervious site landscape (including roads, sidewalks, courtyards, parking lots, and driveways):  |            |
|  | <ul> <li>Shaded (within 5 years of occupancy)</li> <li>Paving materials with a Solar Reflectance Index (SRI) of at least 29</li> <li>Open grid pavement system</li> <li>Parking spaces under cover (defined as underground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29</li> </ul>   |            |
|  | SEIR GCC9. The City shall require that all new development or major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) projects incorporate "green building" points in construction plans prior to issuing a permit to build. Such points may be achieved through checklists identified by New Home Construction Green Building Guidelines available at www.builditgreen.org, or through a similar list that distinguishes specific measures targeting efficiencies in energy, resource use, or other measures that would also directly or indirectly result in GHG emission reductions. Specific efficiencies that would reduce GHG emissions should be implemented where feasible for all project areas including site design, landscaping, foundation, structural frame and building envelope, exterior finishing, plumbing, appliance use, insulation, heating, venting and air conditioning, building performance, use of renewable energy, finishes, and flooring. |            |

#### ALTERNATIVES TO THE PROPOSED PROJECT

Four alternatives were evaluated in the General Plan Final Program EIR, which included:

- No Project/Existing General Plan
- Decreased Acreage Increased Density in Future Growth Areas
- Alternative Circulation Plan No Western Bypass
- 50% Housing Unit Reduction in Future Growth Areas

The Final Program EIR found that the No Project/Existing General Plan alternative was environmentally inferior to the General Plan, the Decreased Acreage – Increased Density in Future Growth Areas was environmentally superior to the General Plan, the Alternative Circulation Plan – No Western Bypass was environmentally similar to the General Plan, and the 50% Housing Unit Reduction in Future Growth Areas was environmentally inferior to the General Plan.

In addition to the four alternatives analyzed in the Final Program EIR, the SEIR considers one additional alternative, Reduced Greenhouse Gas Emissions. Overall, this alternative was found to be environmentally superior and is discussed in detail in Section 6.0 of this document.

# **3.0 PROJECT DESCRIPTION**

#### **GEOGRAPHIC SETTING**

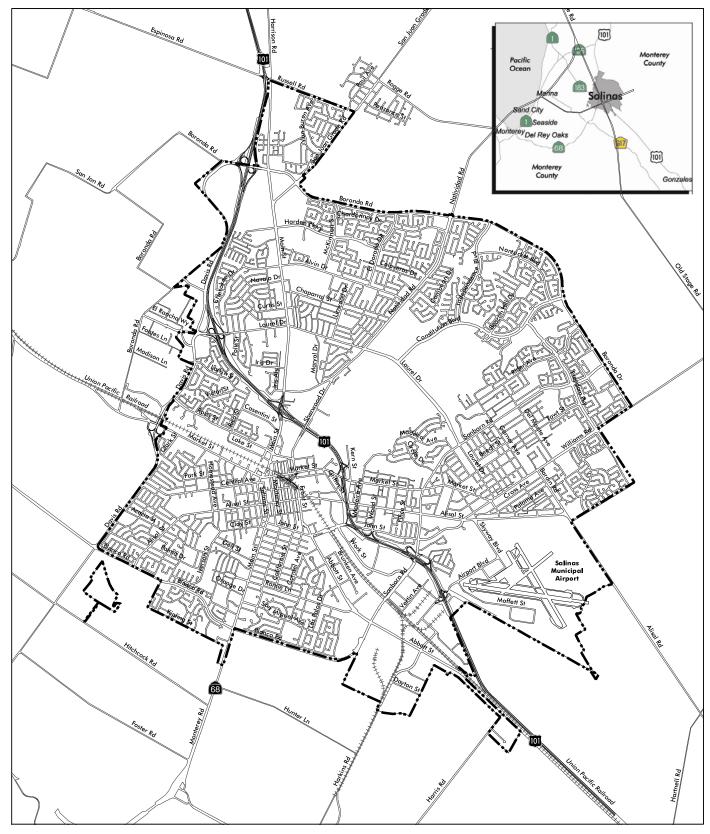
Salinas is located in northern Monterey County between the Gabilan and Santa Lucia mountain ranges. **Figure 3-1** depicts the regional and local vicinity of the Project area. Located at the northern end of the Salinas Valley, Salinas is situated approximately 20 miles northeast of Monterey, 60 miles south of San Jose, 101 miles south of San Francisco, and 325 miles north of Los Angeles. Salinas is located in proximity to regional transportation routes including Highway 101, Routes 68 and 183, and the Union Pacific Railroad line, which traverse Salinas. Unincorporated land under the jurisdiction of the County of Monterey surrounds Salinas. Land uses in the areas surrounding Salinas include land in agricultural production, open space, commercial, and very low-density rural development.

#### PROJECT LOCATION AND DESCRIPTION

The Project is a proposal by the City of Salinas (City) for (1) a sphere of influence (SOI) amendment (hereinafter referred to as SOI Amendment); and (2) an annexation of unincorporated Monterey County land to the City of Salinas (hereinafter referred to as Annexation). The proposed Project is currently within the jurisdiction of the County of Monterey and consists of two overlapping geographic areas in this SEIR. The SOI Amendment and Annexation lies within geography covered by the Salinas General Plan and its associated Final Program EIR.

The geographic size and amount of development of Project areas described in this document are summarized in **Table 3-1**. The SOI Amendment area totals approximately 3,347 gross acres (2,845 net acres) and is planned for up to 14,318 dwelling units and up to 9.023 million square feet of commercial/retail/mixed use, general industrial uses and public/semi-public uses. The Annexation area includes approximately 2,388 gross acres (2,030 net acres) and is planned for up to 11,485 total dwellings and 3.992 million square feet of commercial/retail/mixed uses. The portion of the SOI Amendment area that is not also within the Annexation area (hereinafter referred to as the Remainder) totals approximately 958 gross acres (815 net acres) and is planned for up to 2,833 dwellings and 5.032 million square feet of mixed use, general industrial, and public/semi-public uses.

The Remainder area is comprised of two non-contiguous sub-areas. The first, known as the "Settrini property", is generally located east of Natividad Road and south of the future alignment of Russell Road and totals approximately 50 gross acres (43 net acres) and is planned for up to 276 dwellings. The second, known as the South of Williams area, is generally located south of Williams Road and northeast of the Salinas Municipal Airport, and totals approximately 908 gross acres (772 net acres) and is planned for up to 2,557 dwellings and 5.032 million square feet of mixed use, general industrial, and public/semi-public uses.





City Boundary



### Figure 3-1 Regional Location and Local Vicinity

| Project Components                     | Gross<br>Acres | Net<br>Acres <sup>1</sup> | Dwelling<br>Units | Nonresidential<br>(Millions Sq. Ft.) |
|--|----------------|---------------------------|-------------------|--------------------------------------|
| Sphere of Influence (SOI) Amendment    | 3,347          | 2,845                     | 14,318            | 9.023                                |
| Annexation                             | 2,388          | 2,030                     | 11,485            | 3.992                                |
| Remainder (within SOI, not Annexation) | 958            | 815                       | 2,833             | 5.032                                |
| Settrini Property                      | 50             | 43                        | 276               | -                                    |
| South of Williams Road                 | 908            | 772                       | 2,557             | 5.032                                |

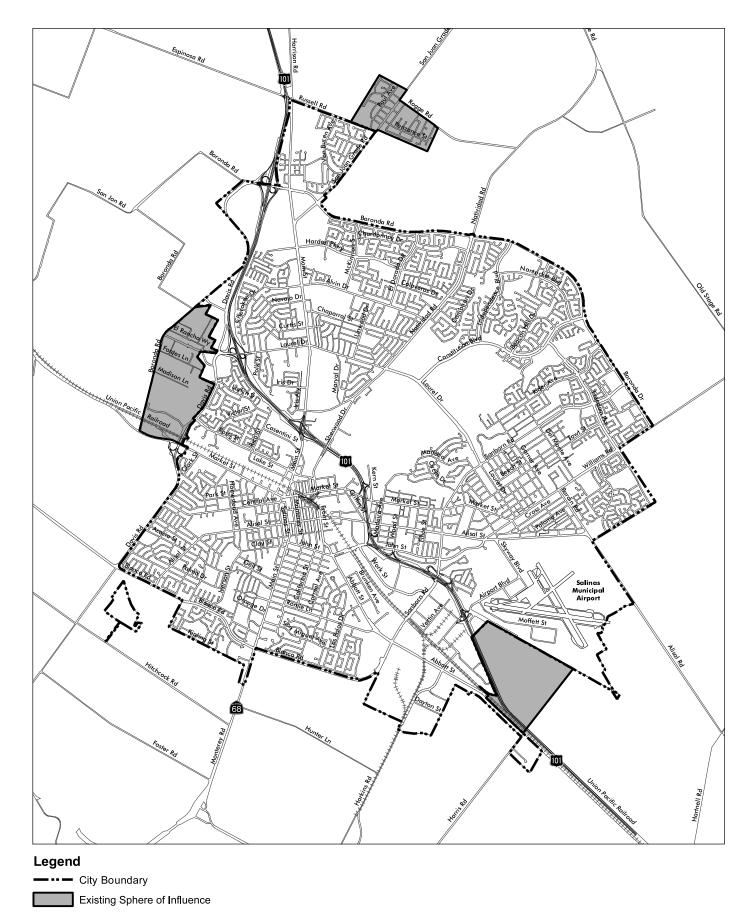
Table 3-1Project Areas

<sup>1</sup> Net acres represent 85 per cent of the gross acres, removing an approximate amount of acreage to dedicate for roads and rights-of-way.

The Project area represents only a portion of the total Future Growth Area identified in the 2002 General Plan Land Use Element (Table LU-3).

The largest geographic area is the SOI Amendment area. The City's current SOI is depicted in Figure 3-2, while the SOI Amendment area is depicted in Figure 3-3. As shown in Figure 3-3, the SOI Amendment area includes lands located to the north and east of the current City boundaries The second geographic area includes the Annexation of unincorporated Monterey County land to the City of Salinas (the Annexation area), as depicted in Figure 3-4. The Annexation area is contained within and constitutes a portion of the SOI Amendment area; the Annexation area is generally bounded by Rogge Road and a future extension of Russell Road on the north (with the exception of the area bound by Russell Road on the north known as the Settrini property as described above), Old Stage Road on the northeast, Williams Road on the east, Boronda Road on the south, and San Juan Grade Road on the west. The SOI Amendment area and Annexation area share common boundaries along Old Stage Road, Williams Road, Boronda Road, and San Juan Grade Road. However, east of Natividad Road and the future alignment of Russell Road, a portion of property known as the Settrini property is included in the SOI Amendment request but is not included in the Annexation request (refer to Figures 3-3 and 3-4). On the east, the Annexation area boundary is Williams Road while the SOI Amendment area extends south to the Salinas Municipal Airport. The SOI Amendment and Annexation areas are located within the Future Growth Area as described in the City of Salinas General Plan. Figure 3-5 identifies planned land uses for both the SOI Amendment and Annexation areas, which are consistent with those identified in the General Plan. The planned alignment of Russell Road between Natividad Road and Old Stage Road has been realigned slightly to the north from the expected alignment identified in the General Plan to avoid a set of buildings located on the Settrini property.

The Annexation area and Settrini properties are currently being evaluated for development under three Specific Plans and preliminary planning has begun, although the owners of the Settrini property have stated that they do not intend to develop that property in the immediate future. Development of the Annexation area and Settrini property could provide up to 11,761 total dwellings and 3.9 million square feet of nonresidential development. The South of Williams Road area is likely to develop under multiple Specific Plans, but no preliminary planning has begun for the area.



NORTH 0 0.5 F 🗄 Miles 1.5

1

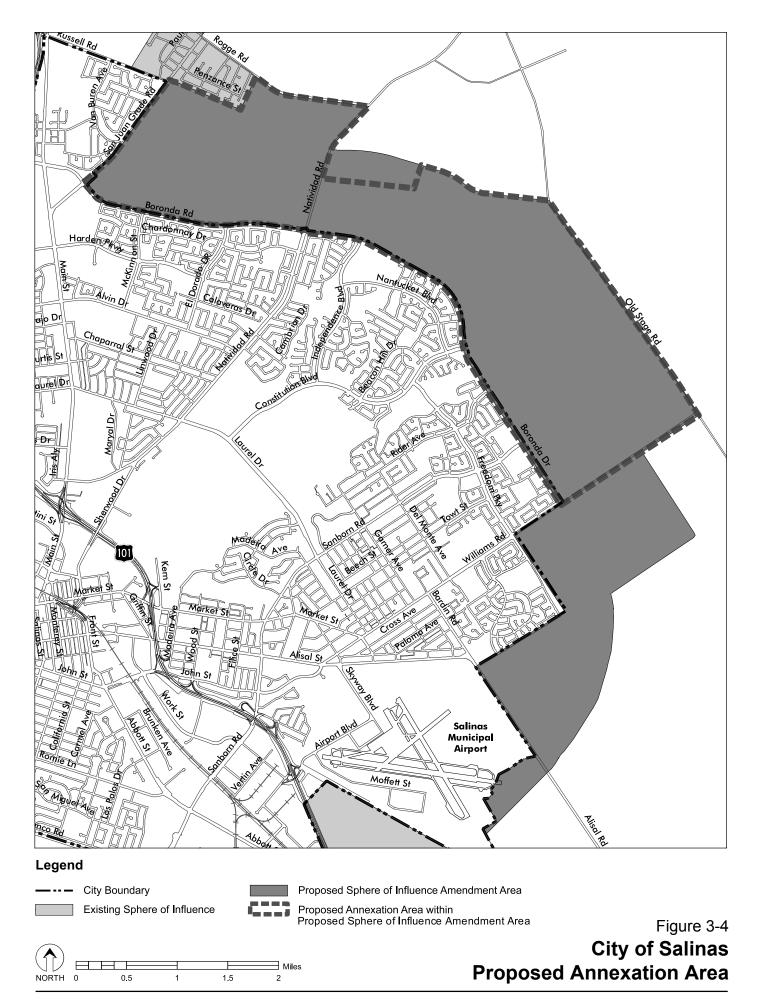
2

# Figure 3-2 City of Salinas **Existing Sphere of Influence**

City of Salinas

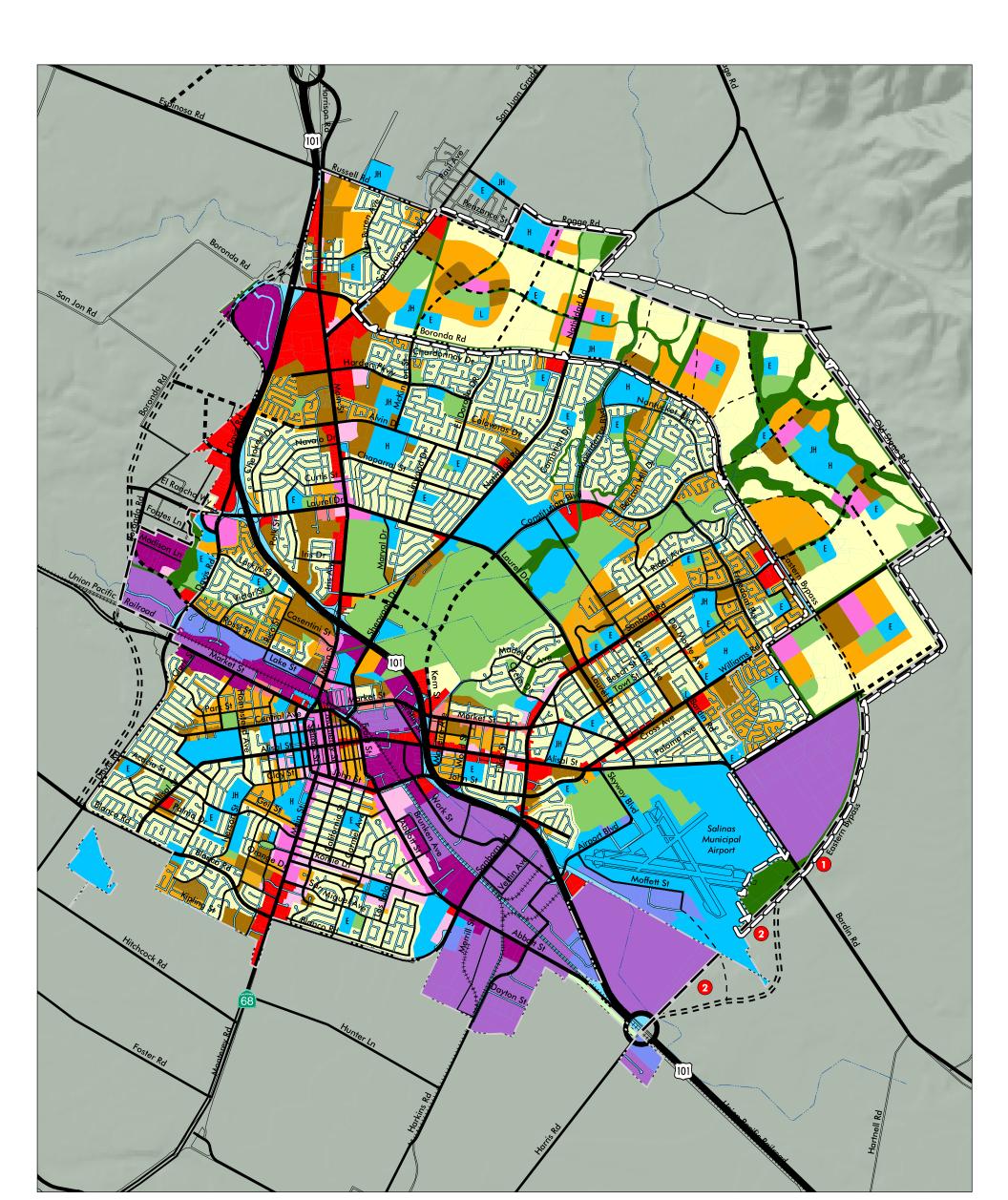
November 2007





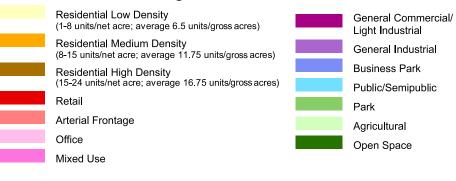
City of Salinas

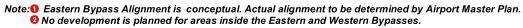
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Source: City of Salinas; and P&D Consultants.

#### General Plan Land Use Designations





#### **Circulation System**

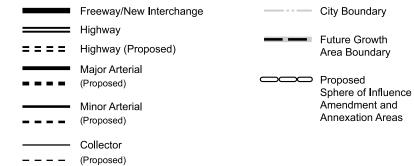


Figure 3-5



### Sphere of Influence Amendment and Annexation Area Planned Land Use

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The City's General Plan requires the preparation of Specific Plans, including annexation plans, prior to the approval of development projects in the SOI Amendment and Annexation areas. The annexation plan is to include a plan for providing municipal services and a fiscal analysis describing how these services will be financed. As illustrated in **Table 3-2**, the SOI and Amendment areas together contains approximately 3,347 gross acres (2,845 net acres)and is planned for up to 14,318 dwelling units and up to 9.023 million square feet of commercial/retail/mixed use, light industrial uses, and public/semi-public uses. The City will pre-zone the Project area in accordance with Section 37-60.1140 of the City of Salinas Zoning Code. The area shall be pre-zoned to the NI (New Urbanism Interim) Zoning District with a "SP" (Specific Plan) Overlay district.

| Development Type                  | Gross<br>Acres | Net<br>Acres | Dwelling<br>Units | Nonresidential<br>Square Feet<br>(Millions) |
|-----------------------------------|----------------|--------------|-------------------|---|
| Residential                       | 1,840          | 1,564        | 13,958            | -   |
| Commercial/Office/Mixed Use       | 151            | 129          | 360               | 2.686                                       |
| General Industrial                | 366            | 311          | -                 | 4.065                                       |
| Public/Semi-Public and Open       | 990            | 842          | -                 | 2.272                                       |
| Space                             |                |              |                   |   |
| <b>Total Development Capacity</b> | 3,347          | 2,845        | 14,318            | 9.023                                       |

# Table 3-2Development CapacitySphere of Influence Amendment and Annexation Area

Note: Public/Semi-Public may be changed based on school district planning and replaced with residential development.

#### **PROJECT OBJECTIVES**

The Salinas General Plan calls for future growth to occur within the SOI Amendment and Annexation areas. The City has purposely encouraged compact, dense, and infill development and has limited the amount of land available for residential development at the City's boundaries to protect the region's best agricultural land, especially to the south and west, and to reduce reliance on automobiles. As a result, Salinas is one of the most densely developed cities in California. Salinas has little developable land remaining within its boundaries. Overcrowding within the existing housing stock has resulted. Thus, the City seeks an SOI Amendment and Annexation with the following objectives:

- Promote compact, high quality, mixed use development
- Provide for a variety of housing opportunities
- Provide for a variety of employment opportunities
- Minimize the loss of the most productive farmland
- Protect and enhance natural and human-made resources
- Provide adequate public services, facilities and infrastructure to support the quality of life, including parkland for recreation
- Promote public safety through community design
- Provide convenient circulation for vehicles, cyclists and pedestrians

#### **REQUIRED AGENCY APPROVALS**

Prior to submission of the SOI Amendment and Annexation application to the Local Agency Formation Commission (LAFCO) of Monterey County, the proposed Project requires the approval of the City of Salinas City Council for the SOI Amendment and Annexation application, and pre-zoning of the Annexation area. The proposed Project then requires the approval of LAFCO of Monterey County, which has the authority to approve the sphere of influence amendment and changes in organization (annexation) per Government Code Section 56375.

#### INTENDED USES OF THE SUPPLEMENTAL EIR

The City of Salinas certified Final Program EIR serves as the basis for environmental review and impact mitigation for the implementation of the City of Salinas General Plan. The General Plan addresses the Project, the SOI Amendment and Annexation area, as the Future Growth Area. This SEIR serves as supplemental environmental documentation for the SOI Amendment and Annexation because, after the Salinas General Plan Final Program EIR was certified, either minor changes have occurred in the circumstances of the proposed Project and/or new information of substantial importance has become available for the following environmental issue areas:

- Traffic/Circulation regional transportation system;
- Public Services and Utilities regional wastewater treatment plant capacity;
- Hydrology/Water Quality water supply and storm water drainage; and
- Air Quality Global Climate Change.

Thus, along with the Final Program EIR, the SEIR serves as the basis for environmental review and impact mitigation for implementation of the SOI Amendment and Annexation area.

### 4.0 ENVIRONMENTAL SETTING

Salinas is located in northern Monterey County between the Gabilan and Santa Lucia mountain ranges. Located at the northern end of the Salinas Valley, Salinas is situated approximately 20 miles northeast of Monterey, 60 miles south of San Jose, 101 miles south of San Francisco, and 325 miles north of Los Angeles. The Salinas Municipal Airport, a general aviation facility, is located in the southeastern portion of the city. Salinas is located in proximity to regional transportation routes including Highway 101 and Routes 68 and 183, which traverse the city. Unincorporated land under the jurisdiction of the County of Monterey surrounds Salinas. Land uses in the areas surrounding Salinas include land in agricultural production, open space, commercial, and very low-density rural development.

The SOI Amendment and Annexation area contain approximately 3,347 gross acres (2,845 net acres) and consists of relatively flat topography with slopes generally ranging from 1 to 10 percent. Existing land uses within the Project area are primarily cultivated farmland and grazing lands. Other land uses within the areas are as follows: a 16-acre natural oak woodland parcel with a farmhouse and barn; Gabilan Creek and Natividad Creek riparian corridors and a tributary riparian corridor; utility easement with electric towers and lines; approximately 10 single-family residences, the majority of which are associated with ongoing agricultural operations; greenhouses; a church; and barns, storage, and other ancillary buildings. Additionally, McKinnon Elementary School is located on McKinnon Street north of Boronda Road in the northwest portion of the Project area. Based on 10 residences and an estimated 3.67 persons per household in the Salinas area, the Project area contains a population of approximately 37 people.

Water for urban and agricultural use in the Project area is pumped from wells. Located in the Salinas Valley Groundwater Basin, much of the groundwater supply in the Project area is generated through recharge of the basin via the Salinas River. No imported water sources are available and water supplies are limited to the watershed and underlying aquifer. The high dependence on ground water and the growth in water demand by urban and agricultural users has put a strain on ground water resources of the Salinas Valley.

Salinas is in the North Central Coast Air Basin which is composed of Monterey, San Benito, and Santa Cruz counties. Salinas' climate is moderated by a marine influence. Marine breezes cause winds from the northwest and west, which are strongest and most persistent in the spring and summer months. Due to this marine influence, air quality in Salinas is generally very good.

The environmental setting varies with the topic being analyzed and a setting subsection is included within the SEIR sections addressing regional transportation, regional wastewater treatment capacity, water supply, storm water drainage, and global climate change.

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### 5.0 ENVIRONMENTAL IMPACT ANALYSIS

For each environmental issue area, subsections 5.1 through 5.5 of the SEIR identify the environmental setting the thresholds for determining significance of environmental impacts, potential environmental impacts, mitigation measures for those impacts determined to be significant, and the environmental impact remaining after implementation of mitigation measures. Notes and references are also listed where applicable.

Each environmental issue area analyzed in this SEIR is discussed in the following format:

**Environmental Setting:** A discussion of the existing conditions, services, and physical environment of the project site and land uses within the vicinity of the Project area and any notable regulatory settings (CEQA Guidelines Section 15125).

**Thresholds for Determining Significance:** The amount or type of impact that may create a substantial or potentially substantial adverse change in the environment as defined in Section 15382 of the CEQA Guidelines and as discussed in Section 15064 and 15065. The Environmental Checklist contained in Appendix G of the CEQA Guidelines, and California Department of Transportation, County of Monterey, and other applicable City or agency thresholds or standards, serve as a guide for determining the thresholds contained in this document. Based on these criteria, impacts can be classified as significant and unavoidable; significant, but can be mitigated, avoided, or substantially lessened; or less than significant.

**Environmental Impact:** A discussion of the impacts of the proposed Project (SOI Amendment and Annexation) in quantitative and/or qualitative terms, based on the uses of land and associated General Plan components identified in the project description (CEQA Guidelines Section 15126 and 15358).

**Mitigation Measures:** A discussion of the measures required or recommended to avoid, mitigate, or substantially lessen significant impacts (CEQA Guidelines Section 15126.4 and 15370).

**Impact after Mitigation:** A discussion of the level of impact of the Project following the implementation of required or recommended mitigation measures (CEQA Guidelines Sections 15126.2 and 15126.4).

#### ENVIRONMENTAL ISSUES ANALYZED IN THIS SUPPLEMENTAL EIR

- 1. Regional Transportation
- 2. Regional Wastewater Treatment Capacity
- 3. Water Supply
- 4. Stormwater Drainage
- 5. Global Climate Change

Detailed discussions of these environmental issue areas are found in Sections 5.1 through 5.5. Other long-term environmental issues, including cumulative impacts caused by the project, growth-inducing impacts, significant irreversible environmental changes, and unavoidable significant environmental impacts, are discussed in Section 7.0 *Analysis of Long-Term Effects* of this SEIR.

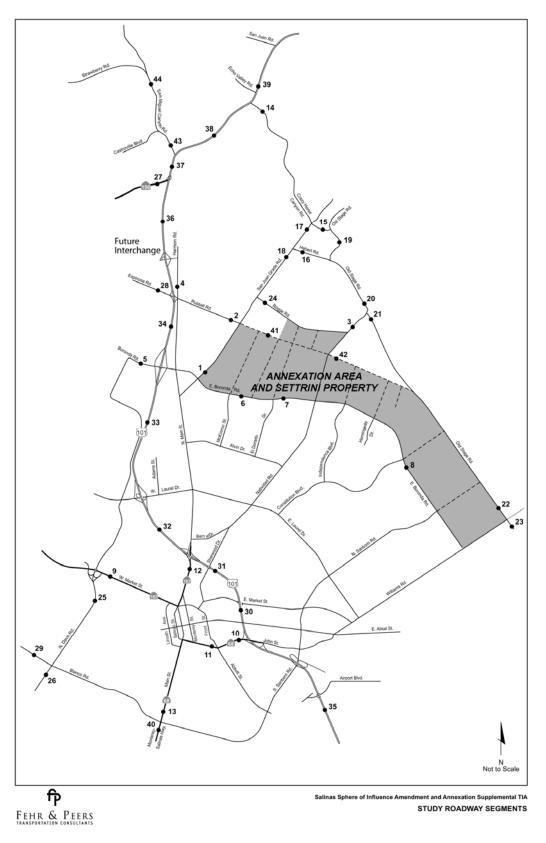
### 5.1 REGIONAL TRANSPORTATION

The information in this section is based on the Salinas Sphere of Influence Amendment and Annexation Supplemental Traffic Impact Analysis (STIA) Report, prepared by Fehr & Peers (August 2007) and contained in Appendix C of this SEIR.

Based on the findings of the Initial Study, the environmental analysis in this section is limited to a discussion of the impacts of the Project (Sphere of Influence Amendment and Annexation) on the regional transportation system. The 2002 General Plan Final Program EIR analyzed impacts to traffic and circulation using three different alternative scenarios and found that development resulting from implementation of the General Plan could result in a significant and unavoidable project-level and cumulative impact to the regional highway system. The Final Program EIR also identified a significant but mitigable impact relating to the local roadway system, regional roadway modifications, and the Salinas Municipal Airport. The Final Program EIR identified no significant impacts to bicycle and pedestrian systems, bus service, rail service, or roadway design and safety. With the exception of the regional transportation system, the Initial Study concluded that there would be no changes related to the circumstances under which the Project is undertaken, or no new information such as new or greater environmental effects or mitigation measures that would require further analysis to the local roadway system, regional roadway modifications, the Salinas Municipal Airport, transit services, bicycle and pedestrian systems, or roadway design and safety.

Since certification of the Program EIR, changes have occurred with respect to the circumstance under which the Project is undertaken that will require minor revisions to the previous EIR. Therefore, additional environmental review at both the project and cumulative levels is herein conducted to fully consider the impacts of the proposed Project on the regional transportation system. The analysis presented herein is based on daily and peak hour roadway segment volumes. If the proposed Project is approved, separate and more detailed environmental analysis will be conducted for each of the three Specific Plan areas within the Annexation area and Settrini property.

The STIA report analyzed future traffic generation with three Specific Plan areas (West, Central, and East). As illustrated in Figure 5.1-1 generally bounded by San Juan Grade Road to the west; the Russell Road extension, Rogge Road, and Old Stage Road to the north; Williams Road and the future growth boundary to the east; and East Boronda Road to the south. This area is collectively known as the Annexation area and Settrini property, and does not include the South of Williams portion of the Sphere of Influence Amendment area. The TIA project area was defined in this manner because the South of Williams area is not expected to undergo significant development in the near term. While not defined as part of the TIA project area, land uses for the South of Williams area are included in the AMBAG model and therefore trip generation is incorporated for complete analysis of 2030 to the regional roadway conditions.





#### **ENVIRONMENTAL SETTING**

#### **Study Roadway Segments**

This analysis examines the operation of roadway and freeway segments near the Annexation area and Settrini property to identify segments with reduced level of service. Thirty-four City of Salinas and Monterey County roadway segments were analyzed, as well as ten US 101 segments from north of Crazy Horse Canyon Road to south of Airport Boulevard. Figure 5.1-1 shows the location of roadway and freeway segments included in this analysis. Listed by index number, the segments are identified as:

#### Regional Roadways

- 1. San Juan Grade Road between Boronda Road and Van Buren Avenue
- 2. Russell Road between Van Buren Avenue and San Juan Grade Road
- 3. Natividad Road between Old Stage Road and Rogge Road
- 4. Harrison Road north of Russell Road
- 5. Boronda Road between N. Davis Road and US 101
- 6. Boronda Road between McKinnon Street and El Dorado Drive
- 7. Boronda Road between El Dorado Drive and Natividad Road
- 8. Boronda Road between Constitution Boulevard and North Sanborn Road
- 9. W. Market Street (SR 183) between N. Davis Road and Clark Street
- 10. John Street (SR 68) between Abbott Street and US 101
- 11. John Street (SR 68) between Monterey Street and Abbott Street
- 12. N. Main Street (SR 183) between US 101 and Rossi Street
- 13. S. Main Street (SR 68) between San Miguel Avenue and Blanco Road

#### Two-Lane Highways

- 14. Crazy Horse Canyon Road south of US 101
- 15. Crazy Horse Canyon Road between San Juan Grade Road and Old Stage Road
- 16. Hebert Road between San Juan Grade Road and Old Stage Road
- 17. San Juan Grade Road between Hebert Road and Crazy Horse Canyon Road
- 18. San Juan Grade Road between Rogge Road and Hebert Road
- 19. Old Stage Road between Crazy Horse Canyon Road and Hebert Road
- 20. Old Stage Road between Hebert Road and Natividad Road

- 21. Old Stage Road between Natividad Road and Future Russell Road Extension
- 22. Old Stage Road between Russell Road Extension and Williams Road
- 23. Old Stage Road east of Williams Road
- 24. Rogge Road between San Juan Grade Road and Natividad Road
- 25. Davis Road between West Market Street and Central Avenue (also classified as urban arterial segment)
- 26. Davis Road south of Blanco Road
- 27. SR 156 west of US 101
- 28. Espinosa Road west of US 101
- 29. Blanco Road west of Davis Road
- 43. San Miguel Canyon Road between US 101 and Castroville Boulevard
- 44. San Miguel Canyon Road between Castroville Boulevard and Strawberry Road

#### Freeway

- 30. US 101 between John Street (SR 68) and Market Street
- 31. US 101 between Market Street and Main Street (SR 183)
- 32. US 101 between Main Street (SR 183) and Laurel Drive
- 33. US 101 between Laurel Drive and Boronda Road
- 34. US 101 between Boronda Road and Russell Road
- 35. US 101 south of Airport Boulevard
- 36. US 101 between Russell Road and SR 156
- 37. US 101 between SR 156 and San Miguel Canyon Road
- 38. US 101 between San Miguel Canyon Road and Crazy Horse Canyon Road
- 39. US 101 between Crazy Horse Canyon Road and San Juan Road
- 40. S. Main Street (SR 68) between Blanco Road and Hunter Lane

#### Future Roadways

- 41. Russell Road between McKinnon Street and El Dorado Drive (future roadway)
- 42. Russell Road between Natividad Road and Independence Boulevard (future roadway)

#### **Existing Roadway Network**

US 101 (north and south), and State Route (SR) 183 (to and from the northwest) and SR 68 (to and from the southwest) provide regional access to and from Salinas. The following north-south roadways provide local access near the Annexation area and Settrini property: North Main Street, San Juan Grade Road, Natividad Road, and Williams Road. The east-west roadways providing local access near the Annexation area and Settrini property include the following: Crazy Horse Canyon Road, Hebert Road, Old Stage Road, Russell Road, and Boronda Road. Descriptions of these roadway facilities are presented below.

#### **Regional Access**

*US 101* extends northward through San Jose and San Francisco and southward along the California Central Coast. Except for Russell Road, the intersections of US 101 and major roadways in Salinas are either an interchange or grade separated overpass. US 101 is a four-lane divided highway with a three beam median barrier through Salinas, and a multilane highway immediately north and south of Salinas.

*State Route 183* originates at Highway 1 in Castroville to the northwest of Salinas. SR 183 turns into West Market Street at the intersection of Davis Road (also the Salinas city limits) where it becomes a four-lane major arterial roadway with a center two-way left-turn lane. SR 183 then heads north on North Main Street, which is a four-lane major arterial until it connects with US 101. Within the City of Salinas, SR 183 has a 35 mph posted speed limit on West Market Street and North Main Street. The posted speed limit is 55 mph outside of the City of Salinas.

*State Route 68* is a four-lane highway south of the Salinas city limits. SR 68 continues through Salinas as South Main Street from East Blanco Road to John Street and then continues on John Street until it connects with US 101. The designated streets of SR 68, South Main Street and John Street, are generally four-lane arterials with a posted speed limit of 30 to 35 mph.

#### North/South Local Roadways

*N. Main Street* is four-lane major arterial south of its intersection with US 101. North of US 101, N. Main Street is generally a six-lane divided arterial roadway that intersects E. Laurel Drive, San Juan Grade Road, E. Boronda Road, and Russell Road with posted speed limits from 35 to 45 mph. North of Boronda Road, N. Main Street is a four-lane major arterial with a center two-way left-turn lane. From Market Street to US 101, N. Main Street is designated SR 183. South of Market Street, N. Main Street splits into a one-way couplet (Salinas Street southbound and Monterey Street northbound) until John Street, at which point is becomes S. Main Street. From Blanco Road to John Street, S. Main Street is designated SR 68. Major intersections are controlled by traffic signals.

San Juan Grade Road is a four-lane divided major arterial that runs northeasterly from N. Main Street to E. Boronda Road. Leaving the city limits north of E. Boronda Road,

San Juan Grade Road narrows to a two-lane rural road. San Juan Grade Road passes west of the Annexation area and Settrini property as a two-lane rural roadway and intersects Russell Road, Rogge Road, Hebert Road, and Crazy Horse Canyon Road. The posted speed limit ranges from 35 to 55 mph.

*Natividad Road* is a six-lane divided major arterial from E. Laurel to E. Boronda Road. A portion of Natividad Road, between E. Boronda Road and Los Coches Drive, has sound walls on each side of the roadway with a posted speed limit of 45 mph. Natividad Road is a two-lane rural roadway north of E. Boronda Road. Natividad Road passes through the center of the Annexation area and Settrini property as a two-lane rural roadway. South of E. Bernal Drive, this road is known as Sherwood Drive, a four-lane arterial.

*Williams Road* is a four-lane major arterial with a center two-way left-turn lane from E. Laurel Drive to Freedom Parkway. North of Freedom Parkway there is, at the time of this study, two southbound lanes and only one northbound lane with a wide median. Williams Road is a two-lane rural roadway north of E. Boronda Road to its terminus at Old Stage Road. The posted speed limit ranges from 35 to 55 mph. Williams Road passes to the east of the Annexation area and Settrini property.

#### East/West Local Roadways

*Crazy Horse Canyon Road* is a two-lane rural roadway that intersects US 101, San Juan Grade Road, and Old Stage Road, north of Salinas. The posted speed limit ranges from 45 to 55 mph.

*Old Stage Road* is a two-lane rural road that intersects Natividad Road and Williams Road. Old Stage Road passes to the north of the Annexation area and Settrini property. The posted speed limit ranges from 45 to 55 mph.

*Russell Road* begins at the Espinosa Road/Russell Road interchange with US 101 and proceeds east to San Juan Grade Road as a two-lane roadway. The posted speed limit ranges from 25 to 45 mph.

*Boronda Road* generally begins at the Boronda Road interchange with US 101 as a sixlane major arterial to North Main Street. East of North Main Street, Boronda Road narrows to a four-lane major arterial to San Juan Grade Road. Boronda Road then narrows to a two-lane arterial roadway and terminates at Williams Road. Boronda Road intersects all major and minor north-south arterials described above. These major intersections are controlled by traffic signals. E. Boronda Road passes to the south of the Annexation area and Settrini property and has a posted speed limit of 45 mph.

#### Level of Service

The operations of roadway facilities are described with the term Level of Service. Level of Service (LOS) is a qualitative description of traffic flow based on such factors as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, as the best operating conditions, to LOS F, or the worst operating conditions. LOS E

represents "at-capacity" operations. When volumes exceed capacity, stop-and-go conditions result and operations are designated as LOS F. An "LOS Standard" is further established for a jurisdiction and is defined as the minimum acceptable LOS for that jurisdiction.

The LOS for individual roadway facilities in the Annexation area and Settrini property vicinity region is calculated through different methods. The City of Salinas, County of Monterey, and Caltrans have different methods for calculating the Level of Service for roadway facilities. Consequently, the individual road segments are analyzed for LOS using the appropriate method for the jurisdiction in which the segment is located.

#### **Existing Conditions for Roadway Segments**

Roadways in Salinas were evaluated using the LOS method described in the 2002 Salinas General Plan, which is the comparison of the daily volume to threshold volumes for various roadway types presented in **Table 5.1-1**. The LOS standard for City of Salinas roadway segments is LOS D.

Urban roadway segments in Monterey County are analyzed using LOS based on average travel speed as shown in **Table 5.1-2**. Here, urban roads are separated into four classes; these classes are based on design and functional categories described in the 2000 Highway Capacity Manual (Transportation Research Board 2000). The LOS standard for County of Monterey urban roadway segments is LOS C. For our study segments, one urban roadway segment (Segment #25: Davis Road between Market Street and Central Avenue) is analyzed using the County of Monterey standard.

The results of the City of Salinas local roadway segment analysis are presented in **Table 5.1-3**.

Measured against the City of Salinas LOS standard, all local roadway segments operate at an acceptable level of service (LOS D or better) under Existing Conditions except the following:

- East Boronda Road between McKinnon Street and El Dorado Drive
- John Street (SR 68) between Abbott Street and US 101
- North Main Street (SR 183) between US 101 and Rossi Street

Measured against the Caltrans LOS standard, two of five Caltrans designated roadway segments do not operate at an acceptable level of service (LOS C or better) under Existing Conditions as shown below the following:

- John Street (SR 68) between Abbott Street and US 101
- North Main Street (SR 183) between US 101 and Rossi Street

|   | Maximum Daily Volume (both directions) <sup>1</sup> |        |         |         |         |
|---|---|--------|---------|---------|---------|
| Roadway Type                                  | LOS A   | LOS B  | LOS C   | LOS D   | LOS E   |
| 8-Lane Freeway                                | 51,000  | 79,000 | 112,000 | 136,000 | 146,000 |
| 6-Lane Freeway                                | 39,000  | 59,000 | 85,000  | 102,000 | 110,000 |
| 8-Lane Expressway                             | 35,000  | 54,000 | 75,000  | 90,000  | 98,000  |
| 6-Lane Expressway                             | 28,000  | 42,000 | 56,000  | 67,000  | 74,000  |
| 4-Lane Freeway                                | 26,000  | 39,000 | 57,000  | 68,000  | 73,000  |
| 8-Lane Divided Arterial (w/ left-turn lanes)  | 40,000  | 47,000 | 54,000  | 61,000  | 68,000  |
| 6-Lane Divided Arterial (w/ left-turn lanes)  | 32,000  | 38,000 | 43,000  | 49,000  | 54,000  |
| 4-Lane Expressway                             | 18,000  | 27,000 | 36,000  | 45,000  | 50,000  |
| 4-Lane Divided Arterial (w/ left-turn lane)   | 22,000  | 25,000 | 29,000  | 32,500  | 36,000  |
| 4-Lane Undivided Arterial (no left-turn lane) | 16,000  | 19,000 | 22,000  | 24,000  | 27,000  |
| 2-Lane Rural Highway                          | 4,000   | 8,000  | 12,000  | 17,000  | 25,000  |
| 2-Lane Arterial (with left-turn lane)         | 11,000  | 12,500 | 14,500  | 16,000  | 18,000  |
| 2-Lane Collector                              | 6,000   | 7,500  | 9,000   | 10,500  | 12,000  |
| 2-Lane Local Street <sup>2</sup>              | 1,200   | 1,400  | 1,600   | 1,800   | 2,000   |
| 1-Lane Freeway Ramp <sup>3</sup>              | 5,000   | 7,500  | 10,500  | 13,000  | 15,000  |
| 2-Lane Freeway Ramp <sup>3</sup>              | 10,000  | 15,000 | 21,000  | 26,000  | 28,000  |

Table 5.1-1Level of Service Threshold Volumes for Various Roadway Types

<sup>1</sup> Non-directional peak hour traffic volumes are assumed to be 10% of the daily traffic volume. Directional split is assumed 60/40. All volumes are approximate and assume ideal roadway characteristics.

<sup>2</sup> The capacity limitation is related to neighborhood quality of life rather than the physical carrying capacity of the road. This assumes a standard suburban neighborhood, 40-foot roadway width, and 25-miles-per-hour speed limit with normal speed violation rates.

<sup>3</sup> Capacities given for each LOS assume the same LOS for adjoining merging roadway as well as LOS being determined by volume to capacity and not attainable speed. LOS will be controlled by freeway level of service if worse than ramp.

Source: City of Salinas, Salinas General Plan, 2002.

|                  | Class I <sup>1</sup> | Class II <sup>2</sup> | Class III <sup>3</sup> | Class IV <sup>4</sup> |  |
|------------------|----------------------|-----------------------|------------------------|-----------------------|--|
| Level of Service | Average Travel Speed |                       |                        |                       |  |
| А                | > 42 mph             | > 35 mph              | > 30 mph               | > 25 mph              |  |
| В                | 34.1 to 42 mph       | 28.1 to 35 mph        | 24.1 to 30 mph         | 19.1 to 25 mph        |  |
| С                | 27.1 to 34 mph       | 22.1 to 28 mph        | 18.1 to 24 mph         | 13.1 to 19 mph        |  |
| D                | 21.1 to 27 mph       | 17.1 to 22 mph        | 14.1 to 18 mph         | 9.1 to 13 mph         |  |
| Е                | 16.1 to 21 mph       | 13.1 to 17 mph        | 10.1 to 14 mph         | 7.1 to 9 mph          |  |
| F                | $\leq$ 16 mph        | $\leq$ 13 mph         | $\leq 10 \text{ mph}$  | $\leq$ 7 mph          |  |

## Table 5.1-2Urban Street Level of Service Definitions

Notes:

<sup>1</sup> Class I Free-flow speed (FFS) ranges from 55 to 45 mph and typical FFS of 50 mph

<sup>2</sup> Class II Free-flow speed ranges from 45 to 35 mph and typical FFS of 40 mph

<sup>3</sup> Class III Free-flow speed ranges from 35 to 30 mph and typical FFS of 35 mph

<sup>4</sup> Class IV Free-flow speed ranges from 35 to 25 mph and typical FFS of 30 mph

Source: Highway Capacity Manual, Transportation Research Board, 2000.

| Roadway Segment  | Roadway Type                 | ADT <sup>1</sup> | LOS <sup>2</sup> |
|--|------------------------------|------------------|------------------|
| 1. San Juan Grade Road between Boronda<br>Road and Van Buren Avenue      | 2-Lane Arterial              | 14,600           | D                |
| 2. Russell Road between Van Buren Avenue<br>and San Juan Grade Road      | 2-Lane Arterial              | 6,500            | А                |
| 3. Natividad Road between Old Stage Road and Rogge Road                  | 2-Lane Rural<br>Highway      | 4,400            | В                |
| 4. Harrison Road north of Russell Road                                   | 2-Lane Rural<br>Highway      | 3,400            | А                |
| 5. Boronda Road between N. Davis Road and US 101                         | 4-Lane Divided<br>Arterial   | 16,200           | А                |
| 6. E. Boronda Road between McKinnon<br>Street and El Dorado Drive        | 2-Lane Arterial              | 18,900           | F                |
| 7. E. Boronda Road between El Dorado<br>Drive and Natividad Road         | 2-Lane Arterial              | 15,100           | D                |
| 8. E. Boronda Road between Constitution<br>Boulevard and N. Sanborn Road | 2-Lane Arterial              | 7,900            | А                |
| 9. W. Market Street (SR 183) between N. Davis Road and Clark Street      | 4-Lane Divided<br>Arterial   | 20,000           | А                |
| 10. John Street (SR 68) between Abbott<br>Street and US 101              | 4-Lane Undivided<br>Arterial | 24,700           | Е                |
| 11. John Street (SR 68) between Monterey<br>Street and Abbott Street     | 4-Lane Divided<br>Arterial   | 11,100           | А                |

Table 5.1-3Existing Local Roadway Segment Levels of Service

| Roadway Segment   | Roadway Type               | ADT <sup>1</sup>   | LOS <sup>2</sup>     |
|---|----------------------------|--|----------------------|
| 12. N. Main Street (SR 183) between US 101 and Rossi Street             | 4-Lane Divided<br>Arterial | 39,500   | F                    |
| 13. S. Main Street (SR 68) between<br>San Miguel Avenue and Blanco Road | 4-Lane Divided<br>Arterial | 26,700   | С                    |
| 41. Russell Road between McKinnon Street<br>and El Dorado Drive         | 4-Lane Divided<br>Arterial | Doos not ovist Dro   | iast conditions only |
| 42. Russell Road between Natividad Road and Independence Boulevard      | 4-Lane Divided<br>Arterial | <ul> <li>Does not exist – Project conditions or</li> </ul> |                      |

<sup>1</sup> ADT = Average two-way daily traffic.

<sup>2</sup> LOS = Level of service.

**Bold** text indicates unacceptable operations by City of Salinas LOS standards (LOS E or worse) and/or Caltrans LOS standards (exceeds LOS C/D cusp).

Source: Fehr & Peers, August 2007.

#### **Existing Conditions for Two-Lane Highways**

Most roadways in Monterey County were evaluated using the two-lane highway analysis method described in the 2000 Highway Capacity Manual as shown in **Table 5.1-4**. The LOS is correlated to the percent time-spent-following (PTSF), which is defined as the average percentage of time vehicles spend traveling in platoons behind slower vehicles due to their inability to pass.

Two-lane highway facilities are separated into two classes. Class I facilities have higher speeds and more direct routes where mobility is more critical, and LOS is defined by both time-spent-following and average travel speed. Class II facilities have slower travel speeds and primarily serve shorter trips where travel time is less important, and LOS is defined only in terms of PTSF without consideration of average travel speed.

The level of service results for two-lane highway segments are shown in **Table 5.1-5**. Measured against the County of Monterey LOS standards the following two-lane roadway segments would operate at an unacceptable LOS D or worse during each peak hour (unless noted):

- Crazy Horse Canyon Road south of US 101
- Crazy Horse Canyon Road between San Juan Grade Road and Old Stage Road
- Davis Road between Market Street (SR 183) and Central Avenue
- Davis Road south of Blanco Road
- SR 156 west of US 101
- Espinosa Road west of US 101 (PM peak hour only)
- Blanco Road west of Davis Road
- San Miguel Canyon Road between US 101 and Castroville Boulevard
- San Miguel Canyon Road between Castroville Boulevard and Strawberry Road

|                  | Cla  | Class II <sup>1</sup> |                   |
|------------------|--|-----------------------|-------------------|
| Level of Service | Average Travel Speed         PTSF <sup>2</sup> |                       | PTSF <sup>2</sup> |
| А                | > 55 mph                                       | ≤35                   | $\leq 40$         |
| В                | 50.1 to 55 mph                                 | 35.1 to 50            | 40.1 to 55        |
| С                | 45.1 to 50 mph                                 | 50.1 to 65            | 55.1 to 70        |
| D                | 40.1 to 45 mph                                 | 65.1 to 80            | 70.1 to 85        |
| Е                | $\leq$ 40 mph                                  | > 80                  | > 85              |

## Table 5.1-4Two-Lane Highway Level of Service Definitions

Notes:

<sup>1</sup> Class Designation = Class I facilities have higher speeds and primarily serve long distance trips or connect to facilities that serve long distance trips. In contrast, Class II facilities have slower travel speeds and primarily serve shorter trips where travel time is less important.

<sup>2</sup> PTSF = Percent Time-Spent-Following.

LOS F applies whenever the flow rate exceeds the segment capacity – two-way volume of 3,200 pc/hr or directional split of 1,700 pc/hr.

Source: Highway Capacity Manual, Transportation Research Board, 2000.

| Roadway Segment  | Peak<br>Hour | Class<br>Designation <sup>1</sup> | Avg. Travel<br>Speed <sup>2</sup> | PTSF <sup>3</sup> | LOS <sup>4</sup> |
|--|--------------|-----------------------------------|-----------------------------------|-------------------|------------------|
| <ol> <li>Crazy Horse Canyon Road south of US</li> <li>101</li> </ol> | AM<br>PM     | Ι                                 | 41.6<br>41.6                      | 57.2<br>57.0      | D<br>D           |
| 15. Crazy Horse Canyon Road between                                  | AM           | Ι                                 | 43.7                              | 24.6              | D                |
| San Juan Grade Road and Old Stage Rd                                 | PM           |                                   | 43.7                              | 30.1              | D                |
| 16. Hebert Road between Old Stage Road and San Juan Grade Road       | AM<br>PM     | II                                | N/A<br>N/A                        | 53.9<br>55.9      | B<br>C           |
| 17. San Juan Grade Road between Hebert                               | AM           | II                                | N/A                               | 52.1              | B                |
| Rd and Crazy Horse Canyon Rd   | PM           |                                   | N/A                               | 53.9              | B                |
| <ol> <li>San Juan Grade Road between Rogge</li></ol>                 | AM           | II                                | N/A                               | 38.5              | A                |
| Road and Hebert Road   | PM           |                                   | N/A                               | 39.4              | A                |
| 19. Old Stage Road between Crazy Horse                               | AM           | II                                | N/A                               | 24.4              | A                |
| Canyon Road and Hebert Road  | PM           |                                   | N/A                               | 51.2              | B                |
| 20. Old Stage Road between Hebert Road and Natividad Road            | AM<br>PM     | II                                | N/A<br>N/A                        | 32.2<br>39.6      | A<br>A           |
| 21. Old Stage Road between Natividad Rd                              | AM           | II                                | N/A                               | 24.0              | A                |
| and Future Russell Road Extension                                    | PM           |                                   | N/A                               | 28.5              | A                |
| 22. Old Stage Road between Russell Road Extension and Williams Road  | AM<br>PM     | II                                | N/A<br>N/A                        | 31.5<br>30.7      | A<br>A           |
| 23. Old Stage Road east (south) of Williams Road                     | AM<br>PM     | Ι                                 | 57.0<br>57.2                      | 18.0<br>16.7      | A<br>A           |
| 24. Rogge Road between San Juan Grade                                | AM           | II                                | N/A                               | 43.7              | B                |
| Road and Natividad Road  | PM           |                                   | N/A                               | 34.4              | A                |

## Table 5.1-5Existing Two-Lane Highway Levels of Service

| Roadway Segment   | Peak<br>Hour | Class<br>Designation <sup>1</sup> | Avg. Travel<br>Speed <sup>2</sup> | PTSF <sup>3</sup> | LOS <sup>4</sup> |
|---|--------------|-----------------------------------|-----------------------------------|-------------------|------------------|
| 25. Davis Road between Market Street (SR 183) and Central Avenue            | AM<br>PM     | Ι                                 | 24.0<br>24.5                      | 96.1<br>95.5      | F<br>F           |
| 26. Davis Road south of Blanco Road   | AM<br>PM     | Ι                                 | 40.8<br>40.0                      | 62.3<br>66.7      | D<br>D           |
| 27. SR 156 west of US 101   | AM<br>PM     | Ι                                 | 32.8<br>29.6                      | 87.0<br>91.0      | E<br>E           |
| 28. Espinosa Road west of US 101  | AM<br>PM     | Ι                                 | 46.8<br>44.7                      | 59.0<br>69.7      | C<br>D           |
| 29. Blanco Road west of Davis Road  | AM<br>PM     | Ι                                 | 31.2<br>27.3                      | 89.2<br>93.2      | E<br>E           |
| 43. San Miguel Canyon Road between US<br>101 and Castroville Boulevard      | AM<br>PM     | Ι                                 | 39.6<br>34.5                      | 84.0<br>90.7      | E<br>E           |
| 44. San Miguel Canyon Road between<br>Castroville Blvd. and Strawberry Road | AM<br>PM     | Ι                                 | 41.7<br>39.5                      | 78.0<br>83.0      | D<br>E           |

Class Designation = Class I facilities have higher speeds and primarily serve long distance trips or connect to facilities that serve long distance trips. In contrast, Class II facilities have slower travel speeds and primarily serve shorter trips where travel time is less important.

<sup>2</sup> Average Travel Speed reported in miles-per-hour (mph).

<sup>3</sup> PTSF = Percent Time-Spent-Following.

<sup>4</sup> LOS = Level of Service.

Field observations indicate operations are better than Existing Conditions level of service calculations. The low measured volumes and relative unimpeded flow observed in the field indicate LOS C or better operations. **Bold** text indicates unacceptable operations by Monterey County LOS standards (exceeds LOS C/D cusp). Source: Fehr & Peers, August 2007.

#### **Existing Conditions for Freeway Segments**

Freeway mainline segments were evaluated using the method presented in Caltrans' *Guide for the Preparation of Traffic Impact Studies* (December 2002). This method was used for US 101 freeway mainline segments from Russell Road to south of Airport Boulevard. Caltrans' analysis procedure is based on the density of the traffic flow using methods described the 2000 HCM. Density is expressed in vehicles per mile per lane (veh/mi/ln). **Table 5.1-6** presents the range of densities for freeway mainline segment levels of service. The minimum acceptable LOS standard for Caltrans is LOS C.

 Table 5.1-6

 Density-Based Freeway Level of Service Definitions

| Level of Service | Mainline Density (vehicles/mile/lane) |
|------------------|---------------------------------------|
| А                | ≤ 11.0                                |
| В                | 11.1 to 18.0                          |
| С                | 18.1 to 26.0                          |
| D                | 26.1 to 35.0                          |
| Е                | 35.1 to 45.0                          |
| F                | > 45.0                                |

Source: Highway Capacity Manual, Transportation Research Board, 2000.

Multilane highways were evaluated using the method outlined in Chapter 21 of the 2000 *HCM*. This method was used to evaluate operations of US 101 multilane highway segments north of Russell Road and south of Airport Boulevard, and on SR 68 south of Blanco Road. This multilane highway method is based on density and free-flow speed of the roadway segment and is correlated to an LOS designation as shown in **Table 5.1-7**.

|                  | 60 mph <sup>1</sup>          | 55 mph <sup>1</sup>                                       | 55 mph <sup>1</sup> 50 mph <sup>1</sup> |                              |
|------------------|------------------------------|---|---|------------------------------|
| Level of Service | Maximum Density <sup>2</sup> | Maximum Density <sup>2</sup> Maximum Density <sup>2</sup> |   | Maximum Density <sup>2</sup> |
| А                | 11                           | 11  | 11                                      | 11                           |
| В                | 18                           | 18  | 18                                      | 18                           |
| С                | 26                           | 26  | 26                                      | 26                           |
| D                | 35                           | 35  | 35                                      | 35                           |
| Е                | 40                           | 41  | 43                                      | 45                           |

Table 5.1-7Multilane Highway Level of Service Definitions

Notes:

<sup>1</sup> Free-flow speed, miles per hour (mph).

<sup>2</sup> Measured in vehicles per mile per lane (veh/mi/ln).

Source: Highway Capacity Manual, Transportation Research Board, 2000.

The results of the US 101 freeway and multilane analysis are presented in **Tables 5.1-8** and **5.1-9**, respectively.

Measured against the Caltrans level of service standards the following freeway mainline segments would operate at an unacceptable LOS D or worse during one or both of the AM and PM peak hours:

#### AM Peak Hour

• Southbound US 101 between Boronda Road and John Street (4 segments)

#### PM Peak Hour

- Northbound US 101 between John Street and Russell Road (5 segments)
- Southbound US 101 between Russell Road and Boronda Road (1 segment)

Measured against the Caltrans level of service standards the following multilane highway segments would operate at an unacceptable LOS D or worse during one or both of the AM and PM peak hours:

#### AM Peak Hour

• Southbound US 101 between San Miguel Canyon Road and SR 156 (1 segment)

#### PM Peak Hour

• Northbound US 101 between SR 156 and San Miguel Canyon Road (1 segment)

| Travel<br>Direction | Segment <sup>1</sup>                               | Peak Hour | Density <sup>2</sup> | LOS <sup>3</sup> |
|---------------------|--|-----------|----------------------|------------------|
|                     | 20 John Street (SD 69) to Market Street            | AM        | 13.9                 | В                |
|                     | 30. John Street (SR 68) to Market Street           | PM        | 26.5                 | D                |
|                     | 31. Market Street to Main Street (SR 183)          | AM        | 14.7                 | В                |
|                     | 51. Market Street to Main Street (SK 185)          | PM        | 30.1                 | D                |
| ND US 101           | NB US 101 32. Main Street (SR 183) to Laurel Drive | AM        | 14.0                 | В                |
| ND US 101           | 52. Main Succi (SK 185) to Laurer Drive            | PM        | 29.1                 | D                |
|                     | 33. Laurel Drive to Boronda Road                   | AM        | 15.9                 | В                |
|                     | 55. Laurer Drive to Boronda Road                   | PM        | 29.0                 | D                |
|                     | 34. Boronda Road to Russell Road                   | AM        | 16.6                 | В                |
|                     |  | PM        | 28.3                 | D                |
|                     | 34. Russell Road to Boronda Road                   | AM        | 25.7                 | С                |
|                     | 54. Russen Road to Boronda Road                    | PM        | 26.8                 | D                |
|                     | 33. Boronda Road to Laurel Drive                   | AM        | 26.9                 | D                |
|                     | 55. Botoliua Roau to Lautei Drive                  | PM        | 23.0                 | С                |
| SB US 101           | 32. Laurel Drive to Main Street (SR 183)           | AM        | 26.3                 | D                |
| 30 03 101           | 52. Laurer Drive to Main Street (SK 185)           | PM        | 20.7                 | С                |
|                     | 21 Main Streat (SD 192) to Market Streat           | AM        | 28.7                 | D                |
|                     | 31. Main Street (SR 183) to Market Street          | PM        | 21.6                 | С                |
|                     | 20 Market Street to John Street (SP (2)            | AM        | 27.1                 | D                |
|                     | 30. Market Street to John Street (SR 68)           | PM        | 20.1                 | С                |

## Table 5.1-8Existing Freeway Mainline Levels of Service

Notes:

<sup>1</sup> Balanced counts derived from adjacent Caltrans freeway mainline and ramps counts.

<sup>2</sup> Measured in vehicles per mile per lane (veh/mi/ln).

 $^{3}$  LOS = Level of Service.

**Bold** text indicates unacceptable operations by Caltrans LOS standards (exceeds LOS C/D cusp). Source: Fehr & Peers, August 2007.

| Travel<br>Direction | Segment  | Peak Hour | Density <sup>2</sup> | LOS <sup>3</sup> |
|---------------------|--|-----------|----------------------|------------------|
|                     | 35. South of Airport Boulevard                           | AM<br>PM  | 15.1<br>18.9         | B<br>C           |
|                     | 36. Russell Road to SR 156                               | AM<br>PM  | 17.1<br>24.5         | B<br>C           |
| NB US 101           | 37. SR 156 to San Miguel Canyon Road                     | AM<br>PM  | 19.2<br><b>30.9</b>  | C<br>D           |
|                     | 38. San Miguel Canyon Road to<br>Crazy Horse Canyon Road | AM<br>PM  | 14.9<br>21.3         | B<br>C           |
|                     | 39. Crazy Horse Canyon Road to San JuanAMRoadPM          |           | 16.3<br>22.5         | B<br>C           |
|                     | 39. San Juan Road to Crazy Horse Canyon<br>Road          | AM<br>PM  | 22.6<br>21.2         | C<br>C           |
|                     | 38. San Miguel Canyon Road to<br>Crazy Horse Canyon Road | AM<br>PM  | 21.5<br>19.2         | C<br>C           |
| SB US 101           | 37. San Miguel Canyon Road to SR 156                     | AM<br>PM  | <b>29.9</b><br>25.7  | D<br>C           |
|                     | 36. SR 156 to Russell Road                               | AM<br>PM  | 25.6<br>21.0         | C<br>C           |
|                     | 35. South of Airport Boulevard                           | AM<br>PM  | 10.6<br>17.4         | A<br>B           |
| NB SR 68            | 40. Hunter Lane to Blanco Road                           | AM<br>PM  | 15.3<br>17.3         | B<br>B           |
| SB SR 68            | 40. Blanco Road to Hunter Lane                           | AM<br>PM  | 8.6<br>16.3          | A<br>B           |

Table 5.1-9Existing Multilane Highway Levels of Service

<sup>1</sup> Balanced counts derived from adjacent Caltrans freeway mainline and ramps counts.

<sup>2</sup> Measured in vehicles per mile per lane (veh/mi/ln).

 $^{3}$  LOS = Level of Service.

**Bold** text indicates unacceptable operations by Caltrans LOS standards (exceeds LOS C/D cusp). Source: Fehr & Peers, August 2007.

Finally, to identify the need for an additional freeway on- or off-ramp lane, the maximum peak-hour capacity of 1,500 veh/hr/ln and 1,200 veh/hr/ln for direct and loop freeway ramps, respectively, were used. These are planning-level thresholds and are only intended to identify potential operational issues.

Measured against the one-lane planning-level thresholds, none of the existing direct or loop freeway ramps need an additional lane as shown in **Table 5.1-10**. The results of the subsequent detailed intersection analysis to be prepared as part of the environmental documentation for the three Specific Plan areas may show the need for additional lanes on ramps to accommodate queues from intersections.

| Roadway Segment                             | Ramp Type <sup>1</sup> | Peak Hour        | Volume                                      | Additional<br>Lane? |  |  |
|---|------------------------|------------------|---|---------------------|--|--|
| US 101 and Crazy Horse Canyon Road Interc   | change                 |                  |   |                     |  |  |
| NB Off-Ramp to Crazy Horse Canyon Road      | Direct                 | AM<br>PM         |   |                     |  |  |
| NB On-Ramp from Crazy Horse Canyon<br>Road  | Direct                 | AM<br>PM         | Does not exis                               | t under Existing    |  |  |
| SB Off-Ramp to Crazy Horse Canyon Road      | Direct                 | AM<br>PM         | Conditions                                  |                     |  |  |
| SB On-Ramp from Crazy Horse Canyon<br>Road  | Direct                 | AM<br>PM         |   |                     |  |  |
| US 101 and Russell Road (Harrison Road) Int | terchange              |                  |   |                     |  |  |
| NB Off-Ramp to Harrison Road                | Direct                 | AM<br>PM         |   |                     |  |  |
| NB On-Ramp from Harrison Road               | Direct                 | AM<br>PM         | Does not exist under Existing<br>Conditions |                     |  |  |
| SB Off-Ramp to Harrison Road                | Direct                 | AM<br>PM         |   |                     |  |  |
| SB On-Ramp from Harrison Road               | Loop                   | AM<br>PM         |   |                     |  |  |
| US 101 and Boronda Road Interchange         |                        |                  |   |                     |  |  |
| NB Off-Ramp to Boronda Road                 | Direct                 | AM<br>PM         | 474<br>887                                  | No<br>No            |  |  |
| NB On-Ramp from Boronda Road                | Direct                 | AM<br>PM         | 441<br>546                                  | No<br>No            |  |  |
| NB On-Ramp from Boronda Road                | Loop                   | AM<br>PM         | 108<br>283                                  | No<br>No            |  |  |
| SB Off-Ramp to Boronda Road                 | Direct                 | AM<br>PM         | 851<br>1221                                 | No<br>No            |  |  |
| SB On-Ramp from Boronda Road                | Direct                 | AM<br>PM         | 62<br>128                                   | No<br>No            |  |  |
| SB On-Ramp from Boronda Road                | Loop                   | AM<br>PM         | 913<br>695                                  | No<br>No            |  |  |
| US 101 and Laurel Drive Interchange         |                        |                  |   | ·                   |  |  |
| NB Off-Ramp to Laurel Drive                 | Direct                 | AM<br>PM         | 252<br>804                                  | No<br>No            |  |  |
| NB On-Ramp from Laurel Drive                | Direct                 | AM 155<br>PM 258 |   | No<br>No            |  |  |
| NB On-Ramp from Laurel Drive                | Loop                   | AM<br>PM         | 294<br>529                                  | No<br>No            |  |  |

## Table 5.1-10Existing Ramp Segment Volumes

| Roadway Segment              | Ramp Type <sup>1</sup> | Peak Hour | Volume     | Additional<br>Lane? |
|------------------------------|------------------------|-----------|------------|---------------------|
| SB Off-Ramp to Laurel Drive  | Direct                 | AM<br>PM  | 557<br>744 | No<br>No            |
| SB On-Ramp from Laurel Drive | Direct                 | AM<br>PM  | 259<br>363 | No<br>No            |
| SB On-Ramp from Laurel Drive | Loop                   | AM<br>PM  | 237<br>134 | No<br>No            |

Peak hour ramp capacity is 1,500 veh/hr/ln (vehicles per hour per lane) and 1,200 veh/hr/ln for direct and loop ramps, respectively.

