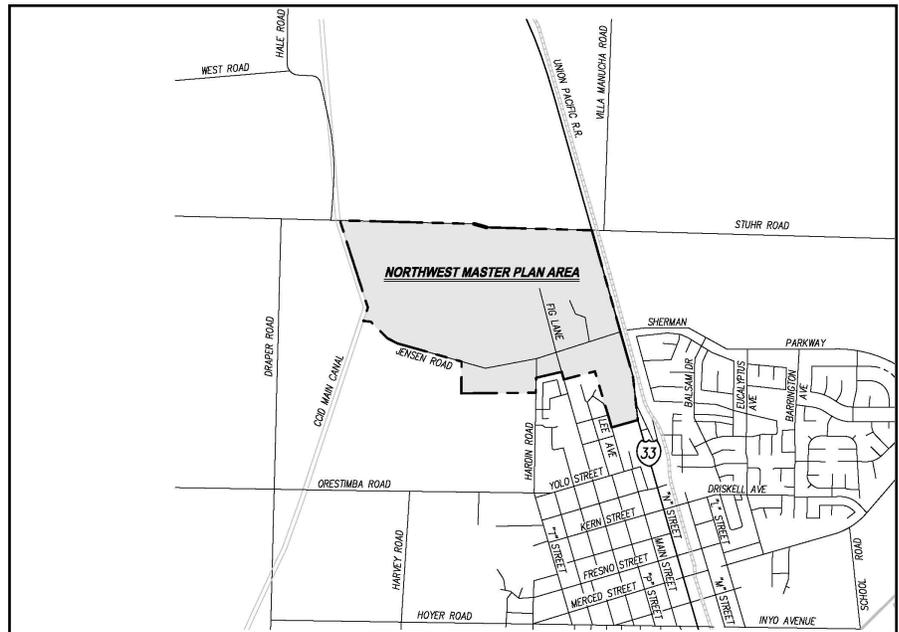


Draft Environmental Impact Report

SCH No. 2013032010



City of Newman
Community Development Department
938 Fresno Street
Newman, CA 95360

April 2017



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INTRODUCTION

PURPOSE OF THE ENVIRONMENTAL IMPACT REPORT

The California Environmental Quality Act and the Guidelines promulgated thereunder (together “CEQA”) require an Environmental Impact Report (EIR) be prepared for any project which may have a significant impact on the environment. An EIR is an informational document, the purposes of which, according to CEQA are “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; to list ways in which the significant effects of such a project might be minimized; and to indicate alternatives to such a project.” The information contained in this EIR is intended to be objective and impartial, and to enable the reader to arrive at an independent judgment regarding the significance of the environmental impacts resulting from the proposed project.

This EIR evaluates the potential environmental impacts that may be associated with development under the Northwest Newman Master Plan (the Plan), located in an unincorporated area of Stanislaus County, adjacent to the City of Newman. Adoption of the Plan, including the development it would allow, is considered a project under CEQA.

NEWMAN GENERAL PLAN TIERING

The Newman 2030 General Plan was adopted in 2007 along with certification of the associated EIR (State Clearinghouse Number 2006072025).

The currently proposed Plan is located within the boundaries of the General Plan and associated EIR, which identified the Plan area as “Master Plan Area 3”. Accordingly, this EIR tiers off the General Plan EIR per California Environmental Quality Act (CEQA) Guidelines section 15152.

The General Plan EIR is incorporated into this analysis by reference and is available in full at:

City of Newman Community Development Department 938 Fresno Street, Newman, California 95360, and online at: <http://www.cityofnewman.com/departments/community-development/e-docs.html>.

PROGRAMMATIC EIR AND SUBSEQUENT PROJECTS

This environmental document has been prepared for a Master Plan with program-level details and is a programmatic EIR consistent with CEQA Guidelines section 15168.

Per the CEQA Guidelines, subsequent activities in the program, such as development projects in the Plan area, will be examined in light of this programmatic EIR to determine whether an additional environmental document needs to be prepared consistent with the following guidelines:

1. If the lead agency finds that pursuant to CEQA Guidelines Section 15162, no new effects could occur or no new mitigation measures would be required, the agency can approve the

activity as being within the scope of the project covered by this programmatic EIR, and no new environmental document would be required.

2. If a subsequent project would have effects that were not examined in this programmatic EIR, a new initial study would need to be prepared leading to either a Subsequent EIR or negative declaration.