Each ramp is one lane.

Bold text indicates potential need for an additional freeway ramp lane.

Source: Fehr & Peers, August 2007.

#### THRESHOLDS FOR DETERMINING SIGNIFICANCE

For the purposes of this SEIR, a significant impact would occur if implementation of the proposed Project:

- Causes a substantial increase in traffic that results in City of Salinas roadway segment operations to deteriorate from an acceptable level (LOS D or better) to an unacceptable level (LOS E or worse) as defined in Table 5.1-3;
- Causes a substantial increase in traffic that results in new trips to City of Salinas roadway segment operations already operating unacceptably (LOS E or worse) as defined in Table 5.1-4;
- Causes a substantial increase in traffic that results in Monterey County or Caltrans roadway segment operations to deteriorate from an acceptable level (LOS C or better) to an unacceptable level (LOS D or worse);
- Causes a substantial increase in traffic that results in new trips to Monterey County or Caltrans roadway segment operations already operating unacceptably (LOS D or worse).

#### ENVIRONMENTAL IMPACT

The impacts of the proposed Project on the regional roadway system are discussed in this section. The proposed Project will result in new residential and non-residential development, which will impact the regional roadway network. First, the method used to estimate the amount of traffic generated by the proposed Annexation area and Settrini property is described. Then, the results of the level of service calculations for Year 2030 With Project Conditions are presented, and the impacts of development of the Annexation area and Settrini property on the study intersections are discussed.

#### Sub-Area Travel Demand Model Validation / Methods

Fehr & Peers (2006) completed a sub-area travel demand model validation for the Salinas Sphere of Influence Amendment and Annexation Area to improve the ability to forecast traffic volumes within the Project study area. At present, the AMBAG model is the only tool available for estimating long-range traffic forecasts for streets and highways in the greater Salinas area. The sub-area travel demand model provides more accurate forecasts than are currently available for non-regional (i.e., local) roadways in Salinas. The goal was to validate the sub-area model to Caltrans and FHWA standards to ensure that state of the practice forecasting method was followed and that the sub-area model forecasts are defensible given they will be used in the CEQA transportation impact analysis of the proposed Annexation area and Settrini property north and east of Boronda Road.

The base year 2000 was used because it provided the best available information for existing conditions, and furthermore few land use changes occurred during the period 2000-2005 for the proposed Annexation area and Settrini property. From this the land use and network changes in the base year model were added to the 2030 model as appropriate to ensure consistency with existing information. The 2030 model includes future land use in all areas of Monterey County, as well as growth in adjacent Counties such as Santa Clara and San Benito. In addition, regional through traffic growth is accounted for at external stations such as SR 152 east of US 101.

The 2000 and 2030 models were run and the difference in roadway segment volume was added to the existing traffic counts to determine the projected change in traffic growth without the proposed Project (i.e., assuming no substantive change in land use in the Project area). The 2030 model was then run with the Project land uses in place and included new roadways such as extensions of Russell Road, El Dorado Drive, and Constitution Boulevard. The difference between the 2030 with Project model and the 2000 base year model was added to the existing count for each segment to establish future "with Project" volumes. A full explanation of technical approach including assumptions and adjustments is described in Section 3 of Appendix C.

#### **Roadway Network Assumptions**

**Table 5.1-11** describes planned roadway improvements by Year 2030 for the regional roadway network. These improvements are either cited from, modified from, or are in addition to the improvements identified in the Final Program EIR. Identified roadway improvements A through M are existing planned improvements, while improvements N through V would occur only with development of the Annexation area and Settrini property. These roadway improvements were incorporated in the analysis of the impact of Year 2030 Roadway conditions.

| <b>Table 5.1-11</b>            |
|--------------------------------|
| Year 2030 Roadway Improvements |

|    | Roadway   | Year 2030<br>without Project | Year 2030<br>with Project |
|----|---|------------------------------|---------------------------|
| A. | Addition of left-turn lane on Laurel Drive between Adams Street and Main Street   | Х                            | Х                         |
| B. | Blanco Road widening to 4 lanes between Alisal Street and Davis<br>Road   | Х                            | Х                         |
| C. | Laurel Drive widening to 6 lanes between Natividad Road and<br>Constitution Boulevard with left-turn channelization east of<br>Constitution Boulevard | Х                            | Х                         |
| D. | Davis Road widening to 4 lanes between Market Street and Reservation Road   | Х                            | Х                         |
| E. | Reservation Road widening to 4 lanes between Blanco Road and Davis<br>Road  | X                            | Х                         |
| F. | San Juan Grade Road widening to 4 lanes between Boronda Road and Rogge Road   | Х                            | Х                         |
| G. | New interchange at US 101 and Crazy Horse Canyon Road   | X                            | Х                         |
| H. | New US 101/Harrison Road diamond interchange with local roadway improvements  | Х                            | Х                         |
| I. | Eastside Road between Intergarrison Road and Giggling Road  | Х                            | Х                         |
| J. | Intergarrison Road widening to 4 lanes between Reservation Road and Eastside Road   | Х                            | Х                         |
| K. | Sanborn Road widening to 6 lanes between John Street and Abbott Street  | Х                            | Х                         |
| L. | General Jim Moore Boulevard widening to 4 lanes McClure Road to<br>South Boundary Road  | Х                            | Х                         |
| M. | Alisal Street widening to 4 lanes between Williams Road and Alisal Road   | X                            | Х                         |
| N. | Extension of Russell Road as a 4-lane arterial between San Juan Grade<br>Road and Old Stage Road  |                              | Х                         |
| 0. | Extension of McKinnon Street as a 2-lane collector between Boronda<br>Road and Russell Road   |                              | Х                         |
| P. | Extension of El Dorado Drive as a 2-lane collector between Boronda<br>Road and Russell Road   |                              | Х                         |
| Q. | Extension of Independence Boulevard as a 2-lane collector between<br>Boronda Road and Russell Road  |                              | Х                         |
| R. | Extension of Constitution Boulevard as a 2-lane arterial between Boronda Road and Old Stage Road <sup>1</sup>   |                              | Х                         |
| S. | Extension of Sanborn Road as a 4-lane arterial between Boronda Road and Old Stage Road <sup>1</sup>   |                              | Х                         |
| T. | Boronda Road widening to a 4-lane arterial between San Juan Grade<br>Road and Williams Road   |                              | Х                         |
| U. | Natividad Road widening to a 4-lane arterial between Boronda Road and Rogge Road  |                              | Х                         |
| V. | Addition of two east-west 2-lane collectors between San Juan Grade<br>Road and Williams Road  |                              | Х                         |

<sup>1</sup> The Salinas General Plan (2002) identified a need for 4-lane arterials; however, initial coding is as 2-lane arterial with final determination to be completed with the forthcoming Specific Plan Traffic Impact Analysis. Source: City of Salinas-Public Works Department and Fehr & Peers, August 2007.

#### Annexation Area and Settrini Property Trip Generation Estimates

Future traffic volumes were estimated using the Salinas sub-area travel demand model discussed above. The Salinas sub-area travel demand model trip generation estimation method included a select zone analysis of the 21 Annexation area and Settrini property traffic analysis zones (TAZs), which represent geographic areas that include proposed land uses. A select zone analysis identifies the number of Annexation area and Settrini property trips assigned and the roadways to which they are assigned. This method details the number of intrazonal, internal, and external vehicle trips. Each is described below, and the model trip estimates are summarized in **Table 5.1-12**:

Table 5.1-12Salinas Sub-Area Travel Demand Model Trip Generation Estimate

|   |         | AN    | I Peak Ho | our   | PM Peak Hour |       |        |  |
|---|---------|-------|-----------|-------|--------------|-------|--------|--|
| Area  | Daily   | In    | Out       | Total | In           | Out   | Total  |  |
| Gross Assigned Annexation Area and Settrini Property<br>Trips <sup>1</sup>      | 157,822 | 3,122 | 5,279     | 8,401 | 7,778        | 5,769 | 13,547 |  |
| Intrazonal Annexation Area and Settrini Property Trips <sup>2</sup>             | 31,616  | 765   | 765       | 1,530 | 1,535        | 1,534 | 3,069  |  |
| Subtotal of Gross Annexation Area and Settrini Property<br>Area Trips (A)       | 189,438 | 3,887 | 6,044     | 9,931 | 9,313        | 7,303 | 16,616 |  |
| Internal Annexation Area and Settrini Property Area Trips $(B)^3$               | 66,151  | 1,528 | 1,529     | 3,057 | 2,972        | 2,971 | 5,943  |  |
| External Annexation Area and Settrini Property Area<br>Trips (A-B) <sup>4</sup> | 123,287 | 2,359 | 4,515     | 6,874 | 6,341        | 4,332 | 10,673 |  |

Notes:

Assigned Annexation area and Settrini property trips are all trips generated by Annexation area and Settrini property TAZs.

<sup>2</sup> Intrazonal Annexation area and Settrini property trips are all trips that stay within the same TAZ.

<sup>3</sup> Internal Annexation area and Settrini property trips are trips assigned to the roadway system but do not cross the Annexation area and Settrini property boundary.

<sup>4</sup> External Annexation area and Settrini property trips are trips assigned to the roadway system that cross the Annexation area and Settrini property boundary.

Source: Fehr & Peers, August 2007.

- intrazonal trips occur within each zone and represent trips within a neighborhood;
- internal trips occur between zones within the Annexation area and Settrini property and represent trips between neighborhoods; and
- external trips are those that have an origin or destination outside the Annexation area and Settrini property and are added to the surrounding roadway system.

The Annexation area and Settrini property trips were assigned to the roadway system by the travel demand model.

### Year 2030 With Annexation Area and Settrini Property Roadway Segment Level of Service

The results of the roadway segment analysis for Year 2030 With Project Conditions are presented in **Tables 5.1-13, 5.1-15, and 5.1-16** for local roadways, arterial segments, and two-lane highways, respectively.

#### Local Roadway Segments

The level of service results for local roadway segments are shown in **Table 5.1-13**. Measured against the City of Salinas LOS standard, all local roadway segments operate at an acceptable level of service (LOS D or better) under Year 2030 With Project Conditions except the following:

| <b>Table 5.1-13</b>                             |
|---|
| Year 2030 Annexation Area and Settrini Property |
| Local Roadway Segment Levels of Service         |

|   |  | Year 2030<br>Without Project           |       |                  | Year 2030<br>With Project |        |  |  |
|---|--|--|-------|------------------|---------------------------|--------|--|--|
| Roadway Segment   | Roadway Type                                   | ADT <sup>1</sup> LOS <sup>2</sup>      |       | ADT <sup>1</sup> | LOS <sup>2</sup>          | Trips  |  |  |
| 1. San Juan Grade Road between Boronda<br>Road and Van Buren Avenue           | 4-Lane Divided<br>Arterial                     | 16,900                                 | А     | 14,900           | А                         | 2,350  |  |  |
| 2. Russell Road between Van Buren<br>Avenue and San Juan Grade Road           | 4-Lane Divided<br>Arterial                     | 6,500                                  | А     | 15,400           | А                         | 7,990  |  |  |
| 3. Natividad Road between Old Stage<br>Road and Rogge Road                    | 2-Lane Rural<br>Highway                        | 9,300                                  | С     | 10,700           | С                         | 2,210  |  |  |
| 4. Harrison Road north of Russell Road  | 2-Lane Rural<br>Highway                        | 8,500                                  | С     | 9,800            | С                         | 2,250  |  |  |
| 5. Boronda Road between N. Davis Road and US 101                              | 4-Lane Divided<br>Arterial                     | 24,800                                 | В     | 26,400           | С                         | 4,570  |  |  |
| 6. E. Boronda Road between McKinnon<br>Street and El Dorado Drive             | 2-Lane Arterial/<br>6-Lane Divided<br>Arterial | 27,000                                 | F     | 57,200           | F                         | 32,660 |  |  |
| 7. E. Boronda Road between El Dorado<br>Drive and Natividad Road              | 2-Lane Arterial/<br>6-Lane Divided<br>Arterial | 22,900                                 | F     | 48,900           | D                         | 28,530 |  |  |
| 8. E. Boronda Road between Constitution<br>Blvd and N. Sanborn Road           | 2-Lane Arterial/<br>6-Lane Divided<br>Arterial | 18,900                                 | F     | 40,200           | С                         | 23,980 |  |  |
| 9. W. Market Street (SR 183) between N. Davis Road and Clark Street           | 4-Lane Divided<br>Arterial                     | 28,200                                 | С     | 29,100           | D <sup>3</sup>            | 160    |  |  |
| 10. John Street (SR 68) between Abbott<br>Street and US 101                   | 4-Lane Undivided<br>Arterial                   | 36,200                                 | F     | 36,900           | F                         | 3,920  |  |  |
| 11. John Street (SR 68) between Monterey<br>Street and Abbott Street          | 4-Lane Divided<br>Arterial                     | 22,500                                 | В     | 22,900           | В                         | 2,650  |  |  |
| 12. N. Main Street (SR 183) between US<br>101 and Rossi Street                | 4-Lane Divided<br>Arterial                     | 44,100                                 | F     | 45,100           | F                         | 3,460  |  |  |
| 13. S. Main Street (SR 68) between<br>San Miguel Avenue and Blanco Road       | 4-Lane Divided<br>Arterial                     | 31,100                                 | $D^3$ | 32,700           | Е                         | 2,420  |  |  |
| 41. Russell Road between McKinnon Street<br>and El Dorado Drive               | 4-Lane Divided<br>Arterial                     | Does not exist –<br>Project conditions |       | 11,900           | А                         | 9,690  |  |  |
| 42. Russell Road between Natividad Road and Independence Boulevard            | 4-Lane Divided<br>Arterial                     | on                                     | ly    | 7,900            | А                         | 7,360  |  |  |
| 22. Old Stage Road between Future Russell<br>Road Extension and Williams Road | 2-Lane Arterial                                | County f<br>see Tabl                   |       | 8,100            | А                         | 2,040  |  |  |

5.1-21

Notes:

ADT = Average two-way daily traffic.

<sup>2</sup> LOS = Level of service.
 <sup>3</sup> Unacceptable only under

Unacceptable only under Caltrans LOS standard.

Bold text indicates significant impact.

Source: Fehr & Peers, August 2007.

- East Boronda Road between McKinnon Street and El Dorado Drive
- John Street (SR 68) between Abbott Street and US 101
- North Main Street (SR 183) between US 101 and Rossi Street
- South Main Street (SR 68) between San Miguel Avenue and Blanco Road

Measured against the Caltrans LOS standard, Caltrans designated roadways that are also part of the local roadway network operate at an acceptable level of service (LOS C or better) under Year 2030 With Project Conditions, except the following:

- W. Market Street (SR 183) between N. Davis Road and Clark Street
- John Street (SR 68) between Abbott Street and US 101
- North Main Street (SR 183) between US 101 and Rossi Street
- South Main Street (SR 68) between San Miguel Avenue and Blanco Road

Based on the impact criteria listed in the Thresholds for Determining Significance above, the proposed Annexation area and Settrini property would cause a significant impact at the locations listed in **Table 5.1-14**.

The results of the local level of service analysis indicate that the proposed Annexation area and Settrini property would result in a significant impact on one local roadway segment and four Caltrans roadway segments (9, 10, 12, and 13). In one case, W. Market Street (Davis Road to Clark Street) only exceeds the planning volume threshold by 100 daily vehicles.

For the five local roadway segments identified in **Table 5.1-14**, proposed mitigation would conflict with the City's General Plan Policies or would be infeasible due to rightof-way constraints or uncertainty of funding. Additional widening of these roadway segments is not included in the City of Salinas *Traffic Improvement Program*. Wider roadways will require the acquisition of additional right-of-way and/or the removal or relocation of existing buildings and businesses. In addition, wider roads have a negative impact on bicycle and pedestrian travel by increasing exposure to vehicles and creating more conflict points. John Street includes an at-grade crossing of the Union Pacific Railroad tracks, and roadway modifications here will require approval by the California Public Utility Commission (CPUC) and the Union Pacific Railroad. Alternatively, impacts to East Boronda Road may be mitigated by extending Alvin Drive to the Western Bypass. Because of the infeasibility or challenges associated with the necessary mitigation, all of these impacts to these five local roadway segments would remain significant and unavoidable.

The daily roadway segment evaluation used to identify potential impacts of the proposed Annexation area and Settrini property is not a detailed assessment of traffic operations. All of these facilities include traffic signals or stop signs at intersections that govern the overall operations more so than the number of through lanes on a given facility. As such,

|     |   | Settrini                  | n Area and<br>Property<br>ibution <sup>1</sup> |              | Jurisdiction   |        | tion           |   |
|-----|---|---------------------------|--|--------------|----------------|--------|----------------|---|
|     | Study Segment<br>(Type)   | of<br>Growth <sup>2</sup> | of total<br>Traffic <sup>3</sup>               | Peak<br>Hour | City           | County | Caltrans       | Proposed Mitigation   |
| 6.  | East Boronda Road between<br>McKinnon Street and El<br>Dorado Drive       | >50%                      | >50%   | Daily        | X <sup>4</sup> |        |                | Widen to 8 lanes. Conflicts<br>with City General Plan<br>policy and considered<br>infeasible due to right-of-<br>way constraints. Alternate<br>mitigation Alvin Drive<br>extension to the Western<br>Bypass.  |
| 9.  | W. Market Street (SR 183)<br>between N. Davis Road and<br>Clark Street    | 2%                        | 1%   | Daily        |                |        | X              | Widen to 6 lanes. Not<br>included in <i>Salinas TIP</i> and<br>considered infeasible due to<br>right-of-way constraints.  |
| 10. | John Street (SR 68) between<br>Abbott Street and US 101                   | 32%                       | 11%  | Daily        |                |        | $X^4$          | Widen to 6 lanes. <sup>5</sup>  |
| 12. | North Main Street (SR 183)<br>between US 101 and Rossi<br>Street          | >50%                      | 8%   | Daily        |                |        | X <sup>4</sup> | Widen to 8 lanes. Conflicts<br>with City General Plan<br>policy and considered<br>infeasible due to right-of-<br>way constraints. Alternate<br>mitigation Western Bypass<br>and/or widening to 6 lanes as<br>defined in <i>Salinas TIP</i> . <sup>6</sup> |
| 13. | South Main Street (SR 68)<br>between San Miguel Avenue<br>and Blanco Road | 40%                       | 7%   | Daily        |                |        | X              | Widen to 6 lanes. Not<br>included in <i>Salinas TIP</i> and<br>considered infeasible due to<br>right-of-way constraints. <sup>6</sup>   |

Table 5.1-14Year 2030 Significant Roadway Impacts and Proposed Mitigation

- <sup>2</sup> Annexation area and Settrini property Contribution Method  $1 = (T/(T_B T_E))*100$ ; where T = Annexation area and Settrini property traffic on a roadway segment,  $T_B$  = Year 2030 with Project Conditions roadway segment volumes, and  $T_E$  = Existing roadway segment volumes.
- <sup>3</sup> Annexation area and Settrini property Contribution Method  $2 = (T/T_B)*100$ ; where T = Annexation area and Settrini property traffic on a roadway segment, and  $T_B$  = Year 2030 with Project Conditions roadway segment volumes.
- <sup>4</sup> Deficient segments under Existing Conditions.
- <sup>5</sup> Unless completely funded with appropriate agreements to implement the feasible roadway improvements the impacts would remain significant and unavoidable.
- <sup>6</sup> City of Salinas, *Traffic Improvement Program (TIP)*, 2004.

Source: Fehr & Peers, August 2007.

intersections represent the constraint points of the roadway system and mitigation measures will be further refined based on detailed intersection analysis to be prepared as part of the environmental documentation for the three Specific Plan areas.

Annexation area and Settrini property percent based on detailed technical calculations presented in Appendix E. Any contributions will be negotiated between appropriate agencies.

#### **Urban Arterial Segment**

The level of service result for the Davis Road urban arterial segment is shown in **Table 5.1-15**. Measured against the Monterey County level of service standard, this segment operates at an acceptable level of service (LOS C or better) under Year 2030 With Project Conditions. Impacts to urban arterial segments are considered less than significant.

# Table 5.1-15Year 2030 Annexation Area and Settrini Property<br/>Urban Arterial Segment Levels of Service

|   |              | Year 2030 Without Project |                    |                                      |                  | Year 2030 With Project |                    |                                      |                  |            |  |
|---|--------------|---------------------------|--------------------|--------------------------------------|------------------|------------------------|--------------------|--------------------------------------|------------------|------------|--|
| Roadway Segment   | Peak<br>Hour | Peak<br>Dir.              | Class <sup>1</sup> | Avg.<br>Travel<br>Speed <sup>2</sup> | LOS <sup>2</sup> | Peak<br>Dir.           | Class <sup>1</sup> | Avg.<br>Travel<br>Speed <sup>2</sup> | LOS <sup>2</sup> | Trips      |  |
| 25. Davis Road between<br>Market Street and Central<br>Avenue | AM<br>PM     | SB<br>NB                  | II<br>II           | 25.7<br>25.3                         | C<br>C           | SB<br>NB               | II<br>II           | 25.0<br>24.7                         | C<br>C           | 160<br>220 |  |

Notes:

Urban street facilities are separated into four class designations. These class designations are based on design (e.g., high-speed, suburban, intermediate, and urban) and functional categories (e.g., principal and minor arterial) described in the HCM from a high-speed principal arterial to an urban minor arterial.

 $^{2}$  LOS = Level of service.

**Bold** text indicates significant impact. Source: Fehr & Peers, August 2007.

#### **Two-Lane Highway Segments**

The level of service results for two-lane highway segments are shown in **Table 5.1-16**. Measured against the Monterey County operating standards the following two-lane roadway segments would operate at an unacceptable LOS D or worse during one or both peak hours:

- Crazy Horse Canyon Road south of US 101 (AM and PM peak)
- Crazy Horse Canyon Road between San Juan Grade Road and Old Stage Road (AM and PM peak)
- Hebert Road between Old Stage Road and San Juan Road (AM and PM peak)
- San Juan Grade Road between Hebert Road and Crazy Horse Canyon Road (PM peak only)
- Old Stage Road between Hebert Road and Natividad Road (PM peak only)
- Espinosa Road west of US 101 (AM and PM peak)
- Blanco Road west of Davis Road (AM and PM peak)
- San Miguel Canyon Road between US 101 and Castroville Boulevard (AM and PM peak)
- San Miguel Canyon Road between Castroville Boulevard and Strawberry Road (AM and PM peak)

|  |                    | Year 2030<br>Without Project                      |                    |              |                  | Year<br>With F     | 2030<br>Project   |                       |            |
|--|--------------------|---|--------------------|--------------|------------------|--------------------|-------------------|-----------------------|------------|
| Dec laser Second                         | Peak               | Class <sup>1</sup>                                |                    |              |                  | G 1 <sup>2</sup>   |                   |                       | <b></b>    |
| Roadway Segment                          | Hour               | Class <sup>-</sup>                                | Speed <sup>2</sup> |              | LOS <sup>4</sup> | Speed <sup>2</sup> | PTSF <sup>3</sup> | LOS <sup>4</sup>      | Trips      |
| 14. Crazy Horse Canyon Road south        | AM<br>PM           | Ι   | 40.3<br>39.0       | 64.0<br>70.5 | D                | 40.3               | 64.0<br>73.2      | D                     | 90<br>120  |
| of US 101<br>15. Crazy Horse Canyon Road | PIM                |   | 39.0               | 70.5         | E                | 38.3               | 13.4              | E                     | 120        |
| between San Juan Grade Road and          | AM                 | Ι   | 43.7               | 24.7         | $D^{5,6}$        | 43.7               | 24.7              | D <sup>5,6</sup>      | 10         |
| Old Stage Road                           | PM                 | 1   | 42.9               | 32.4         | $D^{5,6}$        | 42.9               | 32.4              | D <sup>5,6</sup>      | 10         |
| 16. Hebert Road between Old Stage        | AM                 |   | N/A                | 68.7         | С                | N/A                | 71.4              | D                     | 200        |
| Rd and San Juan Grade Rd                 | PM                 | II  | N/A                | <b>74.0</b>  | D                | N/A                | 79.8              | D                     | 200<br>300 |
| 17. San Juan Grade Road between          |                    |   |                    |              |                  |                    |                   |                       |            |
| Hebert Road and Crazy Horse Canyon       | AM                 | II  | N/A                | 61.5         | С                | N/A                | 61.5              | С                     | 120        |
| Road                                     | PM                 | 11  | N/A                | 69.8         | С                | N/A                | 72.2              | D                     | 170        |
| 18. San Juan Grade Road between          | AM                 |   | N/A                | 49.6         | В                | N/A                | 49.6              | В                     | 50         |
| Rogge Rd and Hebert Rd                   | PM                 | II  | N/A                | 60.4         | C                | N/A                | 60.4              | C                     | 80         |
| 19. Old Stage Road between Crazy         | AM                 |   | N/A                | 24.1         | A                | N/A                | 24.1              | A                     | 10         |
| Horse Canyon Road and Hebert Road        | PM                 | II  | N/A                | 48.0         | B                | N/A                | 48.0              | B                     | 10         |
| 20. Old Stage Road between Hebert        | AM                 |   | N/A                | 52.4         | B                | N/A                | 56.6              | C                     | 210        |
| Road and Natividad Road                  | PM                 | II  | N/A                | 63.9         | Č                | N/A                | 72.6              | D                     | 320        |
| 21. Old Stage Road between               |                    |   |                    |              |                  |                    |                   |                       |            |
| Natividad Road and Russell Road          | AM                 | II  | N/A                | 37.4         | A                | N/A                | 44.6              | В                     | 80         |
| Extension                                | PM <sup>II</sup> I | N/A   | 44.2               | В            | N/A              | 54.5               | В                 | 110                   |            |
| 22. Old Stage Road between Future        | 434                |   |                    | 27.2         |                  |                    |                   |                       |            |
| Russell Road Extension and Williams      | AM                 | II  | N/A                | 37.3         | A                | City fa            | cility – s        | ee Table              | 5.1-13     |
| Road                                     | PM                 |   | N/A                | 43.8         | В                | -                  | 2                 |                       |            |
| 23. Old Stage Road east (south) of       | AM                 | Ι   | 55.4               | 31.0         | А                | 54.6               | 37.1              | В                     | 110        |
| Williams Road                            | PM                 | 1   | 53.0               | 47.7         | В                | 51.4               | 56.6              | С                     | 170        |
| 24. Rogge Road between San Juan          | AM                 | II  | N/A                | 42.7         | В                | N/A                | 47.7              | В                     | 40         |
| Grade Road and Natividad Road            | PM                 | 11  | N/A                | 37.1         | Α                | N/A                | 42.7              | В                     | 50         |
| 25. Davis Road between Market            | AM                 |   | Analyzed           | 1 ac a 1_1   | ane urhai        | n arterial ·       | _ see Tab         | de 5 1_15             |            |
| Street (SR 183) and Central Avenue       | PM                 | -   | Anaryzet           | 1 as a 4-1   | ane urbai        |                    |                   | JIC 5.1-15            |            |
| 26. Davis Road south of Blanco Road      | AM                 |   | Analyze            | dasam        | ultilane h       | ighway –           | see Tabl          | e 5 1_20              |            |
|  | PM                 |   | Analyze            | u as a m     |                  | iigiiway –         |                   | 10 3.1-20             |            |
| 27. SR 156 west of US 101                | AM                 | Analyzed as a freeway mainline – see Table 5.1-19 |                    |              |                  |                    |                   |                       |            |
|  | PM                 | Anaryzed as a neeway mainine – see Table 5.1-19   |                    |              |                  |                    |                   |                       |            |
| 28. Espinosa Road west of US 101         | AM                 | Ι   | 41.6               | 78.3         | D                | 37.6               | 86.0              | E                     | 570        |
|  | PM                 | •   | 37.6               | 85.7         | E                | 32.7               | 92.4              | <b>F</b> <sup>7</sup> | 680        |
| 29. Blanco Road west of Davis Road       | AM                 | Ι   | 31.2               | 89.2         | E                | 30.4               | 90.1              | E                     | 70         |
|  | PM                 | -   | 26.5               | 93.9         | E                | 25.8               | 94.5              | E                     | 100        |
| 43. San Miguel Canyon Road btw. US       |                    | Ι   | 36.8               | 88.2         | E                | 36.0               | 89.2              | E                     | 110        |
| 101 and Castroville Blvd.                | PM                 | -   | 30.1               | 94.7         | E                | 29.3               | 95.1              | E                     | 160        |
| 44. San Miguel Canyon Road btw.          | AM                 | Ι   | 40.9               | 79.8         | D                | 40.1               | 81.6              | D                     | 70         |
| Castroville Blvd. & Strawberry Rd.       | PM                 | -   | 35.5               | 89.3         | E                | 34.7               | 90.1              | E                     | 110        |

Table 5.1-16Year 2030 Annexation Area and Settrini PropertyTwo-Lane Highway Levels of Service

Class Designation = Class I facilities have higher speeds and primarily serve long distance trips or connect to facilities that serve long distance trips. In contrast, Class II facilities have slower travel speeds and primarily serve shorter trips where travel time is less important.

<sup>2</sup> Average Travel Speed reported in miles-per-hour (mph).

<sup>3</sup> PTSF = Percent Time-Spent-Following.

<sup>4</sup> LOS = Level of Service.

<sup>5</sup> Field observations indicate operations are better than Existing Conditions level of service calculations. The low measured volumes and relative unimpeded flow observed in the field indicate LOS C or better operations.

<sup>6</sup> Not considered a significant impact because of the low volumes, the superior connection provided by Hebert Road, and the negligible amount of Annexation area and Settrini property traffic added to this segment.

 $^{7}$  LOS F because directional volume greater than 1700 pc/hr.

Bold text indicates significant impact.

Source: Fehr & Peers, August 2007.

The results of the two-lane highway level of service analysis indicate that the proposed Annexation area and Settrini property would create a significant impact on the eight segments listed in **Table 5.1-17**. In each case the mitigation is to widen to a four-lane multilane highway standards described in American Association of State Highway and Transportation Officials (AASHTO) *A Policy on Geometric Design of Highways and Streets* (2004) document. Unless additional funding is provided by other sources to implement the feasible roadway improvements discussed below (Segments 14, 16, 17, 20, 28, 29, 43, and 44), the impacts would remain significant and unavoidable. A brief discussion of each segment and the potential mitigation measure is presented below.

- 14. *Crazy Horse Canyon Road segment south of US 101* This facility is located in rolling terrain that will require substantial cut and fill to meet AASHTO design standards of a four-lane multilane highway. The City will work with the County on determining an appropriate design for this facility, which would ultimately connect to an Eastern Corridor Improvement (see below).
- Hebert Road between Old Stage Road and San Juan Grade Road Widening to four-lanes is consistent with the 2005 Monterey County Constrained Regional Transportation Plan project MYC129 description to add capacity to Hebert Road.
- 17. San Juan Grade Road between Hebert Road and Crazy Horse Canyon Road Widening to four-lanes is consistent with the 2005 Monterey County *Constrained Regional Transportation Plan* project MYC127 description to add capacity to San Juan Grade Road.
- Old Stage Road between Hebert Road and Natividad Road Widening to fourlanes is consistent with the 2005 Monterey County Constrained Regional Transportation Plan project MYC128 description to add capacity to Old Stage Road.
- 28. *Espinosa Road west of US 101* Widening to four-lanes is consistent with the 2005 Monterey County *Constrained Regional Transportation Plan* project MYC125 description to add capacity to Espinosa Road. The Western Bypass can provide additional capacity from north Salinas to the Monterey Peninsula. However, additional traffic analysis will be done with the Specific Plan EIR to further refine mitigation measures to address Espinosa Road impacts.
- 29. Blanco Road west of Davis Road Widening to four-lanes would add redundant capacity to the Salinas-Marina corridor. As defined in the forthcoming TAMC regional transportation impact program, the preferred Salinas-Marina corridor capacity enhancements will occur on Davis Road and Reservation Road per the direction of Monterey County. Thus, the widening of Blanco Road west of Salinas will not occur and this impact would remain significant and unavoidable, or mitigated through the Davis-Reservation Street improvements.

|                    |  | Annexation<br>Settrini I<br>Contril | property                         |              | Juri | isdic                                  | tion     |  |
|--------------------|--|-------------------------------------|----------------------------------|--------------|------|--|----------|--|
| St                 | tudy Segment<br>(Type)                               | of Growth <sup>2</sup>              | of total<br>Traffic <sup>3</sup> | Peak<br>Hour | City | County                                 | Caltrans | Proposed Mitigation  |
|                    | Iorse Canyon Road<br>FUS 101                         | 20%                                 | 11%                              | AM<br>PM     |      | $egin{array}{c} X^4 \ X^4 \end{array}$ |          | Widen to 4 lanes. <sup>5</sup>   |
|                    | Road between Old Stage<br>ad San Juan Road           | 32%                                 | 21%                              | AM<br>PM     |      | X<br>X                                 |          | Widen to 4 lanes. Project<br>MYC129 defined in<br><i>Monterey County RTP</i> . <sup>5, 6</sup>   |
|                    | n Grade Road between<br>Road and Crazy Horse<br>Road | 27%                                 | 14%                              | AM<br>PM     |      | x                                      |          | Widen to 4 lanes. Project<br>MYC127 defined in<br><i>Monterey County RTP</i> . <sup>5,6</sup>  |
|                    | ge Road between Hebert<br>Id Natividad Road          | 33%                                 | 21%                              | AM<br>PM     |      | x                                      |          | Widen to 4 lanes. Project<br>MYC128 defined in<br><i>Monterey County RTP</i> . <sup>5,6</sup>  |
| 28. Espinos        | a Road west of US 101                                | 42%                                 | 34%                              | AM<br>PM     |      | $X^4$<br>$X^4$                         |          | Widen to 4 lanes. Project<br>MYC125 defined in<br><i>Monterey County RTP</i> . <sup>5,6</sup>  |
| 29. Blanco<br>Road | Road west of Davis                                   | >50%                                | 4%                               | AM<br>PM     |      | X <sup>4</sup><br>X <sup>4</sup>       |          | Widen to 4 lanes.<br>Conflicts with County<br>desire to use Davis<br>Road/Reservation Road as<br>primary Salinas-Monterey<br>corridor. |
|                    | uel Canyon Road btw.<br>and Castroville<br>ard       | 18%                                 | 5%                               | AM<br>PM     |      | $X^4$<br>$X^4$                         |          | Widen to 4 lanes. <sup>5</sup>   |
|                    | uel Canyon Road btw.<br>ille Blvd. & Strawberry      | 14%                                 | 5%                               | AM<br>PM     |      | $egin{array}{c} X^4 \ X^4 \end{array}$ |          | Widen to 4 lanes. <sup>5</sup>   |

Table 5.1-17Year 2030 Significant Two-Lane Highway Impacts and Proposed Mitigation

Notes:

Annexation area and Settrini property percent based on detailed technical calculations presented in Appendix E. Any contributions will be negotiated between appropriate agencies.

<sup>2</sup> Annexation area and Settrini property Contribution Method  $1 = (T/(T_B - T_E))*100$ ; where T = Annexation area and Settrini property traffic on a roadway segment,  $T_B =$  Year 2030 with Project Conditions roadway segment volumes, and  $T_E =$  Existing roadway segment volumes.

<sup>3</sup> Annexation area and Settrini property Contribution Method  $2 = (T/T_B)*100$ ; where T = Annexation area and Settrini property traffic on a roadway segment, and  $T_B$  = Year 2030 with Project Conditions roadway segment volumes.

<sup>4</sup> Deficient segments under Existing Conditions.

<sup>5</sup> Unless completely funded with appropriate agreements to implement the feasible roadway improvements the impacts would remain significant and unavoidable.

<sup>6</sup> Monterey County, Monterey County Constrained Regional Transportation Plan, 2005.

Source: Fehr & Peers, August 2007.

- 43. San Miguel Canyon Road between US 101 and Castroville Boulevard Widening to four-lanes is consistent with the Monterey County G12 corridor improvements. This widening is not included in the 2005 Monterey County Constrained Regional Transportation Plan.
- 44. San Miguel Canyon Road between Castroville Boulevard and Strawberry Road – While the Monterey County G12 corridor improvements call for installation of a two-way left-turn lane (between Castroville Boulevard and Echo Valley Road), widening to four lanes is needed to fully mitigate this impact. The twoway left-turn lane will improve left-turn operations at key intersections but will not reduce the impact to a less than significant level. The widening to four lanes is not included in the 2005 Monterey County Constrained Regional Transportation Plan.

The upgrading and widening of roadway segments 14, 16, 17, and 20 are collectively defined as the Eastern Corridor Improvements, which is an alternative mitigation to widening US 101 through the Prunedale community. The Eastern Corridor Improvements would generally extend along Crazy Horse Canyon Road, San Juan Grade Road, Hebert Road, and Old Stage Road between the new US 101 interchanges at Crazy Horse Canyon Road and near Harris Road. The Eastern Corridor Improvements would include the Eastern Bypass defined in the City of Salinas *Traffic Improvement Program*.

**Table 5.1-18** shows the level of service results for Year 2030 with Project and Year 2030with Project Mitigated.

|     |   |      | Year 2030 With Project |                    |                   |                  | Year 2030 With Project<br>Mitigated |                      |                  |  |
|-----|---|------|------------------------|--------------------|-------------------|------------------|-------------------------------------|----------------------|------------------|--|
|     |   | Peak | 1                      | [wo-Lan            | e Highwa          | ny               | Multi                               | ilane Highv          | way              |  |
|     | Roadway Segment                                     | Hour | Class <sup>1</sup>     | Speed <sup>2</sup> | PTSF <sup>3</sup> | LOS <sup>4</sup> | Direction <sup>5</sup>              | Density <sup>6</sup> | LOS <sup>4</sup> |  |
| 14. | Crazy Horse Canyon Road                             | AM   | т                      | 34.8               | 65.0              | Е                | EB<br>WB                            | 2.0<br>5.1           | A<br>A           |  |
|     | south of US 101                                     | РМ   | и<br>И <b>32</b> .     | 32.9               | 74.0              | E                | EB<br>WB                            | 6.1<br>9.0           | A<br>A           |  |
| 16. | Hebert Road between Old                             | AM   | п                      | N/A                | 71.4              | D                | EB<br>WB                            | 4.0<br>6.0           | A<br>A           |  |
|     | Stage Road and San Juan<br>Grade Road               | РМ   |                        | N/A                | 79.8              | D                | EB<br>WB                            | 9.0<br>5.0           | A<br>A           |  |
| 17. | San Juan Grade Road between                         | AM   |                        | N/A                | 61.5              | С                | SB<br>NB                            | 4.0<br>4.0           | A<br>A           |  |
|     | Hebert Road and Crazy Horse<br>Canyon Road          | РМ   | II                     | N/A                | 72.2              | D                | SB<br>NB                            | 8.0<br>4.0           | A<br>A           |  |
| 20. | Old Stage Road between<br>Hebert Road and Natividad | AM   | II                     | N/A                | 56.6              | С                | EB<br>WB                            | 3.0<br>6.0           | A<br>A           |  |

Table 5.1-18Year 2030 Mitigated Two-Lane Highway Levels of Service

|     |   |              |                    |                    |   | Year 2030 With Project<br>Mitigated |  |               |        |  |
|-----|---|--------------|--------------------|--------------------|---|-------------------------------------|--|---------------|--------|--|
|     | Roadway Segment   | Peak<br>Hour | Class <sup>1</sup> | Speed <sup>2</sup> | 0   | -                                   |  | 8             |        |  |
|     | Road  | PM           | Cluss              | N/A                | Decision with ProjectMitigatedO-Lane HighwayMultiane HighwayO-Lane HighwayO-Lane HighwayMultiane HighwayPTSF <sup>3</sup> LOS <sup>4</sup> PTSF <sup>3</sup> LOS <sup>4</sup> PTSF <sup>3</sup> LOS <sup>4</sup> Direction <sup>5</sup> Density <sup>6</sup> LOSN/APTSF <sup>3</sup> LOS <sup>4</sup> PTSF <sup>3</sup> LOS <sup>4</sup> Density <sup>6</sup> LOSN/APTSF <sup>3</sup> LOS <sup>4</sup> MBPTSF <sup>3</sup> LOS <sup>4</sup> MBPTSF <sup>3</sup> LOS <sup>4</sup> MBPTSF <sup>3</sup> LOS <sup>4</sup> MBColspan="4">Colspan="4">Colspan="4">Mitigation conflicts withColspan="4">Colspan="4">Colspan="4">Mitigation conflicts withColspan="4">Colspan="4"SB9.1A <th c<="" td=""><td>А</td></th> | <td>А</td>                          | А  |               |        |  |
| 28. | Eminara Read wast of US 101                             | AM           | т                  | 27.0               | 88.3  | Е                                   |  |               |        |  |
| 28. | Espinosa Road west of US 101                            |              | 95.2               | E                  |   |                                     | _  |               |        |  |
|     |   | AM           |                    | 30.4               | 90.1  | Е                                   | Mitigati   | ion conflicts | s with |  |
| 29. | Blanco Road west of Davis<br>Road                       | РМ           | Ι                  | 25.8               | 94.5  | E                                   | County plans. County plans<br>alternate mitigation on Davis<br>Road. |               |        |  |
| 43. | San Miguel Canyon Road<br>between US 101 and            | AM           | I                  | 36.0               | 89.2  | E                                   |  |               |        |  |
|     | Castroville Boulevard                                   | РМ           |                    | 29.3               | 95.1  | E                                   | ~  |               | 5      |  |
| 44. | San Miguel Canyon Road<br>between Castroville Blvd. and | AM           | Т                  | 40.1               | 81.6  | D                                   | ~  |               |        |  |
|     | Strawberry Road   | РМ           |                    | 34.7               | 90.1  | Е                                   | SB<br>NB   | 12.2<br>10.1  | B<br>A |  |

Notes:

Class Designation = Class I facilities have higher speeds and primarily serve long distance trips or connect to facilities that serve long distance trips. In contrast, Class II facilities have slower travel speeds and primarily serve shorter trips where travel time is less important.

- <sup>2</sup> Average Travel Speed reported in miles-per-hour (mph).
- <sup>3</sup> PTSF = Percent Time-Spent-Following.
- <sup>4</sup> LOS = Level of Service.
- <sup>5</sup> Multilane highway operations are analyzed by direction for each peak hour (EB = eastbound, WB = westbound, SB = southbound, NB = northbound).
- <sup>6</sup> Measured in vehicles per mile per lane (veh/mi/ln).

Bold text indicates significant impact.

Source: Fehr & Peers, August 2007.

#### Year 2030 With Project Freeway Level of Service

The results of the US 101 freeway and multilane analysis are presented in **Tables 5.1-19** and **5.1-20**, respectively. The freeway ramp evaluation is presented in **Table 5.1-23**.

#### Freeway Mainline Segments

Measured against the Caltrans LOS standard the following freeway segments would operate at an unacceptable LOS D or worse during one or both of the AM and PM peak hours:

AM Peak Hour

• Southbound US 101 between Boronda Road and John Street (4 segments)

#### PM Peak Hour

- Northbound US 101 between John Street and Russell Road (5 segments)
- Southbound US 101 between Russell Road and John Street (5 segments)

|                                  |                                      |      | Year<br>Without      |                  | Year 20              | )30 With         | Project |
|----------------------------------|--------------------------------------|------|----------------------|------------------|----------------------|------------------|---------|
| Travel                           | ~ 1                                  | Peak | 1                    | 2                | 1                    | 2                | Project |
| Direction                        | Segment <sup>1</sup>                 | Hour | Density <sup>1</sup> | LOS <sup>2</sup> | Density <sup>1</sup> | LOS <sup>2</sup> | Trips   |
|                                  | 30. John Street (SR 68) to Market    | AM   | 26.6                 | D                | 26.6                 | D                | 90      |
|                                  | Street                               | PM   | 35.5                 | E                | 35.5                 | E                | 240     |
|                                  | 31. Market Street to Main Street (SR | AM   | 24.7                 | С                | 24.7                 | С                | 110     |
|                                  | 183)                                 | PM   | 39.4                 | Е                | 39.4                 | Ε                | 250     |
|                                  | 32. Main Street (SR 183) to Laurel   | AM   | 22.8                 | С                | 23.7                 | С                | 230     |
| NB US 101                        | Drive                                | PM   | 35.5                 | E                | 33.9                 | D                | 200     |
|                                  | 22 Level Deire (* Deres 1- Dere 1    | AM   | 23.7                 | С                | 25.6                 | С                | 230     |
|                                  | 33. Laurel Drive to Boronda Road     | PM   | 37.3                 | Е                | 37.3                 | Е                | 380     |
|                                  |                                      | AM   | 19.0                 | С                | 23.7                 | С                | 360     |
| 34. Boronda Road to Russell Road | PM                                   | 28.7 | D                    | 29.8             | D                    | 190              |         |
|                                  |                                      | AM   | 28.7                 | D                | 26.6                 | D                | 100     |
|                                  | 34. Russell Road to Boronda Road     | PM   | 33.9                 | D                | 41.7                 | E                | 340     |
|                                  |                                      | AM   | 32.4                 | D                | 33.9                 | D                | 460     |
|                                  | 33. Boronda Road to Laurel Drive     | PM   | 29.8                 | D                | 31.1                 | D                | 320     |
| SB US 101                        | 32. Laurel Drive to Main Street (SR  | AM   | 31.1                 | D                | 29.8                 | D                | 230     |
|                                  | 183)                                 | PM   | 28.7                 | D                | 27.6                 | D                | 200     |
|                                  | 31. Main Street (SR 183) to Market   | AM   | 32.4                 | D                | 32.4                 | D                | 240     |
|                                  | Street                               | PM   | 28.7                 | D                | 27.6                 | D                | 170     |
|                                  | 30. Market Street to John Street (SR | AM   | 29.8                 | D                | 31.1                 | D                | 350     |
|                                  | 68)                                  | PM   | 28.7                 | D                | 29.8                 | D                | 210     |
| EB SR 156                        | 27. Cathedral Oak Road to US 101     | AM   | 9.5                  | А                | 9.5                  | А                | 10      |
| ED SK 130                        | 27. Caliediai Oak Road to US 101     | PM   | 19.9                 | С                | 19.9                 | С                | 40      |
| WB SR 156                        | 27. US 101 to Cathedral Oak Road     | AM   | 20.9                 | С                | 20.2                 | С                | 20      |
| WD 5R 150                        | 27. 05 101 to Cathodiai Oak Road     | PM   | 13.3                 | В                | 12.9                 | В                | 20      |

# Table 5.1-19Year 2030 Annexation Area and Settrini Property<br/>Freeway Mainline Levels of Service

Notes:

<sup>1</sup> Measured in vehicles per mile per lane (veh/mi/ln).

 $^{2}$  LOS = Level of Service.

**Bold** text indicates significant impact. Source: Fehr & Peers, August 2007.

|                    |                                  |              | Year                 |                  |  |                  |                  |
|--------------------|----------------------------------|--------------|----------------------|------------------|--|------------------|------------------|
|                    |                                  |              | Without              | Project          | Year 20  | )30 With         | 3                |
| Travel Direction   | Segment                          | Peak<br>Hour | Density <sup>1</sup> | LOS <sup>2</sup> | Density <sup>1</sup>   | LOS <sup>2</sup> | Project<br>Trips |
|                    |                                  | AM           | 33.2                 | D                | 31.9   | D                | 40               |
|                    | 35. South of Airport Boulevard   | PM           | 24.9                 | С                | 24.9   | С                | 30               |
|                    | 26 D 11 D 14 CD 156              | AM           | 22.8                 | С                | Vear 2030           OS2         Density1         I           D         31.9         24.9           C         24.9         24.9           C         28.3         D           D         30.7         29.5           F         38.5         38.5           B         19.8         21.8           C         22.8         24.9           D         24.9         24.9           C         22.8         24.9           D         24.9         24.9           C         22.8         22.8           D         24.9         22.8           C         22.8         22.8           D         24.9         22.8           C         22.8         22.8           E         31.9         38.5           D         33.2         33.2           B         11.9         33.2           B         17.8         19.8           A         12.9         24.9           A         5.8         24.9           A         5.8         24.9           B         15.3         3 | D                | 390              |
|                    | 36. Russell Road to SR 156       | PM           | 30.7                 | D                | 30.7   | D                | 170              |
| NB US 101          | 37. SR 156 to San Miguel Canyon  | AM           | 23.8                 | С                | 29.5   | D                | 360              |
| ND US 101          | Road                             | PM           | >40                  | F                | 38.5   | E                | 140              |
|                    | 38. San Miguel Canyon Road to    | AM           | 17.8                 | В                | 19.8   | С                | 90               |
|                    | Crazy Horse Canyon Road          | PM           | 23.8                 | С                | 21.8   | С                | 270              |
|                    | 39. Crazy Horse Canyon Road to   | AM           | 18.8                 | С                | 22.8   | С                | 300              |
|                    | San Juan Road                    | PM           | 27.1                 | D                | 24.9   | С                | 110              |
|                    | 39. San Juan Road to Crazy Horse | AM           | 29.5                 | D                | 24.9   | С                | 100              |
|                    | Canyon Road                      | PM           | 23.8                 | С                | 28.3   | D                | 320              |
| SR US 101          | 38. San Miguel Canyon Road to    | AM           | 26.0                 | -                |  | С                | 270              |
|                    | Crazy Horse Canyon Road          | PM           | 20.8                 | -                |  | С                | 100              |
| SB US 101          | 37. San Miguel Canyon Road to SR | AM           | 37.2                 | E                | 31.9   | D                | 110              |
| 50 05 101          | 156                              | PM           | 33.2                 | D                | 38.5   | E                | 380              |
|                    | 36. SR 156 to Russell Road       | AM           | 29.5                 | D                |  | D                | 110              |
|                    | 50. SK 150 to Kussen Kodu        | PM           | 33.2                 |                  |  | E                | 430              |
|                    | 35. South of Airport Boulevard   | AM           | 11.9                 |                  |  | В                | 20               |
|                    | ·                                | PM           | 34.5                 | _                |  | D                | 40               |
| NB SR 68           | 40. Reservation Road to Blanco   | AM           | 17.8                 |                  |  | В                | 200              |
| TID BIT 00         | Road                             | PM           | 19.8                 |                  |  | С                | 260              |
| SB SR 68           | 40. Blanco Road to Reservation   | AM           | 10.9                 |                  |  | В                | 180              |
| 55 5100            | Road                             | PM           | 21.8                 |                  |  | С                | 220              |
| NB Davis Road      | 26. Reservation Road to Blanco   | AM           | 5.8                  |                  |  | A                | 150              |
| 2.2.2 2 4.10 10044 | Road                             | PM           | 19.2                 | -                |  | С                | 210              |
| SB Davis Road      | 26. Blanco Road to Reservation   | AM           | 13.4                 |                  |  | В                | 150              |
| 22 Dunis 1.0000    | Road                             | PM           | 21.1                 | С                | 24.0   | С                | 210              |

Table 5.1-20Year 2030 Annexation Area and Settrini PropertyMultilane Highway Levels of Service

Notes:

Measured in vehicles per mile per lane (veh/mi/ln).

 $^2$  LOS = Level of Service.

Bold text indicates significant impact.

Source: Fehr & Peers, August 2007.

#### Multilane Highway Segments

Measured against the Caltrans level of service standards the following multilane highway segments would operate at an unacceptable LOS D or worse during one or both of the AM and PM peak hours:

#### AM Peak Hour

- Northbound US 101 south of Airport Boulevard (1 segment)
- Northbound US 101 between Russell Road and San Miguel Canyon Road (2 segments)

• Southbound US 101 between San Miguel Canyon Road and Russell Road (2 segments)

#### PM Peak Hour

- Northbound US 101 between Russell Road and San Miguel Canyon Road (2 segments)
- Southbound US 101 between San Juan Road and Crazy Horse Canyon Road (1 segment)
- Southbound US 101 between San Miguel Canyon Road and Russell Road (2 segments)
- Southbound US 101 south of Airport Boulevard (1 segment)

The results of the freeway highway level of service analysis indicate that the proposed Annexation area and Settrini property would create a significant impact on most segments listed in **Table 5.1-20**. **Table 5.1-21** describes proposed mitigation to reduce impacts on these segments to a level less than significant.

The Salinas SOI fair share contribution shall include the City of Salinas traffic impact fee, which includes the widening of US 101 to six-lanes between the new Russell Road interchange and Harris Road (*City of Salinas Traffic Improvement Program 2005* project number 32). Also, this improvement is consistent with the 2005 Monterey County *Constrained Regional Transportation Plan* project CT030 description to add capacity through the City of Salinas. Thus, the SOI Amendment area is eligible for State Transportation Improvement Program (STIP) funding. The TAMC draft regional project list does not include the widening of US 101 through the City of Salinas in the regional transportation impact fee. However, unless completely funded with appropriate agreements to implement the feasible roadway improvements discussed above (Segments 30, 31, 32, 33, and 34) the impacts would remain significant and unavoidable.

Most of the US 101 improvements are eligible for STIP funding because they are included in the 2005 Monterey County *Constrained Regional Transportation Plan*. The widening of US 101 between San Miguel Canyon Road and Russell Road is consistent with the 2005 Monterey County *Constrained Regional Transportation Plan* projects CT029 and CT036. Project CT029 is to build the Prunedale Bypass or widen the existing alignment of US 101 between Echo Valley Road and the new Russell Road interchange. Project CT036 is to widen SR 156 to a four-lane highway and modify the US 101, SR 156, and San Miguel Canyon Road connections. Finally, the widening of US 101 between San Juan Road and Crazy Horse Canyon Road is not identified in the 2005 Monterey County *Constrained Regional Transportation Plan*. The Annexation area and Settrini property are responsible for their fair shares of these impacts.

Because changes have occurred since certification of the Final Program EIR and there are increases in previously identified environmental effects to the regional highway system, additional mitigation is proposed to reduce these impacts. The widening of US 101 between Airport Boulevard and Harris Road is consistent with the 2005 Monterey County

|           |   | Annexation<br>Settrini p<br>Contrib  | oroperty                         |              | Jur  | isdic  | tion                |  |
|-----------|---|--|----------------------------------|--------------|--|--------|---------------------|--|
|           | Study Segment<br>(Type)   | of Growth <sup>2</sup>   | of total<br>Traffic <sup>3</sup> | Peak<br>Hour | City   | County | Caltrans            | Proposed Mitigation  |
|           | 30. John Street (SR 68) to<br>Market Street (Freeway)               | 13%  | 5%                               | AM<br>PM     |  |        | X <sup>4</sup>      |  |
|           | 31. Market Street to Main<br>Street (SR 183)<br>(Freeway)           | 17%  | 5%                               | AM<br>PM     |  |        | $X^4$               | Widen to 6 lanes.<br>Project CT030 defined   |
|           | 32. Main Street (SR 183) to<br>Laurel Drive (Freeway)               | 23%  | 7%                               | AM<br>PM     |  |        | X <sup>4</sup>      | in Monterey County<br>Constrained RTP. <sup>5,6</sup>  |
|           | <ol> <li>Laurel Drive to Boronda<br/>Road (Freeway)</li> </ol>      | 35% 10% PM   |                                  | $X^4$        | Alternative partial<br>mitigation – Western<br>Bypass and/or Eastern |        |                     |  |
|           | 34. Boronda Road to Russell<br>Road (Freeway)                       | 41%     9%     PM       eeway)     41%     9%       Airport     AM       d (Multilane     2% | $X^4$                            | Bypass.      |  |        |                     |  |
| 101       | 35. South of Airport<br>Boulevard (Multilane<br>Hwy.)               | 2%   | 1%                               | AM<br>PM     |  |        | Х                   |  |
| NB US 101 | 36. Russell Road to SR 156<br>(Multilane Hwy.)                      | 25%  | 9%                               | AM<br>PM     |  |        | X<br>X              | Widen to 6 lanes.<br>Project CT029 defined<br>in <i>Monterey County</i><br><i>Constrained RTP.</i> <sup>6</sup><br>Alternate mitigation –<br>Prunedale Bypass or<br>Eastern Corridor<br>Improvements. <sup>3</sup>           |
|           | 37. SR 156 to San Miguel<br>Canyon Road<br>(Multilane Hwy.)         | 25%  | 6%                               | AM<br>PM     |  |        | X<br>X <sup>4</sup> | SR 156 – West<br>Corridor. Project<br>CT036 defined in<br><i>Monterey County</i><br><i>Constrained RTP</i> . <sup>5</sup><br>Alternate mitigation –<br>Prunedale Bypass or<br>Eastern Corridor<br>Improvements. <sup>5</sup> |
|           | 39. San Juan Road to Crazy<br>Horse Canyon Road<br>(Multilane Hwy.) | 29%  | 6%                               | AM<br>PM     |  |        | Х                   | Widen to 5 lanes.<br>(3 SB and 2 NB lanes)   |
| SB US 101 | 37. San Miguel Canyon Road<br>to SR 156 (Multilane<br>Hwy.)         | 24%  | 5%                               | AM<br>PM     |  |        | X <sup>4</sup><br>X | SR 156 - West<br>Corridor. Project<br>CT036 defined in<br><i>Monterey County</i><br><i>Constrained RTP.</i> <sup>6</sup><br>Alternate mitigation –<br>Prunedale Bypass or<br>Eastern Corridor<br>Improvements. <sup>5</sup>  |

5.1-33

Table 5.1-21Year 2030 Significant Freeway, Multilane, and Ramp Impacts<br/>and Proposed Mitigation

|           |  | Annexation<br>Settrini p<br>Contrib | property                         |              | Juri | isdic  | tion                |   |
|-----------|--|-------------------------------------|----------------------------------|--------------|------|--------|---------------------|---|
|           | Study Segment<br>(Type)                                  | of Growth <sup>2</sup>              | of total<br>Traffic <sup>3</sup> | Peak<br>Hour | City | County | Caltrans            | Proposed Mitigation   |
|           | 36. SR 156 to Russell Road<br>(Multilane Hwy.)           | 24%                                 | 8%                               | AM<br>PM     |      |        | X<br>X              | Widen to 6 lanes.<br>Project CT029 defined<br>in <i>Monterey County</i><br><i>Constrained RTP</i> . <sup>6</sup><br>Alternate mitigation –<br>Prunedale Bypass or<br>Eastern Corridor<br>Improvements. <sup>3</sup> |
|           | 35. South of Airport<br>Boulevard (Multilane<br>Hwy.)    | 3%                                  | 1%                               | AM<br>PM     |      |        | х                   | Widen to 6 lanes.<br>Project CT030 defined<br>in <i>Monterey County</i><br><i>Constrained RTP.</i> <sup>6</sup><br>Alternate partial<br>mitigation – Eastern<br>Bypass.   |
|           | 34. Russell Road to Boronda<br>Road (Freeway)            | 23%                                 | 7%                               | AM<br>PM     |      |        | $X^4$               |   |
|           | 33. Boronda Road to Laurel<br>Drive (Freeway)            | 33%                                 | 9%                               | AM<br>PM     |      |        | X <sup>4</sup><br>X | Widen to 6 lanes.<br>Project CT030 defined  |
| SB US 101 | 32. Laurel Drive to Main<br>Street (SR 183)<br>(Freeway) | 21%                                 | 6%                               | AM<br>PM     |      |        | X <sup>4</sup><br>X | in <i>Monterey County</i><br><i>Constrained RTP.</i> <sup>6</sup><br>Alternate partial<br>mitigation – Western  |
| S         | 31. Main Street (SR 183) to<br>Market Street (Freeway)   | 19%                                 | 6%                               | AM<br>PM     |      |        | X <sup>4</sup><br>X | Bypass and/or Eastern<br>Bypass.  |
|           | 30. Market Street to John<br>Street (SR 68) (Freeway)    | 23%                                 | 8%                               | AM<br>PM     |      |        | X <sup>4</sup><br>X |   |
| NB        | Off-Ramp to Boronda Road                                 | >50%                                | 29%                              | AM<br>PM     |      |        | Х                   |   |
| SB        | Off-Ramp to Boronda Road                                 | >50%                                | 22%                              | AM<br>PM     |      |        | Х                   | Add additional ramp lane.   |
| SB        | On-Ramp to Boronda Road                                  | >50%                                | 41%                              | AM<br>PM     |      |        | Х                   |   |

Notes:

<sup>1</sup> Annexation area and Settrini property percent based on detailed technical calculations presented in Appendix E. Any contributions will be negotiated between appropriate agencies.

<sup>2</sup> Annexation area and Settrini property Contribution Method  $1 = (T/(T_B - T_E))*100$ ; where T = Annexation area and Settrini property traffic on a roadway segment,  $T_B$  = Year 2030 with Project Conditions roadway segment volumes, and  $T_E$  = Existing roadway segment volumes.

<sup>3</sup> Annexation area and Settrini property Contribution Method  $2 = (T/T_B)*100$ ; where T = Annexation area and Settrini property traffic on a roadway segment, and  $T_B$  = Year 2030 with Project Conditions roadway segment volumes.

<sup>4</sup> Deficient segments under Existing Conditions.

<sup>5</sup> Unless completely funded with appropriate agreements to implement the feasible roadway improvements the impacts would remain significant and unavoidable.

<sup>6</sup> Monterey County, *Monterey County Constrained Regional Transportation Plan*, 2005. Source: Fehr & Peers, August 2007. *Constrained Regional Transportation Plan* project CT030 description to add capacity. This improvement is also identified in the *City of Salinas Traffic Improvement Program* 2005 update. Thus, the Salinas SOI shall pay the City of Salinas traffic impact fee to contribute to this improvement. **Table 5.1-22** shows the level of service results for Year 2030 With Project and Year 2030 With Project Mitigated Conditions.

Alternate mitigation to widening US 101 through the Prunedale community includes the Prunedale Bypass or an Eastern Corridor Improvement between the new US 101 interchanges at Crazy Horse Canyon Road and Harris Road via Old State Road. The Prunedale Bypass would be a new four-lane freeway between the future US 101 interchanges at Crazy Horse Canyon Road and Russell Road. The Eastern Corridor Improvement would generally extend along Crazy Horse Canyon Road, San Juan Grade Road, Hebert Road, and Old Stage Road between the new US 101 interchanges at Crazy Horse Canyon Road and near Harris Road.

Another alternative mitigation measure that has previously been considered is construction of the Western Bypass from north Salinas to Salinas-Marina corridor in southwest Salinas. The Western Bypass would be a four-lane roadway extending from the US 101/Boronda Road interchange to the Davis Road and Blanco Road intersection. To determine the potential effect on US 101, the Western Bypass was included in the Salinas sub-area travel demand model and forecasts were generated. With the change in travel patterns, the Western Bypass was estimated to reduce the volume on the freeway between Boronda Road and Laurel Drive by 200 to 400 vehicles in one direction during each peak hour. This would result in LOS D freeway operations on this segment during all hours except for the northbound segment during the AM peak hour. Thus, the freeway widening remains a more effective mitigation measure to address US 101 Based on initial model run with the Western Bypass and Alvin Drive impacts. overcrossing, the greatest shift in daily traffic will be on Davis Road and Main Street between Boronda Road and Blanco Road. Also, traffic on Laurel Drive between Main Street and Davis Street and Alisal Street between Main Street and Blanco Road will shift to the Western Bypass. However, the Boronda Road interchange will likely see an increase in traffic, especially west of US 101.

#### Ramp Segments

Measured against the one-lane capacity planning level thresholds, the northbound US 101 direct off-ramp to Boronda Road, and southbound US 101 direct off-ramp and loop on-ramp from Boronda Road may need an additional lane. Impacts to these ramp segments are considered significant. More detailed analysis conducted for specific plan developments within the SOI will be used to identify particular improvements to individual ramps and ramp intersections.

|                  |   | Peak     | Year 203<br>Proj     |                  |   |                  |
|------------------|---|----------|----------------------|------------------|---|------------------|
| Travel Direction | Segment <sup>1</sup>                            | Hour     | Density <sup>2</sup> | LOS <sup>3</sup> | Density <sup>2</sup>  | LOS <sup>3</sup> |
|                  | 30. John Street (SR 68) to Market<br>Street     | AM<br>PM | 26.6<br>35.5         | D<br>E           | 17.3<br>21.6  | B<br>C           |
|                  | 31. Market Street to Main Street (SR 183)       | AM<br>PM | 24.7<br><b>39.4</b>  | C<br>E           | 16.1<br>22.9  | B<br>C           |
|                  | 32. Main Street (SR 183) to Laurel<br>Drive     | AM<br>PM | 23.7<br><b>33.9</b>  | С<br><b>D</b>    | 15.4<br>21.0  | B<br>C           |
|                  | 33. Laurel Drive to Boronda Road                | AM<br>PM | 25.6<br><b>37.3</b>  | C<br>E           | Project Mitigate           LOS <sup>3</sup> Density <sup>2</sup> LOS           D         17.3         B           E         21.6         C           C         16.1         B           E         22.9         C           C         15.4         B           D         21.0         C           C         16.7         B |                  |
| NB US 101        | 34. Boronda Road to Russell Road                | AM<br>PM | 23.7<br><b>29.8</b>  |                  |   |                  |
|                  | 35. South of Airport Boulevard                  | AM<br>PM | <b>31.9</b><br>24.9  |                  |   |                  |
|                  | 36. Russell Road to SR 156                      | AM<br>PM | 28.7<br>30.7         |                  |   |                  |
|                  | 37. SR 156 to San Miguel Canyon<br>Road         | AM<br>PM | 29.5<br>38.5         |                  |   | -                |
|                  | 39. Crazy Horse Canyon Road to<br>San Juan Road | AM<br>PM | 22.8<br>24.9         |                  |   |                  |
|                  | 39. San Juan Road to Crazy Horse<br>Canyon Road | AM<br>PM | 24.9<br>28.3         |                  |   |                  |
|                  | 37. San Miguel Canyon Road to SR<br>156         | AM<br>PM | 31.9<br>38.5         |                  |   |                  |
|                  | 36. SR 156 to Russell Road                      | AM<br>PM | 27.1<br>40.0         |                  |   |                  |
|                  | 35. South of Airport Boulevard                  | AM<br>PM | 11.9<br><b>33.2</b>  |                  |   |                  |
| SB US 101        | 34. Russell Road to Boronda Road                | AM<br>PM | 26.6<br><b>41.7</b>  | -                |   |                  |
|                  | 33. Boronda Road to Laurel Drive                | AM<br>PM | 33.9<br>31.1         |                  |   |                  |
|                  | 32. Laurel Drive to Main Street (SR 183)        | AM<br>PM | 29.8<br>27.6         |                  |   | -                |
|                  | 31. Main Street (SR 183) to Market<br>Street    | AM<br>PM | 32.4<br>27.6         |                  |   |                  |
|                  | 30. Market Street to John Street (SR 68)        | AM<br>PM | 31.1<br>29.8         |                  |   |                  |

**Table 5.1-22** Year 2030 Mitigated Freeway Levels of Service

Notes:

Balanced counts derived from adjacent Caltrans freeway mainline and ramps counts.

2 Measured in vehicles per mile per lane (veh/mi/ln).

3 LOS = Level of Service.

Bold text indicates significant impact.

Source: Fehr & Peers, August 2007.

As **Table 5.1-23** describes, the northbound off-ramp to Boronda Road will experience a significant impact in the PM peak hour as a result of the Annexation area and Settrini property, and the southbound on-ramp to Boronda Road will experience a significant impact in the AM peak hour as a result of the Annexation area and Settrini property. The addition of a lane to each of these ramp segments will reduce these impacts to a level less than significant.

| <b>Table 5.1-23</b>  |
|--|
| Year 2030 Annexation Area and Settrini Property Ramp Segment Volumes |

|  |                           |              |             | 2030<br>Project         |                    | 2030<br>Project         |
|--|---------------------------|--------------|-------------|-------------------------|--------------------|-------------------------|
| Roadway Segment                            | Ramp<br>Type <sup>1</sup> | Peak<br>Hour | Volume      | Add'l<br>Lane<br>Req'd? | Volume             | Add'l<br>Lane<br>Req'd? |
| US 101 and Crazy Horse Canyon Road Intere  | change                    |              |             |                         |                    |                         |
| NB Off-Ramp to Crazy Horse Canyon Road     | Direct                    | AM<br>PM     | 100<br>200  | No<br>No                | 100<br>180         | No<br>No                |
| NB On-Ramp from Crazy Horse Canyon<br>Road | Direct                    | AM<br>PM     | 300<br>360  | No<br>No                | 380<br>340         | No<br>No                |
| SB Off-Ramp to Crazy Horse Canyon Road     | Direct                    | AM<br>PM     | 320<br>430  | No<br>No                | 270<br>580         | No<br>No                |
| SB On-Ramp from Crazy Horse Canyon<br>Road | Direct                    | AM<br>PM     | 70<br>40    | No<br>No                | 70<br>60           | No<br>No                |
| US 101 and Russell Road (Harrison Road) In | terchange                 |              |             |                         |                    |                         |
| NB Off-Ramp to Harrison Road               | Direct                    | AM<br>PM     | 160<br>410  | No<br>No                | 220<br>590         | No<br>No                |
| NB On-Ramp from Harrison Road              | Direct                    | AM<br>PM     | 460<br>410  | No<br>No                | 520<br>490         | No<br>No                |
| SB Off-Ramp to Harrison Road               | Direct                    | AM<br>PM     | 210<br>370  | No<br>No                | 300<br>420         | No<br>No                |
| SB On-Ramp from Harrison Road              | Loop                      | AM<br>PM     | 310<br>570  | No<br>No                | 400<br>520         | No<br>No                |
| US 101 and Boronda Road Interchange        |                           |              |             |                         |                    |                         |
| NB Off-Ramp to Boronda Road                | Direct                    | AM<br>PM     | 940<br>1400 | No<br>No                | 990<br><b>1530</b> | No<br><b>Yes</b>        |
| NB On-Ramp from Boronda Road               | Direct                    | AM<br>PM     | 350<br>530  | No<br>No                | 690<br>720         | No<br>No                |
| NB On-Ramp from Boronda Road               | Loop                      | AM<br>PM     | 90<br>270   | No<br>No                | 100<br>310         | No<br>No                |
| SB Off-Ramp to Boronda Road                | Direct                    | AM<br>PM     | 840<br>1260 | No<br>No                | 910<br><b>1550</b> | No<br><b>Yes</b>        |
| SB On-Ramp from Boronda Road               | Direct                    | AM<br>PM     | 120<br>290  | No<br>No                | 110<br>230         | No<br>No                |
| SB On-Ramp from Boronda Road               | Loop                      | AM<br>PM     | 1020<br>670 | No<br>No                | <b>1400</b><br>720 | <b>Yes</b><br>No        |

5.1-37

|                                     |                           |              |            | 2030<br>t Project       | Year 2030<br>With Project |                         |
|-------------------------------------|---------------------------|--------------|------------|-------------------------|---------------------------|-------------------------|
| Roadway Segment                     | Ramp<br>Type <sup>1</sup> | Peak<br>Hour | Volume     | Add'l<br>Lane<br>Req'd? | Volume                    | Add'l<br>Lane<br>Req'd? |
| US 101 and Laurel Drive Interchange |                           |              |            |                         |                           |                         |
| NB Off-Ramp to Laurel Drive         | Direct                    | AM<br>PM     | 400<br>850 | No<br>No                | 350<br>830                | No<br>No                |
| NB On-Ramp from Laurel Drive        | Direct                    | AM<br>PM     | 160<br>270 | No<br>No                | 160<br>260                | No<br>No                |
| NB On-Ramp from Laurel Drive        | Loop                      | AM<br>PM     | 340<br>680 | No<br>No                | 390<br>770                | No<br>No                |
| SB Off-Ramp to Laurel Drive         | Direct                    | AM<br>PM     | 680<br>840 | No<br>No                | 880<br>930                | No<br>No                |
| SB On-Ramp from Laurel Drive        | Direct                    | AM<br>PM     | 340<br>580 | No<br>No                | 330<br>480                | No<br>No                |
| SB On-Ramp from Laurel Drive        | Loop                      | AM<br>PM     | 240<br>160 | No<br>No                | 250<br>150                | No<br>No                |

Notes:

Peak hour ramp capacity is 1,500 veh/hr/ln (vehicles per hour per lane) and 1,200 veh/hr/ln for direct and loop ramps, respectively.

<sup>2</sup> Each ramp is one lane.

**Bold** text indicates potential need for an additional freeway ramp lane. Source: Fehr & Peers, August 2007.

#### MITIGATION MEASURES

The following mitigation measures contained in the Salinas General Plan Final Program EIR shall continue to be applied to the SOI Amendment and Annexation to reduce a potentially significant impact associated with the regional transportation network:

- C3. The City will implement General Plan Implementation Program C-2. Implementation Program C-2 requires the City to update the Traffic Fee Ordinance to reflect projected circulation needs and apply the revised ordinance to applicable developments. The City will consider including alternative modes of transportation (bicycle and pedestrian) as projects eligible for use of Traffic Impact Fees. The City will also work with other local agencies, as well as the Transportation Agency for Monterey County (TAMC) and Caltrans on development of a regional traffic impact fee, to assist in the funding of regional transportation improvements throughout Monterey County.
- C5. The City will implement General Plan Implementation Program C-5. Implementation Program C-5 requires the City to reduce expenditure, improve design, and minimize traffic disruption by working with TAMC, Caltrans, MST, AMBAG, Monterey Bay Unified Air Pollution Control District, and other regional transportation agencies to coordinate local street improvements with major transportation system improvement projects such as improvements to Highway 101. In addition, the impacts of discretionary development projects and

major transportation projects will be monitored by the City and mitigation may be required.

C7. The City will continue to monitor the planning process for regional circulation improvements to analyze how they would impact the Salinas circulation system. Regional roadway system impacts will be considered when making land use decisions for major development proposals within the City. If necessary, the City will revise the General Plan Circulation System to address the impact from regional circulation system improvements.

Since certification of the 2002 Salinas General Plan Final Program EIR, the City of Salinas has implemented mitigation measures C3, C5, and C7. Regional impacts are due to the combined future growth within the region. The SOI Amendment is responsible for its portion of these regional impacts. TAMC is in the process of preparing a Regional Development/Traffic Impact Fee Program for consideration by Monterey County jurisdictions. Further, the Salinas General Plan includes an implementation policy to work with TAMC to establish a regional traffic impact fee program that addresses regional traffic impacts. The City and County recently adopted (August, 2006) the Greater Salinas Area Memorandum of Understanding that supports the use of fees and taxes to mitigate traffic impacts on the regional and county roadway systems. Currently, City staff and SOI project representatives are working with TAMC, Caltrans, and Monterey County representatives to prepare/develop this program included as part of an overall financing plan. Payment of the fair share contribution is expected to fulfill the Salinas SOI obligations for mitigating the regional and county traffic impacts. However, unless other funding sources such as a regional impact fee, a proposed sales tax measure for Monterey County, contributions from other developers, or state funds are developed, feasible roadway improvements will not be implemented, and all of the impacts would remain significant and unavoidable.

In addition to mitigation measures C3, C5, and C7 contained in the Salinas General Plan Final Program EIR, the City shall implement the following mitigation measures to reduce a potentially significant impact associated with the regional transportation network identified in this SEIR:

SEIR-RT1. In addition to the roadway improvements identified in **Table 5.1-11**, the City will implement the roadway improvements identified in **Table 5.1-14**, where feasible, to provide LOS D or better along City roadways. For future development within the Annexation area and Settrini property, this mitigation may be satisfied by the payment of the City of Salinas Traffic Impact Fee Program, or constructing said improvements and receiving City Traffic Fee credit. This program would require the specific development within the Project area to be responsible for payment of a fee proportional to the development's impact on identified local roadway segments, or the project developers may provide the specific roadway segment improvements. The extent and timeline of the proportional mitigation will be specifically refined through the Specific Plans directing the developers will also be responsible for

payment of a Regional Development/Traffic Impact Fee, when the overall financing program is developed/approved by TAMC and this program is adopted by TAMC. The regional fee could also supplement funds for certain roadway improvements along Caltrans designated roadways within the City.

SEIR-RT2. In addition to the roadway improvements identified in **Table 5.1-11**, the City will work with the County of Monterey and TAMC to implement the roadway improvements identified in **Table 5.1-17**, where feasible, to provide acceptable levels of service along County two-lane roadways. The City shall work with the County in developing fee programs as described in the 2006 Greater Salinas Area Memorandum of Understanding, agreed to by the City and County, and outlined in City Growth agreements 9 and 10:

"The City and County agree to support fees and taxes needed to mitigate the collective impact of new and existing development on the regional transportation system to the extent that the fees and taxes reflect the overall financing program adopted by TAMC... the City and County agree that County will develop a County-wide Traffic Impact fee program for the improvement of major County roads in accordance with the County's adopted General Plan. The County will not rely upon the imposition of an ad hoc traffic fee on City development. The development of a Traffic Impact fee for the Salinas Area ... will be a priority and a nexus study and hearing process should be completed."

This mitigation may be satisfied by the implementation of a Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program. When the Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program is adopted, a specific project development within the Annexation area and Settrini property would be responsible for payment of a fee proportional to the development's impact on a given road segment, or the project developers may provide the necessary improvements for an impacted roadway segment. The extent and timeline of the proportional mitigation will be established by the Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program. In addition to the Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program, the City of Salinas Traffic Impact Fee Program may supplement funds for certain County twolane roadway segment improvements located within the municipal boundaries of the City of Salinas. In the absence of an adopted Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program, development within the Project area is still obligated to mitigate its significant regional traffic impacts to the extent feasible, which is currently identified as pro rata fair share contributions toward the various impacted facilities.

SEIR-RT3. In addition to the roadway improvements identified in **Table 5.1-11**, the City will work with the County of Monterey, TAMC, and Caltrans to implement

the roadway improvements identified in **Table 5.1-21**, where feasible, to provide an acceptable level of service along regional freeway segments. The City shall work with the County in developing fee programs as described in the 2006 Greater Salinas Area Memorandum of Understanding, agreed to by the City and County, and outlined in City Growth agreements 9 and 10:

"The City and County agree to support fees and taxes needed to mitigate the collective impact of new and existing development on the regional transportation system to the extent that the fees and taxes reflect the overall financing program adopted by TAMC... the City and County agree that County will develop a County-wide Traffic Impact fee program for the improvement of major County roads in accordance with the County's adopted General Plan. The County will not rely upon the imposition of an ad hoc traffic fee on City development. The development of a Traffic Impact fee for the Salinas Area ... will be a priority and a nexus study and hearing process should be completed."

This mitigation may be satisfied by the implementation of a Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program described above. When the Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program is adopted, a specific project development within the Annexation area and Settrini property would be responsible for payment of a fee proportional to the development's impact on a given road segment, or the project developers may provide the necessary improvements for an impacted roadway segment. The extent and timeline of the proportional mitigation will be established by the Regional Development/Traffic Impact Fee Program and/or Countywide Impact Fee Traffic Program. In addition to the Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program, the City of Salinas Traffic Impact Fee Program may supplement funds for certain regional freeway segment improvements located within the municipal boundaries of the City of Salinas. In the absence of an adopted Regional Development/Traffic Impact Fee Program and/or Countywide Traffic Impact Fee Program, development within the Project area is still obligated to mitigate its significant regional traffic impacts to the extent feasible, which is currently identified as pro rata fair share contributions toward the various impacted facilities.

SEIR-RT4. The same performance measures, methods of analysis of impacts, and mitigation will be applied to any future annexation and Specific Plan development proposal for the area within the proposed Sphere of Influence Amendment, south of Williams Road.

## IMPACT AFTER MITIGATION

#### **Local Roadway Segments**

As shown in **Table 5.1-14**, impacts to the following road segments identified in **Table 5.1-13** will remain significant and unavoidable as mitigation conflicts with City policy and is considered infeasible due to right-of-way constraints or funding may be unavailable:

- 6. Boronda Road between McKinnon Street and El Dorado Drive
- 9. W. Market Street (SR 183) between N. Davis Road and Clark Street (Caltrans standard only; City standard remains less than significant)
- 10. John Street (SR 68) between Abbott Street and US 101
- 12. North Main Street (SR 68) between US 101 and Rossi Street
- 13. South Main Street (SR 68) between San Miguel Avenue and Blanco Road

Implementation of mitigation measure SEIR-RT1 and SEIR-RT4, as well as alternate mitigation proposed in **Table 5.10-14**, would result in the reduction of all potentially significant impacts to road segments 6, 10, and 12 to a level below significant. All other local roadway segments identified in **Table 5.1-13** will result in a less than significant impact as a result of implementation of the Project and do not require mitigation.

#### **Two-Lane Highway Segments**

As shown in **Table 5.1-18**, impacts to the following two-lane highway segment identified in **Table 5.1-17** will remain significant and unavoidable as mitigation measures are infeasible with limited benefit or conflict with County plans:

• 29. Blanco Road west of Davis Road (County plans alternate mitigation on Davis Road)

Implementation of mitigation measure SEIR-RT2 and SEIR-RT4 will result in the reduction of all potentially significant impacts on the following two-lane highway system segments to a level less than significant:

- 14. Crazy Horse Canyon Road south of US 101
- 16. Hebert Road between Old Stage Road and San Juan Road
- 17. San Juan Grade Road between Hebert Road and Crazy Horse Canyon Road
- 20. Old Stage Road between Hebert Road and Natividad Road
- 28. Espinosa Road west of US 101
- 43. San Miguel Canyon Road between US 101 and Castroville Boulevard
- 44. San Miguel Canyon Road between Castroville Blvd. and Strawberry Rd.

All other two-lane highway system segments identified in **Table 5.1-16** will result in a less than significant impact as a result of implementation of the Project and do not require mitigation.

#### **Freeway Segments**

Implementation of mitigation measure SEIR-RT3 and SEIR-RT4 will result in the reduction of all potentially significant impacts on the following freeway segments to a level less than significant:

- 30. US 101 between John Street (SR 68) and Market Street
- 31. US 101 between Market Street and Main Street (SR 183)
- 32. US 101 between Main Street (SR 183) and Laurel Drive
- 33. US 101 between Laurel Drive and Boronda Road
- 34. US 101 between Boronda Road and Russell Road
- 35. US 101 south of Airport Boulevard
- 36. US 101 between Russell Road and SR 156
- 37. US 101 between SR 156 and San Miguel Canyon Road
- 39. US 101 between Crazy Horse Canyon Road and San Juan Road

All other freeway segments identified in **Tables 5.1-19** and **5.1-20** will result in a less than significant impact as a result of implementation of the Project and do not require mitigation.

#### Ramp Segments

As **Table 5.1-23** describes, the addition of one lane to each of the northbound off-ramp to Boronda Road and the southbound on-ramp to Boronda Road will reduce impacts from implementation of the Project identified in **Table 5.1-23** to a level less than significant. All other freeway ramp segments identified in **Table 5.1-23** will result in a less than significant impact as a result of implementation of the Project and do not require mitigation.

#### REFERENCES

Caltrans

2002 Guide for the Preparation of Traffic Impact Studies. December.

#### City of Salinas

2002a Salinas General Plan. August.

- 2002b Salinas General Plan Final Program Environmental Impact Report. August.
- 2004 Traffic Improvement Program (TIP).

Fehr & Peers

- 2006 ERSB Sub-Area Travel Demand Forecasting Model Validation. October 6, 2006.
- 2007a Sub-Area Validation for the Salinas Future Growth Area (FGA) TIA Memo. March 22, 2007.
- 2007b Salinas Sphere of Influence Amendment and Annexation Supplemental TIA. July 31, 2007.

Monterey County

- 2006 Monterey County 2006 General Plan. Draft Program Environmental Impact Report. August 18.
- 2006 Monterey County. Response to Comments Portion of Final Program Environmental Impact Report on the Monterey County 2006 General Plan. December 20.

#### Transportation Agency for Monterey County (TAMC) 2005 Monterey County Regional Transportation Plan.

2006 Regional Development Impact Fee Program, 14 Year Transportation Improvement Plan, TAMC 2006 Annual Report.

#### Transportation Research Board

2000 Highway Capacity Manual.

## 5.2 REGIONAL WASTEWATER TREATMENT CAPACITY

The information in this section is principally based on the Salinas Future Growth Area Wastewater Treatment Facility report, prepared by Mark Thomas & Company, Inc., July 2007 (Appendix D of this SEIR). This report addresses regional wastewater treatment capacity required for the SOI Amendment and Annexation areas. Calculations also address the development of the Annexation area and Settrini Property area as a combined unit based on planning areas identified within the Salinas General Plan.

Based on the findings of the Initial Study, the environmental analysis in this section is limited to a discussion of the impacts of the Project (SOI Amendment and Annexation) on capacity-related issues pertaining to the regional wastewater treatment plant (RTP). The 2002 General Plan Final Program EIR analyzed impacts to Sewer Service (which included wastewater treatment) within the Public Services and Utilities section of the Final Program EIR. The Final Program EIR found that development resulting from implementation of the General Plan could result in a significant but mitigable impact relating to the capacity of the Salinas Pump Station, and the exceedance of peak wastewater flows at the Salinas Pump Station and Interceptor. The Final Program EIR identified no impact associated with providing wastewater treatment service consistent with Regional Water Quality Control Board standards.

After the Final Program EIR was certified, potential issues related to the capacity of the RTP were identified. With the possible exception of the capacity of the RTP, the Initial Study concluded that there would be no changes related to the circumstances under which the Project is undertaken, or no new information, such as new or greater environmental effects or mitigation measures that would require further analysis to Public Services and Utilities. For all other public services and utilities issue areas, no new information of importance exists that would suggest that the Project would require changes in the analyses or conclusions contained in the Final Program EIR. Therefore, the environmental analysis in this section is limited to a discussion of the RTP and capacity-related issues.

## ENVIRONMENTAL SETTING

Wastewater treatment for the SOI Amendment and Annexation area is provided by MRWPCA's RTP in unincorporated Monterey County, approximately 2 miles north of the City of Marina. The RTP is a secondary level plant using the Trickling Filters-Solids Contact (TF-SC) process. The current design capacity of the RTP is 29.6 million gallons per day (mgd). Approximately 21.5 mgd are currently processed at the RTP daily. The MRWPCA is in the process of amending the County Use Permit to increase allowable treatment to 29.6 mgd from the current 27 mgd and has obtained all but one permit, which is pending, to operate at the design capacity of 29.6 mgd.

The RTP was originally designed with the intent to expand capacity incrementally in three stages. The first expansion was completed simultaneously with the construction of the original RTP in 1990 from its originally planned 20.9 mgd to its current 29.6 mgd capacity. The implementation of the second and third expansions will increase capacity to 35 and 37 mgd, respectively. There is no specific time period established for the second and third plant expansions. Initiation of expansion by MRWPCA is expected to occur 5 years ahead of the time the plant reaches its design capacity.

In 1992, MRWPCA and the Monterey County Water Resources Agency formed a partnership to build a water recycling facility at the RTP. The recycling facility is known as the Salinas Valley Reclamation Plant with a 29.6 mgd water recycling capacity. The Reclamation Plant also contains a recycled water distribution system, which includes 45 miles of pipeline and 22 supplemental wells. The Reclamation Plant uses mixed media gravity filters, preceded by coagulation/flocculation, and followed by chlorine disinfection. These treatment levels meet Title 22 standards for disinfected tertiary water. This tertiary treated water is currently used for unrestricted irrigation of food crops, and irrigates 12,000 acres of farmland in the Northern Salinas Valley.

Biosolids are nutrient-rich organic materials resulting from the treatment of wastewater in the RTP. After treatment and processing, some quantity of the biosolids is recycled and applied as fertilizer to selected areas to improve and maintain productive soils and stimulate plant growth. The biosolids handling processes of the RTP are currently nearing their capacity. However, MRWPCA is currently implementing projects to enhance capacity for biosolids both through mechanical and process improvements.

## **Regulatory Setting**

The Monterey Regional Water Pollution Control Agency (MRWPCA) is a joint powers authority that provides regional wastewater conveyance, treatment, disposal, and recycling services to all of the sewered portions of northern Monterey County. There are 12 member agencies of the MRWPCA joint powers authority, including the City of Salinas. The MRWPCA was formed in 1972 to seek joint solutions to the wastewater treatment needs of its members and is governed by a Board of Directors representing each of the jurisdictions that it serves.

The RTP is subject to a permit issued by the RWQCB. The current permit (Order No. R3-2002-0083, National Pollutant Discharge Elimination System [NPDES] Permit No. CA0048551) was last renewed in 2002 and is subject to renewal in November 2007. The permit sets limitations on the amount of pollutants that the RTP can discharge into receiving waters; the MRWPCA currently has a use permit from the County of Monterey to process up to 27 mgd. The NPDES permit requires that MRWPCA notify the RWQCB when the average dry weather wastewater flow is within 4 years of being reached.

## THRESHOLD FOR DETERMINING SIGNIFICANCE

For the purpose of this SEIR, a significant impact would occur if implementation of the proposed Project:

- Would not meet wastewater treatment requirements of the applicable Regional Water Quality Control Board (RWQCB);
- Results in a determination by the wastewater treatment provider that serves or may serve the project that it does not have adequate capacity to serve the Project's projected demand in addition to the provider's existing commitments; or
- Requires or results in the construction of new wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

## ENVIRONMENTAL IMPACT

The proposed Project will result in new residential and nonresidential development that will require additional wastewater treatment plant capacity. At full buildout, development in the Annexation and Settrini Property areas would contribute an additional 5.7 mgd to the RTP. Currently, no specific development is proposed for the South of Williams area (see **Figure 3-2** and **Figure 3-3**). However, based on the planned land uses described in the Salinas General Plan, the South of Williams area would contribute 2.0 mgd to the RTP. Therefore, buildout of the SOI Amendment and Annexation areas would require approximately 7.7 mgd of the RTP wastewater treatment capacity.

## **RWQCB** Wastewater Treatment Requirements

The RTP's current permit is based on the design capacity of 29.6 mgd. Implementation of the second and third expansions of the RTP would allow for the wastewater treatment of 35 and 37 mgd, respectively. Appropriate amendment of the current NPDES permit and/or the issuance of a new NPDES permit would ensure that increased RTP wastewater flow can be treated in accordance with RWQCB requirements.

## **RTP Capacity Analysis Using MRWPCA Projections**

The MRWPCA updated its flow projections and performed a capacity analysis for the RTP in March 2005. **Table 5.2-1** illustrates wastewater flow projections in millions of gallons per day for the RTP. The MRWPCA used the 2004 Association of Monterey Bay Area Governments (AMBAG) population projections for the capacity analysis. The projections assume that there will be no service area expansion outside of the 12 member agencies of the MRWPCA joint powers authority. Agencies outside of the member cities cannot use the RTP. The projections account for growth within member agencies jurisdictions, especially the Future Growth Area (which includes both the Annexation area and the Sphere of Influence Amendment areas) as identified in the Salinas General Plan. The table also illustrates flow projections with and without the implementation of

15 percent water conservation measures in the Salinas area. According to MRWPCA projections, the RTP will reach capacity between 2020 and 2025 without implementing 15 percent water conservation measures in the Salinas area.

|   | 2005 | 2010  | 2015  | 2020  | 2025  | 2030  |
|---|------|-------|-------|-------|-------|-------|
| Flows (mgd)                                       | 21.0 | 26.60 | 27.84 | 29.08 | 30.58 | 32.06 |
| No service area expansion & no water conservation |      |       |       |       |       |       |
| Flows (mgd)                                       | NA   | 24.37 | 25.47 | 26.58 | 27.68 | 29.17 |
| No service area expansion & 15% water             |      |       |       |       |       |       |
| conservation in the Salinas area.                 |      |       |       |       |       |       |

Table 5.2-1MRWPCA Dry Weather Flow Projections, March 15, 2005

Source: Mark Thomas & Company, Inc 2007.

With 15 percent water conservation, MRWPCA projections indicate that the RTP would need to be expanded shortly after 2030. The RTP has sufficient capacity for some time into the future; however, it will be necessary to eventually increase the capacity of the RTP to provide adequate service for the entire Project. A significant impact associated with this issue may occur. Implementation of Public Services and Utilities (PSU) mitigation measures PSU2, PSU3, and PSU4 from the 2002 General Plan Final Program EIR, and mitigation measure SEIR WW1 (Wastewater 1) as discussed below will reduce the impact to a level less than significant.

Mitigation measure PSU2 requires the City to continue to work with MRWPCA to plan for and ensure adequate capacity for sewage treatment facilities. Mitigation measure PSU3 requires the City to review development proposals and require necessary studies, as appropriate, and water conservation and mitigation measures to ensure adequate water and sewer service. PSU4 requires the City to continue to implement and update the Sewer and Drainage Master Plans as necessary; the City will also analyze the need for additional pump station capacity and identify methods to reduce wet weather flows. Mitigation measure SEIR WW1 requires that the City implement 15 percent water conservation measures for development within the SOI Amendment and Annexation areas. Finally, measure SEIR WW2 requires that the City confirm the availability of sewage treatment capacity prior to approval of tentative subdivision maps.

The MRWPCA is also currently replacing the digester mixing systems that will improve the solids handling capacity; the digesters are not anticipated to reach their design capacity until at least 2030. The MRWPCA indicates sufficient capacity to modify the existing sludge thickeners to increase solids handling capabilities through 2030.

#### **RTP Capacity Analysis Using Supplemental Projections**

As indicated by the City of Salinas, the 2004 AMBAG population projections may underestimate future population in Salinas in 2030. Thus, MRWPCA projections in **Table 5.2-1** could underestimate the flow projections for the RTP. According to the

2004 AMBAG population forecast, population in Salinas will be 213,063 by 2030. However, the City of Salinas General Plan anticipates that the population will grow to 213,063 by 2020 instead of 2030. The 2002 General Plan used a 2 percent annual growth rate for Salinas while AMBAG used a 1.4 percent annual growth rate. Therefore, to analyze the implications of both population forecasts on the future capacity of the RTP, additional projections were calculated to reflect the 2002 General Plan population projection for Salinas using the 2 percent annual growth rate.

RTP flow projections were calculated using several different methodologies: historic U.S. Census data; the AMBAG population forecast; the Future Growth Area developer buildout schedule; the City of Salinas General Plan; 5.7 mgd additional flow attributed to the Annexation area and Settrini Property area buildout, etc. Among the various scenarios developed for flow projections, **Table 5.2-2** and **Table 5.2-3** represent the two methodologies that indicate the earliest and latest dates, respectively, that the physical capacity of the RTP would need to be expanded. The projected RTP flows using the other methodologies lie between these two boundaries. Therefore, the data in **Table 5.2-2** and **Table 5.2-3** are used to draw the conclusion of the earliest and latest possible expansion dates for the RTP.

**Table 5.2-2** depicts the RTP flow rates using population projections based on 2004 AMBAG forecasts for all jurisdictions (which include the 1.4 percent annual growth rate for Salinas). As indicated in the table, Salinas is the major contributor of wastewater flow to the RTP. Under this scenario, the RTP would reach its operational capacity of 29.6 mgd shortly before the year 2030 if the City of Salinas does not implement 15 percent water conservation measures. If the City fully implements 15 percent water conservation measures, the capacity of the RTP will not be reached until sometime after 2030. Except for water conservation measures, total projected flow from this scenario is similar to the wastewater flow projected by MRWPCA.

**Table 5.2-3** depicts the RTP flow projections based on the General Plan population projection for Salinas (2 percent annual growth rate) and the 2004 AMBAG forecast for other member cities. As shown in the table, Salinas is the major contributor of wastewater flow to the RTP. **Table 5.2-3** illustrates that the RTP will exceed the 29.6 mgd design capacity between 2020 and 2025 if the City of Salinas does not implement 15 percent water conservation measures. If the City fully implements 15 percent water conservation measures, the capacity of the RTP will not be reached until after 2025.

Based on the data and analysis in **Tables 5.2-2 and 5.2-3**, the RTP would need to be expanded sometime between the years 2020 and 2025 at the earliest. The latest date the RTP would need to be expanded would be between the years 2025 and 2030. Thus, these supplemental projections also indicated that the RTP would eventually need to be expanded.

|                            | 2000  | 2005  | 2010  | 2015  | 2020  | 2025  | 2030  |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|
| Del Rey Oaks               | 0.13  | 0.13  | 0.12  | 0.12  | 0.12  | 0.12  | 0.12  |
| Marina                     | 1.38  | 1.67  | 2.20  | 2.34  | 2.47  | 2.51  | 2.55  |
| Monterey                   | 3.65  | 3.67  | 3.55  | 3.52  | 3.50  | 3.52  | 3.54  |
| Pacific Grove              | 0.98  | 0.98  | 0.95  | 0.94  | 0.94  | 0.94  | 0.95  |
| Salinas                    | 12.80 | 13.06 | 14.70 | 15.56 | 16.41 | 17.69 | 18.96 |
| Salinas with 15% Water     | 10.88 | 11.01 | 12.50 | 13.23 | 13.95 | 15.04 | 16.12 |
| Conservation               |       |       |       |       |       |       |       |
| Sand City                  | 0.02  | 0.03  | 0.03  | 0.03  | 0.03  | 0.03  | 0.03  |
| Seaside                    | 2.55  | 2.64  | 2.69  | 2.69  | 2.68  | 2.70  | 2.71  |
| Moss Landing               | 0.03  | 0.04  | 0.04  | 0.04  | 0.04  | 0.04  | 0.04  |
| Castroville Water District | 0.66  | 0.72  | 0.78  | 0.85  | 0.91  | 0.97  | 1.04  |
| Total Flow                 | 22.19 | 22.93 | 25.05 | 26.08 | 27.11 | 28.52 | 29.93 |
| Total Flow with 15%        | 20.28 | 20.89 | 22.86 | 23.76 | 24.64 | 25.87 | 27.10 |
| Water Conservation in      |       |       |       |       |       |       |       |
| Salinas                    |       |       |       |       |       |       |       |

 Table 5.2-2

 RTP Flow Based on 2004 AMBAG Population Forecast for Other Cities

Source: Mark Thomas & Company 2007; EDAW 2007.

# Table 5.2-3RTP Flow Based on Salinas General Plan and2004 AMBAG Population Forecast for Other Cities

|                            | 2000  | 2005  | 2010  | 2015  | 2020  | 2025  | 2030  |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|
| Del Rey Oaks               | 0.13  | 0.13  | 0.12  | 0.12  | 0.12  | 0.12  | 0.12  |
| Marina                     | 1.38  | 1.67  | 2.20  | 2.34  | 2.47  | 2.51  | 2.55  |
| Monterey                   | 3.65  | 3.67  | 3.55  | 3.52  | 3.50  | 3.52  | 3.54  |
| Pacific Grove              | 0.98  | 0.98  | 0.95  | 0.94  | 0.94  | 0.94  | 0.95  |
| Salinas                    | 12.80 | 14.08 | 15.48 | 17.03 | 18.73 | 20.61 | 22.67 |
| Salinas w/ 15 % Water      | 10.88 | 11.97 | 13.16 | 14.48 | 15.92 | 17.52 | 19.27 |
| Conservation               |       |       |       |       |       |       |       |
| Sand City                  | 0.02  | 0.03  | 0.03  | 0.03  | 0.03  | 0.03  | 0.03  |
| Seaside                    | 2.55  | 2.64  | 2.69  | 2.69  | 2.68  | 2.70  | 2.71  |
| Moss Landing               | 0.03  | 0.04  | 0.04  | 0.04  | 0.04  | 0.04  | 0.04  |
| Castroville Water District | 0.66  | 0.72  | 0.78  | 0.85  | 0.91  | 0.97  | 1.04  |
| Total Flow                 | 22.19 | 23.95 | 25.84 | 27.56 | 29.43 | 31.44 | 33.64 |
| Total Flow w/ 15% Water    | 20.28 | 21.85 | 23.52 | 25.01 | 26.61 | 28.35 | 30.25 |
| Conservation in Salinas    |       |       |       |       |       |       |       |

Source: Mark Thomas & Company 2007; EDAW 2007.

Figure 5.2-1 graphically depicts the information found in Tables 5.2-2 and 5.2-3. The Figure illustrates that the 29.6 mgd current RTP physical design capacity will be exceeded by projected flows at approximately 2020 at the earliest and approximately 2028 at the latest. The plant would reach design capacity at the earliest (2020) using the population projections in the 2002 General Plan for the City of Salinas and the AMBAG population projections for the other member cities. The plant would reach design capacity at the latest (2028) using AMBAG population projections for all member cities, including the City of Salinas. The decisive factor on when the projected flow to the RTP reaches the 29.6 mgd design capacity will depend on the future population growth rate in member agencies, especially the City of Salinas. Additionally, implementation of 15 percent water conservation measures in Salinas will also have an effect on when the RTP needs to be expanded. As noted, Salinas is the major contributor of the wastewater flow to the RTP. Therefore, implementation of the proposed Project, the pace of development, and water conservation measures will significantly control the time that the RTP capacity is reached. In addition, actual water consumption rates in the Project area will influence the date when the RTP needs to be expanded as described in the following section.

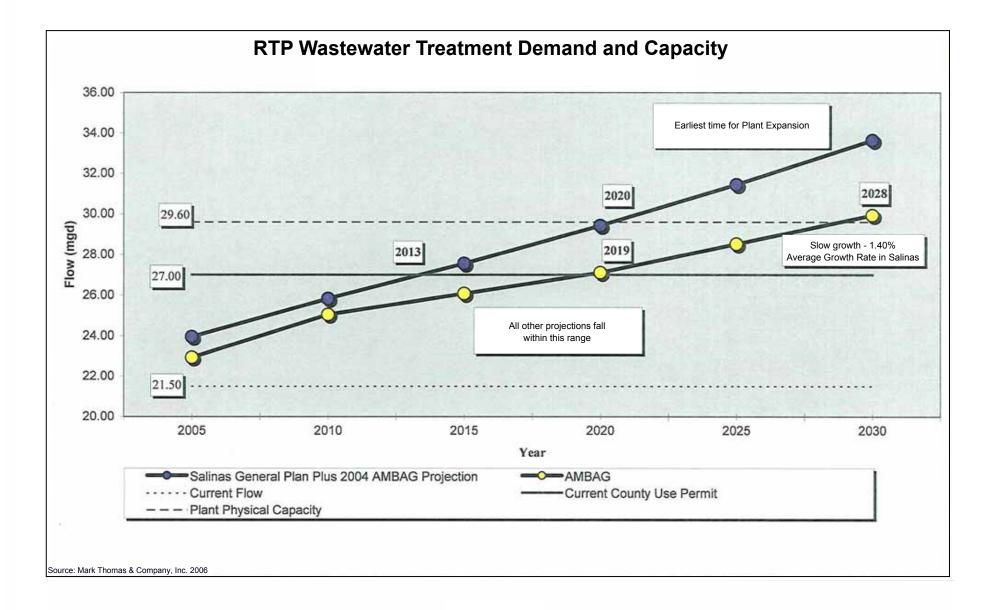
The following information is derived from the 2007 Annual Water Use Study conducted by Wood Rogers for the Future Growth Area of the City of Salinas (Appendix G of this SEIR) This study is focused on the Annexation area and Settrini Property, but its conclusions are applicable to the entire SOI Amendment area.

## **Projected Water Supply Rates**

The upper limit of estimated water supply to the Annexation area and Settrini Property area is 549 gallons per day per dwelling unit and is based on an average estimated water supply of 150 gallons per capita per day. This per capita supply number is a conservative "catch all" value accounting for water losses; hydrant tests; line flushing; leaks; water breaks; unaccounted water demand; and demand by parks, schools, median irrigation, and commercial and retail uses. Both water purveyors in Salinas (California Water Service Company (CalWater) and Alisal Water Service (Alco) indicated that they would be able to deliver this level of water supply in their respective service areas. It is possible that water demand in the Project area would reach this level on a per capita basis as described below.

## **Projected Water Consumption Rates**

Two sources of metered water use were used to arrive at a range of projected water consumption for the Annexation area. The first source is based on an average of 324 gallons per dwelling unit (89 gallons per capita per day) based on actual use at the City of Salinas' Williams Ranch Development from 2002 to 2006 as reported by Alco. This estimate was used because water consumption analysis from more recent development provides a better measure of average annual domestic and irrigation water use. More recent development incorporates water saving measures required in post-1992 household



## Figure 5.2-1 Regional Wastewater Treatment Capacity

plumbing construction, consistent with the Uniform Plumbing Code and water efficient landscaping based on CA Title 24 regulations. Water consumption data, then, from Salinas's recent area development would most likely be similar to water consumption in new development.

The second source of water use is based on the Cal Water Water Supply Assessment (WSA) for the Annexation area, which reported 355.8 gallons per service per day; this calculates to a consumption of 97.3 gallons per capita per day within residential development.

Using these two sources, water consumption estimates for the Annexation area were derived by analyzing the water demand from the proposed dwelling units, and the acreage for retail, office, mixed use, parks, and schools. This analysis resulted in a water consumption rate range for the Annexation area of 389 to 421 gallons per dwelling unit per day (106 and 115 gallons per capita per day, respectively, based on 3.67 persons per household) accounting for projected water use by all the various land uses mentioned above and dividing that amount by the planned dwelling units. **Appendix F** of the Wood Rodgers study illustrates the generation rates used for each land use type and derives the water use calculations.

The water consumption rates derived from these two sources, the Williams Ranch Development and Cal Water, would be similar to the proposed conditions for the Annexation area and take into account implementation of water conservation measures such as low volume toilet and shower flows, use of low water use landscape, restricted use of turf, and irrigation systems with low application rates that do not exceed infiltration rates.

Additionally, the range of 389 to 421 gallons per dwelling unit per day considers planned land use characteristics described in the City of Salinas General Plan. The General Plan identifies a significantly large number of medium-density residential properties (around 34%) and town homes with smaller lot sizes than average. Therefore, less outdoor area needs to be irrigated. Additionally, the Annexation area will employ low impact development (LID) measures in handling storm drainage such as grassy swales, and permeable surfaces as well as dedicated retention and detention ponds to keep storm water on-site, with the additional result of recharging the Salinas Valley Groundwater Basin. These measures have not been incorporated into the water use calculations and are cited here to demonstrate the possible enhancement of the localized water budget and to reduce, and in some cases to restrict, the flow of storm water and irrigation water offsite.

Based on this analysis and the range of projected water consumption rates, it is possible that wastewater flow to the RTP could be lower than projected in the MRWPCA analysis and the analyses in **Tables 5.2-2 and 5.2-3.** Therefore, it is possible that the expansion date of the RTP could occur at a later date than analyzed in this section. Nevertheless, the proposed Project will result in the need for an eventual expansion of the RTP.

#### **Expansion-Related Construction and Operation Impacts**

Further expansion of the RTP beyond the capacity of 29.6 mgd has the potential to cause significant construction-related environmental impacts. Construction impacts may include dust resulting from construction activities and additional truck trips on local roads, as well as other impacts. Future environmental analysis associated with the design for expanding the RTP would determine the precise environmental impacts of further treatment plant expansion and identify appropriate mitigation measures.

Expansion of RTP operations from 29.6 mgd to 35 or 37 mgd of processing could have additional environmental impacts from daily operations. Operational impacts may include but are not limited to: water quality impacts on receiving bodies; ability to provide water, energy, and public utilities infrastructure to meet operational needs; increased noise, traffic, odor, or other secondary impacts to daily operation; effects on sensitive biological resources; or other environmental impacts. Future environmental analysis associated with the new capacity of the RTP would determine the precise environmental impacts of further treatment plant operation and identify appropriate mitigation measures. Expansion of the RTP could also have growth inducing effects; these are discussed at greater length in Section 7.2 of this document.

#### Biosolids

The MRWPCA is currently replacing the digester mixing systems that will improve the solids handling capacity, and the digesters are not anticipated to reach their design capacity until at least 2030. The MRWPCA is also modifying the existing Sludge Thickeners to increase solids handling capabilities through 2030.

## MITIGATION MEASURES

The following Public Services and Utilities (PSU) mitigation measures contained in the Salinas General Plan Final Program EIR shall continue to be applied to the Project area to reduce a potentially significant impact associated with RTP capacity:

- PSU2. The City will implement General Plan Implementation Program LU-16, which requires the City to continue to work with the Monterey Regional Water Pollution Control Agency (MRWPCA) to plan for and ensure adequate capacity for sewage treatment facilities.
- PSU3. The City will implement General Plan Implementation Program LU-14, which requires the City to review development proposals and require necessary studies, as appropriate, and water conservation and mitigation measures to ensure adequate water and sewer service.

PSU4. The City will implement General Plan Implementation Program LU-15, which requires the City to continue to implement and update the Sewer and Drainage Master Plan as necessary. In addition, as part of the Master Plan update, the City will analyze the need for additional pump station capacity and identify methods to reduce the wet weather flows.

In addition to mitigation measures PSU2, PSU3, and PSU4 contained in the Salinas General Plan Final Program EIR, the City shall implement the following mitigation measures to reduce a potentially significant impact associated with regional wastewater treatment plant capacity:

- SEIR WW1. The City shall implement 15 percent water conservation measures for development within the Project area.
- SEIR WW2. The City shall confirm the availability of adequate sewage treatment capacity prior to the approval of each tentative subdivision map within the Project area.

## IMPACT AFTER MITIGATION

#### **Capacity to Serve Additional Demand**

Implementation of Mitigation Measures PSU2, PSU3, PSU4, SEIR WW1, and SEIR WW2 will reduce the impact associated with exceeding the RTP capacity to a level less than significant.

## **Construction Impacts of RTP Expansion**

Construction-related environmental impacts associated with expanding the RTP would be determined by future environmental analysis when RTP expansion is proposed and designed.

## REFERENCES

#### AMBAG

2004 "2004 AMBAG Population, Housing Unit & Employment Forecasts." http://www.ambag.org/dem.html (accessed March 12, 2007).

## Monterey Regional Water Pollution Control Agency

1986 Stage 5A Expansion. Monterey Regional Wastewater Treatment Plant. August.

## P&D Consultants

2007a City of Salinas North Future Growth Area Water System Study. January 15.

2007b Stormwater Drainage Report. July 7.

U.S. Environmental Protection Agency and Monterey Peninsula Water Pollution Control Agency

1977 Final Environmental Impact Statement and Report. North Monterey County Facilities Plan. August.

#### Wood Rodgers

2007 Annual Water Use Study. North Future Growth Area. March.

## 5.3 WATER SUPPLY

The information in this section is based on the following reports:

- City of Salinas North Future Growth Area, Water System Study prepared by P&D Consultants, July 6, 2007.
- Water Supply Assessment for West, Central and East Specific Plan Areas prepared by California Water Service Company, August 16, 2007.
- Water Service Assessment for the East and Central Specific Plan areas prepared by Alisal Water Corporation doing business as Alco, August 2007.
- Annual Water Use Study, North Future Growth Area, prepared by Wood Rodgers, March 2007.

Unless otherwise specified, calculations in this section address the development of the Annexation area and Settrini property area as a combined unit based on planning areas identified within the Salinas General Plan.

Based on the findings of the Initial Study, the environmental analysis in this section is limited to a discussion of the impacts of the Project (SOI Amendment and Annexation) on water supply and water quality issues as they affect water supply. The 2002 General Plan Final Program EIR analyzed impacts to water supply within the Hydrology/Water Quality section of the Final Program EIR and the Water Service portion of Public Services and Utilities. The Final Program EIR found that development resulting from implementation of the General Plan could result in a significant and unavoidable impact relating to increased pumping of groundwater and the availability of an adequate supply of good quality groundwater.

After the Final Program EIR was certified, potential issues related to the availability of water for development proposed under the General Plan were identified. Additionally, an area of concern regarding the amount of water to be released over the Nacimiento Dam to provide adequate habitat for steelhead was also identified. With the exception of water supply issues and water quality as it affects water supply, and the amount of release water for steelhead, the Initial Study concluded that there would be no changes related to the circumstances under which the Project is undertaken, or no new information, such as new or greater environmental effects or mitigation measures that would require further analysis to Hydrology/Water Quality and Public Services and Utilities. For all other Hydrology/Water Quality issues and public services and utilities issue areas, no new information of importance exists that would suggest that the Project would require changes in the analyses or conclusions contained in the Final Program EIR. Therefore, the environmental analysis in this section is limited to a discussion of the water supply issues, water quality issues as they affect water supply, and the amount of release water over the Nacimiento Reservoir spillway to provide habitat for steelhead.

5.3-1

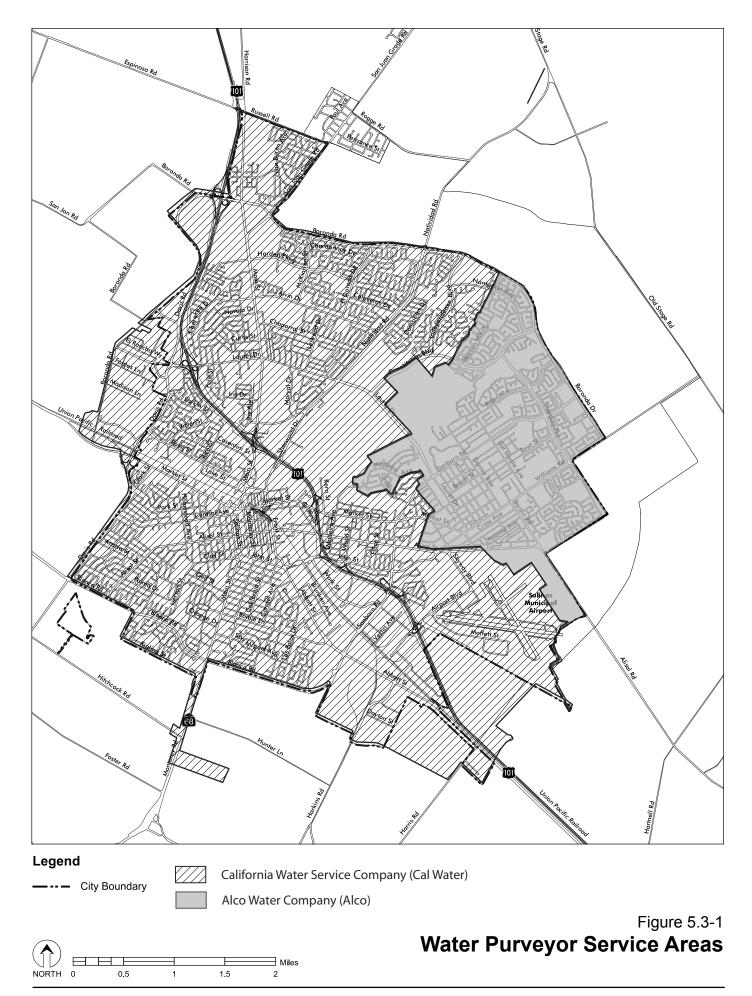
## **ENVIRONMENTAL SETTING**

#### Overview

The City of Salinas, as well as the Project (SOI Amendment and Annexation) area is dependent on groundwater for its water supply. No imported water sources are available. Water sources other than groundwater are described below under *Water Sources*. Groundwater is generated through recharge of the Salinas Valley Groundwater Basin (SVGB) via the Salinas River and water supplies are limited to the watershed. The high dependence on groundwater and the growth in water demand by urban and agricultural users has strained the groundwater resources of the Salinas Valley. Monterey County Water Resources Agency (MCWRA) estimated that annual overdraft of the SVGB averaged 19,000 af/yr during the 1949 to 1994 period. Despite efforts to maintain a balance, increased pumping during the irrigation season has resulted in seasonal as well as long-term declines in groundwater levels in some parts of the Valley. The overdrafting of groundwater is not only an issue of supply, but also leads to contamination of the water supply by seawater intrusion and exacerbates the degradation of the water supply by nitrate contamination associated with agricultural runoff.

Seawater intrusion in the Salinas Valley has been occurring since the 1930s and was first documented in 1946. Declining groundwater levels have caused a lowering, and even reversing, of the hydraulic gradient of the groundwater system, resulting in seawater intrusion. The average annual seawater intrusion has continued to increase over time, resulting in contamination of the groundwater supply and closure of some public water system wells. If a project is not identified and implemented to curtail the inward movement of seawater, the State Water Resources Control Board (SWRCB) will adjudicate the basin, meaning that restrictions on the amount of water withdrawn from groundwater well sources could be enacted. Thus, cooperating with other State, regional, and local agencies to halt seawater intrusion into the basin is essential in ensuring and improving water quality and supply in the basin. Seawater intrusion is discussed in more detail below.

MCWRA is responsible for the management of the water resources in Monterey County, including the City of Salinas. This includes operation and oversight of the Monterey Regional Water Recycling Projects (which consists of the regional tertiary treatment facility, the distribution system known as Castroville Seawater Intrusion Project (CSIP) and the Salinas Valley Water Project (SVWP), and the San Antonio and Nacimiento Reservoirs. MCWRA is also responsible for the Reclamation Ditch. The major water service providers serving the Salinas area are California Water Service Company (Cal Water), and the Alisal Water Service Company, doing business as Alco. Each water service provider owns and operates its respective wells. **Figure 5.3-1** depicts the respective service areas of Cal Water and Alco. Cal Water generally serves the western, central, and southern portions of the City, while Alco generally serves the northern and eastern portions of the City. No interagency water connections exist between the two water providers, although Alco and Cal Water have discussed the possibility of establishing a permanent cross-connection to be used during emergencies and are currently working together to find potential locations for such a connection.



#### Water Sources

There are three major groundwater basins in Monterey County: the SVGB, the Carmel Valley Basin, and the Pajaro Valley Basin. Most of these groundwater basins lie beneath thick alluvial deposits of the major rivers, marine terrace deposits, or other thick sedimentary deposits. As mentioned above, all of the existing water supply for the City of Salinas, including the Project area, is groundwater derived from the SVGB from two hydraulically connected subbasins or areas of the SVGB known as the Pressure Subarea and the East Side Subarea. Monterey County also derives a majority of its total water supply from groundwater. Of its water supply, 95 percent comes from groundwater, while 5 percent is from recycled water, desalination, and surface water.

Major reservoirs are primarily used as a source of groundwater recharge. Groundwater is recharged or replenished through gradual seepage and infiltration of surface water, especially during the wet season (November to March). Most recharge occurs where runoff is low due to permeable soils or fractured rock, and where slopes are gradual enough to allow water to seep into the ground. Recharge is concentrated where there is sustained flow or a sufficient depth of water to allow for groundwater infiltration and downward seepage into the water table. This is most prevalent beneath surface water supplies such as through the bed of the Salinas and Carmel Rivers, as well as through the bottom of the Nacimiento and San Antonio Reservoirs. Recharge also occurs in any open or unpaved areas where the ground is saturated and water is not lost to evaporation, plant transpiration, consumption, or runoff. Urban development and the resultant increase in impervious cover over important recharge areas has historically reduced natural recharge opportunities in some areas. However, these areas are small compared to the percentage of recharge area covered by agricultural and grazing land, and along streams and rivers.

## Salinas Valley Groundwater Basin

The Project area is located within the SVGB. The SVGB is the largest groundwater basin in Monterey County and the roughly 200,000 acres of agriculture in the basin is collectively the largest consumer of groundwater. Besides the City of Salinas, incorporated cities that draw water from the basin include Marina, Soledad, Gonzales, Greenfield, and King City. There are more than 700 wells located throughout the basin. Major issues include chronic overdraft that has contributed to seawater intrusion in the north, and nitrate contamination due to agricultural runoff.

The SVGB consists of three main vertically divided aquifers: the 180-foot zone, 400-foot zone, and the 900-foot or deep zone, extending approximately 2,000 feet below land surface. Seawater intrusion has rendered many coastal wells in the 180-foot aquifer in the Pressure Subarea unusable (see below for a description of this area). The presence of clay strata or aquitards overlying the aquifer units provides protection of water quality in deeper wells from potential sources of surface contamination.

The groundwater basin in the Salinas Valley consists of one large hydrologic unit composed of four subareas. These subareas have different hydrogeologic and recharge characteristics, but barriers to horizontal flow do not separate them and it is possible for water to move between them. Landowners and other water users pumping groundwater are drawing water from the same groundwater basin. The Pressure Subarea and the East Side Subarea are two of the four subareas of the SVGB located within and/or in proximity to the Project area as well as the City of Salinas. Even though it is possible for water to move between all four subareas of the SVGB, presently and for the near and mid-term future, the Pressure Subarea and the East Side Subarea are the only two subareas available to supply water to the Salinas area. Besides the Pressure and East Side Subareas, the other two subareas of the SVGB include the Upper Valley Subarea and the Forebay Subarea.

#### Pressure Subarea

Much of the City of Salinas and the Project area lie within the Pressure Subarea, which includes approximately 91,000 acres between the City of Gonzales and Monterey Bay. It is composed mostly of confined and semi-confined aquifers separated by clay layers (aquitards) that limit the amount of vertical recharge. Three primary water-bearing strata have been identified in the Pressure Subarea: the 180-foot aquifer, the 400-foot aquifer, and the deep zone. These aquifers are separated by aquitards (aquitards are composed of layers of either clay or non-porous rock with low hydraulic conductivity that restrict the flow of groundwater from one aquifer to another), although some vertical recharge occurs locally where the aquitards are thin or absent. The uppermost aquitards allow some limited recharge from the Salinas River directly to the 180-foot aquifer in the area near Spreckels. The areas of thin or absent aquitards also allow some interconnection between the shallow (180-foot) and deeper (400-foot) aquifers. Because of its characteristics, the Pressure Subarea has the greatest potential for high yielding wells.

#### Pressure Subarea Groundwater Availability

The California Department of Water Resources (DWR) Bulletin 118 provides a detailed groundwater budget for the Pressure Subarea for 1994. Natural recharge into the aquifer was estimated to be 117,000 acre-feet (af). Subsurface inflow is estimated to be 21,000 af. Annual urban and agricultural extractions total approximately 130,000 af and there are no other extractions. Subsurface outflow is approximately 8,000 af. There is no artificial recharge. Therefore, as of 1994, according to DWR calculations this subarea is technically hydrologically balanced and no overdraft is occurring based on these calculations. In 2005 MCWRA documented total extractions of 118,000 af.

Calculations done by DWR in 2000 estimated the total storage capacity of this subarea to be 7,240,000 af. As of 1998, there was 6,860,000 af of groundwater in storage. These calculations do not consider the effects of salinity from seawater intrusion as discussed in the water quality section.

#### East Side Subarea

The East Side Subarea generally is located north and east of the City of Salinas and consists of 74,000 acres. This Subarea includes unconfined and semi-confined aquifers in the northern portion of the SVGB that historically received most of its recharge from

percolation from stream channels on the west slope of the Gabilan Range. As a result of extractions in excess of recharge, the declines in groundwater level in the East Side Subarea have induced subsurface recharge from the Pressure Subarea and the Forebay Subarea (located south of the Pressure and East Side Subareas), thus reversing the naturally occurring seaward gradient. The East Side Subarea is thus no longer serving as a source of recharge to the Pressure Subarea, and the inflow of groundwater from the Pressure Subarea to the East Side Subarea is estimated to now be a larger source of recharge than the traditional recharge generated by the stream channels coming from the Gabilan Range. Because of the characteristics of this Subarea, wells may be lower yielding than those in the Pressure Subarea.

#### East Side Subarea Groundwater Availability

The California DWR Bulletin 118 provides a detailed groundwater budget for the East Side Subarea for 1994. Natural recharge (including applied water recharge) is estimated to be 41,000 af. There is no artificial recharge. Subsurface inflow is approximately 17,000 af. Annual urban and agricultural extractions totaled 86,000 af. There are no other extractions or subsurface outflow. Therefore, as of 1994, this Subarea was in overdraft of approximately 28,000 af/yr. In its 2007 Water Supply Assessment (WSA), Alco noted that as of 1994, the DWR estimates that the East Side Subarea had approximately 2,560,000 af of stored groundwater, and approximately 91.4 years of water available in the Subarea (2,560,000 af / 28,000 af of overdraft per year = 91.4 years). Therefore, Alco noted that according to DWR's documentation, if no steps were taken to address overdraft issues in the East Side Subarea, as of 2007 there would be approximately 78 years of capacity in the East Side Subarea.

#### Service Provider Water Sources

Alco obtains all of its water from the SVGB, more specifically the East Side Subarea. Cal Water also obtains all of its water from the SVGB, more specifically from both the East Side Subarea and the Pressure Subarea. As previously stated, these subareas have different hydrogeologic and recharge characteristics, and water can move between the subareas. Essentially, Alco and Cal Water are pumping groundwater from the same groundwater basin.

As of August 2007, Cal Water had a total of 30 water supply wells in the Salinas service area. Within the City of Salinas, Cal Water anticipates the completion of four new wells in late 2007 through mid 2008. Additionally, Cal Water plans to add new wells through the year 2027 (described in Environmental Impact subsection below).

As of August 2007, Alco had eight water wells; five are in active service and three have been designated as standby sources by the California Department of Public Health and will be returned to active states after the addition of treatment or blending facilities to address arsenic. Alco currently has one new water source already drilled and testpumped and will be adding this source to its system in the near future. Alco is also in the process of drilling four new water sources to add to the water system (planned for 2007). Alco's existing eight water sources, as well as those new sources that are drilled and/or are scheduled to be drilled, draw water from the 400-foot aquifer and the deep aquifer, while only one well solely draws water from the 400-foot aquifer.

#### Salinas Valley Water Demand

According to the most recent (2005) Ground Water Summary Report prepared by MCWRA, an average of 507,000 acre-feet per year (af/yr) of water was pumped from the SVGB between 1995 and 2005. This figure includes measured well extraction data compiled by the MCWRA and an estimate of other unmeasured or unreported extractions. For 2005, the Ground Water Summary Report indicates that approximately 494,046 af was pumped, including 443,567 af of agricultural pumping and 50,479 acrefeet of urban pumping. Agricultural use represents approximately 90 percent of demand with the remaining 10 percent of demand for residential, commercial, industrial, and other urban uses.

Since total recharge by the Salinas River is estimated at 500,000 af/yr, the annual shortfall or overdraft is approximately 7,000 af/yr based on the average 507,000 af/yr of water pumped from the SVGB between 1995 and 2005. Because of the hydrologic continuity between the ocean and the aquifers of the SVGB, seawater has been intruding into the aquifers near the coast at a rate of approximately 10,000 af/yr. Groundwater pumping throughout the entire valley has contributed to overdraft of the SVGB. MCWRA data indicate that water levels have declined in all four of the SVGB subareas. However, minor declines in the lower two subbasins (Upper Valley and Forebay) appear to be in response to extended drought conditions.

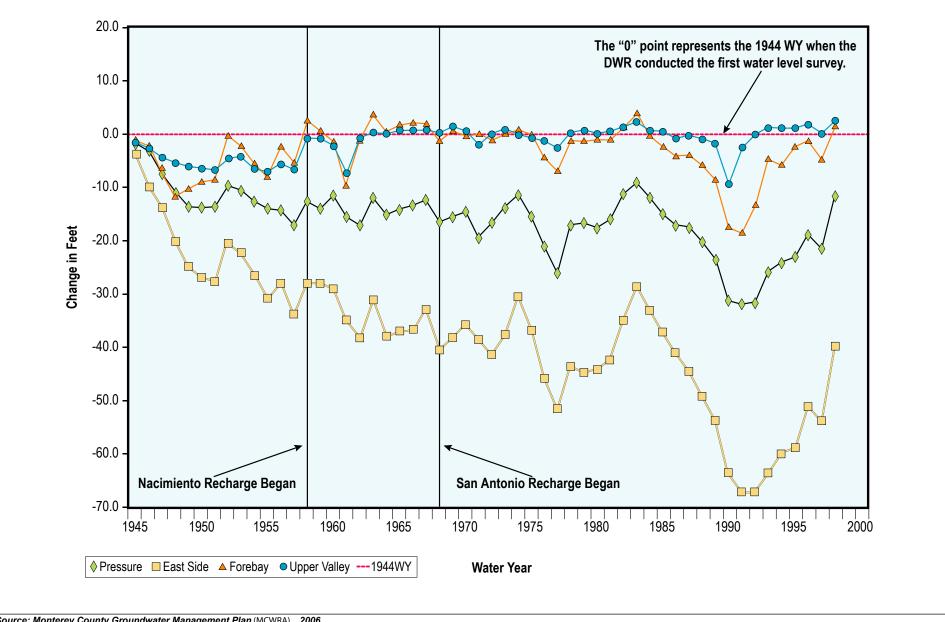
#### **Groundwater Levels**

The MCWRA measures and monitors the groundwater levels in the SVGB. Historical groundwater elevations reflect drawdown and depressed groundwater levels during the summer irrigation season followed by recovery of groundwater elevations in the winter. **Figure 5.3-2** illustrates changes in average groundwater levels as measured in selected wells in the Pressure, East Side, Forebay and Upper Valley Subareas over the period of record.

Urban demands are typically the highest in the summer months due to landscaping requirements, whereas agricultural demands are high due to the growing season for most crops. Water releases from the Nacimiento and San Antonio Reservoirs have kept the Forebay and Upper Valley water levels relatively stable while the East Side and Pressure Subareas have experienced the greatest decrease in water levels. Water levels in the Pressure Subarea appear relatively stable; however, the Pressure Subarea abuts the Ocean, which provides a huge seawater reservoir of water for inflow (seawater intrusion).

#### Salinas Groundwater Levels

The most recent Cal Water WSA for the Annexation area, dated August 2007, indicated that except for an annual variation of approximately 35 feet, average static groundwater



Source: Monterey County Groundwater Management Plan (MCWRA) 2006.

## Figure 5.3-2 **Changes in Groundwater Levels** (1945-1998 Annual Average)

levels in most of Cal Water's Salinas District Wells since 1961 have changed elevation only during drought years. Historical data collected continuously over the last 25 years indicate that the Salinas system has not experienced regular or frequent supply deficiencies during dry weather periods. Groundwater charts show that the majority of Cal Water's wells combined static levels have remained essentially unchanged during this period. From 1980 to 1999 (20-year period), the Salinas District's annual demand increased 77 percent from 10,562 af to 18,690 af (428 af/yr). In 1976 and 1977, the average groundwater elevation declined by 20 feet. Recovery occurred in 1982 and 1983 when increased rainfall and runoff refilled local reservoirs and increased groundwater recharge. With the extended drought that started in 1984, the average elevation began declining and by summer 1992 had dropped by 35 feet. Recovery of the groundwater level during the past few years has been occurring as a result of increased rainfall and runoff. Salinas District well levels for the past 15 years (1991 to 2006) show the average depth to groundwater is 120 feet below ground surface with minimal change. However, Figure 5.3-2 illustrates that groundwater levels have declined in the Pressure and East Side Subareas. The data used in this figure date back to the 1940s whereas Cal Water's analysis for changes in groundwater levels dates back only to 1961.

## Salinas Valley Groundwater Basin Management

## Groundwater Adjudication

While the SVGB is not an adjudicated basin, the SWRCB initiated adjudication proceedings in 1996. In response to concerns about overdrafting, the SWRCB assembled a SVGB adjudication team to "... protect the groundwater and surface water supplies in the Salinas Valley" (Cal Water 2007). It is to accomplish this by: "working with local stakeholders and decision-makers to reach consensus on a solution to the seawater intrusion and nitrate contamination problems in the Salinas Valley; and by performing a Salinas Valley Groundwater Basin adjudication, if necessary." Adjudication would result in loss of local control and state oversight of water resources in the basin. While the SWRCB initiated the first phase of this process (administrative proceedings), it has indicated that it will not proceed with adjudication if an effective solution to stop seawater intrusion is implemented.

## Salinas Valley Water Project and Castroville Seawater Intrusion Project

The MCWRA, Army Corps of Engineers (ACOE), SWRCB, and Regional Water Quality Control Board (RWQCB) have developed the SVWP and the CSIP to better manage groundwater quality and reverse the long-term trend of seawater intrusion and groundwater declines in the SVGB. These projects are designed to work in tandem.

The SVWP was instituted because studies have established that the primary solution for controlling seawater intrusion and overdraft in the Salinas Valley is reestablishment of higher groundwater levels by relieving pumping stresses in the aquifers in the Pressure and East Side Subareas. The SVWP is aimed at meeting both agricultural or rural and urban demands in the Salinas basin, which is the majority of water demand in the County. The SVWP is currently in the permitting and design stage. Construction of the project is

anticipated to begin in 2008 and continue through 2009. Operation of the project is anticipated to begin in 2009.

The SVWP was developed to address the following critical water supply, water distribution, and water quality issues in the Salinas Valley:

- Stopping seawater intrusion;
- Managing nitrate contamination in the groundwater;
- Providing adequate water supplies to meet current and future (Year 2030) agricultural needs; and
- Hydrologically balancing the groundwater basin in Salinas Valley.

To address these issues, the SVWP proposes:

- Modifying the spillway at Nacimiento Dam and reoperating Nacimiento and San Antonio Reservoirs;
- Utilizing the Salinas River for conveying water to the northern portion of the Salinas Valley;
- Storing flows from the Monterey County Water Recycling Project and utilizing the stored recycled water to help meet summer irrigation needs;
- Diverting a portion of the Salinas River flow; and
- Treating and distributing water to agricultural users in the northern Salinas Valley.