EIR REVIEW PROCESS

This EIR is intended to enable City decision makers, public agencies and interested citizens to evaluate the broad environmental issues associated with the overall character and concept of the proposed Plan.

In reviewing the Draft EIR, readers should focus on the sufficiency of the document in identifying and analyzing the possible environmental impacts associated with the Plan. Readers are also encouraged to review and comment on ways in which significant impacts associated with this Plan might be avoided or mitigated. Comments are most helpful when they suggest additional specific alternatives or mitigation measures that would provide better ways to avoid or mitigate significant environmental impacts. Reviewers should explain the basis for their comments and, whenever possible, should submit data or references in support of their comments.

During the 45-day review period for this Draft EIR (DEIR), interested individuals, organizations and agencies may offer their comments on its evaluation of Plan impacts and alternatives. The comments received during this public review period will be compiled and presented together with responses to these comments in the Final EIR (FEIR). Comments should be submitted in writing during this review period to:

Stephanie Ocasio, City Planner
City of Newman
Community Development Department
938 Fresno Street / P.O. Box 787
Newman, CA 95360

Please contact Stephanie Ocasio at socasio@cityofnewman.com (phone: 209-862-3725) if you have any questions regarding this project or analysis.

Together, this DEIR and the FEIR will constitute the EIR for the Plan. The City of Newman Planning Commission and the City Council will review the EIR documents and will determine whether or not the EIR provides a full and adequate appraisal of the Plan and its alternatives.

After reviewing this DEIR and the FEIR, and after reviewing the recommendation of the City of Newman Planning Commission regarding the certification of the EIR as adequate and complete, the City Council will be in a position to determine whether or not the EIR should be certified. An EIR does not control the agency's ultimate discretion on the Plan. However, as required under CEQA, the agency must respond to each significant effect identified in the EIR by making findings and, if necessary, by making a statement of overriding considerations. In accordance with California law, the EIR on the Plan must be certified before any action on the Plan can be taken. Once the EIR is certified, the City of Newman will then consider whether the Plan as currently proposed should be approved, revised, or rejected. This determination will be based upon information presented on the entirety of the Plan, including its impacts and probable consequences, and the possible alternatives and mitigation measures available.

CONTENT AND ORGANIZATION OF THE EIR

A Notice of Preparation (NOP) was issued in March 2013, to solicit comments from public agencies and the public regarding the scope of the environmental evaluation for the Plan. The NOP and all written responses are presented in **Appendix A**. The responses were taken into consideration during the preparation of the DEIR.

Following this brief introduction to the DEIR, the document's ensuing chapters include the following:

Chapter 2: Executive Summary and Impact Overview

Chapter 3: Project Description

Chapter 4: Aesthetics

Chapter 5: Agricultural and Forest Resources

Chapter 6: Air Quality

Chapter 7: Biological Resources

Chapter 8: Cultural Resources

Chapter 9: Geology and Soils

Chapter 10: Greenhouse Gas Emissions

Chapter 11: Hazards and Hazardous Materials

Chapter 12: Hydrology and Water Quality

Chapter 13: Land Use and Planning

Chapter 14: Mineral Resources

Chapter 15: Noise

Chapter 16: Population and Housing

Chapter 17: Public Services and Recreation

Chapter 18: Transportation and Traffic

Chapter 19: Utilities and Service Systems

Chapter 20: Other CEQA Considerations

Chapter 21: Alternatives

Chapter 22: References

Appendices

In Chapters 4 through 20, existing conditions are discussed in the "Setting" section, followed by an evaluation of environmental impacts that may be associated with the Plan and the mitigation measures that would reduce or eliminate these impacts, where feasible.

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EXECUTIVE SUMMARY AND IMPACT OVERVIEW

PROPOSED PROJECT

The proposed Northwest Newman Master Plan consists of a mix of residential, business park, community commercial, office, parks, and school uses in a 362-acre area. The project as proposed also includes approval of the Master Plan and annexation of the Master Plan area into the City of Newman. The Plan area is north of the current boundary of Newman, within the unincorporated portion of Stanislaus, but within the City's primary Sphere of Influence. It is bounded by Stuhr Road to the north, State Route 33 to the east, the Central California Irrigation District canal to the west, and the existing City boundary/Jensen Road to the south.

NORTHWEST NEWMAN MASTER PLAN IMPACTS AND MITIGATION MEASURES

The analyses in Chapters 4 through 19 of this document provide a description of the existing setting, identify potential environmental impacts associated with implementation of the Master Plan, and recommend mitigation measures to reduce or avoid potentially significant impacts that could occur as a result of Plan implementation. **Table 2.1** at the end of this chapter lists a summary statement of each potentially significant impact and corresponding mitigation measure(s), as well as the resulting level of significance.