Modification of the spillway at the Nacimiento Dam and Reservoir will allow water to be released during the irrigation season (April through October) from the increased storage The nitrate management program is designed to implement a in the winter. comprehensive outreach, education, and monitoring effort aimed at reducing nitrates entering the water supplies. The Salinas River diversion calls for an in-stream surface diversion "rubber dam" located near the coast to trap water released from the two reservoirs. This water would then be pumped to adjacent coastal lands for use in lieu of groundwater pumping. Total SVWP diversions are estimated to be 12,000 af/yr on average and a maximum of 25,000 af/yr. Surface water diversions are to comply with requirements established by the National Marine Fisheries Service (NMFS) and California Department of Fish and Game (CDFG) with respect to protecting fishery resources in the Salinas River. On June 21, 2007, the NMFS found, based on a review of the ACOE proposal to permit the construction of the Salinas River Diversion Facility, that the proposed actions are not likely to jeopardize the continued existence of threatened steelhead or adversely modify or destroy designated critical habitat for the species.

The CSIP, managed by the MCWRA, includes the construction and use of a reclaimed wastewater plant that collects sewage from Castroville, Marina, the Monterey Peninsula, Moss Landing, Salinas, and Seaside. This project was operational as of 1998 and delivers approximately 13,000 af/yr of recycled water during the irrigation season for the Castroville area, expecting to increase to about 21,000 af/yr as the combined CSIP and SVWP are fully implemented. The CSIP reduces groundwater pumping and seawater

intrusion. MCWRA estimates that, with the SVWP, this project addresses approximately 40 percent of the overdraft and seawater intrusion project in the SVGB.

The CSIP will not reverse (i.e., mitigate) the seawater intrusion that has already occurred in the Pressure Subarea. Additionally, the CSIP will not mitigate the decline in groundwater levels in the East Side Subarea because it does not recharge groundwater in that area, although the delivery of water to the Pressure Area will help stabilize levels in the East Side Subarea.

## Water Quality

The groundwater quality in much of Monterey County is considered good to excellent. However, localized water quality problems exist from the occurrence of seawater intrusion and nitrate contamination, most prevalent in agricultural areas that include the Project area. Within the SVGB, water contaminants of major concern include nitrates and volatile organic compounds (VOCs) such as MTBE. Within the Cal Water service area, nitrates are present in most wells at varying concentrations due to vertical movement from the ground surface through geologic materials and unsealed or improperly abandoned wells in response to pumping in deeper strata. Nitrate contamination levels are increasing over time.

Within the Cal Water service area, several wells have water quality issues that require further monitoring or treatment when drinking water standards are exceeded. Within the last 5 years, four wells were inactivated due to excessive levels of nitrates, two wells were inactivated due to excessive MTBE levels, and three wells were inactivated due to casing collapse (old wells at the end of their useful life). To replace lost supply capacity and meet future supply needs, Cal Water has designed and constructed new wells, system storage, and related booster pumps, and when necessary, provides on-site treatment for wells whose decline in water quality would otherwise require inactivation of the wells. Cal Water has installed various treatment mechanisms at eight of its wells. To date, remedial actions taken by Cal Water to improve water quality have not limited its delivery capacity to the City of Salinas.

Within the Alco service area, three of Alco's eight wells are currently designated as standby sources by the California Department of Public Health and will be returned to active states after the addition of treatment or blending facilities to address arsenic.

The most prominent water quality problems affecting water basins in Salinas and the Project area are (1) nitrate contamination, (2) salinity/chloride ions resulting from seawater intrusion, and (3) pollutants in urban runoff.

#### Nitrate Contamination

Nitrate contamination occurs mostly in areas of intense agricultural activity, where excess applied fertilizer migrates into groundwater by leaching from the soil or deep percolation from surface water bodies fed by agricultural runoff. It is also flushed into irrigation

drainage ditches where it flows to creeks, rivers, and estuaries, and eventually into Monterey Bay.

Recent research indicates that nitrates in the topsoil can take as long as 17 years to migrate downward into the groundwater and up to 50 years to reach the depth of most well intakes. This suggests that nitrate levels measured today reflect nitrate loads as they existed 20 to 50 years ago. The widespread use of nitrogen-based fertilizers in the intensive, high-productivity irrigation agriculture of vegetable and truck crops practiced in the Salinas Valley has greatly accelerated in the past 20 to 50 years, leading to a condition in which present estimates of nitrate contamination may underestimate actual future nitrate concentrations in groundwater.

Nitrates can be removed from groundwater by either ion exchange and/or reverse osmosis. Both of these methods are very expensive and treatment to remove nitrates and other contaminants remains very cost prohibitive. Because of the cost, the common solution is usually to drill a new and deeper well with a deep seal to prevent contaminated water from entering the perforations. All the Salinas Valley water utilities, as well as many small water systems throughout the County, have implemented this solution.

Nitrate has contaminated groundwater to varying concentrations throughout the Salinas Valley. The state and federal maximum contaminant level, (MCL) for nitrate in drinking water is 45 milligrams per liter (mg/L). In 50 percent of the wells sampled throughout the SVGB, nitrate exceeds the 45 mg/L MCL for drinking water. In some wells nitrate has reached several hundred mg/L. All of the Salinas Valley cities have had to replace domestic water wells due to high nitrate levels that exceed the drinking water standard. New wells are typically drilled to a depth of 1,000 feet or more and sealed to at least 450 feet. High concentrations of nitrate limit beneficial use of the groundwater for potable uses and for some agricultural uses. Groundwater in areas of intense agricultural activity in the Salinas Valley is sufficiently high in nitrate to function as effective fertilizer without further chemical additives. These statistics strongly indicate that nitrate contamination has affected the upper aquifer layer throughout the Salinas basin. All of the cities in the Salinas Valley have been forced to abandon pumping from the shallow aquifer layer and pump from deeper levels.

## Pollutants in Urban Runoff

Urban runoff sources include yards, sidewalks, streets, construction sites, and parking lots. As water passes over these sources, it picks up a variety of potential pollutants such as sediments, oils and grease, nutrients, pesticides, and pathogens that can be transported to the rivers, wetlands, and other waters. Urban runoff carries more heavy metals, fecal coliforms, and other pollutants than natural runoff waters. Any deposits of oil, grease, pesticides, herbicides, soil, pet droppings, etc. in these areas are flushed by rainwater, landscape irrigation, and other means down storm drains and directly into streams, rivers, and/or Monterey Bay. The water flowing through storm drains is untreated and therefore carries pollutants into local waterways. Runoff increases with population growth and urbanization because such activities increase the amount of impervious surfaces and alter natural water processes. The absorption rate for impervious surfaces is less than the rate

for natural lands. In 2005, the City was issued a new National Pollution Discharge Elimination System (NPDES) permit by the California RWQCB that allows discharge of storm water from municipal separate sewer systems (MS4s) within City jurisdiction. The permit imposes numerous requirements on the City to eliminate or reduce the impacts of pollutants in urban runoff. The City is actively implementing various aspects of the NPDES permit.

#### Salinity from Seawater Intrusion

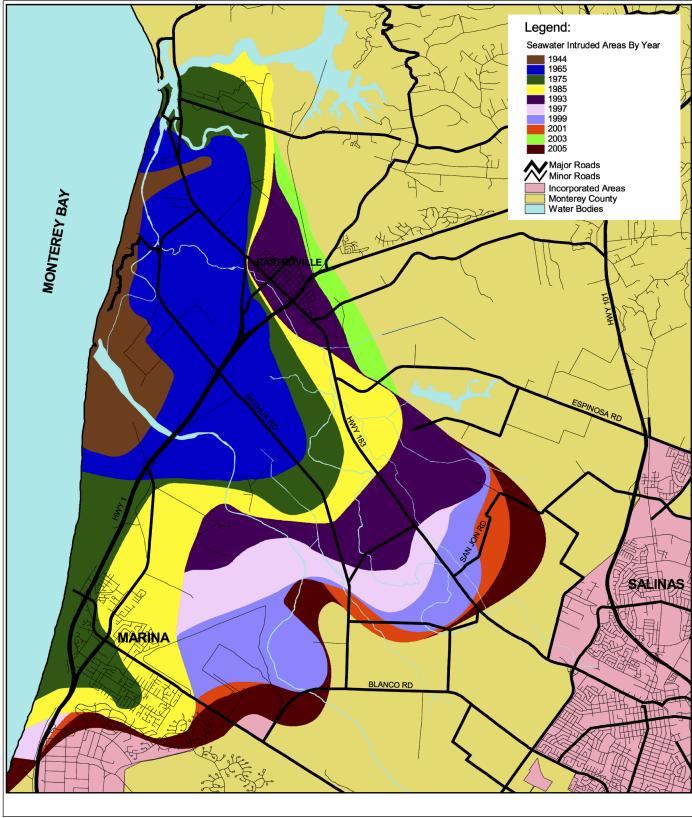
Seawater intrusion is the migration of ocean water inland into a freshwater aquifer. This condition occurs when a groundwater source (aquifer) loses pressure, allowing the line between fresh water and seawater to move into the aquifer. The pumping of groundwater faster than the aquifer can recharge is a common cause that induces intrusion.

Seawater intrusion has impacted the coastal portion of the Pressure Subarea of the SVGB since at least the 1930s. Seawater has contaminated two of the three primary producing aquifers in the coastal part of the SVGB, the 180-foot and the 400-foot aquifers, and is estimated to be advancing at an average rate of 425 feet per year. The most recent studies (1999) estimate that as much as 24,019 acres in the Salinas Valley aquifer has a chloride concentration in excess of 500 mg/L at the 180-foot aquifer level as a result of seawater intrusion. An estimated 10,504 acres of land overlying groundwater has a chloride concentration over 500 mg/L in the 400-foot aquifer. **Figure 5.3-3 and Figure 5.3-4** depict the current and historic seawater intrusion in the 180-foot and 400-foot Pressure Subareas, respectively.

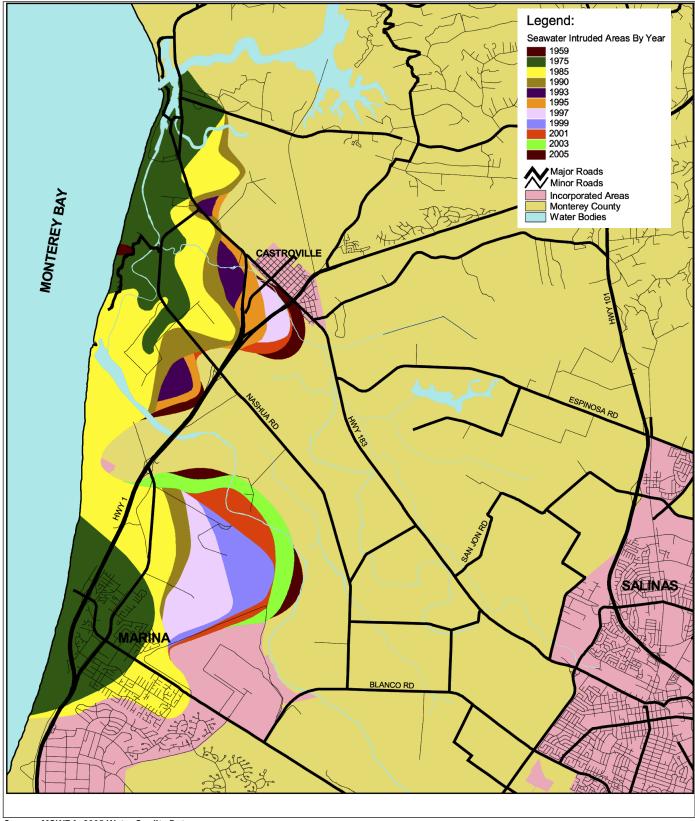
Seawater intrusion occurs near the coast principally because extraction of fresh groundwater exceeds recharge in the northern part of the Salinas Valley. Any significant pumping of groundwater between Salinas and the coast causes seawater intrusion. The intrusion of seawater has forced all water supply wells in the impacted area of the 180-foot aquifer to be re-drilled into the 400-foot aquifer. Additionally, in those areas where the 400-foot aquifer also suffers from seawater intrusion, the deep aquifer has become a major source of water. The water of this aquifer is up to 30,000 years old. Because of the prehistoric origin of this water, withdrawal from the deep aquifer is a non-sustainable activity.

Because of seawater intrusion, urban and agricultural wells have been abandoned or destroyed in some locations. Although seawater intrusion can be halted by stabilizing groundwater levels and may be reversed to some degree, it may not be possible to restore the seawater/freshwater interface completely to its pre-intrusion location. The difficulty is being able to reduce the pressure of a larger body of water (ocean) enough to push the line back. No documented instances exist of fully restoring groundwater basins to pre-intrusion conditions.

The Pressure Subarea and the East Side Subarea of the SVGB contain clay strata overlying some of the aquifer units, which do protect water quality in the deeper wells from potential sources of surface contamination.



Source: MCWRA, 2005 Water Quality Data



Source: MCWRA, 2005 Water Quality Data

## Federal Regulations

The EPA is the federal agency responsible for water quality management and administration of the federal CWA. The EPA has delegated most of the administration of the CWA in California to the SWRCB. The SWRCB was established through the California Porter-Cologne Water Quality Act and is the primary state agency responsible for water quality management issues in California. Much of the responsibility for implementation of the SWRCB's policies is delegated to the nine RWQCBs. The Project area is located within the Central Coast region (Region 3).

Section 402 of the CWA established the NPDES to regulate discharges into "navigable waters" of the United States. The EPA authorized the SWRCB to issue NPDES permits in the State of California in 1974. NPDES permits establish discharge pollutant thresholds and operational conditions for industrial discharges, wastewater treatment plants, and urban storm water runoff.

Control of storm water runoff is a primary focus of the Central Coast Regional Water Quality Control Board (CCRWQCB). The CCRWQCB designates beneficial uses, establishes water quality objectives, and administers the NPDES permit program, which regulates storm water runoff and discharges into the City's MS4. To that end, the CCRWQCB guides and regulates water quality in streams and aquifers throughout the Central Coast region, including the Project area.

The City is currently subject to the requirements of Phase II of the NPDES permit program and is the only Phase II jurisdiction in Region 3. Phase II requires permits for storm water discharge from (1) certain specific industrial and construction activities, (2) medium and large MS4s located in incorporated places with populations of 100,000 or more, (3) construction sites disturbing greater than 1 acre of land, and (4) operators of MS4s in urbanized areas. Moreover, as a general matter, Phase II of the NPDES permit program is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of storm water discharge that have the greatest likelihood of causing environmental degradation.

The federal Safe Drinking Water Act (SDWA), which was enacted in 1974, gives the EPA the authority to set standards for contaminants in drinking water supplies. The SDWA was amended in 1986 and further amended and reauthorized in 1996. For each of the 83 contaminants listed in the SDWA, the EPA sets a maximum contaminant level or treatment technique for contaminants in drinking water.

#### State Rules and Regulations

The SWRCB manages all water rights and water quality issues in California under the terms of the Porter-Cologne Water Quality Control Act (1969). The California Department of Public Health (DPH) has been granted primary enforcement responsibility for the SDWA (see above). Title 22 of the California Administrative Code establishes

DHS authority and stipulates drinking water quality and monitoring standards. These standards are equal to or more stringent than the federal standards.

Senate Bill (SB) 610, which took effect January 1, 2002, requires specific information about water availability be presented and considered by land use agencies during the processing of certain land use entitlement applications. SB 610 applies to projects that include more than 500 residential units. SB 610 refers to numerous details that must be addressed in the WSA, which are described in portions of the amended Water Code Section 10910:

(d)(1) The assessment required by this section shall include an identification of any existing water supply entitlements, water rights, or water service contracts relevant to the identified water supply for the proposed project, and a description of the quantities of water received in prior years by the public water system...under the existing water supply entitlements, water rights, or water service contracts.

(2) An identification of existing water supply entitlements, water rights, or water service contracts held by the public water system [...] shall be demonstrated by providing information related to all of the following: (A) Written contracts or other proof of entitlement to an identified water supply. (B) Copies of a capital outlay program for financing the delivery of a water supply that has been adopted by the public water system. (C) Federal, state, and local permits for construction of necessary infrastructure associated with delivering the water supply. (D) Any necessary regulatory approvals that are required in order to be able to convey or deliver the water supply.

(e) If no water has been received in prior years by the public water system [...] under the existing water supply entitlements, water rights, or water service contracts, the public water system [...] shall also include in its water supply assessment [...] an identification of the other public water systems or water service contract holders that receive a water supply or have existing water supply entitlements, water rights, or water service contracts, to the same source of water...

If the water agency relies upon water supplies not then available to it, then the written verification must be based on the following elements, to the extent each is applicable:

- (1) Written contracts or other proof of valid rights to the identified water supply that identify the terms and conditions under which the water will be available to serve the proposed subdivision.
- (2) Copies of a capital outlay program for financing the delivery of a sufficient water supply that has been adopted by the applicable governing body.
- (3) Securing of applicable federal, state, or local permits for construction of necessary infrastructure associated with supplying a sufficient water supply.

(4) Any necessary regulatory approvals that are required in order to be able to convey or deliver sufficient water supply to the subdivision.

The water agency's written verification must also "include a description, to the extent that data is reasonably available based on published records maintained by federal and state agencies, and public records of local agencies, of the reasonably foreseeable impacts of the proposed subdivision on the availability of water resources for agricultural and industrial uses within the public water system's service area that are not currently receiving water from the public water system but are utilizing the same sources of water."

## Adjudication

The State Board has several other major water right responsibilities in addition to administering the permit and licensing system. These duties include statutory adjudication and court reference. Statutory adjudication is a process by which the comprehensive determination of all water rights in a stream system is made. This happens if a claimant petitions the State Board for an adjudication and the Board finds the action necessary and in the public interest. The California Supreme Court has held that claimants or petitioners can include not only water users, but also those seeking recognition of public trust values on a streamwide basis.

After granting the petition, State Board staff investigates the matter and issues a report that includes a draft Order of Determination. A hearing is then held on objections to the draft report, after which the State Board adopts a final Order of Determination and files it with the appropriate Superior Court. Objections to the final order are heard in a court hearing, after which the court may determine their merits. The final step is a court decree that determines all water rights within the disputed system.

## Urban Water Management Planning Act

The Urban Water Management Planning Act became part of the California Water Code with passage of Assembly Bill 797 during the 1983-84 regular legislative session. The Act requires every urban water supplier providing water for municipal purposes to more than 3,000 customers or supplying more than 3,000 af of water annually to adopt and submit an urban water management plan at least once every 5 years to the DWR. In 1993, Assembly Bill 892 amended the Act to allow urban water suppliers who submit reports to the California Urban Water Conservation Council to submit the same report to DWR. Cal Water and Alco have submitted current urban water management plans.

## California Public Utilities Commission

The California Public Utilities Commission (CPUC) is a state agency created by Constitutional amendment to regulate privately owned telecommunications, electric, natural gas, water, railroad, rail transit, passenger transportation, and in-state moving companies. The CPUC is responsible for ensuring California utility customers have safe, reliable utility service at reasonable rates, protecting utility customers from fraud, and promoting the health of California's economy.

The CPUC is presently adjudicating the competing applications of Alco and Cal Water to extend their respective service territories into the Project area. The CPUC has also issued an Order Instituting Investigation ("OII") into certain water and service quality issues relating to Alco and has decided to coordinate the OII proceeding with the pending applications. The OII will decide (1) whether Alco is competent to serve and capable of serving additional water customers in the City of Salinas and whether such service is in the best interests of the public; (2) whether Alco has violated any order, law regulation, or standard regarding its water service and service quality; and (3) whether any fines or penalties should be imposed on Alco for failure to comply with Commission orders, resolutions, or other directions of the Commission or whether other remedies are needed to ensure that service is in the public interest. The Alco OII proceedings before the CPUC have commenced and are estimated to be concluded by mid-year 2008.

#### **Regional Regulations**

#### Salinas River Watershed Management Action Plan

The Salinas River Watershed Management Action Plan, completed in 1999, describes the watershed characteristics and management actions recommended to control point source and nonpoint pollution within the Salinas River watershed. The SVGB is one of two primary groundwater basins within the Salinas River watershed.

#### Monterey County Water Resources Agency

The MCWRA oversees the development and implementation of water quality, water supply, and flood control projects in Monterey County. Primary responsibilities are management of water supply resources in the reservoir system, including San Antonio and Nacimiento Reservoirs, and permitting and development of the SVWP. As the local administrator of the National Flood Insurance Program, the MCWRA manages floodplain development and implements activities associated with the Community Rating System. MCWRA also oversees resources and development of the Salinas River channel and develops and implements various water quality monitoring programs. Maintaining high water quality standards for both supply and environmental habitat are major goals of the agency. Goals are achieved through the development and implementation of water quality programs such as those designed to evaluate and develop strategies for reducing contamination of waterways from chemicals used in agriculture and agricultural waste products, or for overall watershed protection in reservoir areas.

#### City of Salinas Regulatory Framework

In 2005 the CCRWQCB adopted Order No. R3-2004-0135, which is the City's NPDES permit (Permit No. CA0049981) for municipal storm water and urban runoff discharges

within the City of Salinas.<sup>1</sup> To comply with the Permit, the City has developed a variety of storm water management programs to effectively prohibit non-storm water discharges and to reduce the discharge of pollutants to the maximum extent practicable, including the Storm Water Management Plan (SWMP) currently being reviewed by RWQCB staff. The SWMP is based on the requirements and guidelines contained in the City's NPDES permit, as well as relevant portions of other local and regional storm water guidance documents and programs. In compliance with the Phase II regulations, the SWMP is a comprehensive document designed to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality. The SWMP includes all of the required and recommended control programs for municipal facilities, industrial facilities, and commercial facilities. The SWMP programs include urban runoff control policies, outreach and education efforts, and site visits and inspections, and guide the implementation of specific storm water Best Management Practices (BMPs).

In addition to the SWMP, the City has a Storm Water Ordinance, which establishes the City's legal authority to prohibit illicit connections and pollutant discharges to the City storm drain system. The Storm Water Ordinance was revised in August 2007 to incorporate requirements of the City's NPDES permit and to impose those requirements, including Low Impact Development (LID) strategies and practices, on all development and significant redevelopment occurring within the City must incorporate both structural and non-structural runoff pollution control measures (BMPs) to preclude significant impact from non-point source pollutants. The City also has promulgated Grading Standards, which provide guidelines, regulations, and minimum standards for clearing, excavation, cuts, fills, earth moving, grading operations, water runoff, and sediment control. The Grading Standards were revised in August 2007 to meet the requirements of the City's current NPDES permit by strengthening requirements for implementation of erosion and sediment control.

#### Salinas Urban Water Conservation Plan

Chapter 36A, Article II of the Salinas Code facilitates, encourages, expands, and implements water conservation in the City. The article implements the Monterey County Urban Water Conservation Ordinance 3744, the purpose of which is to reduce overall pumping of the SVGB (for all uses, including agriculture) and to reduce pumping of water for urban uses to the maximum extent feasible for each individual pumper. The Article also facilitates that development of new water supplies to serve the increasing demands for water in the City by fulfilling any prerequisite for urban water conservation prior to the construction of future water development projects.

<sup>&</sup>lt;sup>1</sup> The City of Salinas is also subject to two other permits including a Waste Discharge Permit for discharges from the City's Industrial Waste Treatment Facility and a Sanitary Sewer Permit for discharges from the City's sanitary sewer system and for pollution prevention activities associated with the sanitary sewer system.

The Salinas Urban Water Allocation Plan, adopted by the City Council on March 8, 1994, which implements the Monterey County Urban Water Conservation Ordinance 3744, requires a 15 percent reduction in overall groundwater pumping from 1987 levels.

#### THRESHOLD FOR DETERMINING SIGNIFICANCE

For the purpose of this SEIR, water supply and facility impacts would occur if implementation of the proposed Project:

- Substantially depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted);
- Has insufficient water supplies available to serve the project from existing entitlements and resources, and new or expanded entitlements would be needed;
- Results in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

## ENVIRONMENTAL IMPACT

#### Salinas Valley Groundwater Basin Estimated Water Demand

MCWRA projects that water needs in the SVGB are anticipated to decline slightly between the baseline year 1995 and 2030 as identified in **Table 5.3-1**. Total urban needs are projected to increase 90 percent from 45,000 af/yr in 1995 to 85,000 af/yr in 2030 based on projected population growth.

| Sannas Vancy Groundwater Dasin Estimated Water Demand              |   |   |  |  |  |  |
|--|---|---|--|--|--|--|
| Parameter  | Baseline or 1995 Conditions <sup>1</sup><br>(af/yr) | Projected Future Baseline<br>(2030) Conditions <sup>1</sup> |  |  |  |  |
| Basin Groundwater Pumping  |   |   |  |  |  |  |
| Urban  | 45,000  | 85,000  |  |  |  |  |
| Agricultural   | 418,000   | 358,000   |  |  |  |  |
| Total Basin Pumping  | 463,000   | 443,000   |  |  |  |  |
| Basin Overdraft (does not include seawater intrusion) <sup>2</sup> | 17,000  | 14,000  |  |  |  |  |
| Seawater Intrusion <sup>3</sup>                                    | 8,900   | 10,300  |  |  |  |  |
| Salinas River Outflow to Ocean                                     | 238,000   | 249,000   |  |  |  |  |

| <b>Table 5.3-1</b>                                      |  |  |  |  |  |  |
|---|--|--|--|--|--|--|
| Salinas Valley Groundwater Basin Estimated Water Demand |  |  |  |  |  |  |

Both conditions assume that deliveries from the CSIP are being made, 13,300 af/yr in 1995 and an increase to 15,900 af/yr by 2030.

<sup>2</sup> Basin overdraft is defined as the average annual rate of groundwater extraction over and above the total recharge to the groundwater basin.

<sup>3</sup> Seawater intrusion is defined as the average annual rate of subsurface flow from Monterey Bay into the groundwater aquifers.

All numbers illustrated assume that the SVWP has not been enacted.

Source: MCWRA 2006

Agricultural water uses, which make up a far greater share of water use, are projected to decrease 13 percent by 60,000 af/yr as a result of increased irrigation efficiencies, crop changes, and conversion of agricultural land to urban uses. In total, water reductions are projected to be substantial, with an overall reduction of 20,000 af/yr in basin-wide water use by 2030. Despite the overall reduction, MCWRA estimates that the current groundwater problems in the basin are projected to continue into the future without implementation of the SVWP.

As noted in the Environmental Setting subsection above, the most recent (2005) Ground Water Summary Report prepared by MCWRA, indicates an average of 507,000 acre-feet per year (af/yr) of water was pumped from the SVGB between 1995 and 2005.. The average of 507,000 af/yr is higher than the 463,000 shown in **Table 5.3-1** for total basin pumping in 1995. For the most recent water year with available data, 2005, approximately 494,046 af was pumped, including 443,567 af of agricultural pumping and 50,479 acre-feet of urban pumping.

## **Development Capacity**

As illustrated in **Table 5.3-2**, the total Project area contains approximately 3,347 gross acres (2,845 net acres) and is planned for up to 14,318 dwelling units and up to 9.023 million square feet of commercial/office/mixed use, general industrial uses, and public/semi-public and open space uses. As indicated in the Salinas General Plan, one dwelling unit is equivalent to one household. Based on 3.67 persons per housing unit, the buildout population in the Project area is expected to reach approximately 52,500.

| Development Type                  | Gross<br>Acres | Net<br>Acres | Dwelling<br>Units | Non-residential<br>Square Feet<br>(Millions) |
|-----------------------------------|----------------|--------------|-------------------|--|
| Residential                       | 1,840          | 1,564        | 13,958            | -  |
| Commercial/Office/Mixed Use       | 151            | 129          | 360               | 2.686  |
| General Industrial                | 366            | 311          | -                 | 4.065  |
| Public/Semi-Public and Open Space | 990            | 842          | -                 | 2.272  |
| Total Development Capacity        | 3,347          | 2,845        | 14,318            | 9.023  |

# Table 5.3-2Development CapacityEntire Project Area

Preliminary development planning for the Annexation area and Settrini property has begun. Although the Settrini property is being planned for development, it is not proposed for annexation to the City. Three specific plans (West, Central, and East), are ultimately expected to guide future development of the Annexation area and Settrini property. In accordance with the City of Salinas General Plan, future development of the Annexation area and Settrini property could provide up to 11,761 total dwellings and 3.9 million square feet of non-residential development. Based on 3.67 persons per household, the buildout population for the Annexation area and Settrini property is anticipated to reach approximately 43,163.

No development plans are currently being prepared for the South of Williams Road area.

## **Estimated Water Demand**

Water demand generated by future development within the proposed Project area as well as interim agriculture would be met from local groundwater through a series of existing and proposed wells. Based on an evaluation of the demand generated by individual land uses allowed under the City of Salinas General Plan, development of the proposed Project area would generate an estimated annual demand for groundwater of approximately 15,269,412 gallons per day (gpd) or 17,104 af/yr. As noted above, only the Annexation portion of the Project area (including the Settrini property) is planned for development in the near future. The South of Williams Road area would remain in current agricultural and/or related land use. The breakdown and assumed water consumption by land use are illustrated in **Table 5.3-3**.

Based on an evaluation of the demand generated by individual land uses allowed under the City of Salinas General Plan, development of the Annexation area and Settrini property would generate an annual demand for groundwater of approximately 7,242,430 gpd or 8,113 af/yr. The breakdown and assumed water consumption by land use for the Annexation area and Settrini property are illustrated in **Table 5.3-4**.

Therefore, development of the entire Project area would generate an approximate groundwater demand of 15,269,412 gpd or 17,104 af/yr. Development of the Annexation area and Settrini property would generate an approximate groundwater demand of 7,242,430 gpd or 8,113 af/yr. Development in the South of Williams Road area alone would generate an approximate groundwater demand of 8,026,982 gpd or 8,991 af/yr.

#### **Projected Water Supply Rates**

The water demand estimates contained in **Table 5.3-3 and Table 5.3-4** are based on water generation rates as identified in Appendix H (Water System Study by P&D). The upper limit of estimated water supply to the Annexation area is 550 gpd per dwelling unit and is based on an average estimated water supply of 150 gpd per capita. The City of Salinas has historically projected water use at 150 gpd per capita as part of the environmental review process. This per capita supply number is a conservative "catch all" value accounting for water losses; hydrant tests; line flushing; leaks; water breaks; unaccounted water demand; and demand by parks, schools, median irrigation, and commercial, industrial, residential and retail uses. Both water purveyors in Salinas (Cal Water and Alco) indicated that they would be able to deliver this level of water supply in their respective service areas. It is possible that water demand in the Project area would reach this level on a per capita basis as described below.

| Development Type | Units                             | Generation<br>Rates (gpd) | Quantity  | Average Water<br>Demand (gpd) |
|------------------|-----------------------------------|---------------------------|-----------|-------------------------------|
| Low Density      | du                                | 550                       | 6,455     | 3,553,477                     |
| Medium Density   | du                                | 550                       | 4,824     | 2,655,612                     |
| High Density     | du                                | 550                       | 2,680     | 1,475,340                     |
| Mixed Use        | du                                | 550                       | 359       | 197,629                       |
| Retail           | acre                              | 3,000                     | 11        | 33,000                        |
| Office           | acre                              | 3,000                     | -         | -                             |
| Industrial*      | Sq. ft.                           | 3.16                      | 2,032,074 | 6,421,354                     |
| Mixed Use        | acre                              | 3,000                     | 118       | 354,000                       |
| Open Space       | acre                              | -                         | -         | -                             |
| Parks            | acre                              | 1,500                     | 177       | 265,500                       |
| Schools          | acre                              | 1,500                     | 209       | 313,500                       |
|                  | 15,269,412 gpd or<br>17,104 af/yr |                           |           |                               |

Table 5.3-3Estimated Project Area Water Demand

Source: P&D Consultants 2007; Yarne & Associates, Inc. 2007

DU = dwelling unit; gpd = gallons per day; af/yr = acre feet per year; sq. ft. = square feet \*Industrial water use generation factor was determined by applying a factor of 0.15 Floor Area Ratio (FAR) to industrial acres.

| Development Type | Units | Generation<br>Rates (gpd) | Quantity | Average Water<br>Demand (gpd)   |  |
|------------------|-------|---------------------------|----------|---------------------------------|--|
| Low Density      | du    | 550                       | 5,427    | 2,987,564                       |  |
| Medium Density   | du    | 550                       | 3,916    | 2,155,758                       |  |
| High Density     | du    | 550                       | 2,171    | 1,195,135                       |  |
| Mixed Use        | du    | 550                       | 247      | 135,973                         |  |
| Retail           | acre  | 3,000                     | 11       | 33,000                          |  |
| Office           | acre  | 3,000                     | -        | -                               |  |
| Mixed Use        | acre  | 3,000                     | 80       | 240,000                         |  |
| Open Space       | acre  | -                         | -        | -                               |  |
| Parks            | acre  | 1,500                     | 136      | 204,000                         |  |
| Schools          | acre  | 1,500                     | 194      | 291,000                         |  |
| Total            |       |                           |          | 7,242,430 gpd or<br>8,113 af/yr |  |

 Table 5.3-4

 Annexation Area and Settrini Property Water Demand

Source: P&D Consultants 2007; 2007 EDAW data

DU = dwelling unit; gpd = gallons per day; af/yr = acre feet per year

## **Projected Water Consumption Rates**

Two sources of metered water use were used to arrive at a range of projected water consumption for the Annexation area. The first source is based on an average of 324 gallons per dwelling unit (89 gpd per capita) based on actual use at the City of Salinas' Williams Ranch Development from 2002 to 2006 as reported by Alco. This estimate was used because water consumption analysis from more recent development provides a better measure of average annual domestic and irrigation water use. More recent development incorporates water-saving measures required in post-1992 household plumbing construction, consistent with the Uniform Plumbing Code and water efficient landscaping based on CA Title 24 regulations. Water consumption data, then, from Salinas's recent area development would most likely be similar to water consumption in new development.

The second source of water use is based on the Cal Water WSA for the Annexation area and Settrini property, which reported 355.8 gpd per service; this calculates to a consumption of 97.3 gpd per person within residential development based on 3.67 persons per household.

Using these two sources, water consumption estimates for the Annexation area and Settrini property were derived by analyzing the water demand from the proposed dwelling units, and the acreage for retail, office, mixed use, parks, and schools. This analysis resulted in a water consumption rate range for the Annexation area and Settrini property of 389 to 421 gpd per dwelling unit (106 to 115 gpd per capita, respectively, based on 3.67 persons per household) accounting for projected water use by all the various land uses mentioned above and dividing that amount by the planned dwelling units. Appendix F of the 2007 Wood Rodgers study illustrates the generation rates used for each land use type and derives the water use calculations.

The water consumption rates derived from these two sources, the Williams Ranch Development and Cal Water, would be similar to the proposed conditions for the Annexation area and take into account implementation of water conservation measures such as low-volume toilet and shower flows, use of low water use landscape, restricted use of turf, and irrigation systems with low application rates that do not exceed infiltration rates.

Additionally, the range of 389 to 421 gpd per dwelling unit considers planned land use characteristics described in the City of Salinas General Plan. The General Plan identifies a significantly large number of medium-density residential properties (around 34 percent) and town homes with smaller lot sizes than average. Therefore, less outdoor area needs to be irrigated. Additionally, the Annexation area and Settrini property will employ LID measures in handling storm drainage such as grassy swales and permeable surfaces as well as dedicated retention and detention ponds to keep storm water on-site, with the additional result of recharging the SVGB. These measures have not been incorporated into the water use calculations and are cited here to demonstrate the possible enhancement of the localized water budget and to reduce, and in some cases to restrict,

the flow of storm water and irrigation water off-site. Thus, it is possible that water consumption for residential households in the Annexation area and Settrini property would be less than 550 gpd per dwelling unit as shown in **Table 5.3-3** and **Table 5.3-4**.

## Impact of Conversion of the Annexation Area and Settrini Property to Development

Based on a study conducted by Wood Rodgers (2007), **Table 5.3-5** illustrates that based on conversion of the Annexation area and Settrini property from irrigated agricultural use to urban use at full buildout, the water consumption change would range from 465 af/yr more water per year as urban use to 819 af/yr less water per year as urban use. This water consumption rate change depends on the irrigation rate used for existing agriculture (2.6-3.04 af/ac) and the generation rate used for future water consumption (389-421 gpd/du) for dwelling units. The most likely water consumption change lies between the two results, which is a median of 177 af/yr less water consumption as urban use. The average of the four scenarios results in 202 af/yr less water consumption as urban use. Please refer to Appendix G for a detailed analysis of the conversion of agricultural land to urban use contained in the Wood Rodgers study.

|                                |                        | Units  | Conversion<br>Result 1     | Conversion<br>Result 2      | Conversion<br>Result 3       | Conversion<br>Result 4      |
|--------------------------------|------------------------|--------|----------------------------|-----------------------------|------------------------------|-----------------------------|
| Existing<br>Conditions         | Irrigated Land         | acre   | 1,959                      | 1,959                       | 1,959                        | 1,959                       |
|                                | Non-Irrigated<br>Land  | acre   | 529                        | 529                         | 529                          | 529                         |
|                                | Irrigation Rate        | af/ac  | 2.6                        | 3.04                        | 2.6                          | 3.04                        |
| Proposed<br>Urban Uses         | Dwelling Unit<br>Count | du     | 11,761                     | 11,761                      | 11,761                       | 11,761                      |
|                                | Generation<br>Rate     | gpd/du | 421                        | 421                         | 389                          | 389                         |
| Water<br>Consumption<br>Change | af/yr                  |        | (465) more<br>as urban use | 495<br>less as urban<br>use | (43)<br>more as<br>urban use | 819<br>less as urban<br>use |

Table 5.3-5 Water Balance Study

Source: Wood Rodgers 2007.

af/ac = acre feet per acre; du = dwelling units; gpd/du = gallons per day per dwelling unit; af/yr = acre feet per year

Cal Water, in the 2007 WSA for the Annexation area, also calculated the impact of converting the Annexation area from irrigated agricultural use to urban use at full buildout. Please refer to Appendix E for a detailed analysis of the conversion of agricultural land to urban use contained in the 2007 WSA performed by Cal Water. Cal Water calculated that the net consumptive use of water for proposed urban uses is about 507 af/yr less than existing agricultural uses, which would result in a net increase in groundwater storage. After taking into account discharge to the wastewater system from urban use and recycling of this wastewater for agricultural irrigation of the CSIP, Cal Water determined that the net effect of conversion of agricultural land to urban use

for the Annexation area and Settrini property would increase regional groundwater storage by an estimated 1,737 af/yr.

#### Salinas Urban Water Conservation

The Salinas Urban Water Allocation Plan, adopted by the City Council on March 8, 1994, which implements the Monterey County Urban Water Conservation Ordinance 3744, requires a 15 percent reduction in overall groundwater pumping from 1987 levels.

The Salinas Urban Water Allocation Plan (plan) shows that, in 1987, Cal Water pumped an annual average of .732 af (238,507 gallons) of water per service connection. The estimated household size in 1993 was 3.35 persons, meaning that the annual average per capita consumption was 71,196 gallons, or 195 gpd. The plan then calculates that a 15 percent reduction would entitle Cal Water to an annual average use of .622 af (202,665 gallons) per service connection. Based on 3.35 persons per household, that would convert to an annual average per capita consumption allocation of 60,497 gallons, or 166 gpd.

Alco's reported 1987 pumping is shown in the plan at .735 af (239,484 gallons) per service connection. The 15 percent reduction would reduce that to .625 af (203,635 gallons) per service connection. Based on 3.35 persons per household, that would convert to an annual per capita consumption allocation of 60,786 gallons, or 167 gpd.

The projected water consumption range for the Annexation area and the Settrini property is 106 to 115 gpd per capita. Using the upper limit of the range (i.e., 115 gallons per day), at the current household size of 3.67, the use (422 gpd per household) will be within the allocation contained in the plan. These estimates are also within the 150 gpd per capita (550 gpd per household) historically used by the City of Salinas to project water use. The gallons per day per capita is expected to be the same for the South of Williams Road area.

Therefore, the proposed water consumption within the Annexation area and Settrini property is within the 15 percent groundwater pumping reduction required in the Salinas Urban Water Allocation Plan. Additionally, the proposed water consumption for the South of Williams Road area is expected to be within the 15 percent groundwater pumping reduction.

#### Water Purveyors and Water Supply Assessments

#### Alco Water Service Company

Alco serves residential customers and does not provide any water for agricultural uses. Alco completed an update to its Urban Water Management Plan in March 2007 and a WSA in August 2007.

## Water Supply and Demand

As described in the Environmental Setting subsection, Alco obtains its water supply from the groundwater of the East Side Subarea of the SVGB. The primary water bearing units of this subbasin are the 180-foot and 400-foot aquifers. In addition, the 900-foot or deep aquifer is present in the lower Salinas Valley, including the East Side Subarea. The deep aquifer has experienced little development except near the coast where it is used to replace groundwater from the 180- and 400-foot aquifers rendered unusable by seawater intrusion.

Currently, Alco has eight water wells, five of which are in active service and three of which have been designated as standby sources by the California Department of Public Health and will be returned to active status after the addition of treatment or blending facilities for arsenic. Alco currently has one new water source already drilled and test-pumped and will be adding this source to its system in the near future. Alco is also in the process of drilling four new water sources to add to the water system in 2007. The locations of Alco's existing water sources as well as those wells that are being added in the future are dispersed throughout Alco's service area. The eight sources, as well as those new sources that are drilled and/or are scheduled to be drilled, draw water from both the 400-foot aquifer and the deep aquifer. Only one well, out of all of Alco's existing well sources and the wells currently being developed, draws water from the 400-foot aquifer only. Alco currently has water storage capacity of 205,000 gallons. Prior to 2010, Alco anticipates building a 5-million-gallon reservoir for water storage purposes.

Alco anticipates drilling seven new wells within the next 20 years. At least three of the new wells are associated with the proposed Project in addition to the construction of the 5-million-gallon reservoir. Well locations are chosen by Alco on the basis of water quality and potential production capacities. In addition, Alco has 10 reserve well lots to be drilled and put into production as necessary.

The analysis that follows is derived from the August 2007 WSA performed by Alco. This WSA analyzes the ability of Alco to supply water to the eastern two-thirds of the Annexation area, including the Settrini property (all of the Central Specific Plan area and the East Specific Plan area). Alco's WSA does not include any water analysis for the western one-third of the Annexation area (West Specific Plan area). Based on the most recent August 2007 WSA, Alco believes that through the year 2027 (as indicated in the WSA) based on the water use assumption of 150 gpd per capita per day, adequate water supply exists to serve the Central and East Specific Plan areas of the Annexation area (including the Settrini property) under normal, single dry year and multiple dry year conditions. Alco used the same methodology to calculate water demand as was used in **Table 5.3-3** and **Table 5.3-4**.

Alco estimated the water demand for the Central and East Specific Plan areas of the Annexation area would total approximately 1,621 million gallons per year (mg/yr) or 4,975 af/yr. Alco estimated the total water system demand for its entire service area to be 3,274 mg/yr or 10,048 af/yr by the year 2027. From its existing wells, Alco estimates its existing well capacity is over 13,000 mg/yr or 38,896 af/yr and additional wells would

further increase the capacity to over 15,284 mg/yr or 46,905 af/yr by 2027. Thus, Alco estimates it has sufficient capacity to meet current and future water system demand in its service area. Additionally, Alco estimates that it also has sufficient existing and future capacity to meet peak hourly water demand for the Project area as well as its entire service area. During the major droughts of 1978-1979 and the late 1980s through the early 1990s, Alco's water capacity did not diminish and its wells continued to constitute a reliable supply during normal years, dry years, and multiple dry years.

Alco's WSA indicates that as the East and Central Specific Plan areas are converted from irrigated agricultural areas to urban uses, they are expected to draw less water from the East Side Subarea than in the past or at least be water neutral. Alco's WSA concludes that water usage in the Central and East Specific Plan areas is not expected to increase water demand on the aquifer.

In the event of contamination of some of its wells, Alco's wells are dispersed throughout its service area and it has the ability to develop new locations if needed. The lot sizes for Alco's wells are large enough to accommodate water treatment facilities if needed.

Alco indicates that sufficient water capacity is available for the entire Alco service area.

## California Water Service Company

As described in the Environmental Setting subsection, Cal Water obtains its water supply from the groundwater of the Pressure Subarea and East Side Subarea of the SVGB. As depicted in **Figure 5.3-1**, Cal Water's current service area in the vicinity of Salinas includes the western portion of the Annexation area composed of the West Specific Plan area and one-half of the Central Specific Plan area, the vicinity located north of this service area, and roughly three-quarters of the City of Salinas except the northeast portion of the City. Cal Water performed a WSA for the Central Specific Plan area of the Annexation area in 2006. At the request of the City of Salinas, Cal Water performed a subsequent WSA dated August 2007 for the entire Annexation area and Settrini property. The information presented below is taken from the most recent WSA and encompasses the entire Annexation area and Settrini property.

## Water Supply

The Cal Water City of Salinas service area has 30 active water supply wells with a combined capacity of approximately 33,151,680 gpd or 37,165 af/yr. Source capacity has been adequate to meet maximum day demand up to the present but with anticipated growth in demand, Cal Water has added well capacity to meet future maximum day demands. For 2027, annual average day demand is estimated to be 29,366,700 gpd or 32,895 af/yr for the City and the Annexation area. Maximum day demand for 2027 is estimated to be 47 mgd or 52,647 af/yr. Therefore, Cal Water needs to add a total additional capacity of approximately 16 mgd or approximately 17,922 af/yr. Between late 2007 and 2008, Cal Water anticipates adding four new wells with average annual production capacity of 8,070 af/yr. By 2017, Cal Water plans to add 10 new wells with approximately 13,883 af/yr total estimated production capacity. Over the longer term (10

to 20 years), Cal Water is planning to develop approximately seven new wells going on line between the years 2017 and 2027. Therefore, based on the plan for additional wells, Cal Water will have surplus well capacity. However, some wells are approaching the end of their useful lives and some wells will be taken out of operation due to groundwater quality issues. Cal Water's long-term supply plan includes replacing wells that need to be shut down.

## Water Demand

The water demand forecast in the Cal Water 2007 WSA for the entire Annexation area and Settrini property is based on the general land use designations contained in the Salinas General Plan and assumptions that water conservation measures will comply with existing codes and regulations. Please refer to Appendix E for Cal Water's detailed derivation of these figures.

For residential land uses, Cal Water used data for residential water use for the Salinas District for the period from 1998 to 2002 which averaged 355.8 gpd per service. Cal Water then determined average day per capita consumption of 97.3 gpd for residential units based on 3.66 persons per household. The WSA used 3.66 instead of 3.67, which results in a more conservative figure of 97.3 instead of 96.9 gpd per capita. Since development capacity in the Annexation area is 11,761 residential units, based on 3.67 persons per household, the buildout population of the Annexation area is estimated at 43,163. Therefore, Cal Water estimated average annual daily residential demand of 4,199,760 gpd based on 43,163 persons using 97.3 gpd per person.

Cal Water then assumed that new residential units in the Annexation area and Settrini property will incorporate water conservation measures so that overall average per capita demand will be reduced by about 10 percent or that average annual residential demand in these areas will be 90 percent of the existing average Salinas District residential demand. Therefore, Cal Water estimated average annual daily residential demand at buildout of 3,779,800 gpd or 4,237 af/yr based on 43,163 persons using 90 percent of 97.3 gpd per person, which equates to 87.57 gpd per person.

Cal Water then estimated the water usage of the commercial component of the Annexation area by commercial square footage by characterizing the type and mix of businesses anticipated for development in the areas. Cal Water determined commercial water needs to be 628,460 gpd or 705 af/yr.

For parks, Cal Water assumed that water-conserving irrigation practices would be followed and used a water use rate of 2.5 af/yr per acre. Irrigation demand at buildout for parks was estimated to be 303,280 gpd or 340 af/yr.

Estimating water demand for schools, Cal Water used a factor of 3,500 gpd/acre and estimated annual average daily water demand of 679,000 gpd or 761 af/yr.

Finally, Cal Water considered the use of unaccounted water, which includes water use from pipe leakage losses, hydrant flushing, system repairs and improvements (flushing),

fire flows, and theft. This figure has averaged 11.55 percent in Salinas. However, as new piping systems have lower leakage rates than older existing pipes, Cal Water estimated the overall unaccounted water losses for the Annexation area and Settrini property at 10 percent.

Using the analysis above, Cal Water estimated the total average annual daily water demand for the Annexation area and Settrini property would be 5,929,600 gpd or 6,642 af/yr or 137.4 gpd per person.

Without the assumption of 10 percent conservation savings in residential water use, total demand (including 10 percent for unaccounted water) is estimated to be 6,391,550 gpd and overall per capita water use would accordingly be estimated at 148 gpd per person. The overall average per capita water use for the Salinas District for the past 5 years was 145 gpd per person, which is close to the City's overall planning guide of 150 gpd per person.

Cal Water indicates that it will have adequate water supplies to meet the projected demands of the Annexation area and Settrini property, in addition to those of its existing customers and other anticipated future water users as identified in the City of Salinas land use plans for the 20-year period from 2007 to 2027 under normal, single dry year and multiple dry year conditions.

#### City of Salinas Municipal Water Company

The City is considering the possibility of establishing a City municipal water service company. The City would own the system and infrastructure and subcontract with one of the established water purveyors to provide service. A preliminary feasibility study is being conducted.

#### Conclusion

The significance thresholds are repeated here for clarification and analysis. For the purpose of this SEIR, water supply impacts would occur if implementation of the proposed project:

- Has insufficient water supplies available to serve the project from existing entitlements and resources, and new or expanded entitlements would be needed;
- Substantially depletes groundwater supplies or interferes substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table (e.g., the production rate of pre-existing nearby wells would drop to a level that would not support existing land uses or planned uses for which permits have been granted); or
- Result in the construction of new water facilities or expansion of existing facilities, the construction of which could cause significant environmental effects.

The proposed Project has the potential to affect the quality and supply of groundwater in the ways described below.

Since the SVGB is not currently adjudicated, there are no specific restrictions on the amount of groundwater that can be pulled from any source as long as it is for beneficial use and is not wasteful. Therefore, the water purveyors have no limit on their legal rights to withdraw water from their groundwater well sources for the beneficial use of their respective customers. The water providers in the Annexation and Settrini property areas, Alco and Cal Water, indicate in their respective WSAs that they have sufficient access to water and adequate water supply to serve the Project through the year 2027. However, the provision of water by both providers will likely contribute to the ongoing overdraft condition in the SVGB, which could exacerbate seawater intrusion and nitrate contamination. Therefore, it is uncertain whether an adequate supply of good quality water would be available in the long term (more than 20 years in the future). In light of this uncertainty, other water supply options, including their potential environmental impacts and mitigation measures, are discussed in the subsection following Mitigation Measures and Impact After Mitigation below.

The California DWR estimated groundwater storage and groundwater budgets for the Pressure and East Side Subareas. However, the measurements occurred in 1994 and changes in groundwater levels have occurred since measurements were taken. Therefore, no precise measurement of the amount of groundwater in storage in the Pressure and East Side Subareas currently exists. Additionally, the effects of seawater intrusion on the amount of available groundwater have not been determined.

As part of their WSA performed in 2007, Cal Water indicated that converting the Annexation area and Settrini property to urban use would result in an increase in the amount of groundwater storage. However, a water balance study performed by Wood Rodgers demonstrated that either slightly more or slightly less water could be used as the Annexation area and Settrini property is converted to urban use. Therefore, the change in the amount of water used as the Annexation area is converted to urban use is inconclusive.

Implementation of the Project could potentially increase impervious surfaces, which may result in a reduction in the amount of water that infiltrates the soil to the groundwater table. This could lead to a reduction in the groundwater recharge rate over time. Additionally, an increase in impervious surfaces may result in an increase in the amount of industrial chemicals and urban contaminants infiltrating groundwater supplies, further decreasing groundwater quality and potentially impacting the groundwater quality of the SVGB. However, implementation of the City's NPDES permit will address these effects.

The above effects of the proposed Project may result in a significant impact to the supply and quality of groundwater in the SVGB. Implementation of 2002 Salinas General Plan Program EIR mitigation measures Hydrology/Water Quality (HW) 4, HW9 through HW13, and SEIR WS1 will reduce this potential impact to a degree; however, the potential impacts (i.e., overdrafting and seawater intrusion) associated with the continued pumping of groundwater and its effect on water supply will remain significant and unavoidable. The following significance threshold is repeated here for clarification and analysis. For the purpose of this SEIR, water supply impacts relating to infrastructure would occur if implementation of the proposed Project is approved.

The proposed Project will create a need for new water facilities and for the expansion of facilities to meet the additional water use demands, thus creating short-term environmental impacts associated with construction. To meet the increased demand for water, the Project would require new infrastructure such as pumps, transmission lines, storage facilities, booster pumps, distribution system, meters, and other infrastructure within the Project area. Additionally, new wells would need to be constructed or existing wells may need to be made deeper. Environmental impacts of constructing new wells or deepening existing wells would be determined by the water purveyors as these projects are undertaken. Future environmental impacts associated with new infrastructure would determine the precise environmental impacts associated with construction of these facilities and identify appropriate mitigation measures. Potential environmental impacts could be, but may not be limited to, hydrology and water quality, land use and planning, traffic and circulation, noise, and air quality.

## MITIGATION MEASURES

The following Hydrology/Water Quality (HW) mitigation measures contained in the Salinas General Plan Final Program EIR shall continue to be applied to the Project area to reduce significant impacts associated with water supply:

- HW4. The City will continue to implement General Plan Implementation Program COS-3 on an ongoing basis. Implementation Program COS-3 requires the City to cooperate with Monterey County, the Regional Water Quality Control Board Central Coast (Region 3) and the MCWRA, providing technical assistance when necessary to help identify, protect, and preserve critical aquifer recharge areas so that their function is maintained and groundwater quality is not further degraded.
- HW9. The City will continue to implement General Plan Implementation Program LU-14 on an ongoing basis and in response to development proposals. Implementation Program LU-14 requires the City to review development proposals and requires necessary studies and water conservation and mitigation measures to ensure adequate water and sewer service.
- HW10. The City will continue to implement General Plan Implementation Program COS-2 on an ongoing basis. Implementation Program COS-2 requires the City to continue to cooperate with the MCWRA, ACOE, SWRCB, and RWQCB to find a solution to halt seawater intrusion toward Salinas.
- HW11. The City will continue to implement General Plan Implementation Program COS-5 on an ongoing basis. Implementation Program COS-5 requires the City to cooperate with the MCWRA and water service providers, providing

technical assistance when necessary, to continue to monitor urban and agricultural well usage rates and quality of the groundwater.

- HW12. The City will continue to implement General Plan Implementation Program COS-6 on an ongoing basis. Implementation Program COS-6 requires the City, in cooperation with the state, regional, and local water agencies and suppliers, to participate in programs that seek to limit the spread of seawater intrusion into the groundwater basins through the recycling of wastewater. Specifically, the City shall support the expansion of the use of recycled water for urban and agricultural irrigation and cooperate with these agencies to establish standards and regulations for the use of recycled water in development projects.
- HW13. The City will continue to implement General Plan Implementation Program COS-7 in the General Plan on an ongoing basis. Implementation Program COS-7 requires the City to encourage water conservation throughout Salinas in the following ways:
  - Implementing the Salinas Urban Water Conservation Plan, the purpose of which is to reduce pumping of water from the SVGB for urban uses to the maximum extent feasible and to reduce overall pumping from the SVGB by 15 percent from the pumping that occurred in 1987;
  - Regulating development with the City's Landscaping and Irrigation Ordinance, which requires developments to apply xeriscape principles including such techniques and materials as native or low water use plants and low precipitation sprinkler heads, bubblers, drip irrigation systems, and timing devices;
  - Supporting the production of recycled water and developing new uses for recycled water; and
  - Applying water conservation techniques/project "water budgets" to achieve a significant reduction over historic use and over average uses for the proposed type of development by the incorporation of water conservation devices, such as low-flow toilets, flow restriction devices, and water-conserving appliances in new public and private development and rehabilitation projects.

In addition to the above mitigation measures contained in the Salinas General Plan Final Program EIR, the City shall implement the following mitigation measures to reduce significant impacts associated with water supply:

- SEIR WS1. The City shall implement 15 percent water conservation measures for development within the SOI Amendment and Annexation areas as described in General Plan Final Program EIR mitigation measure HW13.
- SEIR WS2. The City shall confirm the availability of adequate water supply and infrastructure to ensure that development does not outpace the available water supply/infrastructure in accordance with SB 610 and SB 221.

## IMPACT AFTER MITIGATION

## Water Supply

Implementation of Mitigation Measures HW 4, HW9 through HW13, SEIR WS1, and SEIR WS2 will reduce the potential water supply impacts to a degree; however, the potential impacts (i.e., overdrafting, seawater intrusion) associated with the continued pumping of groundwater will remain significant and unavoidable.

#### **Construction-Related Impacts for New or Expanded Water Facilities**

Environmental impacts of constructing new wells or deepening existing wells may generally consist of noise, dust, and traffic on local roads and other impacts. Details of these impacts and required mitigation measures will be addressed as part of project-level environmental review. Future environmental analysis associated with new water lines and other water facilities and infrastructure would determine the precise environmental impacts and identify appropriate mitigation measures to reduce any significant environmental impacts associated with construction of the facilities.

## **OTHER WATER SOURCE OPTIONS**

The purpose of this section is to comply with the guidance provided by the California Supreme Court's decision in *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova.* This section discusses the uncertainty of long-term water supply to the Project; other water source options that may be available to the Project, which include surface water (Salinas Valley Water Project) and desalination; and the potential impacts of other water source options and mitigation that has been identified for those potential impacts.

An adequate, long-term supply of potable water for the Project is uncertain because of the ongoing overdraft condition of the Pressure and East Side Subareas in the SVGB and the associated problems of seawater intrusion and nitrate contamination. Therefore, this section identifies two other water source options that may be available for the Project. The two other water source options considered include a greater supply and availability of:

- Surface water—Salinas Valley Water Project, and
- Desalinated water.

The potential impacts of the other two water source options identified below and the mitigation for those potential impacts do not represent direct impacts of or necessary mitigation for the proposed Project. Instead they are provided in accordance with guidance under the California Supreme Court decision in *Vineyard Area Citizens for Responsible Growth v. City of Rancho Cordova*.

## Surface Water (Salinas Valley Water Project)

The primary surface water features overlying and influencing the SVGB are the Salinas River and its tributaries, Nacimiento and San Antonio Reservoirs, and Monterey Bay. In Monterey County, the Salinas River runs through the Salinas Valley floor, an area of approximately 239,000 acres. Several tributaries enter the river along the length. These include Pancho Rico Creek, Santa Rita Creek, Estrella Creek, Chalone Creek, San Lorenzo Creek, El Toro Creek, Prunedale Creek, Arroyo Seco River, Nacimiento River, and San Antonio River. The Nacimiento and San Antonio Rivers are by far the largest tributaries, with watersheds of about 330 and 328 square miles, respectively. Dams owned and operated by the MCWRA control both of these rivers. Nacimiento and San Antonio Rivers contribute approximately 200,000 af/yr and 70,000 af/yr, respectively, to the Salinas River. Another significant tributary is the Arroyo Seco River, the largest unregulated tributary to the Salinas River. In addition, there is flow from the upper Salinas River, which is most prominent during the wet winter months.

Average annual flows to the ocean from the Salinas River are around 282,000 af/yr, most of which occurs during the period of November through March. This period corresponds to the months of peak seasonal rainfall and coincides with a seasonal drop in irrigation in the valley. During the spring and summer months, the reservoirs on the Nacimiento and San Antonio Rivers regulate flow to minimize outflow to the ocean, maximizing groundwater recharge through the Salinas River channel. Under current reservoir operations, water is released into the river during summer months to recharge the groundwater basin. Because a natural clay layer underlies the river in the northern portion of the valley, outflows from the dams are regulated to maintain river flow only as far north as the Spreckels area. The river channel north of Davis Road has minimal flow during the summer season, except for agricultural runoff.

Therefore, an additional source of water for the Project may include greater management of surface water resources, which may result in an increased water supply, reduced groundwater pumping, reduced overdraft conditions in the SVGB, and reduced nitrate contamination. This could be accomplished with enhanced reservoir storage capacity, enhanced diversion of the river flows, and a reduction in the river flow to the ocean. These measures have already been proposed and are major objectives of the SVWP. The SVWP has been approved but not yet implemented. Therefore, greater management of surface waters in the SVGB may be an additional source of water for the project. This additional water source option would need to comply with requirements established by the NMFS and CDFG with respect to protecting fishery resources in the Salinas River.

The following information summarizing the environmental impacts and mitigation measures for greater management of surface water resources is taken from the Environmental Impact Report/Environmental Impact Statement (EIR/EIS) for the SVWP April 2002 prepared by the MCWRA and the ACOE. Refer to the EIR/EIS for a full discussion of the environmental impacts and mitigation measures of the SVWP, which are only summarized here. Since this additional water source option encompasses major objectives of the SVWP, the environmental impacts and mitigation measures for this

other water source option are the same as those already documented in the EIR/EIS for the SVWP.

The EIR/EIS indicates that the SVWP would halt or reduce seawater intrusion. This would be a substantial beneficial impact to groundwater quality. According to the EIR/EIS, the SVWP would result in construction-related and operation-related environmental impacts. The significant construction and operation-related environmental impacts, as well as mitigation measures to reduce those impacts to below a significant level are described below. Note that the "project" in the following discussion refers to the SVWP, not the SOI Amendment and Annexation.

#### **Construction and Operation-Related Impacts and Mitigation Measures**

## Hydrology and Flooding

Implementation of the project could increase the perched aquifer groundwater levels in the vicinity of the diversion facility impoundment and would affect a limited amount of lower-lying agricultural fields. The mitigation measure for this impact is the MCWRA shall install a subsurface drainage system to remove excess water from affected agricultural areas.

## **Terrestrial Biology**

Some habitat would likely be removed because of permitted channel maintenance activities. Mitigation for this impact could include a combination of fencing, on-site monitoring, riparian tree replacement, detailed performance standards to ensure that an 80 percent survival rate for replacement trees is achieved over a 5-year period, annual reports identifying planting success, and monitoring efforts, etc. Precise mitigation will be determined through consultation with CDFG and USFWS. Development and maintenance of the surface diversion dam could result in the disturbance and/or loss of these habitats. Mitigation includes performing formal wetland delineation.

## Fish Biology

The project would result in greater fluctuations in surface elevation of the Nacimiento Reservoir during the largemouth bass spawning period and increased frequency of summer drawdown of Lake Nacimiento. Mitigation for this impact includes providing additional habitat enhancement structures in Lake Nacimiento. The impact of the spillway and diversion on fish migration would be expected to be less than significant when the dam would be lowered. However, there would be a potential for significant impacts on migration of steelhead and other native fish species during the period when the dam would be raised. Mitigation measures for this impact include implementing an operational scenario including regulation of stage in the Salinas River Lagoon and minimum bypass flows during potential steelhead migration periods. Exposure of migrating juvenile steelhead to altered habitat conditions or predation in the diversion dam impoundment may be potentially significant. Mitigation includes the MCWRA

developing a monitoring program to determine whether the diversion impoundment results in an incremental loss of migrating steelhead.

## Cultural Resources

Ground disturbance associated with construction of all physical project components proposed could adversely affect previously undiscovered important archaeological resources. Mitigation includes monitoring, avoidance where possible, and appropriate notification, as well as other measures.

## Visual Resources

The difference in average monthly surface elevation at the San Antonio Reservoir during the recreation season would exceed the 10-foot differential threshold and would be visually significant. No mitigation is available to mitigate this impact.

## Recreation

The project is anticipated to reduce the available peak recreation days at the San Antonio Reservoir during near-term and future conditions. Mitigation for this impact would not be feasible. The project is anticipated to reduce the available peak recreation days at the Nacimiento Reservoir during near-term and future conditions. Mitigation for this impact would not be feasible. Fluctuating lake levels would increase the frequency in which spawning habitat would be affected, impacting overall sportfish resources in the Nacimiento Reservoir. Mitigation proposed for this impact includes providing additional habitat enhancement structures in the Nacimiento Reservoir.

## Traffic and Circulation

Construction activities associated with the Nacimiento spillway modifications would result in roadway closures, potentially lengthy traffic delays including delays of emergency vehicles, pavement degradation, and the tracking of mud and gravel on Nacimiento Lake Drive causing potential traffic hazards. Mitigation includes limiting two-way closure times, avoiding closures during peak recreation traffic periods, and providing one-lane controlled access. Project construction worker and truck traffic could potentially track mud or gravel onto public roads from the private unpaved farm roads that would be used to access the construction site. Mitigation for this impact includes sweeping paved roads leading to and from the site.

## Air Quality

Construction activities associated with the proposed Nacimiento spillway modification would result in construction emissions, including fugitive dust, equipment exhaust, and mobile source emissions exceeding San Luis Obispo County's Air Pollution Control District (SLOCAPCD) air pollution thresholds. Mitigation includes implementing SLOCAPCD recommended mitigation measures for construction emissions. Construction emissions of  $PM_{10}$  would exceed the Monterey Bay Unified Air Pollution

Control District's (MBUAPCD) construction emission threshold. Mitigation measures include implementing MBUAPCD recommended mitigation measures for construction emissions. Individual point sources of pollution for the project diversion facility, such as a backup power generator, could result in stationary source emissions. Mitigation for this impact is MCWRA shall implement the measures for stationary sources of emissions that are subject to MBUAPCD permitting authority, including complying with all permit requirements.

#### Noise

Noise levels associated with the operation of the Nacimiento Reservoir spillway rubber dam or radial gate would exceed the Monterey County noise level thresholds. The mitigation measure for this impact is pumping plants and all pump motors shall be located within an enclosed structure or with adequate setback and screening to achieve acceptable noise levels. Construction of various facilities would have a short-term noise impact. Mitigation measures include using mufflers on construction equipment, placing generators in enclosures, and limiting the hours of construction activities.

#### Desalination

Agencies in Monterey County are pursuing desalination as a water source to lessen the effects of drought on the region, and to reduce groundwater pumping and seawater intrusion, which results from overdraft of the SVGB. Desalination has been successful in Monterey County on a relatively small scale. The Moss Landing Power Plant (MLPP), the Marina Coast Water District, and the Monterey Bay Aquarium all have existing small-scale desalination facilities.

The California American Water Company is in the planning stages for the Coastal Water Project (CWP). The main component of the CWP is a proposed desalination plant located in the vicinity of the Moss Landing Power Plant, approximately 11 miles northwest of Salinas. Upon completion, the desalination plant will use reverse osmosis to convert seawater into drinkable fresh water, and produce a maximum of 10 mgd, or 11,730 af/yr. The CWP would provide a replacement source for 10,730 af/yr of water from the Carmel Valley Aquifer north of the SVGB, which is currently overdrawn, and to reduce pumping from the Carmel River. Additionally, the CWP would provide a replacement source for 1,000 af/yr of water from the Seaside Aquifer, which is also currently overdrawn. In June 2007, construction began on a pilot desalination facility to test the viability of the CWP and desalination of water. Besides the desalination plant, the CWP proposes a desalinated water conveyance system and aquifer storage and recovery (ASR) facilities. The water conveyance system includes a transmission main, terminal reservoir, and pump stations.

The CWP is not anticipated to provide any direct benefits to Salinas, the project, or the SVGB. However, it may be possible to expand distribution of desalinated water from the CWP to other jurisdictions such as Salinas. Additionally, if successful, a similar desalination project may be feasible for jurisdictions within the SVGB to provide an additional water source for the project and the Salinas Valley, and to reduce the overdraft

of the Pressure and East Side Subareas as well as seawater intrusion and nitrate contamination.

The following information summarizing the environmental impacts and mitigation measures for the CWP is taken from the Proponent's Environmental Assessment (PEA) dated July 14, 2005, prepared by California American Water Company (CAW). For a full discussion of the environmental impacts and mitigation measures of the CWP, please refer to the PEA.

Note that the preparer of the PEA, CAW, is a separate and distinct water company from Cal Water. Information and analysis from Cal Water have been used extensively throughout this SEIR and are unrelated to the information presented in this section.

The PEA indicates that the CWP would yield positive impacts on the physical environment through reduced pumping in the Carmel Valley Aquifer. The reduced pumping in the key dry months of the summer season would leave a substantial amount of water at critical times for fish, wildlife, and riparian habitat. According to the PEA, the CWP would result in construction-related and operations-related impacts. The significant construction and operation-related environmental impacts, as well as mitigation measures to reduce those impacts to below a significant level are described below. Note that the "project" in the following discussion refers to the CWP not the SOI Amendment and Annexation.

## **Construction and Operation-Related Impacts and Mitigation Measures**

## Water Supply and Potable Water Quality

Cooling water from the MLPP as a source water for desalination would potentially contaminate water supplies. Mitigation measures for this impact include performing a Watershed Sanitary Survey, conducting pilot test studies to ensure the desalination plant design can produce potable water, and ensuring water complies with state and federal drinking water standards. An additional water supply impact indicates that the ASR water system would potentially result in potable water quality impacts. The mitigation measure for this impact includes monitoring and evaluation of the operation of the Santa Margarita Test Injection Well (SMTIW) pilot project.

#### Land Use and Relevant Planning

The project would potentially conflict with applicable land use plans and policies. Mitigation for this impact includes coordinating construction activities in or adjacent to agricultural areas and in urbanized area with all affected landowners and/or agricultural growers in agricultural areas. The project would potentially conflict with existing land uses. Identified mitigation measures include obtaining appropriate utility easements to ensure adequate access.

## Filter Backwash Solids Disposal

Implementation of the project may conflict with regulations related to solid waste diversion. The mitigation measures for this impact include CAW preparing a Solid Waste Management Plan providing for the diversion of 50 percent of solid waste, and coordinating solid waste collection services to minimize disruption.

## Aesthetics, Light, and Glare

Construction activities associated with project components would temporarily alter scenic views. Mitigation measures for this impact include implementing short-term construction equipment staging areas with appropriate screening, and screening of mechanical equipment from visible adjacent residential areas. The project would add some new visual features and potentially alter or block existing views. Mitigation measures for this impact include providing a vegetative buffer around well sites, ensuring fencing is complementary with housing and the surrounding environment, requiring design review of all new development, and screening of all mechanical and electrical equipment. Project components would include new sources of light and glare in the surrounding areas. Mitigation measures for this impact include shielding exterior light sources including streetlights and/or directing light sources away from adjoining uses.

## Cultural Resources

Project construction and operation activities could potentially disturb archaeological resources. Mitigation measures include retaining the services of a professional archaeologist throughout ground-disturbing construction; flagging and monitoring Archaeological Sensitive Areas (ASAs); training construction personnel on recognizing cultural remains and procedures to undertake upon discovery of archaeological materials; developing a Cultural Resources Treatment Plan (CRTP); conducting archaeological monitoring by a qualified archaeologist; and performing pre-construction surveys. Project construction and operation activities could potentially disturb historic remains. The mitigation measure for this impact includes confining construction around historic buildings and structures. Project construction and operation activities could potentially disturb paleontological resources and disturb burial sites. Mitigation measures include retaining the services of a professional archaeologist throughout ground-disturbing construction; flagging and monitoring ASAs; training construction personnel on recognizing cultural remains and procedures to undertake upon discovery of archaeological materials; developing a CRTP; conducting archaeological monitoring by a qualified archaeologist; and performing pre-construction surveys.

## Air Quality

Short-term earthwork activities and construction of the project would potentially result in temporary air quality impacts. Mitigation for this impact includes complying with MBUAPCD guidelines to reduce emissions. Toxic air contaminants may be emitted during site preparation and project construction. Mitigation for this impact includes installing oxidation catalysts on diesel-fired engines. Operation of the project could

potentially result in long-term impacts. Mitigation includes complying with MBUAPCD regulations. The project may conflict with the local Air Quality Management Plan (AQMP). No mitigation is recommended for this impact.

## Terrestrial Biological Resources

The project would potentially result in impacts on sensitive upland habitats. Mitigation measures proposed for this impact include siting project components to avoid sensitive upland habitats to the extent feasible, or quantifying and restoring when avoidance is not possible; or purchasing similar habitat and/or preserving habitat off-site when avoidance is not possible. The project would potentially result in impacts on wetland habitats. Mitigation proposed for this impact includes avoiding areas of jurisdictional wetland habitats to the extent feasible; implementing BMPs; conducting wetland delineation prior to construction; and functionally replacing wetland habitat lost under any project element. The project would potentially result in impacts on sensitive riparian habitat. Mitigation proposed for this impact includes avoiding or minimizing riparian habitats to the extent feasible. The project would potentially result in impacts due to the removal of native trees. The mitigation measure for this impact includes performing a comprehensive survey to identify, measure, and map trees subject to County tree removal ordinances. The project would potentially result in impacts due to direct mortality and/or disturbance of special-status plant populations. Mitigation proposed for this impact includes conducting floristic surveys of all suitable habitat for special-status plants; siting project facilities to avoid impacts on special-status plants; fencing and flagging special-status plants within construction areas; and purchasing and/or restoring habitat. The project would potentially result in impacts on Smith's blue butterflies. Mitigation measures proposed for this impact include floristic surveys for coast and seacliff buckwheat; avoiding habitat for Smith's blue butterflies; and if impacts on host plants are unavoidable, conducting surveys to determine if Smith's blue butterflies are present and follow USFWS guidelines. The project would potentially result in negative impacts on special-status aquatic animals. Mitigation for this impact includes the following: no debris, soil, silt, sand, bark, slash, sawdust, cement, concrete, washings, petroleum products or other organic or earthen material shall be allowed to enter into, or be placed where it may be washed into aquatic habitats. The project would potentially result in construction impacts on special-status aquatic animals. Mitigation proposed includes avoiding habitat for special-status aquatic species and implementing a hazardous material spill prevention plan. The project would potentially result in construction impacts on California tiger salamanders. Mitigation measures for this impact include conducting surveys for tiger salamanders; redesigning project elements to avoid impacts to the species or their habitat; replacement of aquatic, wetland, and/or upland habitat that provides breeding or aestivation habitat. The project would potentially result in construction impacts on burrowing owls. Mitigation measures include conducting preconstruction surveys, and providing a buffer if nesting burrowing owls are found. The project would potentially result in construction impacts on other special-status birds. Mitigation measures include avoiding nesting season if possible and conducting preconstruction surveys and providing a buffer if active nests are found. The project would potentially result in construction impacts on western snowy plovers. Mitigation measures

include avoiding nesting season if possible and conducting pre-construction surveys and providing a buffer if active nests are found.

#### Geology, Soils, and Seismicity

The project would potentially result in substantial soil and topsoil erosion from wind or water. Mitigation for this impact includes complying with MBUAPCD guidelines to reduce emissions of fugitive dust and PM<sub>10</sub> emissions. The project would potentially have impacts to geology and soils. Mitigation measures for this impact include performing site-specific geotechnical evaluations to determine the following: whether near surface deposits can adequately support proposed structures; whether on-site soils can adequately support conveyance facilities; whether proposed trenches may be subject to collapse, caving, or flowing sands during excavation or trenching may pose a hazard to existing improvements; whether expansive soils would be a hazard; whether proposed facilities would be subject to landslide hazards; whether mat foundations, shallow footings, and/or other foundation elements would be necessary for the support of structures; and whether excavation and recompaction of loose dune sands and existing fill materials would be necessary to provide suitable foundation support. Additional mitigation includes performing soil testing to determine the presence of corrosive soils; using dried soil for trench backfill compaction; and removing rock fragments before trench backfill occurs. The project would potentially impact seismic-related hazards. Mitigation measures include geotechnical evaluation of liquefaction potential to identify fault locations and to identify landslide hazard areas. An additional mitigation measure includes conducting a site-specific tsunami run-up study.

## Hazards and Hazardous Materials

Short-term project grading and construction would potentially result in temporary hazards and hazardous materials impacts. Mitigation measures include visually inspecting on-site structures for hazardous materials; removing and disposing of stained concrete and inspecting underlying soil; removing miscellaneous debris and inspecting underlying soil; retaining a hazardous materials consultant to review groundwater documents; sampling soils in the vicinity of Highway 1, at petroleum pipeline at the Moss Landing desalination site, and at railroad right-of way areas. Other mitigation measures include involving the U.S. Department of the Army and Bureau of Land Management if construction occurs within their respective boundaries; attending an Army-sponsored ordnance and explosive safety briefing; and relocating electrical transformers, if applicable, under the purview of local utility purveyors. Short-term project grading and construction within the Central and Southern Segments of the project would potentially result in temporary hazards and hazardous materials. No mitigation is required because preventive project design features as required by existing regulations, and requirements would be implemented.

## Surface Hydrology and Water Quality

Construction and grading activities required for development of the project could potentially result in adverse effects on groundwater or on storm water runoff volumes, water quality, or flooding and drainage. Mitigation measures include the implementation of BMPs during grading and construction; the project proponent shall file a Notice of Intent to comply with the Statewide General Permit for Construction Activities with the Central Coast RWQCB; prepare and receive approval by the County of Monterey, of an erosion control plan; and receive a Water Quality Certification from the RWQCB. The proposed project would have minimal potential for long-term adverse impacts to groundwater or on storm water runoff volumes, water quality, or flooding and drainage. Mitigation measures for this impact include preparation of an erosion control plan and Storm Water Pollution Prevention Plan; and apply for appropriative permits to divert and use water from the Carmel River, obtain water from other sources of supply outside of the Carmel River Basin, or contract with another entity having appropriative rights to divert and use water from the Carmel River. Operation of the ASR could result in water quality impacts. Mitigation includes CAW continuing to monitor the operation of the SMTIW pilot project and evaluate methods to control and reduce disinfection by-products.

## Noise and Vibration

Short-term grading and construction within the project area would potentially result in temporary noise and/or vibration impacts on nearby noise sensitive receptors. Mitigation measures include limiting the hours of construction-related activities; locating stationary noise-generating equipment as far as possible from nearby noise-sensitive receptors; ensuring sound control devices are installed on equipment; ensuring that noise-generating mobile equipment and machinery are shut off when not in use; notifying residents within 500 feet of a construction area, construction activities for the ASR would take place during the summertime; and drilling activities require noise blankets and mufflers. Short-term grading and construction within the project area would potentially result in temporary vibration impacts on nearby noise-sensitive receptors. The mitigation measure for this impact includes notifying residents within 500 feet of a construction site and proposed conveyance facilities would increase existing noise levels, which could exceed noise level standards. Mitigation includes enclosing the pump plant and all pump motors in a structure or with adequate setback and screening to achieve acceptable noise levels.

## Traffic and Circulation

Construction of the project may result in temporary traffic increases and potential for level of service (LOS) degradation during construction of the desalination plant, pipelines, terminal reservoir, ASR facilities, Tarpy Flats Pump Station, and Segunda Reservoir and Pump Station. Mitigation measures for these impacts include submitting a standard Traffic Management Plan and implementing traffic management measures. Construction of the project may result in potential impacts to traffic and circulation due to the transportation of materials and workers to and from the project. Mitigation measures for these impacts include submitting a standard Traffic Management Plan and implementing traffic management measures. Construction of the project may result in temporary traffic increases and potential for LOS degradation during construction of the HDD wells and well supply lines. Mitigation measures for these impacts include submitting a standard Traffic Management Plan and implementing traffic management Plan and implementing traffic management Plan and potential for LOS degradation during construction of the HDD wells and well supply lines. Mitigation measures for these impacts include submitting a standard Traffic Management Plan and implementing traffic management measures. Construction of the project may result in temporary traffic increases and potential for LOS degradation during construction of the HDD wells, well supply lines, and brine discharge facilities. Mitigation measures for these impacts include submitting a standard Traffic Management Plan and implementing traffic management measures.

#### **Public Services and Utilities**

Project construction and operation would potentially impact fire protection facilities, response times to fires and medical emergencies, and/or the provision of other services. Mitigation includes CAW coordinating with the Fire District and other affected fire protection services in surrounding jurisdictions to review construction detour plans. Project construction and operation would potentially impact police facilities, emergency response times, and/or the provision of other police services. Mitigation for this impact includes CAW shall coordinate with the affected police or sheriff department(s) in the project area and surrounding jurisdiction to review construction detour plans. School bus service may be temporarily impacted during construction and lane closures for pipeline installation. Mitigation includes CAW coordinating with the affected school districts to minimize disruptions to school bus services. Access to libraries may be temporarily impacted during construction due to lane closures. Mitigation includes CAW coordinating with any libraries potentially affected by the detours/closures to minimize disruption. The construction and operation of the proposed facilities may increase the demand for electricity or impact existing facilities. Mitigation includes CAW coordinating with Pacific Gas and Electric to prevent disruption of service or damage to Construction activities may require relocation of lines during facility installation. telephone facilities. Mitigation includes CAW cooperating with SBC to ensure that services will not be damaged during pipeline installation.

Both construction-related and operation-related environmental impacts associated with a desalination plant and distribution network would be determined by future environmental analysis if and when a desalination project is proposed. Appropriate mitigation measures would also be identified to reduce any significant environmental impacts.

As mentioned previously, if the CWP is successful, a similar desalination project may be feasible for jurisdictions within the SVGB to provide an additional water source for the project and the Salinas Valley, and to reduce the overdraft of the Pressure and East Side Subareas as well as seawater intrusion and nitrate contamination. The environmental impacts for a desalination project in the Salinas area would likely be similar to those identified in the PEA for the CWP.

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# 5.4 STORM WATER DRAINAGE

The information in this section is principally based on a Storm Water Drainage Report, prepared by P&D Consultants (July 2007) and contained in Appendix I of this SEIR.

The 2002 General Plan Final Program EIR analyzed impacts to hydrology and water quality, and found that development resulting from implementation of the General Plan would result in a significant but mitigable impact to surface water quality relating to the potential for increased urban runoff caused by development in the Project area. The Final Program EIR also identified a significant but mitigable impact to hydrology resulting from an increase in the amount of urban pollutants in surface creeks and drainage channels as well as an overall increase in the volume of runoff due to development resulting from implementation of the General Plan.

As identified in the Initial Study, changes with respect to the circumstances under which the Project was undertaken have occurred. After the 2002 Final Program EIR was certified, and as part of the preapplication process for the proposed Project in September 2005, the Monterey County Local Agency Formation Commission (LAFCO) received correspondence from the Monterey County Water Resources Commission (MCWRA) indicating that storm water conveyance facilities downstream of the SOI Amendment and Annexation area are at or exceed capacity. In addition, the City of Salinas has been issued a new five-year NPDES permit (2005) by the Central Coast Regional Water Quality Control Board, replacing the 1999 permit reference in the Program EIR. Therefore, the environmental analysis in this section discusses storm water conveyance facilities and capacity-related issues. Groundwater and water supply issues are addressed in Section 5.3 of this SEIR.

# ENVIRONMENTAL SETTING

The SOI Amendment and Annexation area is located in the Salinas Hydrologic Unit (HU) No. 309.00, Lower Salinas Valley Hydrologic Area (HA) No. 309.10, and conveys runoff to the four major receiving waters: Carr Lake, Gabilan Creek, Natividad Creek, and Santa Rita Creek.

Natividad Creek and Gabilan Creek originate north of Salinas, then flow south through the City and drain to the Carr Lake area. At Carr Lake, both Gabilan and Natividad creeks are tributary to the Reclamation Ditch. During major storms with high backwater in the Reclamation Ditch, these creeks overflow at their downstream end and inundate large areas of Carr Lake.

The Santa Rita Creek watershed is a small watershed of about 0.5 square miles in the northwestern part of the City. This small watershed drains out of the City to the west and south. Runoff from Santa Rita Creek and Markely Swamp eventually reaches the Reclamation Ditch to the west of the City boundary.

Existing drainage problems also occur at the boundary of unincorporated areas of Monterey County and the City where runoff from adjacent agricultural fields flows into the City. The two general locations affected by this problem are the east side of the City near Williams Road, and the north side of the City along Boronda Road. At these locations, agricultural runoff can overtop the tail water ditches and either enters the City's storm drain system at curb inlets at the boundary of unincorporated areas of Monterey County and the City or flows overland on City streets to a storm drain inlet with capacity. The agricultural runoff has a very high suspended solids load, and sediment is deposited in the City storm drain system and City streets.

In some cases, runoff from agricultural properties located outside the City limits including those within the Project area can reach flow volumes and rates that not only cause flooding of City property but can also impact private properties.

## **Regulatory Setting**

Sources of regulatory information for surface hydrology include (1) the federal Clean Water Act (33 U.S.C. 1251), (2) the California Porter-Cologne Water Quality Control Act (California Water Code, Division 7), (3) the City's National Pollutant Discharge Elimination System (NPDES) Permit, (4) the Salinas City Code and other applicable development standards and criteria, and (5) the Monterey County Water Resources Agency's (MCWRA) management of the operational requirements of the downstream Reclamation Ditch and Can Lake impacts.

## State and Federal Regulatory Framework

The United States Environmental Protection Agency (EPA) is the federal agency responsible for water quality management and administration of the federal Clean Water Act (CWA). The EPA has delegated most of the administration of the CWA in California to the State Water Resources Control Board (SWRCB). The SWRCB was established through the California Porter-Cologne Water Quality Act and is the primary state agency responsible for water quality management issues in California. Much of the responsibility for implementation of the SWRCB's policies is delegated to the nine Regional Water Quality Control Boards (RWQCB). The Project Area is located within the Central Coast region (Region 3).

Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) to regulate discharges into "navigable waters" of the United States. The U.S. EPA authorized the SWRCB to issue NPDES permits in the State of California in 1974. NPDES permits establish discharge pollutant thresholds and operational conditions for industrial discharges, wastewater treatment plants, and urban storm water runoff.

Control of storm water runoff is a primary focus of the Central Coast Regional Water Quality Control Board (CCRWQCB). The CCRWQCB designates beneficial uses, establishes water quality objectives, and administers the NPDES permit program which regulates storm water runoff and discharges into the City's municipal separate storm sewer system (MS4). To that end, the CCRWQCB guides and regulates water quality in streams and aquifers throughout the Central Coast region, including the Project area.

The City is currently subject to the requirements of Phase I of the NPDES permit program. Phase I requires permits for storm water dischargers from (1) certain specific industrial and construction activities, (2) medium and large MS4's located in incorporated or places with populations of 100,000 or more, (3) construction sites disturbing greater than one acre of land, and (4) operators of MS4's in urbanized areas. Moreover, as a general matter, Phase I of the

NPDES permit program is intended to further reduce adverse impacts to water quality and aquatic habitat by instituting the use of controls on the unregulated sources of storm water discharge that have the greatest likelihood of causing environmental degradation.

#### City of Salinas Regulatory Framework

In 2005 the CCRWQCB adopted Order No. R3-2004-0135, which is the City's NPDES Permit (Permit No. CA0049981) for municipal storm water and urban runoff discharges within the City of Salinas.<sup>1</sup> To comply with the Permit, the City has developed a variety of storm water management programs to effectively prohibit non-storm water discharges and to reduce the discharge of pollutants to the maximum extent practicable, including the Storm Water Management Plan (SWMP) currently being reviewed by the RWQCB's staff The SWMP is based on the requirements and guidelines contained in the City's NPDES Permit, as well as relevant portions of other local and regional storm water guidance documents and programs. In compliance with the Phase I regulations, the SWMP is a comprehensive document designed to reduce the discharge of pollutants to the maximum extent practicable and to protect water quality. The SWMP includes all of the required and recommended control programs for municipal facilities, industrial facilities and commercial facilities. The SWMP programs include urban runoff control policies, outreach and education efforts, site visits and inspections; these programs guide the implementation of specific storm water Best Management Practices (BMPs).

In addition to the SWMP, the City has a Storm Water Ordinance which establishes the City's legal authority to prohibit illicit connections and pollutant discharges to the City storm drain system. The Storm Water Ordinance was revised in August 2007 to incorporate requirements of the City's NPDES Permit and to impose those requirements, including Low Impact Development (LID) strategies and practices, on all development and significant redevelopment within the City; all development and significant redevelopment occurring within the City must incorporate both structural and non-structural runoff pollution control measures (BMP's) to preclude significant impact from non-point source pollutants. The City also has promulgated Grading Standards which provide guidelines, regulations and minimum standards for clearing, excavation, cuts, fills, earth moving, grading operations, water runoff and sediment control. The Grading Standards were revised in August 2007 to meet the requirements of its current NPDES Permit by strengthening requirements for implementation of erosion and sediment control.

## Monterey County Water Resources Agency

The MCWRA oversees the development and implementation of water quality, water supply, and flood control projects in Monterey County. Primary responsibilities are management of water supply resources in the reservoir system, including San Antonio and Nacimiento Reservoirs, permitting and development of the Salinas Valley Water Project, and storm water collection and conveyance via the Reclamation Ditch which is located downstream of the Project area. Maintaining high water quality standards for both supply and environmental habitat are major

<sup>&</sup>lt;sup>1</sup> The City of Salinas is also subject to two other permits including a Waste Discharge Permit for discharges from the City's Industrial Waste Treatment Facility and a Sanitary Sewer Permit for discharges from the City's sanitary sewer system and for pollution prevention activities associated with the sanitary sewer system.

goals of the agency. Goals are achieved through the development and implementation of water quality programs such as those designed to evaluate and develop strategies for reducing contamination of waterways from chemicals used in agriculture and agricultural waste products, or for overall watershed protection in reservoir areas.

## THRESHOLD FOR DETERMINING SIGNIFICANCE

For the purpose of this EIR, a significant impact would occur if implementation of the proposed project:

- Substantially alters the existing drainage pattern of the area; or
- Contributes runoff that would exceed the capacity of existing or planned storm water drainage systems.

## ENVIRONMENTAL IMPACT

Future development identified in the Salinas General Plan has the potential to modify the surface runoff generated from the Project area local watershed that is tributary to the receiving waters or adjacent creek systems compared to the natural runoff conditions. This includes the addition of more impervious surfaces, increasing the quantity of local storm water runoff. This condition creates a potentially significant drainage (surface hydrology) impact requiring mitigation.

In general, future urban development in the Project area could potentially result in direct modifications to surface hydrology through several areas that include (1) decreasing the development watershed response time associated with a more hydraulically efficient drainage conveyance system of streets and pipes, (2) increasing runoff volume, (3) reducing infiltration through increased impervious areas, and (4) increasing peak runoff rates. In addition, urban runoff can result in increased concentrations of different constituent pollutants that can result in impacts to water quality. The quantity of runoff can potentially influence the stability of the river process in alluvial stream systems directly related to sediment transport and affect the downstream existing hydrologic operation of Carr Lake.

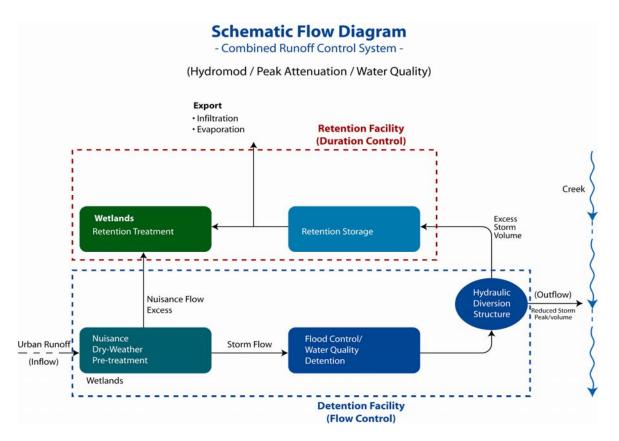
Analysis was conducted to identify methods to mitigate storm water peak and total flows to predevelopment conditions, while maintaining water quality standards. As analyzed in the P&D Consultants Storm Water Drainage Report (2007), pre-development and post-development project watershed hydrology for both hypothetical single event rainfall and continuous rainfall for the maximum water year have been considered and runoff simulations were developed using both the Storm Water Management Model (XP-SWMM) and the Army Corps of Engineers Hydrologic Modeling System (HEC-HMS) software for each of the following events: 100-year 72-hour storm; 100-year 24-hour storm; and 1998 (wettest year available) 1-year continuous hourly precipitation data for the City of Salinas.

These analyses were used to determine the required storm water flow control facilities that would adequately mitigate the hydrologic impacts for the different criteria. The combined hydrologic effect from each of the watersheds was calculated for both the existing and proposed conditions for the Annexation area and Settrini property only. Properties within the Remainder area (south of Williams Road) are only within the SOI Amendment area, not the Annexation area and, as a result, no development proposals and site specific data exist; however, drainage impacts and mitigation are expected to be the same within all parts of the Project area due to similar geographic and climatic conditions. The hydrologic analyses assumed a series of two-basin detention/retention facilities, which provide independent retention and detention capabilities to achieve the desired objectives. The analyses also provide information regarding the appropriate size of the detention/retention facilities needed to address hydrologic impacts based on each of the different criteria evaluated to understand the most stringent requirements in determining the facility dimensions. The size of the detention/retention facilities to match the physical constraints of land development and provide the best compatibility with the Project area land use plan.

The type of control facility needed to mitigate the hydrologic impacts (see the Schematic Flow Diagram below) would be a dual basin facility that will have the (1) detention storage requirements outlined in the City of Salinas detention requirements, (2) water quality treatment volume in constructed wetlands distributed in both the detention and retention basins based on percentage of the capture volume for each facility, and (3) adjacent retention pond based on the 100-year 72-hour differential between pre- and post-project conditions. The water quality treatment volume can be reduced based on the use of Low Impact Development (LID) features such as grassy swales and other permeable surfaces within the Project area and this can also reduce the retention volume requirements because of change in the Project impervious/ infiltration values.

In addition, the operation of the retention basins in both the water balance analysis and continuous simulation assumes infiltration capabilities in the basin floor to release/evacuate the stored water volume over time. The infiltration rates represent an average of the sampled values within the site so the aggregate value is conservative because the basins will be located within high infiltration/percolation zones. A safety factor was also applied as typically recommended for infiltration basin design of both a factor of 2 and 4 to represent the potential for clogging. The continuous rainfall model, even with the infiltration safety factor, indicates that for the maximum rainfall year that the basins would be dry at the end of the season for both safety factors.

Based on the design approach described above, the proposed drainage system will (1) detain storm water runoff so the post-development downstream peak flow rate is not increased over that which existed prior to development; and (2) retain on-site the additional volume of storm water that results from the increased impervious surfaces associated with future urban development. Using this system, future development in the Project area will not significantly impact downstream areas with either increased flow rates or flow volumes.



Schematic Flow Diagram above provided by Pacific Advanced Civil Engineering

## MITIGATION MEASURES

The following mitigation measure contained in the Salinas General Plan Final Program EIR shall continue to be applied to the SOI Amendment and Annexation to reduce a potentially significant impact associated with storm water drainage:

HW5. The City will implement General Plan Implementation Program LU-17 that requires, as a condition of Project approval, new development to provide adequate storm water and flood management facilities to control direct and indirect erosion and discharges of pollutants and/or sediments so that "no net increase in runoff" occurs as a result of the proposed Project. To determine the facility and Best Management Practices (BMPs) needs, the City will require, when necessary, a hydrological/drainage analysis to be performed by a certified and City-approved engineer, with the cost of said analysis the responsibility of the Project applicant.

In addition to mitigation measure HW5 above, surface hydrology impacts associated with future development within the Project area will be fully mitigated prior to discharging to the natural drainage courses through central drainage facilities and land planning features within the development using the following approach:

SEIR SD1. Future development within the SOI Amendment and Annexation area shall utilize a combined flow control system to achieve the hydrologic mitigation and water quality requirements that follows similar agency/industry hydro-modification recommendations. The proposed flow control system will include one or more of the following components, which are illustrated in the schematic below and include (1) duration control/water quality treatment basin, (2) pretreatment wetlands, (3) retention/infiltration basin, (4) diversion outlet to either the retention basin or the downstream receiving waters, and (5) sediment forebays to trap small amounts of sediment entering the Project area.

The flow control facility will provide hydraulic distribution of flows for water quality treatment, duration/volume control and peak flow attenuation. The facility will provide temporary runoff storage volume to attenuate the peak flow rate and will also incorporate "extended detention" to provide water quality treatment for storm flows as part of the hydraulic detention time for stored runoff. Extended detention is designed with outlets that hydraulically limit the release of the stored runoff volume specifically for the water quality design storm volume (e.g. 85th percentile 24-hour storm) for some minimum time (e.g., 48 hours) to allow particles to settle. The flow control facility will also incorporate a pre-settling zone to provide additional treatment and mitigate nuisance/dryweather flows. The facility will also provide "retention" that is separate and hydraulically independent of the "detention" zone. The retention feature will store the difference in runoff volume between the pre- and post-development conditions. The flow control facility may consist of single or multiple basins; or equivalent device(s) meeting these hydraulic and water quality performance requirements.

Water quality treatment for storm water runoff and urban dry-weather flows will also be provided through the detention/retention basins system within the flow control facility portion.

SEIR SD2. Future development within the SOI Amendment and Annexation area will include Low Impact Development (LID) features to be implemented through site design techniques within the Project area land plan as design elements. LID features will use natural vegetation and small-scale treatment systems to treat and infiltrate storm water runoff close to its origin.

# IMPACT AFTER MITIGATION

Implementation of Mitigation Measures HW5, SEIR SD1, and SEIR SD2 will reduce the surface hydrology impacts associated with altering the drainage pattern of the Project area and the additional runoff associated with development of the Project area to a level less than significant.

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# 5.5 GLOBAL CLIMATE CHANGE

According to California Environmental Quality Act (CEQA) Guidelines Section 15002(a)(1), one of the basic purposes of CEQA is to, "(i)nform governmental decision makers and the public about the potential, significant environmental effects of proposed activities." Furthermore, the CEQA Statutes "require a finding that a project may have a 'significant effect on the environment' if one or more of the following conditions exist:

- (1) A proposed project has the potential to degrade the quality of the environment, curtail the range of the environment, or to achieve short-term, to the disadvantage of long-term, environmental goals.
- (2) The possible effects of a project are individually limited but cumulatively considerable. As used in this paragraph, 'cumulatively considerable' means that the incremental effects of an individual project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.
- (3) The environmental effects of project will cause substantial adverse effects on human beings, either directly or indirectly." (Public Resources Code § 21083(b))

Although a discussion of global warming (also referred to herein as "climate change" or "global climate change") impacts is not currently required by the CEQA Statutes or Guidelines, it is the view of the State Legislature (as expressed in its adoption of AB 32, *The California Climate Solutions Act of 2006*) and the Governor (through the issue of Executive Order S-3-05) that global warming poses the threat of significant adverse effects to the environment of California and the entire world, and that mitigation measures are needed to limit these impacts. In addition, the global scientific community has expressed very high confidence (i.e., at least 90 percent) that global warming is anthropogenic, i.e., caused by humans, and that global warming will lead to adverse climate change effects around the globe (IPCC 2007). Also, global climate change was not addressed as an issue in the 2002 General Plan Final Program EIR.

Therefore, this section evaluates the potential direct and cumulative global climate change impacts of development under both the Project (SOI Amendment and Annexation) and the General Plan for potential significance under CEQA. Since the proposed Project is a planning and geographic component of the Salinas General Plan, impacts of global warming associated with development of the General Plan are also analyzed to provide a more complete context. Global climate change impacts resulting from development associated with implementation of the General Plan also include those impacts that will occur within the SOI Amendment and Annexation areas.

# ENVIRONMENTAL SETTING

# Overview

Atmospheric greenhouse gases (GHGs) and clouds within the Earth's atmosphere influence the Earth's temperature by absorbing most of the infrared radiation rising from the Earth's sunwarmed surface that would otherwise escape into space. This process is commonly known as the Greenhouse Effect. GHGs and clouds, in turn, radiate some heat back to the Earth's surface and some out to space. The resulting balance between incoming solar radiation and outgoing radiation from both the Earth's surface and atmosphere keeps the planet habitable.

However, anthropogenic (i.e., caused by humans) emissions of GHGs into the atmosphere enhance the Greenhouse Effect by absorbing the radiation from other atmospheric GHGs that would otherwise escape to space, thereby trapping more radiation in the atmosphere and causing temperature to increase. The human-produced GHGs responsible for increasing the Greenhouse Effect and their relative contribution to global warming (i.e., their relative ability to trap heat in the atmosphere) are: carbon dioxide (CO<sub>2</sub>) (53 percent); methane (CH<sub>4</sub>) (17 percent); near-surface ozone (O<sub>3</sub>) (13 percent); nitrous oxide (N<sub>2</sub>O) (12 percent); and chlorofluorocarbons (CFCs) (5 percent). The most common GHG is CO<sub>2</sub>, which constitutes approximately 84 percent of all GHG emissions in California (CEC 2006). Worldwide, the State of California ranks as the  $12^{th}$  to  $16^{th}$  largest emitter of CO<sub>2</sub> (the most prevalent GHG) and is responsible for approximately 2 percent of the world's CO<sub>2</sub> emissions (CEC 2006).

The increasing emissions of these GHGs-primarily associated with the burning of fossil fuels (during motorized transport, electricity generation, consumption of natural gas, industrial activity, manufacturing, etc.) and deforestation, as well as agricultural activity and the decomposition of solid waste-have led to a trend of anthropogenic warming of the Earth's average temperature, which is causing changes in the Earth's climate. This increasing temperature phenomenon is known as global warming and the climatic effect is known as climate change or global climate change. The State Legislature adopted the public policy position that global warming is, "a serious threat to the economic well-being, public health, natural resources, and the environment of California" (Health and Safety Code § 38501). Further, the State Legislature has determined that, "the potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious disease, asthma, and other human health-related problems," and that, "(g)lobal warming will have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiing, recreational and commercial fishing, and forestry (and)...will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the State" (Health and Safety Code § 38501). These public policy statements became law with the enactment of AB 32, Statutes of 2006.

# **Regulatory Setting**

# Federal Plans, Policies, Regulations, and Laws

As of this writing, there are no adopted federal plans, policies, regulations, or laws directly regulating GHG emissions.

## State Plans, Policies, Regulations, and Laws

Assembly Bill 32, the California Climate Solutions Act of 2006 (Health and Safety Code § 38500 et seq.)

In September 2006, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 32, the California Climate Solutions Act of 2006, into law. In general, AB 32 directs the California Air Resources Board (ARB or State Board) to do the following:

- On or before June 30, 2007, ARB shall publicly make available a list of discrete early action GHG emission reduction measures that can be implemented prior to the adoption of the statewide GHG limit and the measures required to achieve compliance with the statewide limit;
- By January 1, 2008, determine the statewide levels of GHG emissions in 1990, and adopt a statewide GHG emissions limit that is equivalent to the 1990 level (an approximately 25 percent reduction in existing statewide GHG emissions<sup>1</sup>);
- On or before January 1, 2010, adopt regulations to implement the early action GHG emission reduction measures;
- On or before January 1, 2011, adopt quantifiable, verifiable and enforceable emission reduction measures by regulation that will achieve the statewide GHG emissions limit by 2020, to become operative on January 1, 2012 at the latest. The emission reduction measures may include direct emission reduction measures, alternative compliance mechanisms, and potential monetary and nonmonetary incentives that reduce GHG emissions from any sources of categories of sources as the ARB finds necessary to achieve the statewide GHG emissions limit; and
- The ARB shall monitor compliance with and enforce any emission reduction measure adopted pursuant to AB 32.

AB 32 also takes into account the relative contribution of each source or source category to protect adverse impacts on small businesses and others by requiring the ARB to recommend a de minimis threshold of GHG emissions below which emissions reduction requirements would not apply. AB 32 also allows the Governor to adjust the deadlines mentioned above for individual regulations or the entire state to the earliest feasible date in the event of extraordinary circumstances, catastrophic events, or threat of significant economic harm.

## Senate Bill 1368

SB 1368 is the companion bill of AB 32 and was signed by Governor Schwarzenegger in September 2006. SB 1368 required the California Public Utilities Commission (PUC) to establish a GHG emission performance standard for baseload generation from investor-owned utilities by February 1, 2007. Similarly, the California Energy Commission (CEC) was tasked with establishing a similar standard for local publicly owned utilities by June 30, 2007. These standards cannot exceed the GHG emission rate from a baseload combined-cycle natural gas

<sup>&</sup>lt;sup>1</sup> Press release from the Office of the Governor, available at http://gov.ca.gov/index.php?/print-version/press-release/4111.

fired plant. The legislation further requires that all electricity provided to California, including imported electricity, must be generated from plants that meet the standards set by the PUC and the CEC. In January 2007, the PUC adopted an interim Greenhouse Gas (GHG) Emissions Performance Standard, which requires that all new long-term commitments for baseload generation entered into by investor-owned utilities have emissions no greater than a combined cycle gas turbine plant (i.e., 1,100 pounds of  $CO_2$  per megawatt-hour). A "new long-term commitment" refers to new plant investments (new construction), new or renewal contracts with a term of 5 years or more, or major investments by the utility in its existing baseload power plants. In May 2007, the CEC approved regulations that prohibit the state's publicly owned utilities from entering into long-term financial commitments with plants that exceed the standard adopted by the PUC of 1,100 pounds of  $CO_2$  per megawatt hour.

## Assembly Bill 1493

In 2002, Governor Gray Davis signed AB 1493. AB 1493 required the ARB to develop and adopt, by January 1, 2005, regulations that achieve "the maximum feasible reduction of GHGs emitted by passenger vehicles and light-duty truck and other vehicles determined by the ARB to be vehicles whose primary use is noncommercial personal transportation in the state."

To meet the requirements of AB 1493, ARB approved amendments to the California Code of Regulations (CCR) adding GHG emission standards to California's existing motor vehicle emission standards in 2004. Amendments to CCR Title 13 Sections 1900 (CCR 13 1900) and 1961 (CCR 13 1961) and adoption of Section 1961.1 (CCR 13 1961.1) require automobile manufacturers to meet fleet average GHG emission limits for all passenger cars, light-duty trucks within various weight criteria, and medium-duty passenger vehicle weight classes beginning with the 2009 model year. Emission limits are further reduced each model year through 2016. Emission requirements adopted as part of CCR 13 1961.1 are shown in Table 5.5-1. For passenger cars and light-duty trucks 3,750 pounds (lbs) or less loaded vehicle weight (LVW), the 2016 GHG emission limits are approximately 37 percent lower than the during the first year of the regulations in 2009. For medium-duty passenger vehicles and light-duty trucks 3,751 LVW to 8,500 lbs gross vehicle weight (GVW), GHG emissions are reduced approximately 24 percent between 2009 and 2016.

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

|                    | Fleet Average GHG Emissions (grams per mile CO <sup>2</sup> equivalents)                         |   |
|--------------------|--|---|
| Vehicle Model Year | All Passenger Cars; Light-Duty<br>Trucks 0-3,750 lbs loaded vehicle<br>weight (LVW) <sup>1</sup> | Light-Duty Trucks 3,751 lbs LVW<br>to 8.500 lbs gross vehicle weight<br>(GVW); Medium-Duty Passenger<br>Vehicles <sup>1</sup> |
| 2009               | 323  | 439   |
| 2010               | 301  | 420   |
| 2011               | 267  | 390   |
| 2012               | 233  | 361   |
| 2013               | 227  | 355   |
| 2014               | 222  | 350   |
| 2015               | 213  | 341   |
| 2016               | 205  | 332   |

Table 5.5-1Fleet Average GHG Exhaust Emission Requirements Included in CCR 13 1961.1

<sup>1</sup> Specific Characteristics of Passenger Cars, Light-Duty Trucks, and Medium-Duty Passenger Vehicles are provided in CCR 13 1900 as amended to comply with AB 1493

In January 2007, the judge hearing the case accepted a request from the State Attorney General's office that the trial be postponed until a decision is reached by the U.S. Supreme Court on a separate case addressing GHGs. In the Supreme Court Case, *Massachusetts vs. EPA*, the primary issue in question is whether the federal Clean Air Act provides authority for EPA to regulate CO<sub>2</sub> emissions. In April 2007, the U.S. Supreme Court ruled in *Massachusetts*' favor, holding that GHGs are air pollutants under the Clean Air Act. In May 2007, the EPA held two public hearings on ARB's request for EPA authorization to implement the GHG reductions measure for motor vehicles required by AB 1493. As of this writing, the *Central Valley Chrysler-Jeep* case is still pending before the U.S. District Court in Eastern California and the EPA has not made a decision on ARB's request for authorization to implement the GHG reduction measure for motor vehicles.

## *Executive Order #S-3-05*

Executive Order #S-3-05, signed by Governor Arnold Schwarzenegger on June 1, 2005, calls for a reduction in GHG emissions to 1990 levels by 2020 and for an 80-percent reduction in GHG emissions by 2050. Executive Order #S-3-05 also calls for the California Environmental Protection Agency (CalEPA) to prepare biennial science reports on the potential impact of continued global warming on certain sectors of the California economy. The first of these reports, "Scenarios of Climate Change in California: An Overview" (Climate Scenarios report), was published in February 2006 (California Climate Change Center 2006).

The Climate Scenarios report uses a range of emissions scenarios developed by the Intergovernmental Panel on Climate Change (IPCC) to project a series of potential warming ranges (i.e., temperature increases) that may occur in California during the 21<sup>st</sup> century: lower warming range (3.0-5.5°F); medium warming range (5.5-8.0°F); and higher warming range (8.0-10.5°F). The Climate Scenarios report then presents analysis of future climate in California under each warming range.

As shown above, each emissions scenario would result in substantial temperature increases for California. According to the report, substantial temperature increases would result in a variety of impacts to the people, economy, and environment of California associated with a projected increase in extreme conditions, with the severity of the impacts depending upon actual future emissions of GHGs and associated warming. Under the emissions scenarios of the Climate Scenarios report (California Climate Change Center 2006), the impacts of global warming in California are anticipated to include, but are not limited to, the following.

## Public Health

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

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

## Water Resources

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

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

The State's water supplies are also at risk from rising sea levels. An influx of saltwater would degrade California's estuaries, wetlands, and groundwater aquifers. Saltwater intrusion caused

by rising sea levels is a major threat to the quality and reliability of water within the southern edge of the Sacramento/San Joaquin River Delta – a major state fresh water supply.

Global warming is also projected to seriously affect agricultural areas, with California farmers projected to lose as much as 25 percent of the water supply they need, decrease the potential for hydropower production within the state (although the effects on hydropower are uncertain), and seriously harm winter tourism. Under the lower warming range, the ski season at lower elevations could be reduced by as much as a month. If temperatures reach the higher warming range and precipitation declines, there might be many years with insufficient snow for skiing and snowboarding.

# Agriculture

Increased GHG emissions are expected to cause widespread changes to the agriculture industry reducing the quantity and quality of agricultural products statewide. Although higher  $CO_2$  levels can stimulate plant production and increase plant water-use efficiency, California's farmers will face greater water demand for crops and a less reliable water supply as temperatures rise. Crop growth and development will change, as will the intensity and frequency of pest and disease outbreaks. Rising temperatures will likely aggravate  $O_3$  pollution, which makes plants more susceptible to disease and pests and interferes with plant growth.

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

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

# Forests and Landscapes

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

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

#### Rising Sea Levels

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

#### Local Plans and Programs

The City of Salinas does not have any adopted plans or programs explicitly addressing climate change or GHG emissions. However, several of the General Plan goals and policies indirectly tend to promote GHG emission reductions by supporting and/or requiring Traditional Neighborhood Development (TND), infill development, a mixture of land uses (i.e., residential, commercial, and office) in close proximity, energy conservation, transit-oriented development, and nonmotorized (i.e., pedestrian and bicycle) transportation options. In addition, the City has an adopted Street Tree Plan. The Street Tree Plan and the specific goals and policies of the General Plan are provided in more detail below.

#### Street Tree Program

The City's Street Tree Program (Chapter 35 of the Municipal Code) provides for the planting, maintenance, and improvement of street trees within the community. New development is charged a City Street Tree Fee or is required to plant trees as part of the building permit process.

#### Land Use Element

- Goal LU-1: Develop a balanced land use pattern that provides a wide range of jobs, housing shopping, services, and recreation.
- Policy LU-1.1: Achieve a balance of land uses to provide for a range of housing, jobs, libraries, and educational and recreational facilities that allow residents to live, work, shop, learn, and play in the community.
- Policy LU-1.3: Make provision in residential areas for institutional uses that are needed near homes or which benefit from a residential environment.
- Policy LU-1.4: Create and preserve distinct, identifiable neighborhoods that have TND characteristics. Specifically, development should:
  - Connect in as many locations as possible to adjacent development, arterial streets, and thoroughfares;

- Provide a balanced mix of housing, workplaces, shopping, recreational opportunities, and institutional uses, including mixed-use structures (combined residential and nonresidential uses), that help to reduce vehicular trips; and
- Allow flexible parking requirements and arrangements within neighborhood activity centers to minimize the impact of the automobile and foster a pedestrian-oriented streetscape.
- Policy LU-2.4: Utilize well-designed in-fill development, and selectively increase density within Focused Growth Areas to maintain compact city form.
- Policy LU-6.3: Participate in and support regional programs and projects that target the improvement and conservation of the region's groundwater and surface water supply.
- Policy LU-6.4: Actively promote water conservation by City residents, businesses, and surrounding agricultural producers.
- Policy LU-11.5: Work with Monterey Salinas Transit to provide transit routes to serve new community and institutional facilities and to identify a North Salinas transit facility site.

## Community Design Element

- Goal 3: Create and preserve distinct, identifiable neighborhoods that have TND characteristics. Specifically, each neighborhood should have the following characteristics:
  - An approximately 5-minute walk from perimeter to center;
  - Housing densities should increase from perimeter to center (i.e., neighborhoods should be more densely populated at the center);
  - The neighborhood center should be the location of retail space, office space, and upperstory residential above commercial and office space; and
  - Schools should lie within the neighborhood and be easily accessible and within walking distance.
- Policy CD-3.3: Maintain a compact Central City core that minimizes distances between most residential units, offices, stores, and restaurants.
- Policy CD-3.4: Actively encourage mixed-use development in order to provide a greater spectrum of housing near business, alternative modes of transportation, and other activity areas.
- Policy CD-3.5: Promote high-density residential development and mixed-use (commercial, office, and residential together) in the Central City to the extent consistent with the area's architectural and historical character.
- Policy CD-3.6: Provide and maintain a pedestrian-friendly atmosphere by encouraging "pedestrian zones" with increased landscaping, use of traffic-calming techniques on local streets, adequate separation from automobile traffic, and the inclusion of amenities such as lighted crosswalks and increased lighting along sidewalks.
- Policy CD-3.8: Promote the use of alternative modes of transportation, including bus, rail, bicycling, and walking.
- Policy CD-3.9: Group neighborhood shopping centers, schools, civic and recreational uses, parks, and public transit opportunities together in new neighborhoods to create an activity center focal point for the neighborhoods they serve.

# Conservation/Open Space Element

- Goal COS-6: Improve air quality through proper planning for land use, transportation, and energy use.
- Policy COS-6.4: Support alternative modes of transportation, such as walking, biking, and public transit, and develop bike- and pedestrian-friendly neighborhoods to reduce emissions associated with automobile use.
- Goal COS-8: Encourage energy conservation.
- Policy COS-8.2: Apply standards that promote energy conservation in new and existing development.
- Policy COS-8.3: Work with energy suppliers and distributors to implement energy conservation programs and help inform the public of these programs.
- Policy COS-8.4: Participate in programs that promote energy conservation.
- Policy COS-8.5: Encourage land use arrangements and densities that facilitate the use of energy-efficient public transit.
- Policy COS-8.6: Encourage the creation and retention of neighborhood-level services...throughout Salinas in order to reduce energy consumption through automobile use.

# Circulation Element

- Policy C-1.9: Use traffic calming methods within residential areas where necessary to create a pedestrian-friendly circulation system.
- Policy C-1.10: Encourage car-pooling at government offices, businesses, schools, and other facilities to reduce the number of vehicles using the roadway system.
- Policy C-1.11: Continue to enforce traffic laws, including those addressing bicycle and pedestrian traffic, to ensure a circulation system that is safe for motorized, bicycle, and pedestrian traffic.
- Goal C-2: Work with other local and regional agencies to develop regional transit and transportation systems.
- Policy C-2.5: Work with Caltrain and Amtrak to provide commuter rail service to the Silicon Valley and other major destinations to provide alternatives to automobile use.
- Policy C-2.6: Promote a regional jobs-housing balance to reduce vehicle miles traveled and congestion on the regional circulation system.
- Goal C-3: Promote an efficient public transportation network.
- Policy C-3.1: Support Monterey-Salinas Transit initiatives to provide adequate and improved (i.e., more frequent availability and use of Intelligent Transportation System measures where appropriate) public transportation service.
- Policy C-3.2: Design development and reuse/revitalization projects to be transit-oriented to promote the use of alternative modes of transit and support higher levels of transit service.
- Policy C-3.3: Support the extension of commuter rail to Salinas to allow for alternatives to automobile use.
- Policy C-3.4: Support public transportation that is "bike" friendly, such as buses with bicycle racks and reduced fares for bicycle riders and provision of bicycle racks at public transportation stations.

- Goal C-4: Provide an extensive, safe public bicycle network that provides on-street as well as off-street facilities.
- Policy C-4.1: Continue to develop a network of on- and off-street bicycle routes to encourage and facilitate the use of bicycles for commute, recreational, and other trips. Eliminate gaps and provide connections between existing bicycle routes.
- Policy C-4.2: Increase availability of facilities, such as bike racks and well-maintained and well-lit bike lanes that promote bicycling.
- Policy C-4.3: Encourage existing businesses and require new construction to provide on-premise facilities to aid bicycle commuters, such as on-site safe bicycle parking.
- Policy C-4.4: Improve the biking environment by providing safe and attractive cut-throughs, bike lanes, and bike paths for both recreational and commuting purposes.
- Policy C-4.5: Where possible, ensure that roadway improvements (i.e., widening and re-striping), as well as new overpasses and underpasses, allow for safe on-street bike lanes or adequate right-lane space for bicycles.
- Goal C-5: Provide safe routes to school, work, shopping, and recreation for pedestrians.
- Policy C-5.1: Increase availability of safe and well-maintained sidewalks in all areas of Salinas.
- Policy C-5.5: Improve the walking environment by providing safe and attractive sidewalks, cut-throughs, and walkways for both recreational and commuting purposes.

# THRESHOLD FOR DETERMINING SIGNIFICANCE

As stated above, the State Legislature and global scientific community have found that global climate change poses the threat of significant adverse effects to the environment of California and the entire world. To mitigate these adverse effects, the State Legislature has required statewide GHG reductions of 25 percent below 1990 levels by 2020 and an 80 percent below 1990 levels by 2050.

In light of the substantial GHG emission reductions established by the State Legislature to mitigate the significant adverse environmental effects of global climate change, the following global climate change significance threshold is used for this analysis:

• The project's incremental contribution to global climate change would be considered cumulatively significant if, due to the size or nature of the project, it would generate a substantial increase in GHG emissions relative to existing conditions.

# ENVIRONMENTAL IMPACT

As stated at the beginning of this section on Global Climate Change, this section evaluates the potential direct and cumulative global warming impacts of development under both the Project (SOI Amendment and Annexation), and the General Plan for potential significance under CEQA. Since the proposed Project is a planning and geographic component of the Salinas General Plan, impacts of global warming associated with development of the General Plan are also analyzed to provide a more complete context. Global climate change impacts resulting from development associated with implementation of the General Plan also include those impacts that will occur within the SOI Amendment and Annexation areas.

Future development projects anticipated to occur during implementation of the General Plan and the Project (SOI Amendment and Annexation) are expected to result in increased GHG emissions due to increased vehicle miles traveled (VMT), increased electricity and natural gas consumption, and increased solid waste generation and subsequent disposal into landfills. GHG emissions result from CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O that is released during the combustion of gasoline or diesel fuel in vehicles, the burning of fossil fuels to produce electricity, and the use of natural gas to heat and power residential and nonresidential buildings. Increased disposal and storage of solid waste into landfills leads to increased CH<sub>4</sub> emissions when the landfill's waste decomposes.

As discussed previously, historic and current global GHG emissions are known by the State and the global scientific community to be causing global climate change, and future increases in GHG emissions associated with development under the proposed Project would only exacerbate climate change and contribute to the significant adverse environmental effects described previously. Furthermore, increased GHG emissions associated with the proposed Project could potentially impede implementation of the State's mandatory requirement under AB 32 to reduce statewide GHG emissions to 1990 levels by the same year.

Although there are no universally accepted methodologies for quantifying emissions of GHGs, methodologies for calculating GHG emissions do exist and are discussed below to provide a rough calculation of GHG emissions<sup>2</sup> associated with projected future vehicle travel and electricity and natural gas consumption associated with development allowed by the General Plan and the SOI Amendment and Annexation. A summary of GHG emissions under existing conditions and development capacity of the proposed Project is provided in **Tables 5.5-2** and **5.5-3**.

#### Table 5.5-2 City of Salinas General Plan Summary of Greenhouse Gas Emissions under Existing Conditions and Future Development Capacity of the General Plan

| Source      | Existing (2000)<br>GHG Emissions<br>(tons CO <sub>2</sub> e) | Future Development Capacity<br>(2020) GHG Emissions<br>(tons CO <sub>2</sub> e) | Percent Increase |
|-------------|--|---|------------------|
| Vehicles    | 271,922  | 378,897   | 39.34%           |
| Electricity | 869,843  | 1,300,539   | 49.51%           |
| Natural Gas | 132,800  | 185,474   | 39.66%           |
| TOTAL       | 1,274,565  | 1,864,910   | 46.32%           |

<sup>&</sup>lt;sup>2</sup> The GHG emissions estimates for VMT under the proposed project include only GHG emissions from the operation of gasoline- and diesel-powered vehicles. Vehicles powered by other fuels including propane, liquefied natural gas (LNG), and compressed natural gas (CNG) would generate additional GHG emissions. The assumptions and methodology used to calculate GHG emissions from VMT, electricity, and natural gas consumption under the proposed project are provided in Appendix I.

#### **Table 5.5-3**

#### City of Salinas Summary of Greenhouse Gas Emissions under Development of the Sphere of Influence Amendment and Annexation Area

|             | Future GHG Emissions     | Percent of City's Total GHG |
|-------------|--------------------------|-----------------------------|
| Source      | (tons CO <sub>2</sub> e) | Emissions                   |
| Vehicles    | 93,436                   | 24.66%                      |
| Electricity | 348,723                  | 26.81%                      |
| Natural Gas | 51,867                   | 27.96%                      |
| TOTAL       | 494,026                  | 26.49%                      |

According to the Circulation Element of the General Plan, existing (2000) daily VMT is 1,666,300 and projected (2020) VMT under future development capacity is 2,403,500. Using assumptions for fuel economy and the proportion of gasoline- and diesel-powered engines in the vehicle fleet from the California Department of Transportation (California Department of Transportation, California Motor Vehicle Stock, Travel and Fuel Forecast 2006), and GHG emission factors for transport fuels from the Bay Area Air Quality Management District (BAAQMD) (BAAQMD 2006), it is estimated that existing VMT resulted in approximately 271,922 tons of carbon dioxide-equivalent  $(CO_2e)^3$  while VMT under future development capacity of the General Plan in 2020 is projected to result in approximately 378,897 tons of Development within the SOI Amendment and Annexation Area would result in CO<sub>2</sub>e. approximately 93,436 tons of CO<sub>2</sub>e, which represents approximately 25 percent of the City's total GHG emissions associated with VMT. Overall, GHG emissions associated with VMT under future development capacity of the General Plan and SOI Amendment and Annexation area would increase by about 39 percent relative to existing conditions. Detailed sources and the calculations used to estimate GHG emissions are provided in Appendix J of this SEIR.

As discussed previously, the City's General Plan includes goals and policies supporting transitoriented development, commuter rail, bicycling, pedestrians, and other activities that indirectly tend to reduce GHG emissions. However, these measures are not anticipated to substantially reduce the GHG emissions associated with the projected VMT increase described above.

Furthermore, the existing and projected dwelling unit totals and nonresidential square footages for the City are shown in **Table 5.5-4**. Based on assumptions for electricity and natural gas consumption per land use from Section 5.13 Public Services and Utilities of the General Plan EIR (City of Salinas Draft Program EIR 2002, Section 5.13 Public Services and Utilities, Tables 5.13-17 and 5.13-18) and GHG emission factors for electricity and natural gas consumption from the California Climate Action Registry General Reporting Protocol (California Climate Action

<sup>&</sup>lt;sup>3</sup> Carbon-dioxide equivalent is a calculation that enables all GHG emissions to be considered equally in order to measure the impact of all GHG emissions. This is necessary because GHGs vary widely in their ability to absorb radiation and trap heat in the atmosphere, which means their power to affect the climate—or their global warming potential—also varies widely. The global warming potential of GHGs is measured relative to the global warming potential of CO<sub>2</sub>. For example, since CH<sub>4</sub> and NO<sub>x</sub> are approximately 23 and 300 times more powerful than CO<sub>2</sub>, respectively, in their ability to trap heat in the atmosphere, they have global warming potentials of 23 and 300 (CO<sub>2</sub> has a global warming potential of 1). The global warming potential of each GHG is then multiplied by the prevalence of that gas to produce a carbon-dioxide equivalent (CO<sub>2</sub>e).

Registry General Reporting Protocol, Version 2.1 June 2006, Appendix C, Tables C.1 and C.2.), it is estimated that electricity and natural gas consumption associated with existing land uses resulted in approximately 869,843 tons of CO<sub>2</sub>e and 132,800 tons of CO<sub>2</sub>e, respectively, while electricity and natural gas consumption associated with future development capacity of the land uses allowed under the General Plan would result in approximately 1,300,539 tons of CO<sub>2</sub>e and 185,474 tons of CO<sub>2</sub>e, respectively. Development within the SOI Amendment and Annexation area would result in approximately 348,723 tons of CO<sub>2</sub>e from electricity consumption and 51,867 tons of CO<sub>2</sub>e from natural gas consumption, which represents approximately 27 and 28 percent of the City's total GHG emissions associated with electricity consumption under future development capacity of the General Plan and SOI Amendment and Annexation area would increase by about 50 percent relative to existing conditions and GHG emissions associated with natural gas consumption would increase by approximately 40 percent relative to existing conditions.

Table 5.5-4City of Salinas General PlanExisting and Future Development Capacity Conditions Land Use Summary

| Land Use Designation             | Year                               | Dwelling Units/<br>thousand square feet |
|----------------------------------|------------------------------------|---|
|                                  | Existing (2000)                    | 17,558                                  |
| Single-Family Residential (du)   | Future Development Capacity (2020) | 25,980                                  |
|                                  | Existing (2000)                    | 20,131                                  |
| Multiple-Family Residential (du) | Future Development Capacity (2020) | 30,465                                  |
|                                  | Existing (2000)                    | 9,518                                   |
| Commercial (sf)                  | Future Development Capacity (2020) | 6,570                                   |
|                                  | Existing (2000)                    | 16,791                                  |
| Industrial (sf)                  | Future Development Capacity (2020) | 29,246                                  |
|                                  | Existing (2000)                    | 3,983                                   |
| Office (sf)                      | Future Development Capacity (2020) | 5,125                                   |
|                                  | Existing (2000)                    | 11,584                                  |
| Public & Institutional (sf)      | Future Development Capacity (2020) | 14,864                                  |
|                                  | Existing (2000)                    | 0                                       |
| Mixed Use (sf)                   | Future Development Capacity (2020) | 13,082                                  |
|                                  | Existing (2000)                    | 671                                     |
| Arterial Frontage (sf)           | Future Development Capacity (2020) | 679                                     |

Source: City of Salinas Draft Program EIR 2002, Section 5.13 Public Services and Utilities, Tables 5.13-17 and 5.13-18.

As shown in **Table 5.5-2**, existing GHG emissions from VMT and electricity and natural gas consumption associated with development allowed under the General Plan were estimated to be approximately 1,274,565 tons CO<sub>2</sub>e in 2000 while GHG emissions under future development capacity of the General Plan are projected to be approximately 1,864,910 tons CO<sub>2</sub>e. As shown in **Table 5.5-3**, development capacity of the SOI Amendment and Annexation Area would result in approximately 494,026 tons CO<sub>2</sub>e. Together, this represents an approximately 46 percent increase in GHG emissions from these sources within Salinas. Increased solid waste generation and disposal in landfills associated with increased population growth under the General Plan is anticipated to result in increased GHG emissions associated with the release of landfill gas

(i.e., methane), although GHG emissions from solid waste deposited in landfills are not quantified in this section.

As discussed previously, emission reduction measures targeting sources of GHG emissions called for in AB 32 will likely be adopted in the near future, although no measures have yet been adopted, and it is unknown at this time if the adopted measures will apply to local governments. In addition, ARB has not yet developed de minimis criteria establishing the level of GHG emissions that would not be subject to the emission reduction measures. Also, the status of the mobile source GHG emissions reduction measures proposed to implement AB 1493 remains uncertain as of this writing. However, the actions of the CEC and PUC to implement SB 1368 will potentially reduce the proposed Project's GHG emissions associated with future electricity consumption. The planting, maintenance, and improvement of street trees under the City's Street Tree Program would have the indirect effect of sequestering  $CO_2$  within such trees so long as they remain alive. However, the  $CO_2$  reductions achieved under this program would not be substantial in light of the City's total GHG emissions. In addition, the City does not have adopted plans or programs explicitly mandating GHG emission reductions. Therefore, currently adopted federal, state, and local policies and regulations are not anticipated to substantially reduce the proposed Project's GHG emissions.

Since future (i.e., future development capacity condition in 2020) annual GHG emissions under the proposed Project are projected to exceed existing levels by the substantial margin of 46 percent, the proposed Project would contribute to the exacerbation of climate change and the significant adverse environmental effects thereof. Furthermore, increased GHG emissions associated with the proposed Project could potentially impede implementation of the State's mandatory requirement under AB 32 to reduce statewide GHG emissions to 1990 levels by the same year. Therefore, the incremental GHG emissions associated with development under the General Plan and within the SOI Amendment and Annexation areas would cause a cumulatively considerable incremental contribution to the significant cumulative (worldwide) impacts when viewed in connection with worldwide GHG emissions. By generating increased emissions that contribute to global climate change, development that occurs in accordance with the General Plan throughout the City of Salinas and within the SOI Amendment and Annexation areas would incrementally contribute to the adverse economic, public health, natural resources, and other environmental impacts mentioned earlier in this section that are projected to occur in California and throughout the world as a result of global climate change.

## MITIGATION MEASURES

The following mitigation measures<sup>4</sup> shall be applied to development projects throughout the City of Salinas where feasible to reduce the cumulatively significant incremental contribution to global climate change:

SEIR GCC1. Within 36 months, the City shall establish a global climate change action plan that includes a baseline inventory of all GHG emissions associated with all residences, businesses, industries, agriculture, municipal operations, and other sources within

<sup>&</sup>lt;sup>4</sup> These measures are largely based on the Leadership in Energy and Environmental Design (LEED) for Neighborhood Development Rating System Pilot Version (February 2007).

the City limits; establishment of a GHG emissions reduction target; development of enforceable, feasible GHG emissions reduction measures to meet the established target; and performance monitoring of the GHG emissions reduction measures shall occur every 3 years to ensure the emissions reductions are being achieved.

- SEIR GCC2. Prioritized parking within new commercial and retail areas shall be given to electric vehicles, hybrid vehicles, and alternative fuel vehicles.
- SEIR GCC3. The City shall require that new or major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) for residential projects of 6 units or more comply with at least one of the following:
  - Participate in the CEC's New Solar Homes Partnership (this program provides rebates to developers of 6 units or more who offer solar power in 50 percent of new units), or a similar program with solar power requirements equal to or greater than those of the CEC's New Solar Homes Partnership as demonstrated to the City by the project applicant.
  - Design, construct, or retrofit 50 percent of the square footage of the building(s) that are part of the project capable of being certified under one of the following Leadership in Energy and Environmental Design (LEED) or equivalent building rating systems: LEED for New Construction; LEED for Existing Buildings, LEED for Homes, LEED for Core & Shell, or any Application Guides of these rating systems. However, no formal LEED certification shall be required, and the City Manager or his/her designee shall make the determination that the potential for LEED certification has been achieved. All credits used to demonstrate capability to meet one of the above certifications must directly or indirectly result in a reduction in GHG emissions.
- SEIR GCC4. The City shall require that new or major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) of commercial, office, or industrial development greater than or equal to 25,000 square feet in size must incorporate renewable energy generation (on- or off-site) to provide 15 percent or more of the project's energy needs.
- SEIR GCC5. The City shall require new development or redevelopment projects in excess of 10 acres in size be capable of meeting the certification requirements of the LEED for Neighborhood Development Rating System Pilot Version (February 2007) ("LEED ND"). However, no formal certification shall be required, and the City Manager or his/her designee shall make the determination that the potential for certification has been achieved. All credits used to demonstrate capability to meet the LEED ND certification must directly or indirectly result in a reduction in GHG emissions.