IMPACTS ADEQUATELY ADDRESSED IN THE GENERAL PLAN EIR

- **Agriculture:** Implementation of the Plan would result in conversion of farmland in the Plan area (Impact Ag-1). The City of Newman General Plan EIR acknowledged significant and unavoidable impacts related to loss of agricultural land within the planning area (Impacts AG-1 through AG-4 of the General Plan EIR), including the current Plan area. The impact of the Plan related to conversion of farmland would be fully within the scope of the impact previously identified. Pursuant to CEQA Guidelines section 15152, the site-specific and cumulative effect of loss of farmland in the Plan area was adequately addressed in the prior General Plan EIR and is therefore not treated as a significant impact for purposes of this EIR. The Plan would result in no new impacts related to conversion of farmland.
- **Noise:** Implementation of the Plan would increase traffic noise levels substantially at sensitive uses along roadways and contribute to cumulative traffic noise level increases (Impacts Noise-3 and Noise-5). The City of Newman General Plan EIR acknowledged significant and unavoidable impacts related to increased traffic noise (Impact NOI-1 of the General Plan EIR), including due to development of the current Plan area. The impact of the Plan related to traffic noise increases would be fully within the scope of the impact previously identified. Pursuant to CEQA Guidelines section 15152, the impacts related to increased traffic noise levels in the Plan area were adequately addressed in the prior General Plan EIR and are therefore not treated as

significant impacts for purposes of this EIR. The Plan would result in no new impacts related to increased traffic noise.

SIGNIFICANT AND UNAVOIDABLE IMPACTS THAT CANNOT BE MITIGATED TO A LEVEL OF LESS THAN SIGNIFICANT

Significant environmental impacts require the implementation of mitigation measures or alternatives (where feasible) to reduce those impacts, or a finding by the Lead Agency that possible mitigation measures are infeasible for specific reasons. For some of the significant impacts, feasible mitigation measures have not been identified, have uncertain feasibility, or may not be effective in reducing the impacts to a less than significant level. These impacts are designated as significant and unavoidable, as follows:

- **Air Quality:** Construction activity would temporarily affect local air quality (Impact Air-1), causing a temporary increase in particulate dust and other pollutants. Implementation of Regulation VIII and Rule 9510 (MM Air-1) would result in the use of less-polluting construction equipment; however, Project emissions could cumulatively contribute to the ozone and particulate matter non-attainment designations of the San Joaquin Valley Air Basin if large and/or numerous projects occur together, and these impacts would remain significant and unavoidable.

Operational emissions generated by Plan area development and related traffic would increase emissions in the region (Impact Air-2), affecting the attainment and maintenance of criteria air pollutant air quality standards. These increases would be above GAMAQI significance thresholds and even with implementation of Rule 9510 (MM Air-1), the impact would remain significant and unavoidable.

Construction and operational impacts of Plan build-out would also contribute to cumulative air quality impacts (Impact Air-4). Even with implementation of Rule 9510 (MM Air-1), this impact would remain significant and unavoidable.

- **GHG:** New development in the Plan area would be an additional source of GHG emissions (Impact Climate-1). Implementation of mitigation measure Climate-1 could reduce GHG emissions by at least 29% over business-as-usual; however, implementation of additional GHG reduction measures applicable to subsequent development projects is not certain, and impacts therefore would remain significant and unavoidable.
- **Noise:** Businesses and residences throughout the Northwest Newman Master Plan area would be intermittently exposed to high levels of noise throughout the plan horizon (Impact Noise-4). Implementation of construction noise mitigation measures would reduce noise generated by the development, but the impact would remain significant and unavoidable due to the duration of exposure to construction noise.
- **Transportation and Traffic:** The addition of Plan traffic to the SR 33 & Yolo Street intersection would degrade the LOS from unacceptable F with overflow conditions in the a.m. peak hour and unacceptable E in the p.m. peak hours to an unacceptable LOS F during both peak hours (Impact Traf-17). During the p.m. peak hour, the LOS would degrade to LOS F even with mitigation. No other improvements at this intersection are considered feasible and the impact would remain significant and unavoidable.

The addition of Plan traffic to roadway segment SR 33 - Jensen Road to Yolo Street would degrade the LOS D to an unacceptable LOS F (Impact Traf-24). This is a significant impact of the

Plan. Widening this roadway segment to six lanes would achieve LOS D, but is considered not feasible. The impact would remain significant and unavoidable.