- SEIR GCC6. The City shall require that the design or purchase of any new street lights and water and wastewater pumps and treatment systems achieve a 10 percent reduction beyond an estimated baseline energy use for this infrastructure. All new traffic lights installed within Salinas shall use LED technology.
- SEIR GCC7. The City shall require all new development or major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) projects to recycle and/or salvage at least 50 percent of nonhazardous construction and demolition debris. To implement this requirement, a construction waste management plan identifying materials to be diverted from disposal and whether the materials will be stored on-site or commingled shall be developed and implemented by the applicant for said development or rehabilitation. Excavated soil and land-clearing debris do not contribute to this credit. Calculation can be done by weight or volume but must be consistent throughout.
- SEIR GCC8. The City shall require all new development and major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) projects to incorporate any combination of the following strategies to reduce heat gain for 50 percent of the nonroof impervious site landscape (including roads, sidewalks, courtyards, parking lots, and driveways):
  - Shaded (within 5 years of occupancy)
  - Paving materials with a Solar Reflectance Index (SRI) of at least 29
  - Open grid pavement system
  - Parking spaces under cover (defined as underground, under deck, under roof, or under a building). Any roof used to shade or cover parking must have an SRI of at least 29
- SEIR GCC9. The City shall require that all new development or major rehabilitation (additions of 25,000 square feet of office/retail commercial or 100,000 square feet of industrial floor area) projects incorporate "green building" points in construction plans prior to issuing a permit to build. Such points may be achieved through checklists identified by New Home Construction Green Building Guidelines available at www.builditgreen.org, or through a similar list that distinguishes specific measures targeting efficiencies in energy, resource use, or other measures that would also directly or indirectly result in GHG emission reductions. Specific efficiencies that would reduce GHG emissions should be implemented where feasible for all project areas including site design, landscaping, foundation, structural frame and building envelope, exterior finishing, plumbing, appliance use, insulation, heating, venting and air conditioning, building performance, use of renewable energy, finishes, and flooring.

# **IMPACT AFTER MITIGATION**

Implementation of Mitigation Measures SEIR GCC-1 through GCC-9 would reduce the incremental GHG emissions associated with implementation of the General Plan and its associated SOI Amendment and Annexation, although not to a level less than cumulatively significant. Even with these mitigation measures, implementation of the General Plan and its associated SOI Amendment and Annexation will continue to contribute to the global climate change impacts of development. Therefore, the cumulatively considerable incremental contribution to the worldwide increase in GHG emissions represented by development that is anticipated to occur with implementation of the General Plan and its associated SOI Amendment and unavoidable.

# REFERENCES

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# 6.0 ALTERNATIVES ANALYSIS

# INTRODUCTION

CEQA requires the consideration of alternative development scenarios and the analysis of impacts associated with the alternatives. Through comparison of these alternatives to the proposed project, the advantages of each can be weighed and analyzed. Section 15126.6 of the CEQA Guidelines requires that an EIR, "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project, but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives."

Additionally, Section 15126.6 of the Guidelines states:

- The specific alternative of "no project" shall also be evaluated along with its impact . . . If the environmentally superior alternative is the "no project" alternative, the EIR shall also identify an environmentally superior alternative among the other alternatives. (15126.6(e)(1)(2))
- . . . An EIR need not consider every conceivable alternative to a project. • Rather, it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible. . . . The range of potential alternatives to the proposed project shall include those that could feasibly accomplish most of the basic objectives of the project and could avoid or substantially lessen one or more of the significant effects. The EIR should briefly discuss the rationale for selecting the alternatives to be discussed. The EIR should also identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process and briefly explain the reasons underlying the lead agency's determination... Among the factors that may be used to eliminate alternatives from detailed consideration in an EIR are: (i) failure to meet most of the basic project objectives, (ii), infeasibility, or (iii) inability to avoid significant environmental impacts. (15126.6(a)(c))

Pursuant to CEQA Guidelines, the following alternatives to implementation of the Salinas General Plan were considered and evaluated in the Salinas General Plan Final Program EIR certified in 2002:

- No Project/Existing General Plan
- Decreased Acreage/Increased Density in Future Growth Areas
- Alternative Circulation Plan No Western Bypass
- 50 Percent Housing Unit Reduction in Future Growth Areas

The Final Program EIR found that the No Project/Existing General Plan alternative was environmentally inferior to the General Plan; the Decreased Acreage – Increased Density in Future Growth Areas was environmentally superior to the General Plan; the Alternative Circulation Plan – No Western Bypass was environmentally similar to the General Plan; and the 50% Housing Unit Reduction in Future Growth Areas was environmentally inferior to the General Plan.

This Project, the Sphere of Influence (SOI) Amendment and Annexation, is a planning and geographic component of the adopted Salinas General Plan examined in the certified 2002 Salinas General Plan Final Program EIR. Therefore, the comparisons made to the Project in this section also apply to the adopted General Plan.

In addition to the four alternatives analyzed in the Final Program EIR, the SEIR considers one additional alternative, Reduced Greenhouse Gas Emissions. Since the Final Program EIR was certified, the State Legislature (as expressed in its adoption of AB 32, *The California Climate Solutions Act of 2006*) and the Governor (through the issue of Executive Order S-3-05) have determined that global warming poses significant adverse effects to the environment of California and the entire world and that mitigation measures are needed to limit these impacts (refer to *Section 5.5 Global Climate Change*).

The Reduced Greenhouse Gas Emissions alternative was developed to consider ways to avoid or substantially lessen global warming's significant adverse effects to the environment associated with global warming.

The discussion in this section provides:

- 1. A description of the additional alternative considered;
- 2. An analysis of whether this alternative would feasibly attain most of the basic objectives of the Project as described in Section 3.0 of this EIR; and
- 3. A comparative analysis of the alternative under consideration and the Project. The focus of this analysis is to determine if this alternative is capable of eliminating or reducing the significant environmental effects of the Project to a less than significant level. **Table 6-1** provides a summary of this analysis.

# **DESCRIPTION OF ALTERNATIVE**

Because Global Climate Change was not analyzed in the 2002 Salinas General Plan Final Program EIR, the Reduced Greenhouse Gas Emissions alternative is identified in this SEIR as a way to reduce the impacts of global climate change associated with future development in the SOI Amendment and Annexation area. Therefore, this alternative includes development within the SOI Amendment and Annexation areas as described in the Salinas General Plan plus the expansion of the energy recovery facility at the Crazy Horse Landfill or any other landfill operated by the Salinas Valley Solid Waste Authority. . Each environmental topic discussed below was also analyzed in the 2002 General Plan Final Program EIR; impacts and mitigation described in the Final Program EIR are included in the SEIR Initial Study (Appendix B).

| Table 6-1   |
|---|
| <b>Comparison of Reduced Greenhouse Gas Emissions Alternative Impacts</b> |
| to Project Impacts  |

| Reduced Greenhouse<br>Gas Emissions |  |
|-------------------------------------|--|
| Similar                             |  |
| Similar                             |  |
| Similar                             |  |
| Less                                |  |
| Similar                             |  |
| Less                                |  |
| Less                                |  |
|                                     |  |

Source: EDAW 2007

Increased population growth associated with the Project would result in increased solid waste generation and disposal in some of the landfills located within Monterey County. This is anticipated to result in increased greenhouse gas (GHG) emissions associated with the release of landfill gas, i.e., methane, a potent GHG that is released during the decomposition of solid waste in landfills. Increased emissions of methane would contribute to global warming and associated adverse global environmental effects.

Solid waste generated in Salinas is disposed of primarily at the Crazy Horse Canyon Sanitary Landfill. The City is a member of the Salinas Valley Solid Waste Authority (Authority), a joint powers agency consisting of five cities and the eastern half of unincorporated Monterey County. The Authority currently owns and operates four landfills.

The Reduced Greenhouse Gas Emissions alternative assumes the expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority. Expanded energy recovery facilities would offset some energy requirements of the Project and reduce greenhouse gas emissions from regular fossil-fuel based energy production.

Implementation of expanded energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority would reduce GHG emissions associated with the Project. Even though this is technologically feasible and would reduce the emissions of GHGs, the City of Salinas cannot directly implement the expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority. However, as a member of the Authority, with three of nine Authority Board Members, the City can recommend to the Board that they adopt and/or expand energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority.

# **RELATIONSHIP TO THE PROJECT OBJECTIVES**

This alternative would meet all of the objectives of the SOI Amendment and Annexation, which include the following:

- Promote compact, high quality, mixed use development
- Provide for a variety of housing opportunities
- Provide for a variety of employment opportunities
- Minimize the loss of the most productive farmland
- Protect and enhance natural and human-made resources
- Provide adequate public services, facilities and infrastructure to support the quality of life, including parkland for recreation
- Promote public safety through community design
- Provide convenient circulation for vehicles, cyclists, and pedestrians

# COMPARISON OF ENVIRONMENTAL IMPACTS TO PROPOSED PROJECT

## Land Use and Planning

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to land use and planning than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in land use and planning impacts similar to those addressed in the Salinas General Plan Final Program EIR. Those impacts included inconsistencies between existing zoning within the County of Monterey and the urban land use designations for the SOI Amendment and Annexation areas identified in the Salinas General Plan. Development within the Project areas requires prezoning prior to annexation to the City, which is designed to eliminate such inconsistencies.

# Traffic/Circulation

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to traffic/circulation than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in traffic/circulation impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### Noise

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to noise than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in noise impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### Air Quality

The overall air quality impact would be reduced under this alternative. Expanding the installation of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would lead to reduced GHG emissions from methane and other GHGs, associated with increased solid waste due to the Project. Increasing energy recovery from landfill methane (i.e., energy generation) may offset energy requirements of the Project from fossil-fuel based energy production. Overall, implementation of this alternative would result in a reduced impact to air quality and a reduced cumulative contribution to GHG emissions.

#### Hydrology/Water Quality

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to hydrology/water quality than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in hydrology/water quality impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### Hazards/Hazardous Materials

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to hazards/hazardous materials than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in hazards/hazardous materials impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### **Biological Resources**

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and

Annexation areas would not result in different impacts to biological resources than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in biological resources impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### **Cultural Resources**

The expansion energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to cultural resources than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in cultural resources impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### Agricultural Resources

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to agricultural resources than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in agricultural resources impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### Geology/Soils

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to geology/soils than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in geology/soils impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### Aesthetics

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to aesthetics than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in aesthetics impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### **Population and Housing**

The expansion of energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority as development occurs within the SOI Amendment and Annexation areas would not result in different impacts to population and housing than those that would occur under the SOI Amendment and Annexation. Because the SOI Amendment and Annexation is a planning and geographic component of the adopted Salinas General Plan, implementation of this alternative would result in population and housing impacts similar to those addressed in the Salinas General Plan Final Program EIR.

#### **Public Services and Utilities**

Implementation of this alternative would not result in different impacts to police protection, fire protection and emergency services, education, libraries, parks and recreation, water service, sewer service, flood control, solid waste, or communications. This alternative would result in less impact to energy. Increasing energy recovery facilities at the Crazy Horse Landfill or any other landfill operated by the Authority has the potential to offset energy requirements of the Project. The overall impact to public services and utilities would be less under this alternative because additional energy would be generated, offsetting a portion of the Project's energy demand.

#### Conclusion

Implementation of this alternative would result in less impacts to air quality and public services and utilities (energy); similar impacts to land use and planning, traffic/circulation, noise, hydrology/water quality, hazards/hazardous materials, biological resources, cultural resources, agricultural resources, geology/soils, aesthetics, and population utilities; and greater impacts to no environmental issue areas. Overall, this alternative is environmentally superior to the Project and feasible, subject to a decision by SVSWA to implement an expansion of the methane gas capture systems.

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#### 7.0 ANALYSIS OF LONG-TERM EFFECTS

The California Environmental Quality Act (CEQA) requires the discussion of cumulative impacts, growth-inducing impacts, and long-term impacts of proposed projects. The following sections address these impacts as they relate to the environmental issues addressed in this SEIR for the Sphere of Influence Amendment and Annexation area.

#### **CUMULATIVE IMPACTS**

CEQA Guidelines define cumulative effects as "two or more individual effects that, when considered together, are considerable or which compound or increase other environmental impacts." The Guidelines further state that the individual effects can be the various changes related to a single project or the changes involved in a number of other closely related past, present, and reasonably foreseeable probable future projects (Section 15355). The Guidelines allow for the use of two alternative methods to determine the scope of projects for the cumulative impact analysis:

- List Method A list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency.
- Regional Growth Projections Method A summary of projects contained in an adopted general plan or related planning document or in a prior environmental document which has been adopted or certified, which described or evaluated regional or area wide conditions contributing to the cumulative impact (Section 15130).

The Salinas General Plan establishes policy to guide future development within the City and implementation of the General Plan is long term in nature; this includes the Sphere of Influence (SOI) and Amendment area which is part of the Future Growth Area as identified in the General Plan. The Regional Growth Projections Method is appropriate methodology in evaluating cumulative impacts because it provides general growth projections for the region and considers long-term growth.

#### **Regional Growth Projections**

The Association of Monterey Bay Area Governments is responsible for estimating regional growth for Monterey, San Benito, and Santa Cruz counties. The last regional population and employment forecast for the region was completed in 2004. **Table 7-1** depicts the 2030 population for Salinas and Monterey County as projected by AMBAG in 2004 AMBAG Population, Housing Unit & Employment Forecasts.

The AMBAG 2004 Population, Housing Unit & Employment Forecasts report states that "...AMBAG's population forecasts have in the past been shown to be close to accurate at the regional and county levels and less accurate at the city and Transportation Analysis Zones (TAZ) levels." As a result, for the purposes of this cumulative analysis, a

|                 | Total Population |         |
|-----------------|------------------|---------|
|                 | 2005             | 2030    |
| Salinas         | 146,687          | 213,063 |
| Monterey County | 432,600          | 602,731 |

Table 7-1AMBAG Projections for Salinas and Monterey County, 2005 and 2030

Source: AMBAG 2004

county-level cumulative analysis is utilized for the majority of the impact analyses. For *Section 5.5 Global Climate Change*, a Statewide and worldwide cumulative analysis is used given the nature and scope of this environmental issue area.

The following is a discussion of the cumulative impacts of the proposed Project. Implementation of the mitigation measures identified in the previous sections of this SEIR help to reduce the cumulative impact of the Project to the extent feasible. In many cases, the mitigation measures reduce the Project's cumulative impacts to a less than significant level. For other impacts, the implementation of the identified mitigation measures will not avoid a significant cumulative impact. The following section identifies those significant, unavoidable cumulative impacts that will not be reduced to a less than significant level by implementation of the identified mitigation measures.

#### **Regional Transportation**

Future development projects anticipated to occur during the implementation of the General Plan and SOI Amendment and Annexation are expected to result in an increase in traffic congestion on several segments of the local and regional roadway networks. For some, the increase would cause the level of service of these roadway segments to decrease to a level considered unacceptable, and these impacts would be considered significant. Mitigation measures have been identified which would reduce the impact to some of the roadway to a less than significant level, but for other segments the identified mitigation would not be feasible or alternative mitigation would be required. Therefore, the Project would contribute to a significant cumulative impact for congestion along some segments of the regional roadway network.

#### **Regional Wastewater Treatment Capacity**

Future development projects anticipated to occur during implementation of the General Plan and SOI Amendment and Annexation are expected to require additional regional wastewater treatment plant (RTP) capacity. Eventually it will be necessary to increase the capacity of the RTP to provide adequate service. A significant impact associated with this issue may occur. Mitigation measures have been identified that will reduce the impact to RTP capacity to a less than significant level. Therefore, with the mitigation identified in this SEIR, the Project would not contribute to a significant cumulative impact for capacity of the RTP.

#### Water Supply

Future development projects identified in the Salinas General Plan and its associated SOI Amendment and Annexation will continue to use groundwater from the SVGB as the main water source. This will likely contribute to the ongoing overdraft condition in the SVGB, which could exacerbate seawater intrusion and nitrate contamination. This condition leads to uncertainty as to whether an adequate supply of good quality water would be available to the Project in the long term (more than 20 years in the future). Therefore, the Project will contribute to a significant cumulative water supply impact.

Implementation of the Project could potentially increase impervious surfaces which may result in a reduction in the amount of water that infiltrates the soil to the groundwater table. An increase in impervious surfaces could potentially result in an increase in the amount of industrial chemicals and urban contaminants infiltrating groundwater supplies, further decreasing groundwater quality and potentially impacting the groundwater quality of the SVGB. This could lead to a reduction in groundwater quality and the groundwater recharge rate over time. However, implementation of the flow control facilities described in Section 5.4 Stormwater Drainage, coupled with the City's NPDES requirements including low impact development (LID) techniques, will reduce these impacts to a less than significant level.

The above effects of the proposed Project will result in a significant cumulative impact to groundwater supply in the SVGB. Water supply impacts from overdrafting and potential effects of seawater intrusion and nitrate contamination will remain significant and unavoidable.

#### Storm Water Drainage

Future development identified in the Salinas General Plan will modify the surface runoff generated from the Project area local watershed that is tributary to the receiving waters or adjacent creek systems compared to the natural runoff conditions. This condition creates a potentially significant drainage (surface hydrology) impact. Mitigation measures have been identified that will reduce the impact to storm water drainage to a less than significant level. Therefore, with the mitigation identified in this SEIR, the Project would not contribute to a significant cumulative storm water drainage impact.

#### **Global Climate Change**

Future development projects anticipated to occur during implementation of the General Plan and SOI Amendment and Annexation are expected to result in increased GHG emissions due to increased vehicle miles traveled (VMT), increased electricity and natural gas consumption, and increased solid waste generation and subsequent disposal into landfills. Since future (i.e., future development capacity condition in 2020) annual GHG emissions under the proposed Project are projected to exceed existing levels by the substantial margin of 46 percent, the proposed Project would contribute to the exacerbation of climate change and the significant adverse environmental effects thereof. Furthermore, increased GHG emissions associated with the proposed Project could

potentially impede implementation of the State's mandatory requirement under AB 32 to reduce statewide GHG emissions to 1990 levels by the same year. Therefore, the incremental GHG emissions associated with development under the General Plan and SOI Amendment and Annexation would cause a cumulatively considerable incremental contribution to the significant cumulative (worldwide) impacts when viewed in connection with worldwide GHG emissions. By generating increased emissions that contribute to global climate change, development that occurs in accordance with the General Plan and SOI Amendment and Annexation would incrementally contribute to the adverse economic, public health, natural resources, and other environmental impacts projected to occur in California and throughout the world as a result of global climate change. Although mitigation measures have been identified that would substantially reduce the incremental GHG emissions associated with the General Plan and SOI Amendment and Annexation, the project level impact cannot be reduced to a level less than cumulatively significant. Therefore, the cumulatively considerable incremental contribution to the worldwide increase in GHG emissions represented by development that is anticipated to occur with implementation of the General Plan and SOI Amendment and Annexation is considered significant and unavoidable.

#### **GROWTH-INDUCING IMPACTS**

CEQA Guidelines Section 15126.2(d) requires that an EIR discuss the growth-inducing impact of the Project. Growth-inducement includes, "...ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment. Included in this are projects which would remove obstacles to population growth (a major expansion of a wastewater treatment plant might, for example, allow for more construction in service areas)."

The proposed SOI Amendment and Annexation will allow an increase of approximately 14,318 dwelling units and 9.0 million square feet of nonresidential development. The associated increase in population and employment generating uses, which is allowed under the adopted Salinas General Plan, could induce growth in areas outside of the Project area on unincorporated agricultural lands within the jurisdiction of the County of Monterey. Future growth within these areas is controlled by the County of Monterey General Plan land uses and policies. The proposed Project does have the potential to induce growth in these areas since additional roadways and public services and utilities will be extended to the Future Growth Area to allow proposed development to occur. While this has the potential to induce growth, the proposed Project focuses on minimizing impacts to agricultural land and reducing growth-inducing impacts by concentrating infill development within the City limits and promoting compact and controlled development within the Future Growth Area, which also attempts to reduce reliance on automobiles. The proposed Project also helps to reduce its growth-inducing impact by limiting new urban development to the Future Growth Area. The City of Salinas General Plan contains some mitigation that will help reduce the growth-inducing impacts of the proposed Project to the extent possible. While the proposed Project will minimize its growth-inducing impact to the extent possible, implementation of the proposed Project may still result in significant and unavoidable growth-inducing impacts.

The proposed Project is anticipated to contribute to the cumulative growth projected by AMBAG. Section 7.1 of this SEIR provides a detailed analysis of the anticipated cumulative impacts expected from growth in Monterey County.

#### SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL CHANGES

Development allowed according to the proposed Project will result in the consumption of nonrenewable energy resources that will have an irreversible effect on such resources. The Project will result in development of urban uses in areas that are currently undeveloped or used for agricultural production. Once developed, reverting to a less urban use or open space/agricultural use is highly unlikely.

Several irreversible commitments of limited resources would result from implementation of the Project. The resources include, but are not limited to the following: lumber and other related forest products; sand, gravel, and concrete; asphalt; petrochemical construction materials; steel, copper, lead, and other metals; and water consumption. Buildout of the Project represents a long-term commitment to the consumption of fossil fuel oil, natural gas, and gasoline. These increased energy demands relate to construction, lighting, heating, and cooling of residences, and transportation of people within, to, and from the Project area.

#### UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

Implementation of the proposed Project will result in the following significant, unavoidable impacts:

- Regional Transportation (project-level and cumulative);
- Water Supply (project-level and cumulative);
- Global Climate Change (cumulative); and
- Growth-inducing.

Implementation of the mitigation measures identified in this SEIR will reduce these impacts to the extent feasible. However, the impacts will remain unavoidable and significant.

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#### 8.0 RESPONSES TO COMMENTS ON DRAFT SEIR

This section of the Final Supplement to the Salinas General Plan Final Program EIR contains comments and responses to written comments received during the 45-day public review period on the Draft SEIR to the Salinas General Plan Final Program EIR (Draft SEIR) extending from September 4, 2007 to October 19, 2007. The written comments received are presented in this chapter as shown below.

#### **Comments Received that Address Environmental Issues Raised in the Draft SEIR**

- A. Gary Shallcross, Carr Lake Coordinator, California State University at Monterey Bay (CSUMB) – Watershed Institute. September 27, 2007
- B. Nicolas Papadakis, Executive Director, Association of Monterey Bay Area Governments (AMBAG). October 11, 2007.
- C. Robert C. Taylor, Jr., Attorney at Law. October 12, 2007.
- D. Thomas R. Adcock, Vice President, Alisal Water Corporation (dba Alco Water Service). October 12, 2007.
- E. John J. Olejnik, Associate Transportation Planner, District 5 Development Review Coordinator, California Department of Transportation. October 5, 2007.
- F. Julianne L. Hansen, 1,000 Friends of Carr Lake. October 15, 2007.
- G. Jean Getchell, Supervising Planner, Planning and Air Monitoring Division, Monterey Bay Unified Air Pollution Control District. October 18, 2007.
- H. Robin Lee. October 17, 2007.
- I. Norbert Liebersbach, Chief, Custody Operations Bureau, County of Monterey Office of the Sheriff. October 19, 2007.
- J. William L. Phillips, Deputy General Manager, Monterey County Water Resources Agency. October 19, 2007.
- K. Wayne Tanda, Director, Monterey County Resource Management Agency. October 19, 2007.
- L. Vince DiMaggio, Chair, Local Agency Formation Commission (LAFCO) of Monterey County. October 22, 2007.
- M. Debra L. Hale, Executive Director, Transportation Agency for Monterey County (TAMC). October 19, 2007.

- N. Brian Rianda, Managing Director, Monterey County Agricultural and Historic Land Conservancy (MCAHLC). October 19, 2007.
- O. Chris Fitz, Executive Director, LandWatch Monterey County. October 17, 2007.
- P. Terry Roberts, Director, Governor's Office of Planning and Research State Clearinghouse and Planning Unit. October 19, 2007.

#### LETTER A

-----Original Message----- **From:** Gary Shallcross [mailto:gary\_shallcross@csumb.edu] **Sent:** Thursday, September 27, 2007 2:23 PM **To:** Bob Richelieu **Subject:** draft SEIR[Scanned]

Bob: At the bottom of page 5.4-2 and the top of page 5.4-3 it states that the City of Salinas is subject to Phase II of the stormwater program. Actually Salinas is in Phase I of the program. Just a small thing but you might want to correct it.

Gary Shallcross Carr Lake Coordinator CSUMB -- Watershed Institute (831) 582-3323 fax (831) 582-3691

10/23/2007

A-1

#### A. Gary Shallcross, Carr Lake Coordinator, California State University at Monterey Bay (CSUMB) – Watershed Institute. September 27, 2007

#### **Response A-1**

Section 5.4 Storm Water Drainage of the Final Supplement to the Salinas General Plan Final PEIR has been revised to state that the City is subject to the requirements of Phase I of the National Pollution Discharge Elimination System (NPDES) permit.



#### LETTER B

October 11, 2007

Mr. Robert Richelieu City of Salinas Development & Engineering Service 200 Lincoln Avenue Salinas, CA 93901

#### Re: MCH# 20070904 – Notice of Completion/Notice Availability for Supplement to the Salinas General Plan Final Program EIR

Dear Mr. Richelieu:

- B-1 AMBAG's Regional Clearinghouse circulated a summary of notice of your environmental document to our member agencies and interested parties for review and comment.
- B-2 The AMBAG Board of Directors considered the project on **October 10, 2007** and has no comments at this time.

Thank you for complying with the Clearinghouse process.

Sincerely, Nicolas Papadakis **Executive Director** 

## B. Nicholas Papadakis, Executive Director, Association of Monterey Bay Area Governments (AMBAG). October 11, 2007.

**Response B-1** 

Comment noted.

#### **Response B-2**

Comment noted.

# DEFT. OF FUBLIC WORKS

LETTER C

ROBERT C. TAYLOR, JR. ATTORNEY AT LAW 955 BLANCO CIRCLE, SUITE B SALINAS, CALIFORNIA 93901

> (831) 422-2611 FAX: (831) 422-6986

October 12, 2007

Robert Richelieu, Planning Manager Salinas Dept. of Engineering and Development Services 200 Lincoln Avenue Salinas, Ca. 93901

#### Re: Supplemental EIR for Annexation of Salinas Future Growth Area

Dear Bob,

I represent the Higashi Irrevocable Trust 1980 and Higashi Farms, Inc., which own and cultivate farmland located in the Carr Lake area of Salinas. Both the draft Supplement to the Salinas General Plan Final Program EIR (SEIR) and the technical appendix which accompanies it are inadequate in their treatment of drainage impacts and required mitigations for the Salinas Future Growth Area (FGA).

By way of background, Gabilan Creek and Natividad Creek flow from or through the FGA and then into and across my clients' farmland through the reclamation ditch owned and maintained by the Monterey County Water Resources Agency. The Gabilan and Natividad Laterals will be significantly and irreversibly impacted by development in the FGA, and the draft environmental documents neither correctly analyze nor adequately mitigate those impacts.

1. Before discussing the analytical deficiencies in the SEIR, we note that the technical appendix summary report (Appendix I, referred to in the text of the SEIR as Appendix G) relating to drainage facilities "summarizes the finding from the three stormwater facility summary reports developed by Wood Rodgers and Pace Engineers. Those reports can be found in appendix A through C." Those reports were not published with or appended to the SEIR or the technical appendix. When I spoke to you by phone about this omission several weeks ago, you indicated that I would need to consult with the city attorney regarding potential release of the reports, even though they are clearly referenced as exhibits in Appendix I. I subsequently did so.

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The City of Salinas has still not published those reports for public comment; a copy was delivered privately to me on the afternoon of October 5, 2007, leaving inadequate time to engage in complete technical analysis prior to expiration of the written comment period. Because of the omission of the three reports in question, we are unable at this time to fully respond to the peak flow analyses and reserve our right to comment further in this regard. The omission makes the

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SEIR's analysis of drainage inadequate under CEQA.

Public Resources Code §21061 provides in part that "the purpose of an environmental impact report is to provide public agencies and the public in general with detailed information about the effect which a proposed project is likely to have on the environment .... " The failure to include the referenced reports in the published document, available to the public for comment, violates CEQA's procedural requirements. The provision of copies at a late date to one party privately does not cure this defect.

2. There are several deficiencies in the analysis contained in Section 5.4 of the SEIR, entitled "Storm Water Drainage." Specifically, the analysis fails to consider a) the impacts of an improved drainage system upstream of an unimproved reclamation ditch, with regard to siltation, degradation and destabilization of the ditch; b) the impacts of metered or delayed releases of water from the proposed retention/detention basins; and, c) the impacts of year-round releases of surface water to the Gabilan and Natividad laterals, caused by runoff from landscaped areas in the FGA.

A. Consider the following commentary included in the Draft EIR circulated in connection with the County's third draft of its General Plan Update (commonly referred to as GPU3):

Another potential effect of upstream channel improvements is the increased erosive capability of water conveyed through a concrete-lined flood control system. Under normal conditions, stream water carries sediment as it flows through its natural channel. The volume of sediment conveyed depends on, among other things, flow velocity. In many cases, conveyance of stream flow through a system of man-made flood control devices has the effect of reducing the natural sediment load conveyed in the stream. Retarding basins, grade control structures, debris basins. reservoirs, etc., designed to decrease flow velocities, can cause suspended loads to drop out of stream waters. The stream does not regain its sediment load until it reaches an unimproved channel segment. At this point, the stream has a high capacity for sediment transport. Its erosive action has been artificially increased well above that of a stream whose sediment load is at a natural equilibrium. The net effect is severe erosion that results in down-cutting (degradation) of the streambed itself and undercutting (destabilization) of the stream banks.

The increased runoff and decreased sediment yield erode the bed and banks of stream channels within the watershed until the channels reach a new equilibrium under the new post-development hydrology. Resulting channels are often several times the size of their pre-development condition. This erosion process often takes decades to complete. The impacts to infrastructure (e.g., bridges, culverts, roads and pipeline crossings) and potential loss of valuable farmland

and natural habitats can be severe, costly and irreversible.

Recent research indicates that adverse effects of stormwater runoff begin with conversion to around 10% impervious surfaces (Fischenich, et al., 2001). This suggests that even relatively low density urban development can result in these kinds of impacts. [Draft EIR at 5.4-10 and 5.4-11]

The draft SEIR confines itself to a discussion of peak flow volumes and water quality concerns, further limited to storm events. The drainage section concludes that a two-basin system (not detailed due to the failure to include the reports mentioned above) "will not significantly impact downstream areas with either increased flow rates or flow volumes." (Page 5.4-5) Nowhere in the analysis is there a mention of siltation, degradation or destabilization, which will be severe, costly and irreversible.

While the proposed mitigation refers to General Plan Implementation Program LU-17 (Page 5.4-6), no mention is made of LU-18. LU-18 was adopted by the City of Salinas following preparation of the General Plan Final Program EIR, and so comment in that regard is appropriate with respect to this SEIR.

LU-18 provides:

The City of Salinas shares the regional concern regarding development upstream from the Gabilan or Natividad Creek Laterals in Carr Lake. The City will participate with other agencies in identifying capacity modifications, maintenance procedures, and funding sources sufficient to prevent increased siltation buildup, degradation and destabilization in the Gabilan and Natividad Creek Laterals, resulting from development.

Funding Source: General Fund, development fees, project proponent Complete by January 2005

C-10 | The City of Salinas has failed to implement LU-18, and the SEIR does not even mention it.
 Despite the proposed mitigations (or, rather, because of them), there remain the impacts from delivering water with greater erosive capability from the storm drain system into an unimproved channel segment. As indicated in the County's analysis, these impacts include degradation, destabilization and capacity concerns. These impacts are "severe, costly and irreversible." Your documents say and do nothing about these environmental impacts.

The mitigations and policies set forth in your documents include a "no net increase in runoff" requirement (LU-17). LU-17 does not address the impacts outlined above, because the requirement deals only with the quantity and velocity of water entering the drainage system, and not the soil carrying capacity of that water. The very structures which your analysis contends

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C-12 will reduce siltation, will cause the water discharged into the unimproved channel segments to have more rather than less environmentally destructive capability.

C-13 There is nothing in the SEIR which would require a solution to the degradation, destabilization or capacity issues as a requirement for development. For example, what if development were allowed to proceed, but there is no funding source identified or the various governmental agencies are unable to agree upon or fund a reclamation ditch improvement plan? The SEIR impermissibly does not address this issue at all.

B. The SEIR fails to consider the impact of metered releases from the proposed detention/retention basins (the exact operation of these basins is unknown due to the failure to include the above-referenced reports in the published materials or to provide them in a timely manner) on downstream water tables in Carr Lake. By creating delayed releases, water levels in the Gabilan and Natividad Creek Laterals will necessarily remain higher than in the preexisting condition, preventing adequate drainage from the adjacent fields, delaying productive use of the farmland, and adversely impacting the root zones by creating a higher water table. Simply stated, the fields will not drain when the water level in the laterals is higher than the drains in the fields. Releasing water over a period of time will, by definition, maintain water levels in the laterals higher than would otherwise be the case.

The SEIR is defective in not analyzing this significant impact.

C. Current uses in the FGA are agricultural in nature. These uses are required to contain all surface water from irrigation on site. However, there is no similar requirement in the SEIR with respect to watering of landscaped areas in proposed developments in the FGA. Previous experience with the development of the Creekbridge, Harden Ranch and Williams Ranch areas demonstrates that the water levels in the laterals remain artificially high even during the dry season. Adding thousands more acres will magnify this problem and have a significant impact on the lands owned and farmed by my clients. The SEIR does not mention, much less consider, this impact, and is defective in this respect as well.

3. The SEIR does not include any reporting or monitoring programs for the proposed drainage mitigations, and thereby fails to satisfy the requirements of Public Resources Code §21081.6, which specifically provides "the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation." At a minimum, there should be a programmatic requirement for reporting and monitoring the ongoing maintenance and operation of any retention/detention facilities required in the FGA.

C-17 We submit that the SEIR must fully incorporate an analysis of all of the impacts of upstream

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development on my clients' farm property and all of Carr Lake. We further submit that mitigations must be adopted which will not only reduce those impacts to an insignificant level but also will enforceably precede any new development in the upstream watershed. In this regard, a full plan to deal with the siltation, degradation, destabilization and capacity impacts of new development on the reclamation ditch and Carr Lake must be approved and funding fully identified before approval of the SEIR.

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Cont.

We request that the drainage analysis be revised to reflect the impacts discussed above, and that the mitigations require that no development be allowed upstream of Carr Lake until a plan is in place to mitigate the impacts of such development, funding sources for the mitigations are fully identified, as specified in LU-18, and mandatory reporting and monitoring processes have been specified.

Very truly yours,

ROBERT C. TAYLOR. JR.

RCT/lct

cc: Warren V. Tibbs George Higashi Ken Higashi

#### C. Robert C. Taylor, Jr., Attorney at Law. October 12, 2007.

#### **Response C-1**

Please refer to responses to comments C-3 through C-18 for detailed responses to the comments that the Draft SEIR and technical appendices thereof inadequately address drainage impacts and mitigation measures for the proposed Project.

#### **Response C-2**

Please see responses to comments C-3 through C-18 for explanation of how the surface hydrology mitigation measures identified by the City in the Draft SEIR would fully mitigate all potential impacts to downstream resources including the Gabilan and Natividad Creek laterals.

#### **Response C-3**

The City concurs that Appendix I, Storm Water Drainage Report, to the SEIR was incorrectly referenced as Appendix G on page 5.4-1 of the Draft SEIR to the Salinas General Plan Final PEIR. This error has been remedied for the Final Supplement to the Salinas General Plan Final Program EIR.

The commenter correctly points out that Appendix I, Storm Water Drainage Report, which was included the Draft SEIR released for public review and comment, "summarizes the findings from the three stormwater facility summary reports developed by Wood Rodgers and PACE Engineers." This report explains in detail the potential surface hydrology impacts associated with development and how these impacts will be fully mitigated prior to discharging to natural drainage courses through the use of central drainage facilities and Low Impact Development (LID) features within the proposed development. These surface hydrology impacts and associated mitigation measures are also summarized in Section 5.4 of the Draft SEIR. The storm water drainage report was based on technical information referenced as appendices (attachments) A through C to Appendix I of the SEIR. In response to the commenter on October 5, 2007. These reference documents were also added as attachments A through C to Appendix I Storm Water Drainage Report, which was made publicly available by the City on and after October 8, 2007.

#### **Response C-4**

The commenter is correct that appendices (attachments) A through C to Appendix I were not included within the Draft SEIR. These attachments include technical information used to develop Appendix I. As discussed previously in response to comment C-3, the Draft SEIR released for public review and comment includes a detailed discussion of the potential surface hydrology impacts associated with development and how they will be fully mitigated prior to discharging to natural drainage courses within Appendix I and a summary of these surface hydrology impacts and associated mitigation measures in Section 5.4. In light of the detailed discussion of potential surface hydrology impacts and mitigation measures provided within Section 5.4 of the Draft SEIR and Appendix I, the unintentional exclusion of the technical appendices (attachments A through C) to the Storm Water Drainage Report appended to the Draft SEIR within the public review version of the Draft SEIR does not constitute a violation of the City's obligations under CEQA.

Moreover, the full reference regional stormwater and hydrologic mitigation analysis reports (attachments A through C) were provided to the commenter on October 5, 2007, two weeks prior to expiration of the public comment period on October 19, 2007. Although the commenter states that receipt of these reports on October 5 left "inadequate time to engage in complete technical analysis prior to expiration of the written comment period", the commenter submitted comments to the City on October 12—a week before expiration of the written comment period—thereby foregoing the opportunity to review these attachments for an additional week. Nevertheless, if the commenter wishes to submit further comments on the content of these attachments as indicated in the letter, the City will respond to such comments.

#### **Response C-5**

As discussed previously in the responses to comments C-3 and C-4, the City included detailed discussion of the potential surface hydrology impacts associated with development and how they will be fully mitigated prior to discharging to natural drainage courses within Appendix I to the Draft SEIR and a summary of these surface hydrology impacts and associated mitigation measures in Section 5.4 of the Draft SEIR. As also stated previously, the unintentional exclusion of the technical appendices (attachments A through C) to the Storm Water Drainage Report appended to the Draft SEIR within the public review version of the Draft SEIR does not constitute a violation of the City's obligations under CEQA when considering the detailed discussion of potential surface hydrology impacts and mitigation measures provided within Section 5.4 of the Draft SEIR and Appendix I.

#### **Response C-6**

The three issues identified by the commenter as deficiencies in the analysis of the Draft SEIR—"a) the impacts of an improved drainage system upstream of an unimproved reclamation ditch, with regard to siltation, degradation and destabilization of the ditch; b) the impacts of metered or delayed responses of water from the proposed retention/detention basins; and c) the impacts of year-round releases of surface water to the Gabilan and Natividad laterals, caused by runoff from landscaped areas in the FGA"—are inherently addressed by the surface hydrology mitigation measures described in Section 5.4 of the Draft SEIR as explained below. In fact, the surface hydrology mitigation measures described in the Draft SEIR go significantly further than what is normally required to address surface hydrology and water quality impacts, including erosion in the downstream channel and stream systems. Potential impacts addressed by the mitigation basins include: (1) year round urban nuisance/dry-weather flows;

(2) increased runoff volume from additional impervious areas and reduced infiltration;

(3) increased peak flow rates; (4) changes to duration of flow for similar rainfall events;
(5) impacts downstream channel stability adjustments in the sediment transport and erosion process; and (6) treatment for pollutant loading. Detailed responses to issues
(a) through (c) are provided in the remaining responses to comments (C-7 through C-18).

#### **Response C-7**

The increases in the peak flow rate, volume, frequency, and cumulative duration of runoff caused by urban development are known as "hydromodification." If unmitigated, hydromodification intensifies sediment transport and erosion processes and can, depending on the existing downstream geomorphic characteristics, lead to degradation and destabilization of the downstream natural channel system.

The surface hydrology mitigation systems identified in the Draft SEIR include hydromodification mitigation facilities that mitigate increases in the peak flow rate, volume, frequency, and cumulative duration of runoff by using detention storage, retention storage and outfall structures that have progressively wider openings and orifices.

The hydromodification systems shall be designed using flow-duration and work curves to resemble the existing drainage characteristics of the Project site as much as feasible in terms of existing hydrology and existing sediment transporting capability. "Flow duration control" maintains the existing (pre-development) frequency distribution of hourly runoff as well as the total runoff volume within prescribed limits. In addition, flow duration control is a design methodology to maintain the existing distribution of in-stream flow above the critical flow for stream stability and as a result maintain the existing capacity to transport sediment. Thus, the hydromodification mitigation systems would ensure that flows, velocities and, therefore, downstream erosion potential would not increase significantly relative to existing conditions.

The discussion quoted by the commenter on the general effects of reduced sediment releases from urban developments to unimproved alluvial stream systems (including the effects from the introduction of stormwater detention basins) would be correct if the existing downstream tributary alluvial channel system were in a state of "equilibrium" in which sediment transport capacity of a channel equaled the incoming sediment supply (neither aggrading nor degrading).

However, downstream systems including the Reclamation Ditch and portions of Natividad and Gabilan Creeks (particularly immediately downstream of Boronda Road) are not currently under an equilibrium state because of sediment deposition. Sediment deposition has also been identified as a maintenance and environmental problem at Carr Lake and in the conveyance immediately upstream of Carr Lake (see "A Vision Plan for Carr Lake Regional Park Study<sup>1</sup>."). The Vision Plan encourages mitigation upstream to relieve this siltation/sedimentation problem. In addition, the portions of the existing

<sup>&</sup>lt;sup>1</sup> <u>http://www.ci.salinas.ca.us/RecParks/CarrLake/Des-Sediment.pdf</u>

channels for Natividad and Gabilan Creeks within the Project area have been significantly disturbed by human activities from the commercial farming operations and dramatically altered with little resemblance of a natural creek. Implementation of the proposed Project includes the restoration of these creeks to a more naturalized condition and does not involve a "concrete lined flood control system" as indicated by the commenter. The restoration would incorporate the natural geomorphic characteristics and geometry of a naturally occurring fluvial system and would maintain the sediment transport capacity throughout the channel system. The restoration would also minimize maintenance requirements within these creeks from sediment deposition and in-stream erosion.

The Project surface hydrology mitigation systems would also include built-in water quality facilities (Best Management Practices (BMPs)) to meet Regional Water Quality Control Boards requirements. The reduction of bare land associated with urban development and implementation of these required BMP features would reduce the amount of sediment discharging downstream. The reduced sediment transport in the reclamation ditch is desirable for geomorphologic equilibrium and maintenance issues. Therefore, the reduction in downstream sediment discharge from development in the Project area would reduce downstream sediment deposition and not result in any degradation or destabilization. Adverse impacts to existing downstream channel stability would not occur as a result of the proposed Project. In addition, detailed sediment transport studies will be continued through the next phases of planning and engineering of development in the Project area in order to accurately assess the sediment delivery from the upstream watershed and downstream capacities in order to accurately determine the specific requirements to facilitate downstream stream stability.

#### **Response C-8**

Please see the response to comment C-7 for a discussion of how the surface hydrology mitigation measures address the issues of degradation and destabilization associated with sedimentation.

#### **Response C-9**

As discussed in the response to comment C-7, the Project surface hydrology mitigation measures identified by the City would decrease downstream sediment deposition, and not cause degradation or destabilization in the Natividad and Gabilan creeks, which is consistent with General Plan Implementation Program LU-17 to "prevent increased siltation buildup, degradation and destabilization in the Gabilan and Natividad Creek(s)...".

The City's 2002 General Plan lists Land Use Element (LU-18) to "Develop City Storm Drainage/Sewer Master Plan for Future Growth Areas" states:

"The City of Salinas shares the regional concern regarding development upstream from the Gabilan or Natividad Creek Laterals in Carr Lake. The City will participate with other agencies in identifying capacity modifications, maintenance procedures,

and funding sources sufficient to prevent increased siltation buildup, degradation, and destabilization in the Gabilan and Natividad Creek Laterals, resulting from development."

Between 2002 and 2005, during an on-going budget crisis, the City took the following actions to implement Salinas General Plan Implementation Program LU-18:

- In November 2003 completed construction for expanding the Natividad Creek Detention Facility north of Laurel Drive, for purposes of siltation removal, water quality enhancement, and habitat restoration. The total construction cost of the Project was \$944, 448. With engineering costs, the cost for this Project exceeded one million dollars.
- In May 2004, updated its Storm Water Master Plan. This can be found on the City's website at: <u>http://www.ci.salinas.ca.us/MtcSvc/StormWater-NPDES/StormDrainMstrPlan.pdf</u>
   This document includes design recommendations for stormwater in developments north of Boronda Road.
- In July 2004, completed complementary desiltation Projects with Monterey County in Gabilan Creek from Boronda to Laurel Drive. The City's share of the Project was approximately \$300,000. The County's cost was of similar magnitude.
- For the last few years, the City has had discussion with the Monterey County Water Resources Agency (MRWPCA) on an Impact Fee on development for the purposes of improving the Reclamation Ditch. One of the Projects on the MCWRA Impact Fee list (at the City's request) is a desiltation basin for Gabilan Creek upstream of the City's future growth area.

#### **Response C-10**

Please see response to comment C-9.

#### **Response C-11**

Please see response to comment C-7 for a discussion of how the surface hydrology mitigation measures reduce the amount of sediment discharging downstream and, therefore, do not result in degradation or destabilization or other adverse environmental impacts to downstream channels or systems.

#### **Response C-12**

Please see response to comment C-7 for a discussion of how the Project surface hydrology mitigation would reduce the amount of sediment discharging downstream and help downstream systems return to equilibrium.

#### **Response C-13**

The proposed Project is not required to solve the existing degradation and destabilization issues associated with limited existing hydraulic capacity of the Reclamation Ditch downstream of Carr Lake. However, the Project fulfills its CEQA obligations to identify feasible mitigation measures (e.g., the hydrologic mitigation basins) that will maintain existing rate, volume and duration of runoff, and reduce the amount of sediment, discharged from the Project site. Please see response to comment C-7 for detailed discussion of how potential impacts of downstream creek degradation and destabilization are fully mitigated by the surface hydrology mitigation measures of the Draft SEIR.

#### **Response C-14**

The storm drainage facilities identified in the Draft SEIR are designed to "meter" releases as consistently with the existing condition as possible. No new releases, measured either as total volumes or as flow rates, would occur. The outfall structures of each surface hydrology mitigation system would discharge developed runoff as consistently as possible with the magnitude, frequency, duration, and timing of the existing runoff with no extra delayed or extra untimely releases from the basins. The release of water from the proposed basins over a period of time is designed to remain consistent with the existing watershed release patterns and is not in addition to the existing release patterns. Extra runoff would be infiltrated and evaporated. Since the metered releases would not exceed the total volume or flow rates of existing release patterns, such metered releases would not impact downstream water tables in Carr Lake, prevent adequate drainage from the adjacent fields, delay productive use of the farmland or adversely impact root zones.

#### **Response C-15**

The intent of the surface hydrology mitigation facilities is to provide "zero discharge release" during non-storm periods for the "urban nuisance flows" typically associated with development in the Project area, including flows associated with landscape irrigation. The landscaped areas would be graded such that runoff will be collected by the onsite storm drains and conveyed though these hydromodification facilities. Excess runoff will be diverted to the retention basins for infiltration and evaporation. Zero discharge release is accomplished through the hydraulic control located within the stormwater mitigation basins, which provide different release elevations as part of the hydraulic control structure. All the smaller dry-weather and nuisance flows are captured in the "pre-treatment" feature of the detention basin and are ultimately diverted to the "micro-pool" feature within the retention basin. This "micro-pool" accommodates or creates a permanent pool year round in a very small part of the retention basin as part of the vector control mitigation. The continuous urban dry-weather flows assist in maintaining the micro pool water volume to accommodate evaporation losses. All the dry-weather and urban nuisance flows, including those associated with landscape irrigation, would be contained onsite within the pre-treatment wetlands of the detention basin and the micro-pool of the retention basin in order to prevent downstream discharge, resulting in a zero discharge release during non-storm periods. Since dry-weather and urban nuisance flows, including those associated with watering of landscaped areas,

would not be discharged downstream, landscape irrigation runoff associated with the proposed Project would not "have a significant impacts on the lands owned and farmed" by the commenter's clients.

#### **Response C-16**

The commenter states that failure to "include any reporting or monitoring programs for the proposed drainage mitigations" in the SEIR constitutes failure to comply with the requirements of Public Resources Code §21081.6, specifically the following portion of §21081.6(a)(1): "The public agency shall adopt a reporting or monitoring program for the changes made to the Project or conditions of Project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during Project implementation."

However, the Draft SEIR to the Salinas General Plan Final PEIR does not fail to comply with Public Resources Code §21081.6 as claimed by the commenter. This section requires a public agency to "adopt a reporting or monitoring program for the changes made to the Project or conditions of Project approval..." when "making the findings required by paragraph (1) of subdivision (a) of Section 21081..." Public Resources Code §21081 states in part that "no public agency shall approve or carry out a Project for which an environmental impact report has been certified which identifies one or more significant effects on the environment that would occur if the Project is approved or carried out unless...(a) the public agency makes one or more of the following findings with respect to each significant effect: (1) Changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects on the environment..."

In this case, changes or alterations have been required in, or incorporated into, the Project which mitigate or avoid the significant effects of storm water drainage on the environment. Public Resources Code §21081.6(a)(1) would require the City to adopt a reporting or monitoring program after certification of the Final Supplement to the Salinas General Plan PEIR and prior to approval of the proposed Sphere of Influence Amendment and Annexation (SOI Amendment and Annexation) of unincorporated Monterey County land to the City of Salinas. The City intends to prepare and adopt such a program prior to approval of the SOI Amendment and Annexation.

#### **Response C-17**

As explained throughout the responses to this letter, the City has identified feasible mitigation measures (e.g., the hydrologic mitigation basins) that will maintain the existing rate, volume and duration of runoff, and reduce the amount of sediment, discharged from the proposed Project site. The surface hydrology mitigation measures shall be integrated into Project design and land plans and provided concurrent with development. As a result of these surface hydrology mitigation measures, the proposed Project would not result in increased siltation, destabilization, and degradation or otherwise adversely impact downstream creeks, farmland, reclamation ditch or Carr Lake.

#### **Response C-18**

As explained throughout the responses to this letter, the storm water drainage analysis and mitigation measures adequately address and fully mitigate the potential downstream sedimentation, degradation and destabilization impacts associated with the proposed Project in compliance with CEQA. The proposed Project is not obligated by CEQA to identify a plan or mitigation measures that address the impacts of other development that may occur upstream of Carr Lake.

# ALISAL WATER CORPORATION

Robert T. Adcock President (831) 424 - 0441 Phone dba ALCO WATER SERVICE

#### LETTER D

249 Williams Road Salinas, CA 93905 (831) 424 - 0611 Fax

October 12, 2007

Robert Richelieu, Planning Manager City of Salinas Department of Engineering and Development Services 200 Lincoln Avenue Salinas, CA 93901

HAND-DELIVERED

#### RE: Alisal Water Corporation's (dba Alco Water Service) Comments on the "Draft Supplement for the Salinas General Plan Final Program EIR, SCH #2007031055, August 31, 2007"

Dear Mr. Richelieu,

This correspondence will serve as Alisal Water Corporation's (dba Alco Water Service) comments on the "Draft Supplement for the Salinas General Plan Final Program EIR, SCH #2007031055, August 31, 2007".

#### PAGE 5.3-2:

Page 5.3-2, last paragraph, last sentence, states that, "No interagency water connections exist between the two water providers."

#### Alco's Comment:

While this is a correct statement, Alco Water Service (Alco) feels that additional information is pertinent to this point and responds and/or adds to this statement that:

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"While there is no permanent connection between the two water providers' water systems, Alco and Cal Water have discussed the possibility of establishing a permanent crossconnection to be used in emergencies. At this time, Alco and Cal Water are working together to find potential locations for this type of connection."

#### FIGURE 5.3-1:

Figure 5.3-1 entitled "Water Purveyor Service Areas" depicts the City Boundary, Cal Water's service area, and Alco's service area. It is a modification of the map in the original EIR, specifically Figure 5.13-5, as well as of the map in the original General Plan, specifically Figure LU-10. Those Figures, 5.13-5 and LU-10 did not require any modification in their function of depicting Alco's and Cal Water's service areas.

#### FIGURE 5.3-1, continued:

#### Alco's Comment:

The Alco service area depicted in Figure 5.3-1 is not correct. Alco comments:

"The designated service area on Figure 5.3-1 entitled "Water Purveyor Service Areas" depicts Alco's service area prior to April 25, 2006. On that date, through Advice Letter No. 107, Tariff Sheet No. 487-W, which is Alco's service area map, became effective, (see enclosed copy of the effective Tariff Sheet No. 487-W). This map, and therefore Alco's service area, includes the areas highlighted in the enclosed copy of Figure 5.3-1 (see enclosure) in addition to the area already designated by the City of Salinas in Figure 5.3-1 as the service area of "Alco Water Company (Alco)". The California Public Utilities Commission's (Commission) decision to approve Advice Letter No. 107 and Alco Water Service's (Alco) Tariff Sheet No. 487-W, which is Alco's service area map, was further reaffirmed by the Commission through Resolution W-4630, dated April 12, 2007. In Resolution W-4630, the Commission did, however, require that Alco request Commission approval, through advice letter filing, to provide service to new customers in the new service area. The service area itself was, however, approved and reaffirmed by the Commission."

#### PAGE 5.3-16:

Page 5.3-19, last paragraph, second sentence, begins, "The Department of Health Services (DHS)..."

#### Alco's Comment:

The sentence itself is correct, however Alco observes that the Department formerly called the Department of Health Services (DHS), who is the primary regulator for the water utilities Cal Water and Alco, is now known as the Department of Public Health (DPH).

#### PAGE 5.3-18 to PAGE 5.3-19:

Page 5.3-18, last paragraph, entitled "California Public Utilities Commission" through Page 5.3-19, first paragraph describes the function of the California Public Utilities Commission (CPUC).

#### Alco's Comment:

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The indicated section is correct, however it omits a very important function of the CPUC, namely the authority over setting service areas for investor owned public utilities, including water utilities.

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#### PAGE 5.3-18 to PAGE 5.3-19, continued:

Alco's Comment, continued:

CPUC Decision 85-06-022 emphasizes this authority when it addressed service areas in its ruling, stating that the,

"Commission has exclusive jurisdiction to determine the extent of a fixed utility's dedication of service (Parker v. Apple Valley, supra), and in making such determinations we are guided by the rule of reasonableness (Edwards, supra)." In addition, the Commission ruled that the "Legislature, using its plenary power, has given to this Commission the exclusive power to establish service areas for privately owned utilities serving the general public and to approve the tariffs of such privately owned utilities (PU Code § 486-495, 1001-1006, and 2709). A city has no power to prevent a state regulated utility from commencing its business or extending its plant to additional city customers (Pac. Tel. & Tel. Co. v. Los Angeles (1955) 44 C 2d 272)." (Re Great Oaks Water Company (1985) 18 CPUC 22, 27-29)

#### PAGE 5.3-19:

Page 5.3-19, first paragraph, last sentence, begins, "The proceeding before the CPUC..."

#### Alco's Comment:

The sentence itself is correct, however the word "proceedings" should be specified as "Alco OII proceedings".

#### PAGE 5.3-31:

Page 5.3-31, fourth paragraph, entitled City of Salinas Municipal Water Company, in its entirety is incongruous.

#### Alco's Comment:

D-6

D-5

Cal Water and Alco both provided water service assessment analyses as required by both SB 610 and SB 221. The City has provided no such analysis for the proposed Municipal Water Company. The three sentences appearing in this section do not in any way rise to the necessary requirements of an EIR. The City of Salinas does not state where its water would come from, what entitlements it has for this water that they would provide. Further, the City provides no analysis as to the costs of facilities, what facilities would be needed, or how the facilities would be paid for. This incongruous paragraph is wholly inadequate to provide the environmental analyses required in order for the City to own and oversee the operation of the water system.

D-4 Cont

Page 4 of 4 City of Salinas 10/12/07

#### PAGE 5.3-34:

Page 5.3-34, final paragraph, entitled "SEIR WS2" seems to attempt to usurp powers already granted to other agencies (i.e., the CPUC, the DWR) and already ensured by current practices (i.e., the preparation of WSQs, UWMPs and WSAs by water utilities).

#### Alco's Comment:

The City of Salinas, in adding this potential section to the SEIR, seems to be encroaching on the CPUC's purview and the function that it performs when it confirms the availability of adequate water supply in its review of water utilities' Supplemental Water Supply Questionnaires (WSQs) prepared for the provision of water service. These are issues of statewide concern, not purely local issues.

Please also refer to Alco's comment, above, to "PAGE 5.3-18 to PAGE 5.3-19" where it quotes CPUC Decision 85-06-022, including the statement regarding a city's power over water utilities; specifically that, "A city has no power to prevent a state regulated utility from commencing its business or extending its plant to additional city customers."

#### CONCLUSION:

Alisal Water Corporation, dba Alco Water Service, (Alco), appreciates the opportunity to contribute its comments in this important process for the City of Salinas in the preparation of its "Draft Supplement for the Salinas General Plan Final Program EIR, SCH #2007031055, August 31, 2007".

If you have any questions or require additional information, please do not hesitate to contact me at (831) 424-0441.

Sincerely,

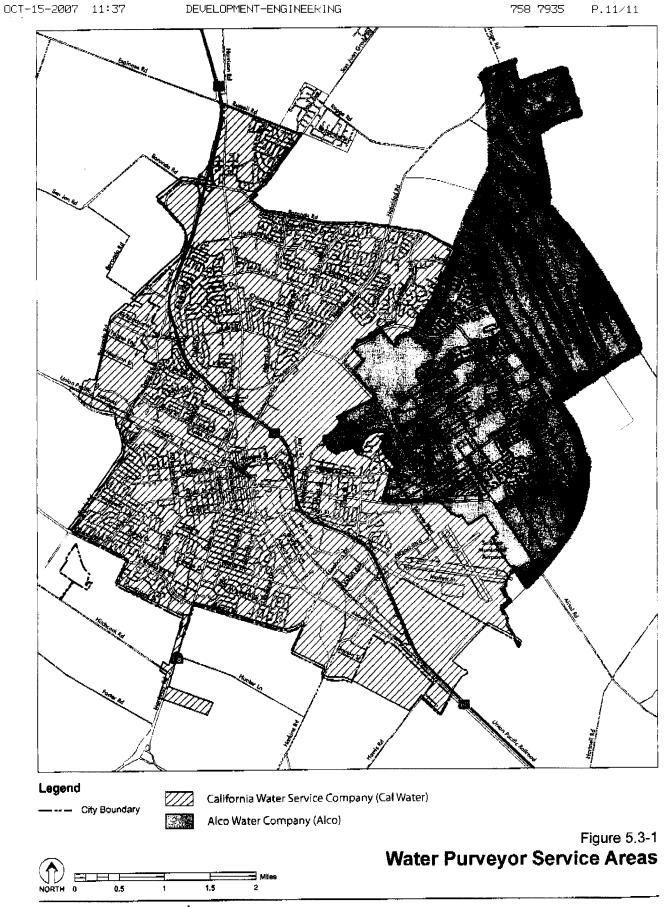
Thomas R. Adcock Vice President

TRA/ams

enclosures

cc: Robert C. Russell, PE, Deputy City Manager/City Engineer Carl Niizawa, PE, DEE, Deputy City Engineer John Bridges, EDAW Future Growth Area Development Teams, City of Salinas

D-7



Olt. of Oaliana

.lulv 2007 TOTAL P.11

## D. Thomas R. Adcock, Vice President, Alisal Water Corporation (dba Alco Water Service). October 12, 2007.

#### **Response D-1**

Comment noted. The City has revised the last paragraph on page 5.3-2 of the Final Supplement to reflect the comment that Alco and Cal Water have discussed the possibility of establishing a permanent cross-connection to be used during emergencies and are currently working together to find potential locations for such a connection.

#### **Response D-2**

Disposition of advice letters by the California Public Utilities Commission (CPUC) consists of the CPUC's Water Division's accepting the advice letter, rejecting the advice letter, or writing a resolution to accept, accept with modifications or reject the advice letter. (*See* CPUC Standard Practice U-14-W) Thus, Alco's Advice Letter (Tariff Sheet No. 487-W) was not "approved" as indicated in Alco's Comment D-2 by either the Water Division or the CPUC.

Both the City of Salinas and California Water Service Company filed protests to Alco's Advice Letter and filed requests for full CPUC review of the Water Division's administrative acceptance of Alco's Advice Letter. By Resolution W-4630, issued by the CPUC on April 12, 2007, the CPUC affirmed the acceptance of Alco's Advice Letter, but ordered CPUC staff to prepare an Order Instituting Investigation (OII) to determine if Alco was qualified to serve customers in the new area and examine its water quality and service quality. In Resolution W-4630, the CPUC approved Alco's construction of a water tank and extension of service to three properties in the service maps filed under Alco's Advice Letter—the Rancho Cielo property, the Chem Lime property, and the Bubar property—none of which is located in the City of Salinas's Future Growth Area. The CPUC noted in Resolution W-4630 that Alco shall not provide service to additional customers in the Future Growth Area without CPUC approval.

The OII is in progress, with an expected completion date of May 2008; therefore, no decision has been made by the CPUC whether Alco is qualified to serve customers in the Future Growth Area. While the CPUC has reaffirmed acceptance of Alco's Advice Letter, the CPUC has not approved Alco's providing service to additional customers in the Future Growth Area. Moreover, on April 10, 2007, California Water Service filed an application for authorization to extend its territory to serve the Future Growth Areas. The area into which California Water Service has requested authorization to extend its service territory is the same area at issue in Alco's Advice Letter No. 107. That portion of the Future Growth Area at issue in California Water Service's application and in Alco's Advice Letter is within 2,000 feet of California Water Service Company's existing Salinas service territory and an area to which California Water Service may provide service's service without CPUC approval. Which of the two water utilities will serve the disputed portion of the Future Growth Area remains to be determined; California Water Service's

application is now a proceeding before the CPUC and is on hold pending completion of the OII.

Given that the CPUC has not approved Alco's providing service within the Future Growth Area and that the CPUC has yet to make a determination with regard to the OII or with regard to California Water Service's application, Figure 5.3-1 accurately depicts those areas of the City and of the Future Growth Area to which both utilities may *currently* and without further approval provide service. The only exceptions are Rancho Cielo, Chem Lime, and Bubar which already received CPUC approval as part of Resolution W-4630.

#### **Response D-3**

Comment noted. The reference to the California Department of Health Services (DHS) on page 5.3-17 has been changed to reference the California Department of Public Health (DPH).

#### **Response D-4**

Alco's Comment D-4 is correct: the CPUC has authority over investor owned public utilities and their service areas. This, however, is only one of the many items within the CPUC's purview of authority. The last paragraph on page 5.3-18 of the SEIR is not intended to be a complete discussion of the CPUC's purview of authority; rather, it is intended as a general statement with regard to the regulatory framework in which utilities and other similar industries are regulated in California. Furthermore, it is neither necessary nor required to include a discussion of the many functions within the CPUC's purview of authority.

To the extent this document needs a discussion the CPUC's authority over the service areas of privately owned California water utilities, please reference the first sentence on page 5.3-19 which states "The CPUC is presently adjudicating the competing applications of Alco and Cal Water to extend their respective service territories into the Project area." The CPUC would not be in a position to adjudicate the service territories of competing water utilities without the authority to regulate their service areas. Further discussion on the CPUC's authority in this regard is, therefore, unnecessary.

#### **Response D-5**

Comment noted. The last sentence of the first paragraph on page 5.3-19 has been altered to reference the "Alco OII" proceedings.

#### **Response D-6**

The information presented on page 5.3-31 pertaining to the possibility of establishing a City of Salinas Municipal Water Company and a preliminary feasibility study is provided for informational purposes. This information does not in any way affect the conclusion

of the SEIR or the mitigation necessary to reduce the significant environmental impacts associated with water supply.

#### **Response D-7**

Mitigation measure SEIR WS2 (page 5.3-34) states that, "The City shall confirm the availability of adequate water supply and infrastructure to ensure that development does not outpace the available water supply/infrastructure in accordance with SB 610 and SB 221." The identification of this mitigation measure does not encroach upon the powers of the California Public Utilities Commission (CPUC) or any other public agency, nor does it "prevent a state regulated utility from commencing its business or extending its plant to additional city customers." Rather, this mitigation measure is an expression of the City's intention to comply with its statutory duties under State law including Water Code \$10911(c), which states in part that a "city or county shall determine, based on the entire record, whether Projected water supplies will be sufficient to satisfy the demands of (a) Project, in addition to existing and planned future uses." Furthermore, Government Code §66473.7(b)(1) states that "the legislative body of a city...shall include as a condition in any tentative map that includes a subdivision a requirement that a sufficient water supply shall be available." These provisions of State law make it clear that by "confirm(ing) the availability of adequate water supply and infrastructure to ensure that development does not outpace the available water supply/infrastructure..." under mitigation measure SEIR WS2 the City is acting in compliance with existing State law.

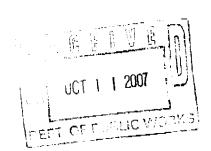
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October 5, 2007



LETTER E

MON-101**-**91.90

SCH# 2007031055

Robert Richelieu City of Salinas 200 Lincoln Avenue Salinas, CA 93901

Dear Mr. Richelieu:

COMMENTS TO SALINAS FUTURE GROWTH AREAS - DRAFT EIR TRAFFIC STUDY

The California Department of Transportation (Caltrans), District 5, Development Review, appreciates the opportunity to comment on the draft traffic study for the Salinas Future Growth Area (FGA) annexation. Although this study is for the annexation step of the FGA process, and does not create entitlements for development, it will undoubtedly be used as the basis for eventual trip generation and the required mitigation. Therefore, our comments are provided in the context of the FGA creating impacts. Comments are as follows:

- This traffic study (an engineering report) lacks the required signature and stamp of a professional engineer per the Business and Professions Code sections 6735, 6735.3, 6735.4, and Board Rule 411. In general, these laws require documents (both interim and final) containing such things as sychro files bear the name and license number of the professional engineer involved. In addition to being legally required, this also serves to protect both Caltrans and the City of Salinas from any potential litigation resulting from inaccurate information or assurances outlined in the document. The signature and stamp indicates that a competent engineer in "responsible charge" of the work stands behind the report and its' conclusions. This requirement would also apply to the Wastewater Treatment Capacity Analysis, Storm Water Drainage Report, and Greenhouse Gas Emissions Calculations.
- 2. As discussed in previous correspondence, the FGA study shows some decrease in traffic volumes on Highway 101 in the year 2030 with project buildout. While we understand that the volumes are the data outputs of the AMBAG traffic model, the findings intuitively scem incorrect when compared to 30 years of count station data (the most scientific means to count traffic) at the same locations showing increases in traffic every year. Since model outputs inherently include mostly assumptions, further study and explanation is merited.
- 3. The lack of significant peak-hour movements from the FGA on Highway 101 to employment centers in the north conflicts with the City of Salinas' Settlement Agreement for the San Jose Coyote Valley Specific Plan (CVSP). It appears that the City of Salinas is inconsistently requiring mitigation for impacts from CVSP and not from the FGA. From the early stages of CVSP to present, the City of Salinas has clearly stated that significant impacts south of CVSP are expected.

E-1

E-2

E-3

Salinas FGA DRAFT EIR October 5, 2007 Page 2

For example, in March 2000 the Salinas City Council met to discuss mitigation measures to offset impacts from employment growth in CVSP. During this hearing it was discussed how Salinas would become the affordable housing center for CVSP growth, and that mitigation would be needed. The subsequent settlement agreement provided funding for Caltrain expansion, an affordable housing trust, and encouraging networking academy programs. In a letter as recent as June 2007, the City of Salinas reminded the City of San Jose of the impacts from the CVSP and the details of the settlement agreement.

E-3 Cont.

However, if background conditions in Santa Clara County have changed, and additional housing (such as the additional 60,000 units identified in the latest version of the AMBAG model) is available in that county, it is possible that the impacts on which the agreement is based are no longer valid. If the additional housing in Santa Clara County is a factor preventing the AMBAG traffic model from distributing trips north, than each of the CVSP mitigation measures would still be in jeopardy because the Salinas FGA traffic study contradicts the CVSP EIR and settlement agreement. It might be prudent for the City of San Jose to review the Salinas FGA traffic study to ensure consistency.

If you have any questions, or need further clarification on items discussed above, please don't hesitate to call me at (805) 542-4751.

Sincerely,

JOHN J. OLEJNIK Associate Transportation Planner District 5 Development Review Coordinator

cc: Richard Doyle, City Attorney, City of San Jose Joseph Horwedel, City of San Jose Planning Director Debbie Hale (TAMC) Ron Lundquist (Monterey Co DPW) Kathy Urlie (AMBAG) Timothy Sable (CT- Dist 4) File

## E. John J. Olejnik, Associate Transportation Planner, District 5 Development Review Coordinator, California Department of Transportation. October 5, 2007.

## **Response E-1**

The final Salinas Sphere of Influence Amendment and Annexation Supplemental Transportation Impact Analysis (STIA) will be signed and stamped by a professional engineer in responsible charge of the Project.

## **Response E-2**

The Year 2030 daily and peak hour forecasts show increases in traffic over existing volumes consistent with historical count data. Under 2030 conditions, the traffic volume on some links is less with the Proposed Project than without it. However, these two scenarios are comparing two different land use patterns in the same year. As explained on Page 23 of the STIA and discussed with Caltrans staff at several meetings, the addition of the proposed development including nearly 12,000 residential units and approximately 2,000,000 square feet of supporting commercial uses will result in a substantial change in travel patterns into, out of, and within Salinas. Existing traffic will be re-distributed and the need to commute into and out of Salinas will be reduced with the Project. While the results may not appear intuitive, simply adding the Project-generated traffic to the No Project volumes would not result in an accurate estimate of total roadway volumes in 2030. In addition, a select link analysis showed that many of the new trips will be internalized in Salinas because of future growth in trip attractors and new attractions in the Monterey Peninsula area.

## **Response E-3**

The Salinas FGA traffic study is not inconsistent with the City's comments on the draft environmental impact report (EIR) for the Coyote Valley Specific Plan (CVSP).

As explained more fully in the City's letter dated June 29, 2007 to the City of San Jose commenting on the Draft EIR for the Coyote Valley Specific Plan (CVSP), and in the Settlement Agreement dated September 11, 2001, between the City of Salinas and the City of San Jose, the focus of the City's comments and the Settlement Agreement is to promote thoughtful regional transportation planning and greater jobs/ housing balance.

To this end, the Settlement Agreement: (1) provides for study of regional transportation inputs for two years after building permits are issued and provides for various activities to expand regional transportation options, including Caltrain service; (2) provides funding and connection for networking academy programs between Cisco and Hartnell College and other local educational institutions; and (3) provides for a \$1,000,000 contribution, on a matching fund basis, to an affordable housing trust in Monterey County similar to the Silicon Valley Manufacturing Group's Housing Trust Fund. These are significant contributions that should expand regional transportation options and housing

opportunities, if the CVSP is implemented, and will encourage a more balanced housing and jobs ratio, with the intent of reducing commuter traffic both from San Jose and from communities to the south of the Project site.

The CVSP EIR has not been finalized as of the time of this writing, so the final mitigations for that Project have not been determined. As the commentator notes, background conditions in Santa Clara County may have changed since 2000 and additional housing may be provided in that county. However, regardless of whether the impacts of the CVSP are lessened as a result of better planning in Santa Clara County, the obligations under the settlement agreement still survive. Unless the Settlement Agreement is amended in a writing signed by all parties (which the Project does not propose to do), the agreement remains in effect. Furthermore, the Settlement Agreement will only serve to improve regional transportation coordination and jobs/housing balance.

In addition, the Salinas FGA traffic study fully addresses the impacts of the proposed Project on the regional transportation network, and provides an analysis of required mitigation for Project effects. The STIA uses the most current information and data for modeling, including information provided by AMBAG, and is independent of the previous modeling used under the CVSP. The Salinas traffic study assumes that as a result of the Project planning and job opportunities in the Salinas area and regional and land use assumptions, more trips will stay in and near Salinas.

The City will forward a copy of the STIA to the City of San Jose for their review and to ensure consistency in regional transportation planning analysis.

#### LETTER F



JULIANNE L. HANSEN 16 Saint Regis Circle Salinas, CA 93905 Tel: 831 422 2286

October 15, 2007

Robert Richelieu, Planning Manager City of Salinas Department of Engineering and Development Services 200 Lincoln Avenue Salinas, CA 93901

RE: Comments on the Draft Supplement for the Salinas General Plan Final Program EIR, SCH# 2007031055, for the City of Salinas, prepared by EDAW, Inc.

Dear Mr. Richelieu:

Thank you for an opportunity to make a comment on the Draft Supplement for the Salinas General Plan EIR.

It is extremely important in this day and age to bring topics of conservation to the table in discussing any development project within the City of Salinas. It is an excellent start for the City to require Low Impact Development features in any and all new building areas. We will not have a second chance in established areas for many decades to come and will have to put up with the negatives as best we can.

But, will Low Impact Development be enough if it is not spelled out a little more carefully. Flooding has been a problem in several areas of our city, even in newer supposedly modern sites. With this in mind, the section on storm water drainage (Sec. 5.4) of the report seems inadequate on several counts.

F-2

The SEIR states that all storm water in excess of pre-development amounts will be held on site to address additional flooding and water quality impacts caused by the development up to and including the 100-year flood event. This raises several issues not adequately addressed in the SEIR:

- 1. Appendix I, page 4 lays out the amount of acreage of retention/detention basins needed to accomplish this goal. However, Figure 4 of Appendix G, except for possibly the East area, does not indicate that basins are contemplated.
- 2. The pre-development amounts of storm water runoff will still have to be addressed by the City of Salinas in Carr Lake. This is a requirement of the City's storm water plan and the owners of the new area should be required to share in the mitigation for all, pre-development as well as post-development waters. A

F-1

F-4

F-4 Cont.

F-5

F-6

mitigation fund should be set up to address the runoff from these areas to Carr Lake.

3. Section 5.4, Storm Water Drainage, is inadequate in that it does not mention how the developer will maintain and operate these facilities nor does there seem to be an adequate monitoring plan. If the City becomes the responsible party for ongoing maintenance and operations of a system that may or may not be working adequately, a mitigation fund should be funded through impact fees. Mitigation could be expensive or even impossible if the technology is not available.

4. Both Section 5.4, Storm Water Drainage, and Appendix I are inadequate in that they contain only assertions that the waters will be held on site and treated. There . is no data to back up these claims as to its practicability. If it is later decided that these features are not economically feasible for the developer there is a likelihood that they will not have to be built. This will leave the City to deal with all water and contaminants flowing from the new development areas. The SEIR should deal with this possibility. Again, storm water impact fees paid to the City should be required.

F-7

The City is the most likely entity to be responsible ultimately for the new development area retention/detention basins or the storm water runoff, should the proposed storm water drainage systems fail to be built, fail to work as anticipated, or fail to be maintained. The SEIR should address these issues in detail,

Sincerely Hanson Treas 1000 Friends of Carr Lake

Julianne L. Hansen

## F. Julianne L. Hansen, 1,000 Friends of Carr Lake. October 15, 2007.

## **Response F-1**

The City agrees that Low Impact Development (LID) features promote conservation by reducing storm water runoff volume and improving the quality of runoff associated with urban development. As a result, the City has identified mitigation measure SEIR SD2 to mitigate the storm water impacts of development within the SOI Amendment and Annexation area. This measure requires development to include LID features within Project area land plans as design elements. LID features will include the use of natural vegetation and small-scale treatment systems to treat and absorb storm water runoff close to its origin.

## **Response F-2**

The commenter states a concern regarding area flooding. Flooding at the base of the large Gabilan Watershed is a historical natural phenomenon contained in the large floodplain and floodway areas of Carr Lake and the Reclamation Ditch. Development within the Project area will not change the character of runoff coming from the large Gabilan Watershed above the Project area. The Regional Watershed Analysis -Hydrologic Mitigation documents, referenced in the SEIR and summarized in Section 5.4 and Appendix I, analyzed stormwater runoff volumes from the Project area with the proposed mitigations. The commenter correctly points out that implementation of the proposed drainage system would ensure "that all storm water in excess of predevelopment amounts will be held on site to address...flooding and water quality impacts caused by the development..." As described on pages 5.4-4 and 5.4-5 of the Draft SEIR, development within the SOI Amendment and Annexation area is required to provide a dual basin flow control facility that "(1) detain(s) storm water runoff so the postdevelopment downstream peak flow rate is not increased over that which existed prior to development; and (2) retain(s) on-site the additional volume of storm water that results from the increased impervious surfaces associated with future urban development." (page 5.4-5). The City is imposing this requirement on development within the SOI Amendment and Annexation area through mitigation measures HW5 and SEIR SD1 (see pages 5.4-6 and 5.4-7). In addition to the dual basin flow control facility, development within the SOI Amendment and Annexation area shall also implement mitigation measure SEIR SD2, which requires LID features such as natural vegetation and smallscale treatment systems that treat and absorb storm water runoff close to its origin through site design techniques within the Project area land plan as design elements. Thus, as explained in Section 5.4 of the Draft SEIR, implementation of LID features in combination with the dual basin flow control facility would mitigate potential flooding and other surface hydrology impacts to below a level of significance. ."

## **Response F-3**

Detention and retention basins are required to be installed, per mitigation measure SD-1 of the SEIR noted above. Since the hydrologic mitigation basins are generally in the

vicinity of natural drainage accumulation, many basins are located along or close to the existing creek systems. The central area of the Project site shall provide the mitigation basin facilities adjacent to the creek restoration corridor for both Natividad and Gabilan Creeks. These facilities will be integrated into the creek restoration design as an integral element of the creek system. The general layout and locations of the detention/retention basin and other drainage facilities are shown on Figure 6 of Regional Stormwater Analysis for Salinas West and East Areas. The conceptual design of the detention and retention basins with outfall structures, maintenance roads, and water quality ponds are shown on Figure 7 of the aforementioned studies.

#### **Response F-4**

The City is obligated under CEQA to examine and require feasible measures to mitigate the significant adverse effects of development within the SOI Amendment and Annexation area, including significant adverse effects associated with storm water runoff generated by development within the Project area. Consistent with this obligation, Section 5.4 of the Draft SEIR identifies mitigation measures that ensure a net increase in runoff does not occur as a result of the proposed Project and that surface hydrology impacts associated with development in the Project area will be fully mitigated prior to discharging to natural drainage courses. By definition, any significant adverse environmental effects to Carr Lake associated with pre-development storm water runoff on the Project site are not indirectly or directly caused by the development contemplated within the Draft SEIR. Therefore, the City is not obligated under CEQA to identify feasible mitigation for the proposed Project for pre-development storm water runoff impacts.

## **Response F-5**

The City acknowledges the comment that Section 5.4 of the SEIR does not mention how the developer will maintain and operate (storm water) facilities required by mitigation measures HW5, SEIR SD1 and SEIR SD2. However, in July 2007, the City passed a revised Storm Water Ordinance, which requires all future developments and significant redevelopments in the City to have adequate mechanisms for stormwater maintenance in place prior to occupancy. The ordinance reads:

"Prior to the issuance of any permit that requires a storm water management facility, the applicant or owner of the site must execute a maintenance easement or agreement that shall be binding on all subsequent owners of land served by the storm water management facility. The easement or agreement shall provide for access to the facility at reasonable times for periodic inspection by the City, or its contractor or agent, and for regular or special assessments of property owners to ensure that the facility is maintained in proper working condition to meet Stormwater Development

Standards and any other requirements of this Chapter. The easement or agreement shall be recorded by the owner of record prior to issuance of a certificate of final occupancy.

Maintenance of all storm water management facilities shall be ensured through the creation of an easement or other maintenance covenant that must be approved by the City and recorded prior to final plan approval. The City, in lieu of a maintenance covenant, may accept dedication of any existing or future storm water management facility for maintenance, in accordance with the Stormwater Development Standards."

In accordance with the new ordinance, the City has begun the initiation of the above requirements on a new developments and significant redevelopments in the City. All developments in the Project area would be required to comply with this ordinance.

## **Response F-6**

The proposed treatment of the urban runoff through use of the hydrologic mitigation basins is a proven technology with some the higher pollutant removal efficiencies compared to other methods. Detention basins with water quality treatment applications have been utilized extensively for this purpose and are an adopted standard in the California Stormwater BMP Handbook (CASQA, 2003). All urban flows generated from the Project area must pass through these facilities before discharging into the creek system. The first line of treatment is the pre-treatment facility located in the headworks of the detention basin generally consisting of a small water quality treatment basin with an underdrain that will direct nuisance and dry-weather flows to the micro-pool in the retention basin. This ensures zero release of the non-storm surface flows typical from urban development. Primary pollutant removal is provided through adequate hydraulic retention time, which is provided in the detention basin facility. Figure 1 below provides empirical data of an extended dry detention basin from the State of Minnesota BMP Handbook. Detention time exceeding 6 hours is minimal, with 24 hours being preferable. This documents the anticipated pollutant load removal efficiencies from the proposed Project stormwater mitigation facilities. Additional water quality treatment analysis will be performed as part of the next engineering planning phases of the Project in order to quantify water quality benefits and mitigation, including the more refined sizing of the different hydraulic elements of the basin and the operational characteristics.

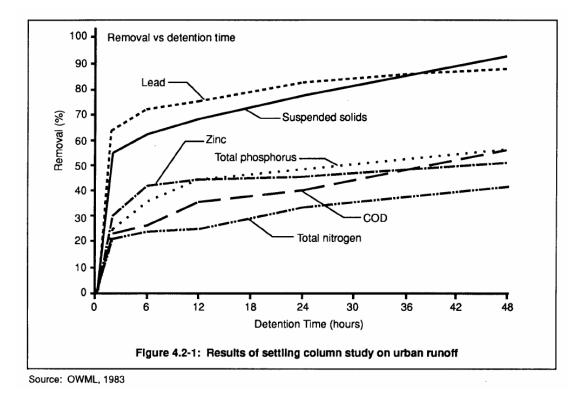


Figure 1 - Anticipated Water Quality Treatment by Extended Basin versus Time

It is notable that mitigations measure SEIR SD1 complements the new Low Impact Development requirements (SEIR SD2) that the City has recently successfully implemented in new developments throughout the City.

## **Response F-7**

Please see response to comment F-5.



#### MONTEREY BAY Unified Air Pollution Control District

serving Monterey, San Benito, and Santa Cruz counties

AIR POLLUTION CONTROL OFFICER Douglas Quetin

24580 Silver Cloud Court • Monterey, California 93940 • 831/647-9411 • FAX 831/647-8501

#### LETTER G

October 18, 2007

Mr. Robert Richelieu, Planning Manager City of Salinas 200 Lincoln Avenue Salinas, CA 93901

Sent electronically to: robertr@ci.salinas.ca.us Original by U.S. Mail.

#### DRAFT SUPPLEMENT FOR THE SALINAS GENERAL PLAN FINAL SUBJECT: PROGRAM EIR

Dear Mr. Richelieu:

Strategy to Address Global Climate Change

The Monterey Bay Unified Air Pollution Control District supports the initiative of the City of Salinas in addressing the impacts of global climate change through the mitigation measures described in the Draft Supplement.

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

Yours truly,

Jean Getchell Supervising Planner Planning and Air Monitoring Division

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George Worthy South Monterey County Cities G-1

#### G. Jean Getchell, Supervising Planner, Planning and Air Monitoring Division, Monterey Bay Unified Air Pollution Control District. October 18, 2007.

#### **Response G-1**

Comment noted.

H-3 cont 5-11 07 1550 stoles the MRWPEA Supports sectormed discharpes A and parts of a weter solution of the mentary pennisola. The thinking is inplace at manple pennisola, The thinking is inplace at manple pennisola.

## **RATEPAYER** ADVOCATES PROPOSE CHEAPER WATER PLAN

Treated sewage could become part of Peninsula's supply

#### By KELLY NIX

A GROUP that advises the California Public Utilities Commission has proposed a water supply for the Monterey Peninsula it says will cost \$100 million less than California American Water Company's desal plant.

"The thought was, are there any other local alternatives that could be implemented faster, cost less and have fewer environmental concerns?" said Keith Israel, director of the Monterey Regional Water Pollution Control Agency and a member of the Regional Project Technical Work Group appointed by the PUC Division of Ratepayer Advocates. "That is how this process started."

The new plan — called the "regional urban water supply evaluation" — was drawn up to identify the best and cheapest water solution for the Monterey Peninsula as an alternative to Cal Am's proposed Coastal Water Project, which will cost about \$230 million.

The new plan would provide from 12,500 to 28,400 acre-feet of water per year, according to its creators.

"We took every project that agencies in Monterey have looked at at some point in the past," said Steve Kasower, senior research economist with University of California Santa Cruz Center for Integrated Water Research, and a consultant to the DRA, "and we stuck some of them together."

Although the plan calls for a bulk of the Peninsula's water to come from a desalination plant, the plant would be smaller than the one proposed by Cal Am. Combining a small desal plant and several other projects would be less expensive to local ratepayers and be less controversial, Kasower said. Although not any one of the components on its own would be able to supply the Peninsula

| Coctober 5-11, 20                            | per year, would be the first of its kind in Northern Califo<br>Israel said. Admittedly, however, there is a public relations chall,<br>in convincing customers that drinking treated wastewat<br>palatable and safe. "It's very hard to get people to understand that this t<br>nology is not rocket science, it's not new," Kasower :<br>"The community is going to have to become comfort<br>with this."  |
|--|---|
| October 5, 2007                              | The stormwater would be captured in parking lots and directed to aquifers. Oils and pathogens would be removed as the water percolated through layered berms. Big dollars saved Besides being a more environmentally friendly solution to solving the Peninsula's water supply problems, Kasower said a multi-component project would cost much less than Cal Am's Coastal Water Project. We are looking at a magnitude of perhaps \$100 million or so swings," kasower said the group is still seeking more studies to determine that. It's also unknown how long it would cost. Kasower said the group is still seeking more studies to determine that. It's also unknown how long it would cost. Kasower said the group is still seeking more studies to determine that. It's also unknown how long it would take to implement the components. But it's unknown exactly how much each component would cost. Kasower said the group is still seeking more studies to determine that. It's also unknown how long it would cost. Kasower said the group is still seeking more studies to determine that. It's also unknown how long it would cost. Kasower said the group is still seeking more studies to determine that. It's also unknown how long it would cost. Kasower said the community probably con't wait. "We don't know when the state water board will put the harme. The would take to implement the components. The project introvide the more ambitious projects includes using treated sewage to recharge aquifers from which drinking water quality." he said. The water would be invoide at least 2,500 acre-feet The project, which would provide at least 2,500 acre-feet the more addition to be solved at least 2,500 acre-feet the state at the would provide at least 2,500 acre-feet the state at the s |
| Volume 93 No. 40<br>36A The Cone Cone Octobe | WHT all the water it needs, collectively they could, he said<br>how page IA<br>a combination of solutions<br>are been also for 8,330 AFY of desaination, 300<br>acre-feet of stormwater reuse, 150 acre-feet for water<br>per year, the plan calls for 8,330 AFY of<br>severated of stormwater reuse, 150 acre-feet for conserva-<br>tion, 220 acre-feet of aquifer storage and recovery, 2,500<br>acre-feet of groundwater replemishment and 300 AFY of<br>recycled water. A larger regional plan, which could be<br>expanded in another phase, could provide as much as 28,400<br>acre-feet of water.<br>One acre-foot of water is 325,851 gallons, which is<br>recough to provide for three families for about 0.700 acre-feet of water it<br>could "implement immediately," including conservation,<br>stormwater reuse, aquifer storage and recovery, and desalina-<br>tion from Sand City's plant, which alone would provide 300<br>acre-feet previse and recovery, and desalina-<br>tion from Sand City's plant, which alone would provide 300<br>acre-feet previse and recovery and desalina-<br>stor from Sand City's plant, which alone would provide 300<br>acre-feet per year.<br>When us a large amount of water, he aspecting<br>fruit, "Kasower said a component such as stormwater<br>reuse isn't a "big-ticket item," and on its own wou't provide<br>price of the puzzle.<br>. "Why not do it even if it's two acre-feet?" he asked.  |

## H. Robin Lee. October 17, 2007.

## **Response H-1**

Comments noted. The City of Salinas is a member of a joint powers authority, Monterey Regional Water Pollution Control Agency (MRWPCA), which has responsibility for the City's sewage treatment. As identified on page 5.3-2, the Regional Wastewater Treatment Plant (RTP) operated by the MRWPCA, contains a water recycling facility known as the Salinas Valley Reclamation Plant. The RTP and Reclamation Plant would provide wastewater treatment for the Project area. The Reclamation Plant has the capacity to produce 29.6 million gallons per day of recycled water, with annual production rate of approximately 13,000 acre feet per year. The treatment levels for wastewater meet Title 22 standards for disinfected tertiary water. The Reclamation Plant recycled water output feeds a distribution system 45 miles of pipeline and 22 supplemental wells that irrigate 12,000 acres of farmland in the Northern Salinas Valley. The use of this recycled water, instead of pump ground water, reduces the amount of water drawn from the Salinas Valley Groundwater Basin.

During the peak irrigation months (May to August) almost 100% conversion of the RTP secondary effluent to Reclamation Plant tertiary occurs.

MRWPCA has indicated to the City of Salinas that it is considering a future satellite treatment facility in North Monterey County, which would provide the opportunity for local use recycled water.

For storm water, Low Impact Development (LID) and retention basins will be implemented to support re-charge of the water aquifer. Future development within the Project area will include LID features to be implemented through site design techniques within the Project area land plan as design elements. LID features will use natural vegetation and small-scale treatment systems to treat and infiltrate storm water runoff close to its origin.

## **Response H-2**

Please refer to response H-1.

## **Response H-3**

Please refer to response H-1.

MEMORANDUM

LETTER I

County of Monterey Office of the Sheriff

Date: October 19, 2007

To: Bob Schubert, Planning and Building Services Manager

From: Chief Liebersbach

Subject: Draft Supplement to the Salinas General Plan Final Program EIR Public Safety Impact



The Supplemental EIR should contain an additional analysis on the specific impacts of the proposed development on Sheriff's Office services that are provided to all Monterey County citizens, including those residents of the City of Salinas. These services include but are not limited: the maintenance and release of criminal records generated by citations, warrants and booking records; Coroner operations and civil processes and law enforcement services such as the Bomb Unit and Law Enforcement Helicopter Services.

husback

Chief Norbert Liebersbach Custody Operations Bureau

I-1

# I. Norbert Liebersbach, Chief, Custody Operations Bureau, County of Monterey Office of the Sheriff. October 19, 2007.

#### **Response I-1**

The Sheriff's Office services identified in the October 19, 2007 memorandum (maintenance and release of criminal records generated by citations, warrants and booking records, Coroner operations, civil processes and law enforcement services, such as Bomb Unit and helicopter services) may create environmental impacts if the provision of such services requires new or physically altered governmental facilities, the construction of which could cause significant environmental impacts (the Sheriff's Office did not submit any comments related to impacts to Sheriff's Office services during the Notice of Preparation (NOP) comment period). The memorandum does not indicate whether the provision of such services would require any new or physically altered facilities. Therefore, an analysis of environmental impacts associated with an as yet undetermined set of new or physically altered governmental facilities needed to provide these Sheriff's Office services for the Project is speculative at this stage. However, typical environmental impacts associated with construction and physical alteration of such governmental facilities include those related to air quality (dust, construction vehicle emissions, construction worker personal or company vehicle emissions), noise from construction vehicles and equipment, natural resources/conditions that may be present on the construction site (agricultural resources, biological resources, cultural resources, and hydrology) and hazards that may be present on the construction site (geology and soils conditions, hazardous materials, such as toxic substances and other hazardous conditions, such as flooding). Additionally, there are typically impacts associated with the operations of such facilities, such as traffic associated with employee commuting, service calls, vehicular air emissions, vehicular noise and use of public utilities.

The current state of the Project is the SOI Amendment and Annexation. If adequate information becomes available at a later date about demand for Sheriff's office services that would result in a need for new or physically altered governmental facilities, such information could be analyzed in the next stage of environmental analysis, which would be the EIRs prepared for the required Specific Plans.





## MEMORANDUM-

#### WATER RESOURCES AGENCY

#### **Monterey County**

**DATE:** October 19, 2007

| TO:      | Bob Schubert, Planning and Building Services Manager   |
|----------|--|
| FROM:    | Bill Phillips, Deputy General Manager  |
| SUBJECT: | Draft Supplement to the Salinas General Plan Final Program EIR<br>Comments on Section 5.3 Water Supply |

J-1

The Agency recommends that estimates for water demand, overdraft, and seawater intrusion should be consistent with the numbers contained in the Final Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project, dated April 2002. Prior to the release of the FEIR, the Agency requests the opportunity to review the updated report to ensure consistency.

J-2 The Salinas Valley Water Project construction target dates shown on Page 5.3-10 should be updated to reflect the current schedule.

If there are any questions, I can be reached at (831) 755-4860. Thank you for the opportunity to review the Draft Supplement to the Salinas General Plan Final Program EIR.

Sincerely,

William L. Phillips, AICP Deputy General Manager

#### J. William L. Phillips, Deputy General Manager, Monterey County Water Resources Agency. October 19, 2007.

#### **Response J-1**

The commenter has recommended that the City use estimates for water demand, overdraft, and seawater intrusion consistent with the figures used in the Final Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project and, based on subsequent discussions with the MCWRA, the 2005 Ground Water Summary Report prepared by MCWRA. The City concurs with the recommendations of the MCWRA and has revised Section 5.3 of the SEIR to reflect approximate water demand in the Salinas Valley Groundwater Basin (SVGB) of 507,000 af/yr. This figure is the average annual total extraction from the SVGB between 1995 and 2005, from the 2005 Ground Water Summary Report.

Additionally, estimates of average annual overdraft and seawater intrusion in the SVGB (19,000 af/yr and 10,000 af/yr, respectively) were revised in Section 5.3 to reflect the figures used in the Final Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project. The overdraft estimate of 19,000 af/yr is based on the period 1949 to 1994. On page 5.3-7, an average annual overdraft of 7,000 af/yr is cited based on water demand in the SVGB of 507,000 af/yr (average annual total extraction from the SVGB between 1995 and 2005) and estimated annual recharge of the SVGB by the Salinas River at 500,000 af/yr.

#### **Response J-2**

Construction of the Salinas Valley Water Project is anticipated to begin in 2008 and continue through 2009. Operation of the Salinas Valley Water Project is anticipated to begin in 2009. The Final Supplement to the Salinas General Plan Final Program EIR has been updated to reflect these dates.

## MONTEREY COUNTY RESOURCE MANAGEMENT AGENCY

#### PLANNING DEPARTMENT, Mike Novo, Interim Director

168 W. Alisal St., 2<sup>nd</sup> Floor Salinas, CA 93901

(831) 755-5025 FAX (831) 757-9516

October 19, 2007

Robert Richelieu, Planning Manager City of Salinas 200 Lincoln Street Salinas, CA 93901

#### Subject: Monterey County Comments on Draft Supplement for the Salinas General Plan Final Program Environmental Impact Report (PD070857: SCH#2007031055)

Dear Mr. Richelieu:

Thank you for the opportunity to comment on the Draft Supplement for the Salinas General Plan Final Program Environmental Impact Report (EIR). We have reviewed this document in conjunction with the adopted General Plan, its policies and implementation programs, and the 2002 certified EIR for the General Plan. The County has collected comments from our departments and the Water Resources Agency and provides the following information for consideration in preparation of the Final EIR.

#### **Agricultural Resources**

The City of Salinas has been a leader in this County regarding the preservation of agricultural lands in relation to urban encroachment. You should be congratulated for your steps in providing years of continuing commitment to the agricultural industry and the preservation of the most productive lands surrounding the City, establishing and maintaining a growth limit line that precludes development to the south and east. The Boronda MOU, and more recently, the Greater Salinas Area MOU, have provided over 20 years of commitment toward the preservation of this most productive agricultural land.

This General Plan continues that commitment to the preservation of the most productive lands by proposing development of land to the north and east of the existing city limits and by proposing a dense growth pattern to minimize land conversion to urban uses. The Salinas General Plan has policies that protect agricultural resources to the extent that the City can, with policies to maintain a compact urban form, participate in programs that protect agricultural resources, minimize land use conflicts with buffer zones and physical boundaries, direct growth to the north and east, right-to-farm disclosures, and a conservation easement program that secures the dedication of easements or payment of a mitigation fee to purchase easements.

The General Plan EIR identified that the loss of agricultural land would be significant and unavoidable even with the policies identified in the General Plan. However, the commitments made in the General Plan policies and mitigation measures need to be carried through to the projects that

K-1

K-3

#### K-3 Cont. will develop the proposed annexation areas. The County requests that the City adopt ordinances for Implementation Programs COS-10 and COS-12 prior to approval of the Specific Plans for the growth areas. The County will be looking for such actions as these areas are proposed for development.

For future permanent edges to the City, the County will be reviewing project documents to ensure that adequate permanent and temporary buffers are included to ensure that adjacent agricultural land and development within the city is protected. The County's agricultural buffer program, in consultation with the County Agricultural Commissioner's office, will be used as a basis for our comments on development proposals within the future annexation areas.

Mitigation for the loss of agricultural land is required to be implemented to the extent feasible (CEQA Guidelines Section 15126.4), even when the impact is found to be significant and unavoidable. City staff has recently stated that the agricultural mitigation program (COS-12) would be voluntary. The County does not believe that the program, which was analyzed in the 2002 General Plan EIR and not analyzed in this EIR, was proposed as voluntary. The language of COS-12 and the funding sources identified clearly showed that the City would use General Fund or Mitigation Fees to fund the acquisition of easements. The actions by the City Council would need to ensure that mitigation is done to the extent feasible. The EIR should have additional analysis done to show the changed impact on agricultural resources. If the program identified in the General Plan is no longer considered feasible by the City, then the CEQA resolution should state the reasons that the program is infeasible. Many jurisdictions around the state have agricultural easement mitigation programs, including many examples in this County.

#### **Public Safety**

The Draft Supplemental EIR does not contain any analysis of the specific impacts of the proposed development on public services or identify any specific mitigation measures to address these impacts. Page 107 of the Initial Study (Appendix B of the Draft Supplemental EIR) states that the "2002 General Plan Program EIR analyzed impacts to public services (including police protection, fire and emergency services, schools and libraries) and found that General Plan policies addressed the public services needs of future development resulting from implementation of the General Plan." It further states that "these potential impacts were addressed by the General Plan polices and mitigation measures included in Sections 5.1 through 5.12 of the Final Program EIR." Finally, it states that the City "has made no modifications to its General Plan since 2002 that change the policies related to growth and its effect on public services in the Project area."

The Supplemental EIR should contain an analysis on the specific impacts of the proposed development on public services, including fire, police and jail services. This proposed annexation, although most services would be under the jurisdiction of the City's public safety departments, would require responses for services from the Sheriff who, as currently occurs, will requested to assist with responses to call for those areas of the annexation property closest to the unincorporated area. These need to be quantified and addressed. In addition, the EIR needs to address impacts to the jails. The project would create a demand for jail cells in excess of that available and no mitigation is proposed to address this impact. According to Table 5.1-1 in the 2002 General Plan Program EIR, there are approximately 3.67 persons per dwelling unit in Salinas. Thus, the population of the proposed development (14,318 dwelling units) would be approximately 52,547 persons. Based on the current ratio of 2.7 jail cells (beds) per 1,000 persons in the County, the proposed development would create a demand for approximately 142 additional jail cells (beds). In

K-6

K-4

K-5

addition to the cost to maintain these beds, there will likely be environmental impacts that will result from the construction of new jail facilities to accommodate this new population. The Supplemental EIR should analyze this impact and propose mitigation measures to reduce the impact to less than significant, including monetary contribution to construction of additional jail cells.

K-7 Cont.

The General Plan Update currently being formulated by the County includes policy provisions to reflect the impact of growth in incorporated and unincorporated areas and the need for funding for a new jail. The County will be developing an ordinance to establish a law enforcement developer mitigation fee that would provide a fair share funding for facilities. The Supplemental EIR should address this impact and demonstrate a commitment to require developer participation in this program.

#### **Regional Transportation**

The Public Works Department appreciates the opportunity to work with the City in the preparation of the traffic analysis for the Supplemental EIR. However, there are some concerns that still need to be addressed and/or clarified. The following areas need to be addressed:

<u>Mitigation SEIR-RT2 and –RT3, and discussion of mitigations, page 5.1-39</u>: These mitigations indicate that development within the annexation area and Settrini property would be responsible for payment of fees proportionate to the development's impact, and that these mitigations may be satisfied by the implementation of a Regional or County Development fee program. The proportionate share contribution could be considered an appropriate means to address an impacted roadway; however, with a fee program, specific fees would be established and assessed per unit that would be applied towards improvement projects identified within that fee program. Under the Greater Salinas Memorandum of Understanding, the City supports such a fee program imposed on development by the City to address roadways in the unincorporated County areas. Additionally, implementation of a regional and/or County fee program is not an acceptable means of satisfying this mitigation. Under the MOU, the City and the County both agreed to support fees to mitigate impacts to the regional transportation system (MOU Item 9) and a County fee program (MOU Item 10). Therefore, implementation and assessment of both a regional (TAMC) fee and a County fee would be required to address the impacts of development in the future growth area.

<u>Mitigation SEIR-RT2 and –RT3</u>: The County supports the City's efforts to implement County and Regional fee programs to address traffic impacts from development in the annexation area and Settrini property area. However, it is unclear if these fees will be assessed on all development within the City, or only in the annexation areas. Under the MOU, the City and County agree that at a County fee and Regional fee would be imposed on development in the Salinas area. As this EIR also serves as a supplement to the Salinas General Plan, it would be appropriate to clearly indicate that these County and Regional fee programs would be supported, utilized and implemented throughout the City.

K-10 <u>Mitigation SEIR-RT2</u>: This mitigation indicates that the Salinas Traffic Impact Fee Program may supplement funds for certain County facilities within the municipal boundaries of the City. Please clarify 'municipal boundaries' (i.e., city limits, SOI area, etc.).

K-11 <u>Level of Service, page 5.1-6 & 7</u>: The discussion of LOS standards indicates that roadways are evaluated using the LOS guidelines appropriate for each jurisdiction. Table 5.1-3 includes several County roadways that are currently not in within the City limits or annexation area, nor will be

K-8

included in the annexation area, that should be evaluated using County standards. However, if these particular roadways were analyzed using another jurisdiction's criteria in order to establish LOS standards consistent along that roadway, and consequently the improvements necessary to maintain those LOS standards are consistent across jurisdictional boundaries, an explanation should be presented and discussed, and coordinated with the County.

Table 5.1-11, Year 2030 Roadway Improvements: Item R. Extension of Constitution Boulevard as a 2-lane arterial. This roadway extension has been identified as a 4-lane facility in the City of Salinas General Plan (Table C-4, Roadway Network Improvements), and Traffic Impact Fee Program (Project No. 17). Although the note indicates that the initial coding of this segment is as a 2-lane facility, the City must plan to accommodate and fund and/or construct a higher capacity facility consistent with City's General Plan so impacts do not back up onto connecting roadways, such as Old Stage Road. For the benefit of the community, the City must ensure that impacts to roadways do not remain unaddressed in the event improvements required of developments are not adequate or constructed because development does not occur (similar to conditions on Boronda Road). Furthermore, analysis of a two lane facility as an interim improvement would be more appropriate, in addition to an analysis of a 4-lane facility consistent with the City General plan. The modeling of a 4-lane facility would better identify potential differences in travel patterns, and any associated impacts, compared with a 2-lane facility, especially since a multi-lane roadway would be a more desirable connection, and thus potentially attract additional trips, to the Eastern Corridor Improvements (along Crazy Horse Canyon Road, San Juan Grade Road, Hebert Road, and Old Stage Road) discussed on pages 5.1-27 and 28 of the EIR.

K-13 Table 5.1-13, Year 2030 Local Roadway LOS: Under 'Year 2030 With Project' Trip values are presented. Please clarify – are these new trips generated by development of the only the future growth area?

Tables 5.1-14, 17, 21: These tables present a percentage contribution of trips from the Annexation area. Per Monterey County Guidelines, the percent contribution of trips is determined using the methodology reflected in the column labeled "of Growth" and described under Note 2. This methodology would be appropriate to determine a fair-share contribution towards improvements if a fee program including these improvements is not applied.

K-15 Page 5.1-28, discussion of impacted two-lane roadways: Location 44, San Miguel Canyon Road between Castroville Boulevard and Strawberry Road – the discussion state that the widening to 4-lanes is not included in the 2005 Monterey County Regional Transportation Plan (RTP). The widening to 4 lanes is RTP project MCY 092 on the Unconstrained Project list of the RTP.

<u>Table 5.18-18: For Blanco Road west of Davis Road</u>: The text states that the recommended mitigation conflicts with County plans. To improve travel between the Salinas area and Monterey Peninsula areas, the County would prefer to focus improvements along the Davis Road/Reservation Road corridor rather than the Blanco/Reservation corridor. Therefore, instead of conflicting with County plans, improvements along Davis Road as an alternate corridor are consistent with the County's efforts to address traffic concerns along Blanco Road, and the County's plans to improve the roadway system between the Salinas and Monterey Peninsula communities.

K-12

K-11

Cont.

K-17 Page 5.1-42, Discussion of Two-lane Highway Segments: The discussion states that 'mitigation measures are infeasible with limited benefit or conflict with County plans' for Blanco Road west of Davis Road. Please see comment on Table 5.18-18 above.

K-18 References: The 2005 Monterey County Regional Transportation Plan is a long-range transportation planning document for transportation project in Monterey County, and covers projects in the unincorporated areas of the Monterey County, along with projects in county cities and along state facilities. This document is prepared by the Transportation Agency for Monterey County (TAMC).

#### Storm Water Drainage

The following are comments on Section 5.4 (Storm Water Drainage) of the Draft Supplemental Salinas General Plan Final Program EIR. There are three issues that indicate that all of the impacts of the proposed land use changes have not been adequately considered as they relate to storm water detention/retention. These three issues will be discussed individually referring to the three reports: Regional Watershed Analysis – Hydrologic Mitigation by Pacific Advanced Civil Engineering, Inc. (called Pace in the comments below); Regional Stormwater Analysis – Bardin Ranch Salinas East Future Growth Area by Wood Rogers (called East); and Regional Stormwater Analysis – Salinas West Future Growth Area by Wood Rogers (called West). These are appendices to the Draft EIR.

1. <u>Peak discharges and volumes for runoff under existing conditions appear to have been</u> grossly overstated.

PACE

K-20 | On page 3 of 10 the coefficient in the equation is shown as 1560. Where did this number come from? The commonly used number is  $1440 = 24 \times 60$ .

K-21
 The results shown in Table 3 on page 7 of 10 indicate that as the duration of storm increases the peak discharge increases. As there can only be one peak discharge with a return period of 100 years (or one percent chance per year of being equaled or exceeded), how can there be more than one value for the 100-year flood? This shows that the models were used without proper judgment or due discrimination to match model results to ground truth.

K-22
 K-22
 There is a USGS stream gage on Gabilan Creek that has been in operation for over 35 years and as there is an additional 11 years of data from the Monterey County Water Resources Agency available. The statistics for that stream gage show the 100-year flood to be somewhat less than 1,700 cfs and the 10-year flood to be approximately 600 cfs. Indeed, the maximum discharge recorded at that stream gage was slightly less than 1,000 cfs in 1998.

K-23 The May 4, 1981 FEMA Flood Insurance Study Report for the City of Salinas indicates that the 100-year peak discharge at the gage location is 2,000 cfs and the 10-year peak discharge is 600 cfs.

K-24 The Zone 9 Hydrology Report completed for the Monterey County Water Resources Agency shows in Appendix B-1 Figures 3 and 4 that the peak discharge for the 100-year is 1,500 cfs from the stream gage record and the 3-day average discharge for the 100-year flood is 600 cfs, *i.e.*, 3,600 acre-feet of runoff over three consecutive days.

| K-25 | Table 3 indicates that the peak discharge is 11,414 cfs or 13,397 cfs, a factor of between 7 and 9 too large! The 3-day volume of runoff is shown to be 6,213 acre-feet almost double the value from the stream gage analysis.  |
|------|---|
| K-26 | Therefore, as the hydrology model cannot reproduce the discharge-frequency curve at the stream gage on Gabilan Creek, it is concluded that existing conditions models produce runoff peaks and volumes that are significantly too large. As there is presumed to be so much runoff under existing conditions, the addition of impervious surfaces will have a reduced percentage-wise impact on peak runoff or volume of runoff.        |
| K-27 | WESTOn page A-3 the coefficient in the equation is shown as 1560. Where did this number come from?The commonly used number is $1440 = 24 \ge 60$ .  |
| K-28 | Table 7 on page A-5 shows the comparisons of the hydrologic model with FEMA and with the USGS regional regression equations. Again it is shown that the 72-hour storm produces a 100-year peak discharge on Gabilan Creek in excess of the 24-hour storm. It is not clear why there are two 100-year flood values.  |
| K-29 | The 10-year peak discharge from the hydrologic model is over three times larger than the FEMA value. The 100-year peak discharges are approximately 3 times larger than the FEMA value. As was discussed in the preceding section, the FEMA values are close to the values obtained from a statistical analysis of the stream gage data. The existing conditions hydrologic model appears to over state the runoff by a large margin.   |
| K-30 | Table 7 goes on to compare model results to the USGS regional regression equations. While these equations are easy to apply, the standard error of estimate of these equations is quite large. As shown in USGS Water Resources Investigation 77-21, the standard error for the 100-year peak discharge estimate is 0.41 and the 10-year standard error is 0.35. These are logarithm to the base 10 values.                             |
| K-31 | Applying the published standard error to the 4,500 cfs value for the 100-year peak discharge at Crazy Horse Canyon Road, the true 100-year flood value will lie somewhere between 11,567 cfs and 1,750 cfs 67% of the time. The true 10-year flood value will lie somewhere between 2,619 cfs and 523 cfs, 67% of the time.   |
| K-32 | These error bounds are so large because the regional regression equations do not fit the 100-year flood data in the Central Coast area of California very well. To compare hydrologic model results to results from these regional regression values while ignoring the local stream gage data is a mistake. It leads to the conclusion that the existing conditions have much more runoff than can be shown by local stream gage data. |
| K-33 | <b><u>EAST</u></b><br>On page A-3 the coefficient in the equation is shown as 1560. Where did this number come from?<br>The commonly used number is $1440 = 24 \times 60$ .   |

Similar comments from the WEST report apply here. The FEMA published results are abandoned in favor of the high standard error USGS regional regression equations as shown in Table 7. Again, the result is a hydrologic model that over-predicts runoff for existing conditions. 2. The method of computing change in runoff volume understates that volume. PACE It is not clear in this report just how the change in volume was computed. K-35 WEST and EAST Figures 5 and 6 of the EAST report show that for sub-watershed OSGA, with an area of 314 acres, the CN for pre and post conditions are 81 and 85 respectively. With a 100-year, 24-hour K-36 precipitation of 4.6 inches, the two runoff volumes are 2.63 and 3.00 inches respectively. Thus there is only a 0.37-inch increase in runoff, a 14 percent increase. Using the same CN for post-project conditions with 50 percent impervious yields a post-project runoff of: 2.63 x  $\frac{1}{2}$  plus 4.6 x  $\frac{1}{2}$  = 3.62 inches, a 0.99-inch increase which is 37 percent more than K-37 existing runoff volume.

K-38 Use of CN to define change in runoff volume underestimates the total runoff and, equally importantly, it postpones the runoff until later in the storm thus making detention basins appear more effective. Having direct runoff from impervious surfaces increase the total runoff and put more early-in-the-storm runoff into the detention basin thus requiring more detention. Also, with a structure that sends excess volume into retention basins, it will be much more challenging to separate the additional runoff as it occurs throughout the storm and not just later as would be the case when just using CN values to define change in runoff.

K-39 The use of CN rather than percent impervious would result in less change in runoff being computed. Thus retention basins are probably undersized by a factor or between 2 and 3, *i.e.*, they must be two or three times larger to hold the change in volume.

In addition, on page 3 of the WEST report changing the Hydrologic Soil Group designation from B to D based on field testing of the permeability of site soils leads to the overstatement of existing condition runoff. As shown in the Soil Survey of Monterey County, by the USDA in 1978, a prevalent soil type in the area is Chualar. It is has a Hydrologic Soil Group of B according to that report. But the report goes on to show that the first 21 inches of soil has a permeability of between 0.6 and 2.0 inches per hour. The next 38 inches has a permeability rate of between 0.2 and 0.6 inches per hour and from 59 to 80 inches below the surface the permeability is much greater.

K-41

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These are the same findings noted in the WEST report but the USDA used a B designation not a D designation. By changing to a D designation, the site was assumed to have much more runoff under existing conditions than when using the B designation. The decision to change the Hydrologic Soil Group on the site from B to D is not well-founded and increases existing conditions runoff so that changes due to development appear to be much smaller.

7

#### 3. The retention basins must drain within 2 to 3 days.

#### PACE

K-42 The table on page 3 of the Hydromodification Section of the report shows that during a wet winter there would still be eight feet of water in the retention basin at the end of June. Although the computations were begun assuming an empty basin, the basin was not capable of emptying four months after the large rainfall in February.

K-43

Having the basin empty in two or three days after a storm, as is noted in the City's Storm Drainage Master Plan criteria section, would require this retention basin to be much, much larger in surface area. As the only outlet for the retention basin was assumed to be evaporation, the basin must be ready to evaporate much, much more quickly than the 1.9 inches during the entire month of February. The solution based on solely evaporation does not appear to be one that is feasible.

#### <u>EAST</u>

K-44 The assumed percolation rate into the ground under retention basins was assumed to be 0.25 inches per hour as shown on page 6. However, on Figure 07-A the retention basin is shown to have a maximum water elevation of 106.0 feet and a bottom elevation of 89 feet. This 17-foot depth of water would take at least 34 days to drain at 0.25 inches per hour.

K-45 For planning purposes these retention basins must be 11 to 17 times larger to discharge of the excess volume into the ground within 2 to 3 days after a large event.

#### <u>WEST</u>

K-46 The assumed percolation rate into the ground under retention basins was assumed to be 0.18 inches per hour as shown on page 6. However, on Figure 07-A2 the retention basin is shown to have a maximum water elevation of 120.0 feet and a bottom elevation of 108 feet. This 12-foot depth of water would take at least 33 days to drain at 0.18 inches per hour.

K-47 For planning purposes these retention basins must be 11 to 17 times larger to discharge of the excess volume into the ground within 2 to 3 days after a large event.

#### Conclusion

K-48 The hydrologic models used to determine the change in runoff overstated the existing runoff and understated the change in runoff due to development. The probable error in change of runoff is on the order of two to three times.

- K-49 The retention basins proposed do not drain quickly enough. They must be 11 to 12 times larger to drain in 2 to 3 days.
- K-50 Combining the factors indicates that retention basins shown in the reports are too small by a factor of 20 to 30 times. That is they should be 20 to 30 times larger than shown given the percolation rates assumed and a better estimate of the change in runoff volume.

#### Alternatives Analysis

CEQA Section 15126.6 requires that an EIR describe a range of reasonable alternatives, or to the location of the project and evaluate the comparative merits of the alternatives. An alternative that should be evaluated in the Supplemental EIR is the possibility of annexing the developed Bolsa Knolls unincorporated area prior to further annexation of additional properties that are not currently developed. The developed Bolsa Knolls area is currently served by onsite wastewater treatment systems (i.e. individual onsite septic systems for disposal of the domestic wastewater). This is particularly of concern to the Health Department, given the small size of the parcels within this development area. Under current state and county regulations, parcels of this size can no longer be created, unless the dwelling units would be served by a community wide wastewater collection system, where the sewage is conveyed offsite and treated at an approved sewer treatment facility.

The Bolsa Knolls development density far exceeds current standards for projects that would be served by onsite wastewater treatment systems. Current Monterey County codes and requirements of the Basin Plan of the Regional Water Quality Control Board would require a minimum parcel size of one (1) acre per dwelling unit.

The Bolsa Knolls developed area has been plagued with numerous septic failures over the years, and available repair area to remedy a septic failure has been extremely limited. This is of concern to the Environmental Health Division. Addressing the wastewater disposal issues for this developed area of Bolsa Knolls prior to further annexation of additional properties not currently developed would assist in meeting the public health goals of the Monterey County Health Department.

Again, thank you for the opportunity to comment on the Draft Supplement for the Salinas General Plan Program EIR.

Sincerely,

Wayne Tanda, RMA Director

Cc: Mayor

Councilmembers LAFCO Water Resources Agency Environmental Health Public Works Sheriff Agricultural Commissioner

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#### K. Wayne Tanda, Director, Monterey County Resource Management Agency. October 19, 2007.

The comments provided in the Monterey County Resource Management Agency letter may have been derived from the following reference documents included in Chapter 9.0:

- 1. Regional Watershed Analysis, Hydrologic Mitigation. Pacific Advanced Civil Engineering (PACE) March 2007
- 2. Regional Stormwater Analysis. Salinas West Future Growth Area. Wood Rodgers. May 2007
- 3. Regional Stormwater Analysis. Bardin Ranch Salinas East Future Growth Area. Wood Rodgers May 2007

## **Response K-1**

Comment noted. The City appreciates the County Resource Management Agency's recognition of its commitment to agricultural preservation.

## Response K-2

Comment noted. A major policy of the City's General Plan is to preserve the most productive agricultural lands located to the south and west of the existing city limits by focusing dense, compact development within the area to the north and east of the existing city limits in the "Future Growth Area".

## **Response K-3**

The 2002 General Plan Final Program EIR (Final Program EIR) analyzed impacts to agricultural resources within the City and Future Growth Area (FGA) (which includes the proposed Project) and found that future development under the General Plan would result in the following agricultural resources impacts: significant and unavoidable Project-level and/or cumulative impacts related to the loss of "important farmland"; a significant but mitigable impact relating to the compatibility of agricultural uses occurring in proximity to urban uses; and a significant unavoidable impact from the conversion of agriculturally zoned uses to urban uses.

To mitigate these impacts, the City adopted mitigation measures AG-1 through AG-5 in the Final Program EIR. These mitigation measures are imposed where applicable on development within the entire area analyzed in the 2002 General Plan including the proposed Project area. The proposed Project would allow development types and intensities identical to those contemplated for the proposed Project area in the agricultural resources impact analysis of the Final Program EIR. Therefore, implementation of the proposed Project could not result in new or greater significant agricultural resources impacts beyond those identified in the Final Program EIR and no additional mitigation measure(s) beyond AG-1 through AG-5 adopted in the Final Program EIR would be imposed on the proposed Project.

Implementation of Salinas General Plan Implementation Programs COS-10, COS-11 and COS-12 are required by Final Program EIR mitigation measures AG-4, AG-3 and AG-5, respectively. The City has already adopted ordinances to implement Implementation Program COS-10 and mitigation measure AG-4 regarding buffers with the comprehensive update to the City's Zoning Code completed in December 2006. The provisions of COS-10 require the City to encourage the provision and maintenance of buffers, such as roadways, topographic features, and open space, to prevent incompatibilities between agricultural and non-agricultural land uses. The City Zoning Code, Section 37-60.1190 (b)(1), requires a Specific Plan to analyze land uses surrounding any proposed planning area and to provide "connection/transitions/buffers between uses designed to ensure compatibility with those uses identified by the specific plan." (See also, Salinas Zoning Code Section 37-50.180, regarding performance standards for all zoning districts, which requires buffers between residential and agricultural uses to control dust and particulate matter).

The City uses an accepted practice of using perimeter roads as an agricultural urban buffer, as was done with LAFCO approval of the annexation of Mountain Valley property to the City. The proposed West Side Bypass and existing PG&E easements represent examples of buffers the City could use in the Project area to comply with Implementation Program COS-10 and mitigation measure AG-4 to mitigate potential land use incompatibilities between agricultural uses outside the Project area and urban uses within the Project area. Furthermore, the City (in cooperation with the County of Monterey) has established the concept of a perimeter road agriculture urban buffer for the western boundary of Salinas in the Greater Salinas Memorandum of Understanding paragraph 12 describing commitments by the County of Monterey and the City of Salinas to determine the alignment of the Westside Bypass that will be the established and accepted western development boundary of the City. The Eastside Bypass could operate as a similar "urban buffer" or urban limit line on the City's eastern boundary.

As discussed in the Initial Study prepared for the SOI Amendment and Annexation (Appendix B to the Draft SEIR, p. 67-80), the City has completed implementation of Implementation Program COS-11 and mitigation measure AG-3 by revising the City's Zoning Ordinance to require recordation of a "Right-to-Farm" deed restriction on any land located within one thousand feet of agricultural land, agricultural processing, or agricultural farming operations to notify any purchaser, property owners, or tenants of the right to farm. The Right-to-Farm Notice is located in Section 37.50-220 of the City's updated Zoning Code (went into effect on December 7, 2006). Development within the proposed Project area must comply with the updated Zoning Code prior to any discretionary permit approval.

Mitigation measure AG-5 requires the City to implement Implementation Program COS-12, which requires the City to "work with the County of Monterey, and other local jurisdictions, to create and implement an agricultural land conservation easement program including such measures as securing the dedication of easements or by paying a

mitigation fee that could be used to purchase easements through a mitigation bank." Since adoption of these provisions, the City is working with the County to establish conservation easement programs, most notably through the Greater Salinas Area Memorandum of Understanding (GSA-MOU). The City will continue to work with the County of Monterey and other local jurisdictions and conservancy organizations to implement an agricultural land conservation easement program consistent with the GSA-MOU, prior to the approval of any Specific Plans in the Project area. Such a program or policy may include required mitigation (resource or conservation easements and/or mitigation fees) for proposed developments occurring in lands outside of the established City growth areas, namely lands to the south and west of the City. In harmony with the GSA-MOU, Implementation Program COS-12 and mitigation measure AG-5, and independent of any direct action by the City, five agricultural land conservation easements (see Table 4 and Figure 7 of the Initial Study) have been established in the vicinity of the City to protect highly productive agricultural land from urban development.

Additionally, the Greater Salinas Memorandum of Understanding paragraph 7 establishes a "change in land use" policy that provides incentive to the County of Monterey to preserve those lands currently limited through County General Plan designation and land use zones to agricultural production. Specifically, the County is prohibited from changing General Plan and zoning designations for land adjacent to the City of Salinas without first referring the proposed development to the City for consideration and annexation if development is to take place. This in effect eliminates incentives for the County of Monterey to consider development immediately adjacent to the City. Given that unincorporated areas of the County surround the City, the western and southern boundaries of the City (which are perhaps among the most productive agricultural lands in the Salinas Valley) are effectively and permanently protected from development.

## **Response K-4**

Comment noted. As discussed in the response to comment K-3, Implementation Program COS-10 and COS-11 and mitigation measures AG-3 and AG-4 shall be imposed on development within the proposed Project area. Implementation Program COS-10 and mitigation measure AG-4 require the City to encourage the provision and maintenance of buffers, such as roadways, topographic features, and open space, to prevent incompatibilities between agricultural and non-agricultural land uses. Implementation Program COS-11 and mitigation measure AG-3 require the City to implement a Right-to-Farm Ordinance, which the City adopted in November 2006. According to Section 5.9 of the 2002 General Plan Final Program EIR, implementation of mitigation measures AG-3 and AG-4 will reduce impacts associated with the compatibility of agricultural and urban uses, including such impacts associated with development of the proposed Project, to a level less than significant.

## **Response K-5**

As discussed in the response to comment K-3, the City has met its obligation under CEQA to impose feasible mitigation for the significant and unavoidable impact of lost

agricultural land associated with development under the Salinas General Plan. Specifically, mitigation measures AG-1, AG-2, and AG-5 were identified in the 2002 Final Program EIR to mitigate for the loss of agricultural resources. The required actions outlined in COS-12 and AG-5 have been commenced by the City and are not viewed as voluntary or discretionary. Since adoption of the Salinas General Plan and certification of 2002 Final Program EIR, the City has worked with the County to established agricultural conservation easement programs, most notably through the Greater Salinas Area Memorandum of Understanding (GSA-MOU). The City will continue to work with the County of Monterey and other local jurisdictions to implement an agricultural land conservation easement program. Presumably, once the County's General Plan is finalized and adopted, the County policy will coincide with the City's policy as stated in COS-12 and the City and County can work together jointly on a program. As discussed in the response to K-3, the precise nature of the City's agricultural conservation easement program will be developed and adopted prior to the approval of any Specific Plans in the Project area.

#### **Response K-6**

Please see the response to comment K-7.

#### **Response K-7**

The Sheriff's Office services (i.e., assistance with responses to calls for those areas of the annexation property closest to the unincorporated area) and demand for additional jail cells (beds) identified by the commenter in the October 19 letter may create environmental impacts if the provision of Sheriff's Office services or additional demand for jail cells requires new or physically altered governmental facilities, the construction of which could cause significant environmental impacts (the Resource Management Agency did not submit any comments related to Sheriff's Office services or jail facilities impacts during the Notice of Preparation (NOP) comment period). The commenter does not indicate whether the provision of Sheriff's Office services would require any new or physically altered facilities. Therefore, an analysis of environmental impacts associated with an as yet undetermined set of new or physically altered governmental facilities needed to provide these Sheriff's Office services for the Project is speculative at this stage.

The commenter also states development within proposed Project area would create demand for approximately 142 additional jails, and that the construction of new jail facilities would be necessary to accommodate the additional demand. However, the commenter does not provide any information about the specific future location of any new jail facilities. Pursuant to CEQA Guidelines §15145, analysis of the physical changes to the environment which may occur from future construction of jail facilities would be speculative and no further analysis of their impacts is required. However, typical environmental impacts associated with construction and physical alteration of such governmental facilities include those related to air quality (dust, construction vehicle emissions, construction worker personal or company vehicle emissions), noise from construction vehicles and equipment, natural resources/conditions that may be present on

the construction site (agricultural resources, biological resources, cultural resources, and hydrology) and hazards that may be present on the construction site (geology and soils conditions, hazardous materials, such as toxic substances and other hazardous conditions, such as flooding). Additionally, there are typically impacts associated with the operations of such facilities, such as traffic associated with employee commuting, service calls, vehicular air emissions, vehicular noise and use of public utilities.

The current state of the Project is the SOI Amendment and Annexation. If adequate information becomes available at a later date about demand for Sheriff's office services that would result in a need for new or physically altered governmental facilities, such information could be analyzed in the next stage of environmental analysis, which would be the EIRs prepared for the required Specific Plans.

Furthermore, the County's portion of property taxes collected during and after development within the Project area would provide funding Sheriff Office services and jail facilities. Alternatively, the County has the ability to establish and impose a development impact fee as a means to finance Sheriff Office services, jail facilities and the like.

## **Response K-8**

The City has formally committed to support a Regional Traffic Impact Fee <u>and</u> Countywide Traffic Impact Fee program as outlined and conditioned in the Greater Salinas Area Memorandum of Understanding (GSA-MOU). Both of these programs will require a nexus study to identify the legal basis for the fee as related to trips generated, mitigation required, and proportionate share of costs to be funded by new development. The Regional Fee will also necessitate an overall financing program adopted by TAMC. The TAMC Regional Traffic Impact Fee program is being developed, and should be completed in 2008. The County agreed to make the County Traffic Impact Fee a "priority" that should be completed within 18 months of adoption of the (2006) County General Plan (GSA-MOU, section 10).

In the absence of an adopted TAMC Regional Development Traffic Impact Fee and/or County Traffic Impact fee program, development within the Project area is still obligated to mitigate its significant regional traffic impacts to the extent feasible, which is currently identified as pro rata fair share contributions toward the various impacted facilities.

At this stage of Project review, the annexation/SOI amendment application provides for no development entitlements. It is anticipated that the above fees will be in place prior to the City Council's consideration of any Specific Plan applications. See also response to comment L-1.

## **Response K-9**

The City has agreed to support and participate in a County traffic impact fee program in accordance with the previously mentioned GSA-MOU. Text in the SEIR shall reflect the City's commitment toward both of these traffic impact fee programs based on the GSA-

MOU. However, the details and contribution amounts will be established as part of the program and based on a nexus study related to traffic generated in the City from new development and impacts to County roadways. It is possible that some development in certain areas of the City may not affect County roadway operations and as such would not be subject to County fees. It is expected that the nexus study for the County's traffic program would analyze this issue, and identify what Projects and/or land uses would likely cause these impacts.

#### **Response K-10**

The City's adopted Traffic Fee Ordinance (TFO) includes street, road and highway Projects that were expected to be impacted by new development identified in the 2002 Salinas General Plan. Many of the Project lie within the existing City limits, although many others are located within the "city limits" as they will exist when annexed into the City of Salinas. The City's TFO currently includes partial funding for the following existing roads under Monterey County's jurisdiction: Russell Road (US 101 to San Juan Grade Road), San Juan Grade Road (Boronda to Rogge Road), Old Stage Road (Williams to Russell Extension), Williams Road (Freedom to Old Stage), Alisal Road (Bardin to Eastern Bypass), and Davis Road/Western Bypass (south of SR 183 – depending upon the Western Bypass alignment). The City's TFO also includes partial funding for US 101 Improvements (Boronda Road to Harris Road). With the annexation and ultimate development of the area, many of these County roads will be improved to City standards (a future condition of development), and become the City's maintenance responsibility.

## **Response K-11**

Roadway segments were evaluated based on future year jurisdiction responsibility as defined in Fehr & Peers' memorandums: 1) *Draft EIR Traffic Study Assumptions for the Three Specific Plans in the City of Salinas Phase 1 future Growth Area* (May 2, 2006) and 2) *Existing Conditions for the Future Growth Area Specific Plans in Salinas, California* (December 11, 2006). Fehr & Peers worked closely with City of Salinas and Monterey County staff to establish the assumed future jurisdiction responsibilities, which were presented in the draft *Salinas Sphere of Influence Amendment and Annexation Supplemental TIA* (draft STIA). Additional impacts would not result using the Monterey County level of service standard.

#### **Response K-12**

An initial review of Projected 2030 daily traffic volumes on Constitution Boulevard indicates that a two-lane segment may be sufficient immediately south of Old Stage Road, but a four-lane segment will likely be needed north of Boronda Road. The internal roadway network will be evaluated during the Specific Plan environmental review process.

## Response K-13

The trips listed in the last column of Table 5.1-13 are trips generated by the proposed future growth area uses only.

## **Response K-14**

Comment noted.

## Response K-15

Only Projects on the 2005 Monterey County *Constrained Regional Transportation Plan* list were considered. The text in the DSEIR and STIA will be modified to include a reference citing use of the Constrained RTP Project list.

## Response K-16

Comment noted. The text in Table 5.1-18 and STIA will be changed to state, "County plans alternate mitigation on Davis Road."

## Response K-17

Comment noted. The text in Table 5.1-18 and STIA will be changed to state, "County plans alternate mitigation on Blanco Road west of Davis Road."

### Response K-18

Comment noted. The references list provided in Section 5.1 of the Final Supplement for the Salinas General Plan Program EIR has been revised to note that the 2005 Monterey County Regional Transportation Plan is prepared by the Transportation Agency for Monterey County (TAMC).

## **Response K-19**

The three issues raised by the commenter are addressed in the following responses to comments: (1) responses K-20 through K-34 address the first issue that "peak discharges and volumes for runoff under existing conditions appear to have been grossly overstated"; (2) responses K-35 through K-41 address the second issue that "the method of computing change in runoff volume understates that volume"; and (3) responses to comments K-42 through K-47 address the third and final issue that "the retention basins must drain within two to three days".

### Response K-20

This runoff efficiency coefficient is a regionally calibrated Snyder Lag coefficient developed by the U.S. Army Corps of Engineers (USACE). The Snyder Lag equation is one of the most studied equations in the USACE HEC-HMS Manual. The equation has

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been studied and calibrated in different regions of the United States to reflect the differences in topography and weather. The coefficient value of 1560 used to model the Project watershed was developed by the Los Angeles District of the USACE and regionally calibrated for California in "Sierra Madre Storm", Prado Dam Design Hydrology, 1948, Los Angeles, CA. This value of 1560 has since been used in the *City and County of Sacramento Drainage Manual, Volume No. 2: Hydrology Standards*<sup>2</sup>.

## Response K-21

Table 3 includes more than one value for the 100-year flood because the analysis incorporated the rainfall distributions patterns for both the 24-hour and 72-hour storm distribution patterns. The 72-hour storm was used to assess the volume impacts of development in the Project area while the 24-hour storm was originally included to assess peak flow impacts. The 100-year 24-hour storm has been the design storm for the City of Salinas and was considered in the drainage analysis to demonstrate compliance with City requirements. The 72-hour storm distribution pattern has higher intensities than the 24-hour storm, which results in a higher 72-hour storm peak flow. The 100-year 72-hour storm rainfall distribution was based on the pattern developed by the USACE for the December 1955 storm over portions of San Benito and Santa Cruz Counties and then adjusted to fit regional precipitation statistics from Monterey County precipitation gauges. This 72-hour storm was used in the "Zone 9 and Reclamation Ditch Drainage Systems Operations Study" report prepared for the Monterey County Water Resources Agency (MCWRA) by Schaaf and Wheeler in 1999. Thus, the use of both the 24- and 72-hour storm distribution patterns in the analysis is entirely appropriate and does not constitute proof that "the models were used without proper judgment or due (to) discrimination to match model results to ground truth" as claimed by the commenter.

## **Response K-22**

The comment about USGS and Monterey County Water Resources Agency statistics for the Gabilan Creek stream gage showing the 100-year flood to be approximately 1,700 cubic feet per second (cfs) is noted. As part of the storm water drainage analysis for the proposed Project, PACE evaluated all data sources associated with the regional hydrology assessment for Gabilan and Natividad Creeks and updated the hydrologic modeling utilizing the unit hydrograph approach.

An updated Log Pearson regression analysis utilizing additional historical gage data generated an updated 100-year discharge value of 2,550 cubic feet per second (cfs) at the USGS stream gage on Gabilan Creek. The additional data is the historical gage data records since the date of the previous 1981 FEMA analysis. This updated discharge is larger than the Monterey County Water Resources Agency referenced 100-year flood statistic of approximately 1,700 cfs at that stream gage originally developed from the previous FEMA study. The updated calculated discharge of 2,550 cfs using the stream gage is more accurate than the 1,700 cfs value from 1981 because it reflects historical data from 1982 to present. This discharge value appears extremely low based on the size

<sup>&</sup>lt;sup>2</sup> http://www.msa.saccounty.net/waterresources/drainage/vol2/V2 Chap07.PDF

of the watershed compared to regional regression equations, enveloping curves, or unit yields. However, the discharge value may accurately reflect the conditions of this large regional watershed area and higher infiltration rates within the upper portions of the watershed or other effects that are unknown given the size of the Gabilan watershed (40.3 square miles).

#### **Response K-23**

The 1981 FEMA discharge was based on the statistical regression analysis of the stream gage for the amount of record at that time. As described in the response to comment K-22, PACE prepared an updated Log Pearson regression analysis based on historical data from 1982 to present and therefore more accurate than the 1981 value and generated an updated 100-year discharge value of 2,550 cfs. Thus, the storm water drainage analysis and updated floodplain studies in the Project area incorporate the value of 2,550 cfs since it is based on more recent historical data not reflected in the 1981 FEMA Flood Insurance Study Report. In addition, the engineering analysis has also investigated using the hypothetical hydrograph values for the flood protection design, since these are large flow rates and more conservative.

#### **Responses K-24**

The difference between the regional flow rates calculated for the Project area and the referenced values from the 1981 FEMA study is because of the methodology. Although historical stream gage data typically provide the most accurate assessment of the rainfall-runoff relationship, there is a concern about adopting these values for the hydraulic design of the Project flood protection system because these values are low. The gage generated flows appear to be low when compared to regional regression equations and enveloping curve that suggest values twice as high or larger. The reviewer correctly points out the numerical difference between the stream gage discharge values compared the same values from unit hydrograph approach developed for the Project area. The data indicates our concerns on the difference between the 100-year discharge values from the stream gage based on a flood protection perspective. The concern is based on utilizing flow rates that are too low to size flood control facilities throughout the Project area. It is not desirable to underestimate the hydraulic flood protection design requirements for the creek system within the Project area since that could potentially result in flooding within new development or cause flooding impacts to adjacent properties.

In addition, the intent of the regional watershed hydrology analysis was to provide additional estimates of the regional peak discharges within Gabilan and Natividad Creeks to ensure that adequate flood protection is provided in that portion of the Project. The 100-year discharges estimated from the stream gage data on Gabilan Creek generated extremely low runoff yields for that size of watershed even when compared to regional regression equations and enveloping curves.

#### **Responses K-25**

Please see response to comment K-24.

## Response K-26

The onsite hydrology models were developed by evaluating existing hydrologic characteristics and parameters of the Project area through detailed field investigation. In particular, extensive field testing and laboratory analysis was conducted in order to accurately determine the infiltration values. The analysis did not utilize a rainfall-runoff relationship based on the historical stream gage data for the following reasons:

- (1) The stream gage lumps the hydrologic characteristics for an extremely large watershed area and that is supposed to be extended to a very small watershed;
- (2) The stream gage is located significantly upstream of the site and it does not appear that the watershed areas are hydrologically similar because of the change in the geography and soils data;
- (3) Concerns regarding the low unit yields from the larger regional watershed;
- (4) Improved and extensive infiltration data of the site; and
- (5) Comparison of the 40.3 square mile watershed which does not have homogenous hydrologic soil parameters that can vary significantly, which would be lumped to a single value for application to an area known to have different soils than the upper watershed.

A calibration analysis was prepared with the stream gage and three different rainfall events in order to estimate the regional constant infiltration rate from the upper Gabilan watershed. The analysis generated an infiltration rate during the rainfall season of approximately 0.14 inches per hour with a value of 0.28 inches per hour at beginning of the season (when there are lower antecedent moisture conditions). The infiltration rates generated by the analysis were compared to the actual infiltration rates measured in the field on the Project site through the extensive geotechnical investigation (which included three-ring infiltrometer testing and hydraulic conductivity tests). The geotechnical investigation indicated average infiltration rates of 0.014 inches per hour, which is an order of magnitude different from the stream gage values. Thus, the detailed site assessment utilized to field-verify the hydrologic parameters assist confirming the confidence of the results for the Project watershed models and that the mitigation basins have been accurately sized. The actual site data demonstrates that the "existing conditions" for the Project area will have relatively low infiltration and higher surface hydrology flow rates than suggested by the regional stream gage because of the site specific soil conditions. These flow rates are not considered too large because the estimates are validated through actual site hydrologic conditions and the mitigation basin volumes appropriately sized since these infiltration conditions apply to the developed watershed conditions with the appropriate change in impervious value. These site infiltration rates have been correctly applied to the pre- and post-Project conditions hydrology in order to provide an accurate comparison for quantifying the development impacts to surface hydrology.

#### **Response K-27**

Please see response to comment K-20.

#### **Response K-28**

Please see response to comment K-21.

#### **Response K-29**

The 10- and 100-year flows estimated in the Regional Stormwater Analysis reports are based on the US Army Corps of Engineers Hydrologic Center's computer Hydrologic Modeling System HEC-HMS models developed using the best available published data. It was noted by Wood Rogers that the computed peak flow rates were higher than the published FEMA flows. However, that the computer models were developed for two purposes: to estimate peak flow rates through the Project area and to assess hydrologic impacts (flow rates, volumes, and durations) of development in the Project area in order to adequately size the mitigation facilities.

For the first purpose of estimating peak flow rates, it was noted that since the published FEMA flows were based on a gage that was located more than two miles upstream of the Salinas West portion of the FGA (and because there were no gages on streams near the Salinas East FGA), it was appropriate from a public safety standpoint to use the higher computed flows, as floodplains, conveyance capacity, and pad grades will be set by these flows.

For the second purpose, the statement that the hydrologic impact of development in the Project area could be understated if the peak flows for existing conditions were overstated is accurate. However, this is only true for the peak flows from the Project site, not from off-site watersheds. Conservative off-site flows would not significantly affect the runoff impacts of development in the Project area. On-site hydrologic parameters were estimated using a combination of two-foot contour aerial photography, soils data collected on-site (soil borings, Cone Penetration Tests (CPTs), and infiltration testing), and published data. There are no gages measuring runoff from the site, nor in the streams immediately downstream of the site. The closest stream gage (Gabilan Creek) is located two miles upstream of the West FGA portion of the Project site within a significantly different portion of the watershed.

Additionally, the pond sizes were governed by a more conservative continuous analysis, which did not use the Soil Conservation Service (SCS) loss method that was used to determine peak flow rates.

The USGS regional regression flows are only shown as an order of magnitude comparison to the simulated flows. They are not intended to replace or to be used as design flows. Note that the HEC-HMS computed peak flows fall between the calculated Regional Regression Flows and the published FEMA flows.

## Responses K-30

Please see response to comment K-29.

## **Responses K-31**

Please see response to comment K-29.

**Responses K-32** 

Please see response to comment K-29.

**Responses K-33** 

Please see response to comment K-20.

## **Responses K-34**

Please see response to comment K-21.

## **Response K-35**

The delta or change in volume was computed from the different hydrographs, long term rainfall-runoff simulations, or the maximum year water balance. The change in volume was computed from each of these analyses depending on the particular hydrologic mitigation criteria being evaluated. For example, the delta volume for the runoff volume used the water balance for the maximum rainfall year between the pre- and post-conditions impervious values.

## **Response K-36**

The Soil Conservation Service (SCS) Curve Number method was not used to size the retention basins. Both the SCS Curve Number and the percent imperviousness loss rate methods were used in the West and the East FGA hydrologic analyses. Additionally, the volume set aside for retention basins exceeds the volume calculated in the more conservative analysis.

The SCS Curve Number loss rate method was only used in the discrete design storm simulations (e.g., 10-year and 100-year storms). This was done to maintain consistency with the Zone 9 Operations Study. The percent imperviousness method (i.e., using initial and constant loss rates) was used in the continuous, long-term rainfall simulation (hydromodification) of the West and the East FGA in order to ascertain the more conservative pre- and post-development runoff volume difference.

Since the continuous rainfall simulation was the governing analysis, and since the ponds as designed still contain a considerable factor of safety, the runoff volume accounted for is not understated.

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#### For the West FGA

From the discrete analysis, the change in volume (post development vs. pre-development) is 51 acre-feet (ac-ft). From the continuous analysis, the volume required for storage (which is more than the change in volume because the analysis included inefficiencies in the facilities) is 97 ac-ft. The amount of retention provided is 165 ac-ft, significantly more than the amount calculated using the percent impervious method. The total stormwater mitigation volume provided (including retention, detention, and water quality) is approximately 224 ac-ft.

### For the East FGA

From the discrete analysis, the change in volume (post development vs. pre-development) is 26 ac-ft. From the continuous analysis, the volume required for storage (which is more than the change in volume because the analysis included inefficiencies in the facilities) is 132 ac-ft. The amount of retention provided is 155 ac-ft, more than the amount calculated using the percent impervious method. The total stormwater mitigation volume provided (including retention, detention, and water quality) is approximately 237 ac-ft.

### Response K-37

Please see response to comment K-36.

### **Response K-38**

Please see response to comment K-36.

### Response K-39

Please see response to comment K-36.

#### Response K-40

The use of the Hydrologic Soil Type "D" in the West FGA analyses is based on the most recently available on-site soil data. Double-ring infiltrometer percolation testing was done in August 2006 by ENGEO Inc and found infiltration rates consistent with Type D soil predominantly in the Salinas West FGA site. This study is much more recent than the 1978 USDA soil survey referenced by the commenter.

The "Technical Memorandum No. 2", 18 January 2007 prepared by Kennedy/Jenks Consultants for the Central Coast Regional Water Quality Control Board and the City of Salinas in January 2007 states that "the consensus has been that the GIS maps of the NRCS soil survey data produced to date do not accurately reflect the variability of shallow soil conditions in the Salinas area" and that "City planners should not use these groupings (HSG categories mapped for the Salinas area by NRCS) as the only source of information since they are interpretations from soil mapping information collected in approximately 1978. Please note that the NRCS is part of the USDA. In addition, Wood Rodgers prepared a sensitivity analysis using weighted type "B" and type "D" soil rates (based on the NRCS maps in representative watersheds) to measure the impact on calculated runoff volumes. The analysis resulted in a slightly higher runoff volume than that calculated using only Type D soils, but still less than the volume provided in the proposed design.

## **Response K-41**

Please see response to comment K-40.

## **Response K-42**

The results of the continuous simulation analysis with the maximum year rainfall and the water balance indicated that the basins would be able to completely evacuate before the end of summer even for the largest of the onsite tributary watershed. The analysis indicated that assuming a safety factor of two (2) for the infiltration rate (i.e. infiltration rate is one-half) the basin would drain by either the end of April or the beginning of May. The assumption that the basin is empty is valid for both the long term simulation and mass balance. If a safety factor of four (4) is applied or infiltration is completely ignored then some of the basins would have stored water still at the beginning of the season. However, this is not a reasonable assumption, but was investigated as part of the sensitivity analysis to understand the operation of the basins. In addition, another reason that the evacuation or drain time will be faster in the proposed basin is that the "basin" infiltration rate that was used is conservative since it represented an average value of all the different permeability / hydraulic conductivity amounts determined from field investigations for the entire site. The infiltration rates where the basins will be located generally have much higher values and were an important factor in selecting sites for the basins.

## **Response K-43**

The hydrologic analysis of the water balance and the long term rainfall simulation was specifically performed to evaluate the effects on the drain time and storage duration within the basins based on adjusting safety factors for the infiltration rates measured for the Project area. Ignoring infiltration provided the worst case estimate for the maximum retention period of stored water in the basin if it relied on just evaporation. Relying only on evaporation was not a solution for the evacuation of the basin, but was part of the sensitivity analysis that should be evaluated in the normal course of studying the potential operation scenarios for the basin. In addition, the results of the analysis for either the long term simulation or the annual mass balance indicates that storage in the largest basin would be eliminated by the end of April or May depending on the simulation and assuming a safety factor of two for the infiltration rate applied for the soil losses in the basin. Please also see the response regarding the evacuation time requirements for the basin under K-49.

8-71

#### **Response K-44**

The analyses used conservative infiltration rates to size the retention basins in order to safely size the basins. The 72-hour basin drawdown time is a concern of the local mosquito abatement district as it is generally for vector control. It is not a concern for any hydrologic mitigation considerations such as evacuation of the basin volume to be ready for a subsequent storm since the detention basin portion of the facility will be evacuated within the shorter time period. The facilities are designed to handle a 100-year, 72-hour storm and provide mitigation in a worst-year situation. Such a design exceeds local requirements. The City has indicated that retention time exceeding 72 hours is acceptable provided adequate mitigation measures are implemented to retard and prevent mosquito breeding which must be approved by the City. More considerations will be given in the later stage of the design to address the mosquito abatement issue.

Additionally, the 33- and 34-day drawdown times referenced by the reviewer would only happen once every 15 years based on historical data and assuming conservative infiltration rates. The magnitude and frequency of the occurrence should not warrant any oversized design and is not required to be evacuate the retention basin through infiltration with an increased bottom area to allow more infiltration within a 72-hour period. . Evacuating the basin through infiltration within a 72-hour period can only be accommodated by providing a much larger basin bottom area to allow infiltration. However, the increased basin size is not required since the vector control will be mitigated through other measures and longer storage periods are acceptable in urban areas. A more detailed frequency and magnitude analysis of retention basin inundation will be analyzed in later stages of the design.

#### **Response K-45**

Please see response to comment K-44.

#### **Response K-46**

Please see response to comment K-44.

#### **Response K-47**

Please see response to comment K-44.

#### **Response K-48**

The hydrologic models have correctly evaluated the hydrologic conditions on the Project site and estimated the rainfall-runoff response from the Project site by confirming the hydrologic characteristics of the site through field investigation. The onsite infiltration rates were determined through extensive field testing using three-ring infiltrometers (an acceptable procedure for determining these rates).

In addition, the regional hydrology analysis prepared for Gabilan and Natividad Creek watershed was performed as a sensitivity analysis to provide a comparison to the regression analysis performed on the stream gage information. The stream gage statistical analysis generated runoff yields that are extremely low and the sensitivity analysis was performed to provide a variety of discharges in order to evaluate flood protection levels as part of the hydraulic design for the creek restoration.

The hydrology analysis performed for the Project area did not overstate the existing conditions surface runoff since:

- Existing surface runoff correctly reflected the actual site conditions and did not overstate the hydrology since infiltration amounts were based on actual site conditions and not regionally averaged over a large area
- Proposed condition or development hydrology did not understate the surface runoff estimates since the actual infiltration rates similar to the existing conditions were adopted to reflect and accurate comparison of the pre- and post-Project conditions
- Proposed Project or development hydrology correctly reflected the amount of impervious cover associated with the anticipated density of development

### **Response K-49**

The maximum allowable evacuation time for the stormwater basin of 72-hours has only been a policy adopted by the City of Salinas under the Standard Specifications Design Standards and Standard Plans (2004) requirements related to achieving vector control requirements associated with the stormwater basins, and is not a hydrologic design requirement of the basin storage capacity to account for sequential storms or other safety factors. Permanent pools which accumulate within stormwater basins have the potential for mosquito breeding, but if these are drained within 72-hours then this measure generally limits the potential vector control issue. However, stormwater retention times of the stored runoff volumes for periods much longer than 72-hours can be necessary in order to mitigate other hydrologic criteria / requirements beyond the minimum City standards (i.e. urban volumetric increases) or physical constraints on the Project (i.e., limited infiltration capacity of soils). In particular, the mitigation of increased runoff volume and the flow-duration control requires utilizing "retention storage" with zero downstream release as an integral element of the hydrologic mitigation facility. The City has determined that extended retention times exceeding 72-hours are acceptable provided adequate mitigation measures for vector control are implemented as part of the basin design and approved by the City, while still providing the minimum City hydrologic mitigation objectives identified in the standards.

Implementing facilities that address the new requirements for hydrologic mitigation of water quality and hydromodification require integrating longer retention periods or permanent storage for a portion of the stormwater runoff volumes. In addition, physical constraints on a Project, such as low infiltration rates, may control or limit the rate that "retention" storage volumes may be evacuated from the basin if there is no allowable

8-73

downstream discharge. The proposed hydrologic stormwater mitigation basins for the Project area utilize combined retention and detention basin elements in order to mitigate both water quality and hydromodification. Increases in the runoff volume will be captured in the retention basin and not released to the downstream stream system, but will rely on infiltration and evaporation to evacuate the basin over a longer period of time. The infiltration rates are very low on the Project site, but the basin will be located along the stream corridors where the infiltration rates are higher in order to facilitate the evacuation in a shorter period of time. However, in order to ensure that the "vector control" issues are addressed in the retention basin element of the facility, since the evacuation time will greatly exceed 72-hours, the specialized vector control mitigation elements will be integrated into the basin design based on the final approval by the City. The specific vector control mitigation measures that will be incorporated into retention basin facilities with the longer periods with accumulated water include:

- Introduction of mosquito fish into the retention basin permanent pool.
- Creation of a micro-pool within a small portion of the detention basin floor and located at the low-point where it would be depressed below the basin floor. The micro-pool would be sized to generate a year round permanent pool of water that would allow the mosquito fish to survive, and would have a liner to reduce infiltration. In addition, the nuisance and dry-weather flows supplied by the inflowing storm drains to the basin would be directed to the micro-pool in order to provide a make-up water supply to maintain the permanent pool for the mosquito fish.
- Biannual mowing of all vegetation along the basin side slopes and basin floor in order to reduce mosquito habitat.
- A small diameter pipe system would be provided with jets around the basin perimeter floor that can be connected to a small pump in order to create a circulation system that would allow circulation of any stored water within the retention basin

The hydrologic mitigation basin facilities are divided into two different facilities that are interconnected which include the detention basin element and retention basin element. The detention basin element of the facility is sized based on the City of Salinas stormwater criteria and this basin will adequately evacuate the stored stormwater volumes within the 72-hour period. However, the "retention basin" element is not designed to evacuate in a short period since it relies on infiltration and evaporation. In addition, the retention basin storage exceeds the minimum stormwater requirement outlined in the City standards.

### **Response K-50**

The technical responses provided above demonstrate that the Project hydrology analysis provides an accurate planning level assessment of the proposed hydrologic mitigation facility sizes since both the watershed infiltration rate and the basin evacuation time have been adequately evaluated and incorporated into the design of these facilities. The size of these basin facilities represent conservative estimates of the required geometries because of the methodology used in the hydrologic procedures, such as the annual water balance and directly adding the size for each individual storage criteria requirement, rather than evaluating how the size reduces with the combined operation of both the retention and detention facility. Additional refined hydrologic analysis will be performed with the next level of planning and engineering design to incorporate additional field data in order to validate hydrologic parameters and adjust the design of the mitigation facilities to optimize the maximum performance for the downstream receiving waters.

#### Response K-51

CEQA Guidelines §15126.6 states that "because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment...the discussion of alternatives shall focus on alternatives to the project or its location which are capable of avoiding or substantially lessening any significant effects of the project..." Based on information provided in the comment letter, an alternative to the proposed Project in which the existing Bolsa Knolls development in the unincorporated area would be annexed to the City of Salinas prior to further annexation of additional undeveloped properties would result in greater environmental impacts than the proposed Project associated with the construction of additional wastewater facilities and water quality and public health impacts associated with wastewater disposal. Since this alternative would not avoid or substantially lessen any significant effects of the Project, the City is not obligated under CEQA to evaluate this alternative in the Draft Supplement.

Although not obligated by CEQA, the City acknowledges its obligations under the Greater Salinas Area Memorandum of Understanding (GSA-MOU) "to work cooperatively and in concert with the affected property owners to annex developed unincorporated areas (e.g. Bolsa Knolls) adjacent to or within the City's Sphere of Influence ..." (GSA-MOU, Section 5). To this end, a meeting with representatives from the County, the City, and interested members of the Bolsa Knolls community is scheduled for late 2007. However, it should be noted that the residents of Bolsa Knolls will ultimately determine whether annexation is in their best interest as the annexation would be subject to the approval of voters in the Bolsa Knolls area.

### **Response K-52**

Please see the response to comment K-51.

#### **Response K-53**

Please see the response to comment K-51.

#### LETTER L

LAFCO of Monterey County\_

LOCAL AGENCY FORMATION COMMISSION P.O. Box 1369 132 W. Gabilan Street, Suite 102 Salinas, CA 93902 Salinas, CA 93901 Telephone (831) 754-5838 Fax (831) 754-5831 www.monterey.lafco.ca.gov

KATE McKENNA, AICP Executive Officer

October 22, 2007

Robert Richelieu City of Salinas Department of Engineering & Development Services 200 Lincoln Avenue Salinas, CA 93901

RE: Draft Supplement for the Salinas General Plan Final Program Environmental Impact Report (DSEIR)

#### Dear Mr. Richelieu:

Thank you for the opportunity to comment on the DSEIR for the City's forthcoming application for a Sphere of Influence (SOI) Expansion and Annexation. This environmental document provides supplemental information on the impacts of the proposed SOI Expansion and Annexation in the areas of regional transportation, regional wastewater treatment capacity, water supply, storm water drainage, and global climate change.

The Formation Commission respectfully requests the City's consideration of the following comments on the DSEIR.

#### **REGIONAL TRANSPORTATION (Chapter 5.1)** –

 LAFCO of Monterey County has an adopted policy that requires the Commission to consider whether the proposal mitigates its regional traffic impacts. Mitigation SEIR-RT1 requires that "The project developers will also be responsible for payment of a Regional Development / Traffic Impact Fee, when the overall financing program is developed / approved by TAMC and the program is adopted by TAMC." Please clarify whether this requirement would be triggered by TAMC's adoption of a Fee Program or whether it would additionally require the adoption of a parallel transportation sales tax

L-1

program. Please also consider requiring the payment of regional traffic fees on a "project" basis prior to the official adoption of TAMC's fees.

• The geographic scope of the DSEIR includes the entire area planned for the expanded Sphere of Influence and annexation, while the Draft Transportation Impact Analysis contained in Appendix C does not appear to include the Sphere of Influence expansion area south of Williams Road. The excluded area is shown on Figure 1 of the study. Consistent with the DSEIR's stated scope, please provide information about the Regional Transportation impact of development in the expansion area south of Williams Road.

#### WATER SUPPLY (Chapter 5.3) -

• Table 5.3-1 appears to use 1995 as the "baseline" condition. Data outlined on page 5.3-7 appears to be current to 2005. Please explain how 1995 is the baseline and if this date is being considered baseline for the CEQA analysis of water supply.

• The geographic scope of the DSEIR includes the entire area planned for the expanded Sphere of Influence and annexation, while the water supply assessment prepared by CalWater (Appendix E), that prepared by ALCO (Appendix F), and the Annual Water Use Study (Appendix G) do not appear to include the Sphere of Influence expansion area south of Williams Road. Consistent with the DSEIR's stated scope, please provide information about the Water Supply impact of development in the expansion area south of Williams Road.

#### STORM WATER DRAINAGE (Chapter 5.4) -

• The geographic scope of the DSEIR includes the entire area planned for the expanded Sphere of Influence and annexation, while the "Salinas Future Growth Area Wastewater Treatment Facility" study which is included within Appendix D of the DSEIR specifically states that the purpose of the study is limited to the "Phase I annexation" which has its southern corner at the intersection of Boronda Drive and Williams Road. Consistent with the DSEIR's stated scope, please provide data about the Storm Water Drainage impact of development in the Sphere of Influence expansion area that is south of Williams Road.

On behalf of the Formation Commission, thank you again for this opportunity to provide comments. We also look forward to assisting the City of Salinas in accomplishing its objectives in the coming year. Please contact Executive Officer Kate McKenna if you have any questions or concerns.

Sincerely,

Vince DiMaggio LAFCO Chair

L-1 Cont.

L-2

L-3

L-4

L-5

# L. Vince DiMaggio, Chair, Local Agency Formation Commission (LAFCO) of Monterey County. October 22, 2007.

## **Response L-1**

Development within the Project area is required to mitigate its significant regional traffic impacts to the extent feasible. If a Regional Development/Traffic Impact fee is adopted by the TAMC and City Council, inclusive of the overall financing program, then payment of the required impact fee would constitute mitigation of the development's fair-share contribution to significant regional traffic impacts. In the absence of an adopted Regional Development/Traffic Impact fee program and/or County-wide Traffic Impact Fee, development within the Project area is still obligated to mitigate its significant regional traffic impacts to the extent feasible, which is currently identified as pro rata fair share contributions toward the various impacted facilities. Final development entitlements will ultimately be granted with City Council's consideration and approval of the Specific Plans and accompanying EIRs for this area. The Specific Plans are expected to be processed in 2008.

## **Response L-2**

As noted by the commenter, the Draft Transportation Impact Analysis prepared by Fehr & Peers and provided as Appendix C to the Draft SEIR does not include the area south of Williams Road within the scope of its analysis. As noted on page 5.1-1, the area south of Williams Road "is not expected to undergo significant development in the near term" and no development plans are currently being prepared for the area at this time. Traffic generated by the Sphere of Influence expansion area south of Williams Road is included in the STIA under each Year 2030 scenario (i.e., with and without the Project). However, this area is not considered part of the Project as defined in the STIA in terms of contributions towards regional traffic improvements (see Tables 5.1-14, 17 and 21). The City of Salinas General Plan identifies the area south of Williams Road as part of the Future Growth Area. The General Plan requires that a Specific Plan or Plans be completed prior to approval of development within the Future Growth Area. Development within the Future Growth Area would also require an annexation application, including a plan for providing services to the proposed development. This plan for providing services would include identification of the necessary transportationrelated service and infrastructure improvements required to achieve established service standards and funding sources to implement improvements and achieve the service standards.

## **Response L-3**

The Salinas Valley Integrated Ground and Surface Model (SVIGSM) was developed by the Monterey County Water Resources Agency as a planning tool to assist in analyzing and managing the groundwater resources of the Salinas Valley. As part of this model development, the current and future water needs of the basin were estimated using land use, water demand estimates, and hydrogeologic data. The data used in the model is

8-78

based on a relatively hydrologically balanced period (1949-1995) according to the Monterey County Water Resources Agency. The data illustrated in Table 5.3-1 is based on the SVIGSM and was also used to model the Salinas Valley Groundwater Project. The data from Table 5.3-1 was obtained from earlier reports prepared by the Monterey County Water Resources Agency that used the term "baseline" to refer to the 1995 data in Table 5.3-1. Table 5.3-1 and the use of the term "baseline" do not reflect existing conditions for the purposes of environmental analysis in this SEIR. The baseline for purposes of environmental analysis in this SEIR is March 5, 2007, the date of the Notice of Preparation.

### **Response L-4**

As indicated on page 5.3-23, development in the South of Williams Road area would generate an approximate groundwater demand of 8,026,982 gallons per day (gpd) or 8,991 acre-feet per year (af/yr) based on land uses allowed under the City of Salinas General Plan. The 2002 Salinas General Plan Final Program EIR previously analyzed the water supply impacts of development in the City of Salinas, including the area located South of Williams Road, which is identified as part of the Future Growth Area in the City's 2002 General Plan.

As noted by the commenter, the Water Supply Assessments prepared by Cal Water and Alco, and the Annual Water Use Study do not include the South of Williams Road area in their analyses. As noted on page 5.3-23, no development plans are currently being prepared for this area. The City of Salinas General Plan identifies the South of Williams Road area as part of the Future Growth Area. As such, the General Plan requires that a Specific Plan or Plans, be completed prior to approval of development within the Future Growth Area. This area would also require an annexation application, including a plan for providing services to the new development. As done for the Annexation area described in this SEIR, a Water Supply Assessment will be conducted by the water purveyor serving this area in the future. Additionally, Senate Bill (SB) 610 requires specific information about water availability to be presented and considered by land use agencies during the processing of certain land use entitlement applications, including Specific Plans and Projects of more than 500 residential units. The area South of Williams Road is planned for up to 2,557 residential dwelling units and would require the preparation of one or more Water Supply Assessments.

### **Response L-5**

The first sentence of the comment states that the geographic scope of the Salinas Future Growth Area Wastewater Treatment Facility study is limited to the area north of the intersection of Boronda Drive and Williams Road, while the related following sentence asks for data regarding the storm water drainage impacts of development. As a result, the following response provides information about the geographic scope of both the regional wastewater treatment capacity analysis and the storm water drainage analysis of the Draft SEIR.

8-79

The Salinas Future Growth Area Wastewater Treatment Facility study includes analysis of the wastewater treatment plant demand that would be generated by development in the area south of Williams Road. Page 5.2-3 of the Draft SEIR states that "no specific development is proposed for the South of Williams area…however, based on the planned land uses described in the Salinas General Plan, the South of Williams area would contribute 2.0 million gallons per day to the Regional Treatment Plant.

The storm water drainage analysis excludes the area south of Williams Road from the calculation of hydrologic effects and required storm water flow control facilities because no specific development proposals or site specific data are available for this area at this time (Draft SEIR pages 5.4-4 and pages 5.4-5). Nevertheless, the Draft SEIR states that drainage impacts are expected to be the same within all parts of the Project area (i.e., Annexation area and Settrini property and area south of Williams Road) due to similar geographic and climatic conditions.





P. 02

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

October 19, 2007

Mr. Robert Richelieu Planning Manager City of Salinas 200 Lincoln Avenue Salinas, California 93901

#### SUBJECT: Comments on the Draft Supplement to the Salinas General Plan Final Program Environmental Impact Report

Dear Mr. Richelieu:

M-1

M-2

The Transportation Agency for Monterey County is the Regional Transportation Planning Agency and Congestion Management Agency for Monterey County. Transportation Agency staff has reviewed the draft Supplement to the Salinas General Plan Final Program Environmental Impact Report. The project proposes a sphere of influence amendment and annexation of unincorporated Monterey County land, located to the north and cast of the City, totaling 3,347 acres and is planned for up to 14,318 total dwelling units and approximately 9 million square feet of commercial/retail/mixed use and public developments.

The Transportation Agency offers the following comments for your consideration:

#### Regional Road & Highway Impact

 As indicated throughout the draft document, and set forth by the 2006 Greater Salinas Area Memorandum of Understanding between the City of Salinas and the County of Monterey, the City has agreed to support fees, as reflected by the Transportation Agency's overall financing program, as initigation for impacts to the regional transportation system and to work with our agency towards the establishment of a regional fee program. To that end, our agency appreciates the City's continued participation, recommendations, and support in the update of the Nexus Study for a Regional Development Impact Fee Program and in the development of our agency's regional development impact fee program.

As such, the Transportation Agency supports that project developers will be responsible for payment of a regional impact fee as outlined in mitigation measures SEIR-RT1, SEIR-RT2, and SEIR-RT3. The implementation of these mitigation measures however should not be contingent on the adoption status of the impact fee program. The Transportation Agency contends, and Caltrans has confirmed, that payment of regional development impact fees on a project-by-project basis is sufficient to be considered mitigation for cumulative impacts to the regional transportation system. Our agency requests that the referenced mitigation measures be revised to remove "when this program is adopted by TAMC" in the final document.

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Letter to Mr. Robert Richelieu October 19, 2007 Page 2

- 2. The draft supplement and associated traffic study show that several segments of US-101 through the City of Salinas, from John Street to south of Airport Boulevard, would operate at unacceptable levels of service during the P.M. peak hour. The proposed mitigation for these impacts is listed as widening US-101 to six lanes, which, as the document correctly notes, is not part of the Transportation Agency's regional fee program. Considering the widening of US-101 through the City of Salinas is not expected to occur by the Salinas General Plan's 2030 horizon year, alternative mitigation will be necessary to address regional impacts. Such mitigation would include the construction of the Westside Bypass and the Eastside Connector, both of which are included in our agency's regional fee program and are designed to alleviate congestion on US-101 through the City of Salinas. A fair-share payment in regional development impact fees on an ad-hoc basis by new development in the annexation area would fulfill this obligation.
- 3. The draft supplement also shows that segments of US-101 through and north of the Principle community operate at deficient levels of service and offers the Prinedale Bypass and Eastern Corridor Improvement (between Crazy Horse Canyon Road and Harris Road via Old Stage Road) as alternative mitigations to widening mainline US-101. Our agency does not consider the Prunedale Bypass to be a feasible project for construction within the 2030 time horizon and as such, should not be included as potential mitigation. A plan-line study for the Eastern Corridor Improvement project is proposed for funding in our agency's proposed Transportation Investment Plan. It is anticipated that the plan-line study may result in the project being included in the regional fee program in a future revision. No additional funding or specific alignments for the project have yet been identified and, in the event the Transportation Investment Plan is not approved at the ballot, the City should be prepared to identify alternative funding for the plan-line study. Considering the uncertainty to the feasibility of the proposed alternative mitigations, a fair-share payment in regional development impact fees on an ad-hoc basis by new development in the annexation area should be included as the preferred mitigation measure for cumulative impacts in the final document.

M-5

M-6

4. If any new development is to be located in the planned annexation area and construction is set to begin before the annexation is approved, the Transportation Agency recommends that the infrastructure, particularly roadways, curb, sidewalks, gutters, and lighting, be constructed to a standard no less than what the City currently requires to ensure that the City or new residents will not have to bear the cost of upgrades once the annexation is complete.

#### Pedestrian & Bicycle

- 5. The Transportation Agency supports accommodation of alternative forms of transportation both through the design of transportation facilities and through the design and orientation of land uses. Our agency appreciates the City's commitment to encouraging the use of alternative forms of transportation in the proposed project, as well as the stated project objective to 'provide convenient circulation for vehicles, cyclists and pedestrians.' To encourage hicycle and pedestrian travel, developing contiguous linkages of facilities and removing impediments to vehicle-less travel is integral.
- M-7 As such, future environmental review of the sub-regions of the annexation area need to address bicycle and pedestrian issues; our agency requests that these documents include a

M-4

M-3

Letter to Mr. Robert Richelieu October 19, 2007 Page 3

discussion and map of proposed bicycle and pedestrian facilities for any new developments that demonstrate how internal facilities will provide connections to existing and proposed facilities surrounding the development. Specifically, facilities internal to new development should provide direct access and connections to the existing bicycle facilities on Boronda Road and Williams Road as well as the planned facilities on Freedom Parkway, Old Stage Road, Natividad Road, Rogge Road, and San Juan Grade. Additionally, subsequent environmental review and development planning should place a premium on safe and accessible pedestrian access to the site from intersections and crosswalks, sidewalks, and bicycle facilities. These neighborhoods should also be designed with sidewalks that connect to external facilities, provide access to transit stops, and do not include the use of cul-de-sacs without a cut-through for pedestrian travel. Also, the documents should address the need for new roadways to be designed to accommodate bicycles with adequate pavement for bike travel, particularly along major arterials.

Thank you for the opportunity to review this document. If you would like to discuss these comments further, please contact Michael Zeller of my staff at (831) 775-0903.

Sinceret WHAT ZTUIL For Debra L. Hale

Executive Director

 cc: Dave Murray, California Department of Transportation (Caltrans) District 5 Ron Lundquist, Monterey County Department of Public Works
 Carl Sedoryk, Monterey-Salinas Transit
 Nicholas Papadakis, AMBAG
 Douglas Quentin, Monterey Bay Unified Air Pollution Control District

M-7 Cont.

# M. Debra L. Hale, Executive Director, Transportation Agency for Monterey County (TAMC). October 19, 2007.

#### **Response M-1**

Comment noted.

#### **Response M-2**

Comment noted. However, as discussed in the response to comment L-1, development within the Project area is required to mitigate its significant regional traffic impacts to the extent feasible. Prior to adoption of the TAMC Regional Development/Traffic Impact fee program, development within the Project area is still obligated to mitigate its significant regional traffic impacts to the extent feasible, which is currently identified as pro rata fair share contributions toward the various impacted facilities.

### **Response M-3**

Widening US 101 to six lanes from SR 156 to south of Airport Boulevard is the most effective improvement to address the Project's freeway impact. While the Westside Bypass and Eastside Connector would provide some relief to segments of US 101, are generally included in the City's Traffic Fee Ordinance and are currently proposed in the Regional Traffic Impact fee program, these new and upgraded facilities would not provide the same capacity enhancement as the freeway widening. The US 101 widening through Salinas (Boronda to Harris) is included in the City's Traffic Fee Ordinance, but will require additional funding to finance the proportion not attributable to new development in Salinas. The text in Table 5.1-21 has been modified to include these improvements as Alternate Mitigation.

#### **Response M-4**

Comment noted. The 2005 Monterey County *Constrained Regional Transportation Plan* Project list includes CT029, which is to build the Prunedale Bypass or widen the existing alignment of US101 between Echo Valley Road and the new Russell Road interchange. The SEIR will reflect the input of TAMC related to the feasibility of the Prunedale Bypass. The annexation is currently required to pay a pro rata fair share toward the Eastern Route improvements.

### **Response M-5**

The General Plan requires that a Specific Plan or Plans, including an annexation plan, be completed prior to approval of development within the Future Growth Area. Thus, development and construction within the Project area cannot begin prior to approval of the Specific Plan(s) and annexation plan(s). Once annexed and development entitlements are approved, development will be required to construct street improvements in accordance with City standards.

#### **Response M-6**

Comment noted.

### **Response M-7**

Comment noted. The City intends to take these comments regarding pedestrian, bicycle and transit/bus issues into consideration when reviewing future plans, development proposals, and environmental documents associated with development of the Project area.

#### LETTER N

#### Monterey County Agricultural and Historic Land Conservancy P.O. Box 1731, Salinas, CA 93902

October 19, 2007

Salinas City Council C/O Robert Richelieu, Planning Manager City of Salinas 200 Lincoln Ave. Salinas Ca 93902

Dear Mr. Richelieu:

N-1

N-2

By this letter we wish to comment on the SEIR concerning the Salinas Future Growth Area Sphere of Influence Amendment and Annexation. (SCH #2007031055)

The Monterey County Agricultural and Historic Land Conservancy is concerned regarding the proposed mitigation measures that have been identified in your report. MCAHLC believes that historically and currently the staff of the City of Salinas avoids the City's obligations to act to preserve farmland within the Salinas Valley.

In our 23-year history, the City of Salinas and its staff has not once advocated for any of our projects except when required to by the County of Monterey. We believe that, although the City's General Plans pay "lip service" to farmland preservation, it has been the ongoing policy of the City staff and council to neglect farmland preservation in virtually all of their governmental functions. We believe that the City must enforce the policies in its General Plan. Further, we believe it is disingenuous to point to easements acquired by the MCAHLC, a non-profit private organization, as demonstrating the City's commitment to farmland preservation. In the future, we would hope that the city would affirmatively act to support the protection, preservation, and enhancement of farmlands around its borders. We also like to be able to affirmatively state that the City has made an effort to cooperate and support our Conservancy through governmental actions and funding to advance the city's stated policy of desiring to preserve farmland.

N-3 By this letter we hereby incorporate by reference and include as our comments the statements found in the letter addressed to you by the County of Monterey regarding this issue. For the last 23 years, we have enjoyed a close and mutually beneficial working arrangement with the County of Monterey, the Monterey County Board of Supervisors, and the Monterey County Local Agency Formation Commission (LAFCO) to advance the preservation and protection of our rare agricultural resources and the agricultural employment opportunities that are the bedrock of our economy. The last time that we had a meeting to cooperate with the City of Salinas with either members of the City Council or Senior Management was in 1991 when Russell Jefferies was the mayor. The

continuing annexation by the City of Salinas of prime farmland without any practical implementation of the farmland mitigation program that is required by your General Plan demonstrates that a change in the attitude of City staff and more attention by the City Council must take place in order for documents like the SEIR to have any material meaning other than words on paper.

It is our sincere desire to work cooperatively with the City of Salinas to advance their stated goal of farmland preservation. We forward these comments to you with the sincere hope that your city will acknowledge it's affirmative duty to actually implement the policies of the General Plan that call for the preservation of farmland. We sincerely hope that you contact us so that we can work together to advance our common goals.

Sincerely,

N-4

Cont.

N-5

Brian Rianda Managing Director MCAHLC

#### N. Brian Rianda, Managing Director, Monterey County Agricultural and Historic Land Conservancy (MCAHLC). October 19, 2007.

#### **Response N-1**

The City disagrees with the unsubstantiated comment that City staff avoids its obligations to preserve farmland within the Salinas Valley. On the contrary, the City has focused on balancing agricultural preservation with the need to accommodate population growth and associated urban development since adoption of its first General Plan in 1960. A description of the City's historical efforts is documented in the Initial Study prepared for the Draft SEIR (Appendix B of the Draft SEIR). Additionally, the County of Monterey Resource Management Agency comments incorporated by reference into the October 19 MCAHLC letter (comment K-1 through K-5) applaud the City for its historical leadership in Monterey County "regarding the preservation of agricultural lands in relation to urban encroachment" and for "provid(ing) over 20 years of commitment toward the preservation of (the) most productive agricultural land" (See comment K-1). The County of Monterey Resource Management Agency comment letter also documents how the policies of the 2002 Salinas General Plan continue the City's commitment to agricultural preservation and protection (see comment K-2). A detailed discussion of the General Plan Implementation Programs and Final Program EIR mitigation measures adopted to mitigate the loss of agricultural land and other agricultural resources impacts as well as the City's progress to date toward implementation of these program and measures is provided in the responses to comments K-3 through K-5.

#### **Response N-2**

The City does not make it a practice to "advocate" on behalf of individual initiatives by private, non-profit organizations. The City has made it a practice to adopt strict agricultural protection policies and mitigations as reflected in the 2002 General Plan and the GSA-MOU and to support Projects consistent with these documents. No other jurisdiction, including the County, has adopted stricter, permanent policies to date. The October 19 MCAHLC letter does not provide any explanation or evidence to support the claims that "the City's General Plans pay 'lip service' to farmland preservation" and that it is ongoing City policy to "neglect farmland preservation". Please see the response to comment N-1 for a discussion of the City's Implementation Programs and mitigation measures adopted to mitigate the loss of agricultural land and other agricultural resources impacts. Also refer to the Initial Study prepared for the Draft SEIR (Appendix B of the Draft SEIR, pp. 67-80) for a description of the City's historical and current efforts to preserve farmland and mitigate agricultural resources impacts. Please also see responses to comments K-1 through K-5.

#### **Response N-3**

Please see responses to comments K-1 through K-5 for the City's responses to the County of Monterey Resource Management Agency's comments incorporated by reference into the October 19 MHAHLC letter related to agricultural resources impacts and preservation.





Post Office Box 1876 Salinas, CA 93902-1876 Salinas Phone: 831-422-9390 Monterey Phone: 831-375-3752 Website: www.landwatch.org Email: landwatch@mclw.org Fax: 831-422-9391



October 17, 2007

#### LETTER O

Robert Richelieu City of Salinas Department of Engineering and Development Services 200 Lincoln Avenue Salinas, CA 93901

#### SUBJECT: DRAFT SUPPLEMENT FOR THE SALINAS GENERAL PLAN FINAL PROGRAM EIR

Dear Mr. Richelieu:

LandWatch Monterey County has had an opportunity to review the Draft Supplement and has the following comments:

1. <u>Transportation</u>

The project would have significant impacts on local and regional roadways. The DSEIR identifies numerous mitigation measures, most of which are either infeasible or unfunded. The following are examples of such projects:

- Widen East Boronda Rd. between McKinnon St. and El Dorado Drive to 8 lanes
- Widen West Market Street between N. Davis Road and Clark St.
- Widen John St. between Abbott St. and US 101 to 6 lanes
- Widen North Main St. between US 101 and Rossi St or Western Bypass
- Widen South Main St. between San Miguel Ave. and Blanco Rd to 6 lanes
- Widen John St. to Market St. to 6 lanes
- Widen Market St. to Main St to 6 lanes
- Widen Main St. to Laurel Drive to 6 lanes
- Widen Laurel Dr. to Boronda Rd. to 6 lanes
- Widen Boronda Rd. to Russell Rd. to 6 lanes
- Widen South of Airport Boulevard to 6 lanes
- Widen Russell Rd. to SR 156 to 6 lanes
- Widen SR 156 to 6 lanes
- Widen San Juan Rd. to Crazy Horse Canyon Rd. to 5 lanes
- Widen SR 156 to Russell Rd. to 6 lanes
- Prunedale Bypass or Eastern Corridor Improvements

The "Impact After Mitigation" section (p. 5.1-41) should clearly identify proposed mitigation measures that are funded and related schedules for construction and those that have no funding. For example, the projects identified above are not included in

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O-2 Cont. AMBAG's 2004 Metropolitan Transportation Improvement Program as funded projects, and that status should be indicated.

#### 2. <u>Water Supply</u>

O-3

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Table 5.3-5 shows that water demand for the project would range from 465 AFY more water to 819 AFY less water as an urban use (in contrast to agricultural use) with a median demand of 177 AFY less. These calculations assume 11,761 dwelling units rather than the 14,318 identified on p. 2-1 for the SOI Amendment area. The FEIR should include calculations for 14,318 dwelling units.

The FEIR should include the following information regarding the Salinas Valley Water Project:

Voters approved a project that would, in part, mix 9,700 acre©feet of impounded river water with recycled water. The blended water would then be delivered for irrigation to coastal farmers in North Monterey County – the only direct beneficiaries of the Salinas Valley Water Project. This blended water would eliminate pumping of 9,700 acre feet of groundwater annually, theoretically allowing well levels in affected areas to recover.

However, water quality concerns raised by the Water Quality and Operations Committee will reduce diversion facility's capacity (rubber dam) by nearly half. Because of this change, "the maximum diversion capacity will be reduced from 85 cfs to 48 cfs." This change is of great concern to North Monterey County residents who are paying among the highest assessments for the SVWP, who face the most immediate risk if the project fails or is ineffective and who continue to experience further subdivision rationalized by the theoretical benefits of an unbuilt project.

According to the SVWP EIR, by 2030, the project is supposed to serve a maximum urban population of about 355,000. However, according to AMBAG's 2004 forecast, population within the project boundaries (excluding commitments to Marina) will reach approximately 413,000 by 2030. Including the Marina commitment of about 25,000 people, by 2030, 438,000 urban water users will depend on the SVWP-83,000 more people than originally planned. As a matter of fact, the project's capacity will be exceeded by 2020, when population depending on the SVWP will hit 375,000.

#### 3. Project Impacts on Air Quality, Noise, Cultural Resource and Agricultural Resources

<sup>O-5</sup> The DSEIR fails to address project impacts on air quality, noise, cultural and agricultural resources based on the findings in the Salinas General Plan Final Program EIR that project level and cumulative impacts would be significant and could not be mitigated.

O-6 It is not sufficient that the City acknowledges that air quality, noise, cultural resources and agricultural resources impacts remain significant and unavoidable. An agency may

2

considerations without meeting CEQA's information and disclosure requirements. CEQA requires than an EIR not only identify impacts, but must also provide information about how adverse the impacts will be. The addition of over 14,000 dwelling units to the General Plan would have significant project level and cumulative impacts on all the resources identified above, and those impacts should be disclosed.

Thank you for the opportunity to review the document.

Sincerely, Chris Fitz --- Executive Director

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Cont.

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O-6 Cont. considerations without meeting CEQA's information and disclosure requirements. CEQA requires than an EIR not only identify impacts, but must also provide information about how adverse the impacts will be. The addition of over 14,000 dwelling units to the General Plan would have significant project level and cumulative impacts on all the resources identified above, and those impacts should be disclosed.

Thank you for the opportunity to review the document.

Sincerely, Chh Fitz --- Executive Director

# O. Chris Fitz, Executive Director, LandWatch Monterey County. October 17, 2007.

## **Response O-1**

Development within the Project area is required to mitigate its significant traffic impacts to the extent feasible. The DSEIR lists all of the Project impacts, the associated mitigation measures, the feasibility of those measures, and the Project's traffic contribution on each impacted segment. As described in mitigation measures SEIR-RT1 through SEIR-RT3 of the Draft SEIR, the roadway improvements identified in Tables 5.1-11, 5.1-14, 5.1-17 and 5.1-21 will be implemented where feasible to provide acceptable levels of service. As also explained in mitigation measures SEIR-RT1 through SEIR-RT3, development may satisfy its mitigation obligation by payment of fee proportional to the development's impact on a given road segment not included in an adopted fee program, payment of Salinas Traffic Impact Fees, payment of a Regional and/or County Traffic Impact Fee Program if such a program(s) is/are adopted in the future, or the Project developers may provide the necessary improvements for an impacted roadway segment. Since most of these impacts are on regional facilities, contributions are required from other sources or Projects to fully fund the required improvements. In the absence of an adopted Regional and/or County Development/Traffic Impact Fee Program or where a roadway improvement is determined infeasible, development within the Project area is still obligated to mitigate its significant regional traffic impacts to the extent feasible, which is currently identified as pro rata fair share contributions toward the various impacted facilities.

## **Response O-2**

The report text on pages 5.1-40 and 5.1-41 indicates that additional funding sources are needed to construct the mitigation measures, and that otherwise these impacts would remain significant and unavoidable. The development would still be obligated to pay its pro rata fair share contribution toward mitigation measures, however.

## **Response O-3**

As noted by the commenter, a Water Balance Study was prepared for the Annexation area and Settrini property, which includes up to 11,761 residential dwelling units. The scope of the Water Balance Study did not include the area South of Williams Road, an area that is planned for up to 2,557 residential dwelling units. The 2002 Salinas General Plan Final Program EIR previously analyzed the water supply impacts of development in the City of Salinas, including the area located South of Williams Road, which is identified as part of the Future Growth Area in the City's General Plan. Although the Wood Rodgers Study did not include the South of Williams Road area, that area is currently used for agriculture and is planned for urban uses like those within the Annexation area (New Urbanism) and industrial development. At the time annexation of the South of Williams Road area is proposed, the City may require the same type of study performed by Wood Rodgers.

#### **Response O-4**

By way of background, the Salinas Valley Water Project (SVWP) consists of the following major components: reoperating the storage and release schedules of the Nacimiento and San Antonio reservoirs; modifying the Nacimiento Dam spillway; and installing a diversion facility in the Salinas River (Salinas River Diversion Facility, or SRDF) to improve the distribution of water and better regulate its flow. The Monterey County Water Resources Agency (MCWRA) proposed the SVWP to address the following critical water supply, water distribution, and water quality issues in the Salinas Valley: stopping seawater intrusion; providing adequate water supplies to meet current and future water supply needs; and hydrologically balancing the Salinas Valley Groundwater Basin (SVGB). The following documents provide information related to the time sequence of events of the SVWP:

- Salinas Valley Water Project Draft Environmental Impact Report/Environmental Impact Statement, June 2001.
- Salinas Valley Water Project Final Environmental Impact Report/Environmental Impact Statement, April 2002.
- Salinas Valley Water Project Engineer's Report, January 2003.
- Final Biological Opinion, National Marine Fisheries Service, June 21, 2007.
- Salinas Valley Water Project EIR Addendum dated July 17, 2007.

The documents are available for review at the Monterey County Water Resources Agency, 893 Blanco Circle, Salinas, CA, and on the MCWRA website at: <a href="http://www.mcwra.co.monterey.ca.us/welcome\_svwp\_n.htm">http://www.mcwra.co.monterey.ca.us/welcome\_svwp\_n.htm</a>.

The commenter states that the only direct beneficiaries of the Salinas Valley Water Project (SVWP) are coastal farmers in North Monterey County. As stated on page 5.3-10 of the SEIR, however, the goals of the SVWP include stopping seawater intrusion and hydrologically balancing the groundwater basin in the Salinas Valley, among other goals. Thus, the benefits of the SVWP extend throughout the entire Salinas Valley and the Salinas Valley Groundwater Basin, including all sub-basins.

The commenter claims that water quality concerns raised by the Water Quality and Operations Committee of the Monterey County Water Resources Agency will reduce the diversion capacity of the Salinas River Diversion Facility by nearly half, from 85 cfs to 48 cfs. However, the Salinas Valley Water Project EIR Addendum dated July 17, 2007, page 2-16, states that "out of financial considerations, MCWRA has decided to reduce the SRDF's (Salinas River Diversion Facility (SRDF)) diversion capacity, requiring minor modifications of the design. The modifications will generally reduce the capacity and footprint of the facility. These modifications include a reduction in the maximum diversion capacity from 85 cfs to 48 cfs. Footnote 13, also on page 2-16 of the Salinas

Valley Water Project EIR Addendum, states that "the SRDF will be constructed to enable MCWRA to enlarge it to its original design capacity if warranted." Page 2-17 states that "these changes (which include the associated infrastructure reducing the SRDF capacity from 85 cfs to 48 cfs) will reduce the environmental impacts of constructing and operating the SRDF, and will not result in any increased environmental impacts."

The commenter states that the Project is supposed to serve a maximum population of approximately 355,000. According to the Salinas Valley Water Project Draft Environmental Impact Report/Environmental Impact Statement, Table 7-1, page 7-3, population Projections for communities within the Salinas Valley would be approximately 355,000. The Association of Monterey Bay Area Governments (AMBAG) forecasted population growth to the year 2020, and MCWRA staff extrapolated these figures to the year 2030 to coincide with the hydrologic model for the SVWP. This forecast was developed based on the latest information available at the time the Draft EIR was certified. Continuous monitoring of the SVWP, when operational, and land use trends in Monterey County will determine if new water resource Projects become warranted.

## **Response O-5**

As discussed on page 1-2 of the Draft SEIR, an SEIR is required when substantial changes in a Project, substantial changes in circumstance, or the discovery of new information of substantial importance occurs after an EIR has been certified and when "only minor additions or changes would be necessary to make the previous EIR adequately apply to the Project in the changed situation" (CEQA Guidelines §15162). Through preparation of an Initial Study for the proposed Project (Appendix B to the Draft SEIR), the City determined that minor changes occurred in the circumstances of the proposed Project, and/or new information of substantial importance is available for environmental impacts associated with the issues of regional transportation, regional wastewater treatment plant capacity, water supply and storm water drainage, and global climate change. As a result, only these environmental issue areas need to be addressed in the Draft SEIR. Furthermore, the proposed Project would allow development types and intensities identical to those contemplated for the proposed Project area in the Final Program EIR. Thus, implementation of the proposed Project could not result in new or greater significant impacts associated with air quality (except global climate change), noise, cultural and agricultural resources beyond those identified in the Final Program EIR and no additional mitigation measure(s) beyond those adopted in the Final Program EIR would be imposed on the proposed Project (the proposed Project is required to implement the mitigation measures of the Final Program EIR). In other words, Project impacts to air quality, noise, cultural and agricultural resources are adequately addressed in the Final Program EIR and not required to be addressed further in the Draft SEIR.

### **Response O-6**

As discussed in the response to comment O-5, the proposed Project would allow development types and intensities identical to those contemplated for the proposed Project area in the Final Program EIR and no minor changes occurred in the

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circumstances of the proposed Project, and/or no new information of substantial importance is available for environmental impacts associated with the issues of air quality (except global climate change), noise, cultural and agricultural resources. The amount and intensity of dwelling units and other development allowed within the Project area does not exceed the levels assumed for the Project area in the analysis of environmental impacts of the Final Program EIR. Thus, implementation of the proposed Project could not result in new or greater significant impacts associated with air quality (except global climate change), noise, cultural and agricultural resources beyond those identified in the Final Program EIR and no additional mitigation measure(s) beyond those adopted in the Final Program EIR would be imposed on the proposed Project (the proposed Project is required to implement the mitigation measures of the Final Program EIR). In other words, Project impacts to air quality, noise, cultural and agricultural resources are adequately addressed in the Final Program EIR and not required to be addressed further in the Draft SEIR.

#### LETTER H

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#### SEIR INFORMATIONAL MEETING

(September 12<sup>th</sup>, 2007 – 7:00 PM)

#### DRAFT SUPPLEMENT

#### To the Salinas General Plan Final Program Environmental Impact Report certified on September 17, 2002

## City of Salinas Sphere of Influence and Annexation Area

In the space provided below, please state your comments in regard to the Supplement to the Salinas General Plan Final Program Environmental Impact Report for the Sphere of Influence Amendment and Annexation (SCH#2007031055). Please be as specific and detailed as possible so that the SEIR Response to Comments may address all of your issues and/or concerns (additional pages may be attached). Once completed, please submit to: City of Salinas c/o Robert Richelieu, Planning Manager, Development & Engineering Services Department, 200 Lincoln Avenue, Salinas, California 93901 or send your comments via email to robertr@ci.salinas.ca.us.

**RESPONSES ARE DUE NO LATER THAN 5:00 PM OCTOBER 19TH** 

PINC (oru in  $\mathcal{O}(\mathcal{O}(\mathcal{O}))$ Lec Robin Name (please print) Business (if applicable) luncher Saline, 93906 8714cleve Street Address City State Zip Code 10/17/ Date <u>\$31,443,1157</u> Phone Number

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#### LETTER P



## STATE OF CALIFORNIA GOVERNOR'S OFFICE of PLANNING AND RESEARCH STATE CLEARINGHOUSE AND PLANNING UNIT



CYNTHIA BRYANT DIRECTOR

ARNOLD SCHWARZENEGGER GOVERNOR

P-1

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October 19, 2007

Robert Richelieu City of Salinas 200 Lincoln Avenue Salinas, CA 93901

CETT OF FUELIC WOR

Subject: Supplement to the Salinas General Plan Final Program EIR SCH#: 2007031055

Dear Robert Richelicu:

The State Clearinghouse submitted the above named Supplemental EIR to selected state agencies for review. The review period closed on October 18, 2007, and no state agencies submitted comments by that date. This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act.

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

Sincerely,

Servi Colorto

Terry Roberts Director, State Clearinghouse

## Document Details Report State Clearinghouse Data Base

| Project Title<br>Lead Agency  | 2007031055<br>Supplement to the Salinas General Plan Final Program EIR<br>Salinas, City of  |   |  |
|---|---|---|--|
| Туре  | SIR Supplemental EIR  |   | *A\0000000000                          |
| Description   | The project is a proposal by the City of Salinas (City) for (1) a sphere of influence (SOI) amendment (herinafter referred to as SOI Amendment); and (2) an annexation of unincorporated Monterey County land to the City of Salinas (hereinafter referred to as Annexation). The proposed project is currently within the jurisdiction of the County of Monterey and consists of two overlapping geographic areas In this SEIR. The SOI Amendment and Annexation lies within geography covered by the Salinas General Plan and its associated Final Program EIR. |   |  |
| Lead Agenc  | y Contact   |   |  |
| Name  | Robert Richelieu  |   |  |
| Agency  | City of Salinas   |   |  |
| Phone   | 831-758-7537  | Fax   |  |
| emali-<br>Address   | 200 Lincoln Avenue  | ······································  | ······································ |
| City  | Salinas   | State CA Zip 93901  |  |
| Project Loca  | ation   |   |  |
| County  | Monterey  |   |  |
| City  | Salinas   |   |  |
| Region  |   | ·   |  |
| Cross Streets   | San Juan Grade Rd, Russell Rd,  | i, Rogge Rd, Old Stage Rd, Williams Rd, Boronda Rd, future Easte  | m B .                                  |
| Parcel No.  | Several   |   |  |
| Township  | Range   | Section Base  |  |
|   |   |   |  |
| Proximity to  | ):  |   |  |
| Proximity to  |   |   |  |
| Highways  | US 101  |   |  |
| Highways<br>Airports  |   |   |  |
| Highways  | US 101  | <b>,</b>  |  |
| Highways<br>Airports<br>Railways  | US 101<br>Salinas Municipal<br>Gabilan and Natividad Creeks<br>Several  |   |  |
| Highways<br>Airports<br>Railways<br>Waterways   | US 101<br>Salinas Municipal<br>Gabilan and Natividad Creeks<br>Several  | inas prezoning NI (New Urbanism Interim) with a "SP" (Specific Pla  | n)                                     |
| Highways<br>Airports<br>Railways<br>Waterways<br>Schools  | US 101<br>Salinas Municipal<br>Gabilan and Natividad Creeks<br>Several<br>General Agriculture; City of Salir<br>Overlay District.<br>Cumulative Effects; Drainage/Ab  | inas prezoning NI (New Urbanism Interim) with a "SP" (Specific Pla<br>bsorption; Flood Plain/Flooding; Growth Inducing; Other Issues; Pu<br>fic/Circulation; Water Quality; Water Supply  |  |
| Highways<br>Airports<br>Railways<br>Waterways<br>Schools<br>Land Use                                | US 101<br>Salinas Municipal<br>Gabilan and Natividad Creeks<br>Several<br>General Agriculture; City of Salir<br>Overlay District.<br>Cumulative Effects; Drainage/Ab<br>Services; Sewer Capacity; Traffle<br>Caltrans, Division of Aeronautics<br>Board, Transportation Projects; C<br>Conservation; Department of Fis<br>Development; Integrated Waste<br>Emergency Services; Department   | bsorption; Flood Plain/Flooding; Growth Inducing; Other Issues; Pu<br>fic/Circulation; Water Quality; Water Supply<br>cs; Air Pollution Control Dist./Air Quality Mgmt. Dist.; Air Resources<br>Caltrans, District 5; California Highway Patrol; Department of<br>ish and Game, Region 4; Department of Housing and Community<br>e Management Board; Native American Heritage Commission; Offic<br>ent of Parks and Recreation; Regional Water Quality Control Board,   | iblic<br>e of                          |
| Highways<br>Airports<br>Railways<br>Waterways<br>Schools<br>Land Use<br>Project Issues<br>ReviewIng | US 101<br>Salinas Municipal<br>Gabilan and Natividad Creeks<br>Several<br>General Agriculture; City of Salir<br>Overlay District.<br>Cumulative Effects; Drainage/Ab<br>Services; Sewer Capacity; Traffle<br>Caltrans, Division of Aeronautics<br>Board, Transportation Projects; C<br>Conservation; Department of Fis<br>Development; Integrated Waste<br>Emergency Services; Department   | bsorption; Flood Plain/Flooding; Growth Inducing; Other Issues; Pu<br>fic/Circulation; Water Quality; Water Supply<br>es; Air Pollution Control Dist./Air Quality Mgmt. Dist.; Air Resources<br>Caltrans, District 5; California Highway Patrol; Department of<br>ish and Game, Region 4; Department of Housing and Community<br>e Management Board; Native American Heritage Commission; Offic<br>ent of Parks and Recreation; Regional Water Quality Control Board,<br>State Water Resources Control Board, Clean Water Program; Caltra | iblic<br>e of                          |

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DEVELOPMENT-ENGINEERING

OCT-23-2007 14:05

Salinas General Plan Final Program EIR

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November 19, 2007

P. Terry Roberts, Director, Governor's Office of Planning and Research State Clearinghouse and Planning Unit. October 19, 2007.

#### **Response P-1**

Comment noted.

## 9.0 REFERENCES

#### Persons Responsible for the Preparation of the Supplement to the EIR

#### Lead Agency

City of Salinas Department of Engineering and Development Services 200 Lincoln Avenue Salinas, California 93901 (831) 758-7241

Contact: Robert Richelieu, Planning Manager

#### Preparers of the Supplemental EIR

EDAW, Inc. 1420 Kettner Boulevard, Suite 500 San Diego, California 92101 (619) 233-1454

Primary Preparers:

John Bridges, FAICP, Principal-in-Charge and Project Manager Patrick Jelsema, Project Planner Andrew Martin, Project Planner Christopher Ward, Project Planner Dan Brady, Graphics

Responsibility: Overall preparation and coordination of SEIR.

Subconsultants:

Fehr & Peers 160 West Santa Clara Street, Suite 675 San Jose, California 95113 (408) 278-1700

Responsibility: Preparation of Salinas Sphere of Influence Amendment and Annexation Supplemental TIA, August 2007.

David E. Ross, Steven Machida, and Damtew F. Ayele Mark Thomas & Company, Inc. 1960 Zanker Road San Jose, California 92112 (408) 453-5373

Responsibility: Preparation of Salinas Future Growth Area Wastewater Treatment Facility, August 2007.

ALCO Water Service 249 Williams Road Salinas, California 93905 (831) 424-0441

Responsibility: Preparation of a Water Service Assessment for the East Area Specific Plan and a portion of the Central Area Specific Plan of the City of Salinas Future Growth Area, March 2006.

James E. Smith California Water Service Company 254 Commission Street Salinas, California 93901-3737 (831) 757-3644

Responsibility: Preparation of a Water Supply Assessment for West, Central and East Specific Plan Areas, July 28, 2007.

Ronald K. Richardson, PE P&D Consultants 999 Town & Country Road, 4th Floor Orange, California 92868 (714) 648-2073

Responsibility: Preparation of a Stormwater Drainage Report for the Sphere of Influence Amendment and Annexation area, July 6, 2007.

#### Persons and Agencies Contacted

In addition to those persons and agencies that were sent a copy of the Notice of Preparation and Initial Study prepared for this Supplemental EIR, the following persons and agencies were consulted during the preparation of this document:

- 1. Garrett Haertel, Monterey Regional Water Pollution Control Agency, March 2007.
- 2. Walter Grant, Mark Thomas & Company, Inc., March 2007.

- 3. Thomas R. Adcock, Vice President, Alco Water Service, March 2007.
- 4. Jeff Yarne, Consultant to CalWater, August 2007.

#### Documents

ALCO Water Service

- 2007a Water Service Assessment for the East Area Specific Plan and a portion of the Central Area Specific Plan of the City of Salinas Future Growth Area, August.
- 2007b Urban Water Management Plan, Salinas District. March.

#### AMBAG

2004 "2004 AMBAG Population, Housing Unit & Employment Forecasts." http://www.ambag.org/dem.html (accessed March 12, 2007).

#### Bay Area Air Quality Management District (BAAQMD) 2006 Source Inventory of Bay Area Greenhouse Gas Emissions. November.

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- 2007a Water Supply Assessment for West, Central and East Specific Plan Areas, August 16, 2007.
- 2007b Urban Water Management Plan, Salinas District. July 16, 2007.

#### Caltrans

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#### City of Salinas

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- 2002b Salinas General Plan Final Program Environmental Impact Report. August.
- 2004 Traffic Improvement Program (TIP).

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#### Fehr & Peers

- 2006 ERSB Sub-Area Travel Demand Forecasting Model Validation. October 6, 2006.
- 2007a Sub-Area Validation for the Salinas Future Growth Area (FGA) TIA Memo. March 22, 2007.
- 2007b Salinas Sphere of Influence Amendment and Annexation Supplemental TIA. July 31, 2007.

#### Henson, Robert

2006 Rough Guide to Climate Change. First Edition. Rough Guides Ltd. London.

#### Intergovernmental Panel on Climate Change (IPCC)

2007 Climate Change 2007: The Physical Science Basis. Summary for Policymakers. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change. February.

#### Mark Thomas & Company, Inc.

#### Monterey County

- 2005 Monterey County Regional Transportation Plan.
- 2006a Monterey County 2006 General Plan. Draft Program Environmental Impact Report. August 18.
- 2006b Monterey County. Response to Comments Portion of Final Program Environmental Impact Report on the Monterey County 2006 General Plan. December 20.

#### Monterey County Water Resources Agency

- 2001 Draft Environmental Impact Report/Environmental Impact Statement for the Salinas Valley Water Project. June.
- 2005 2004 Ground Water Extraction Summary Report. December.
- 2006a Salinas Valley Integrated Regional Water Management Functionally Equivalent Plan Summary Document Update. May.
- 2006b Monterey County Groundwater Management Plan. May.

Unknown. Salinas Valley Water Project Project Plan.

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