The addition of Plan traffic to the Stuhr Road - Draper Road to Eastin Road and Eastin Road to Interstate 5 roadway segments would degrade the LOS from an unacceptable D to an unacceptable LOS E (Impact Traf-25). The Newman General Plan EIR forecasts these interregional roadway segments operating at an unacceptable LOS. No mechanism currently exists for City development to participate on a “fair share” basis in the costs of maintaining and improving roads outside of the City limits. The impact would remain significant and unavoidable.

IMPACTS REDUCED TO A LEVEL OF LESS THAN SIGNIFICANT THROUGH MITIGATION

The following potentially significant impacts could be reduced to less than significant levels with implementation of mitigation measures:

- **Biological Resources.** Conducting pre-construction Swainson’s hawk surveys (MM Bio-1) would reduce to less than significant the impact on nesting Swainson’s hawks from construction activities associated with buildout of the Plan (Impact Bio-1).

Conducting pre-construction burrowing owl surveys (MM Bio-2) would reduce to less than significant the impacts from site grading and other forms of construction disturbance (Impact Bio-2), which could result in the direct loss or injury to burrowing owls or the forced evacuation from their burrows.

Conducting pre-construction nesting bird surveys (MM Bio-3a) and pre-construction roosting bat surveys (MM Bio-3b) would reduce to less than significant the impacts from construction activities associated with buildout of the Plan area, which could adversely affect nesting birds protected by the Migratory Bird Treaty Act of 1918 and/or Fish and Game Code of California or roosting special-status bat species (Impact Bio-3).

- **Cultural Resources.** Ground-disturbing activities associated with construction within the Plan area have the potential to disturb previously undiscovered cultural resources. The potential also exists for previously undiscovered archaeological, paleontological, or human remains resources to be damaged or destroyed during construction activities (Impact Cultural-1). These potential impacts would be reduced to less than significant with implementation of MM Cultural-1a through Cultural-1g.
- **Geology and Soils.** Grading and construction activities would expose soil to the elements, which would be subject to erosion during storm events (Impact Geo-1). Preparation and implementation of an Erosion Control Plan and Stormwater Pollution Prevention Plan (MM Geo-1) would reduce this impact to less than significant.
- **Hazardous Materials.** If hazardous materials are present in the Plan area, they could be released during site preparation, site grading, construction, and operation (Impact Haz-1). Implementation of MM Haz-1 would reduce potential impacts associated with accidental release of hazardous materials into the environment to less than significant.
- **Hydrology and Water Quality.** Grading activities for development projects in the Plan area could result in erosion and associated siltation/sedimentation impacts from runoff (Impact Hydro-1). Preparation and implementation of a project Stormwater Pollution Prevention Plan (MM Hydro-1) would reduce this impact to less than significant.

Development of the Plan area would increase the potential to generate and spread non-point source pollutants by increasing impermeable surface area and potentially increasing runoff velocities (Impact Hydro-2). The impact of non-point source pollution could be significant. Implementation of water quality best management practices for all stormwater discharge areas (MM Hydro-2) would reduce this impact to less than significant.

Removal and grading of surface soils and an increase in impervious surface areas will reduce the rate and location of groundwater recharge for the site and could decrease the quality of the groundwater (Impact Hydro-3). Implementation of best management practices for protection of groundwater quality and supply (MM Hydro-3) would reduce this impact to less than significant.

- **Noise.** New development could be exposed to outdoor noise levels and indoor noise levels that would exceed the City's established noise and land use compatibility thresholds (Impact Noise-1). Implementation of noise reduction measures based upon the type of use (MMs Noise-1a through -1c) would reduce this impact to less than significant levels.

New commercial development proposed in the same building as residential development or commercial development proposed adjacent to residential development could result in noise levels exceeding City standards (Impact Noise-2). Requirement of acoustical studies and implementation of recommended measures (MM Noise-2) would reduce this impact to less than significant levels.

- **Transportation and Traffic.** The addition of Plan traffic would result in significant impacts to the following four intersections and roadway segments under existing, existing-plus-approved-projects, and/or cumulative conditions: SR 33 & Jensen Road / Sherman Parkway intersection (Impact Traf-2, -8, -16), SR 33 & Yolo Street intersection (Impact Traf-3, -9), Fig Lane / Q Street & Yolo Street intersection (Impact Traf-4, -10, -20), SR 33 & North Commercial Access intersection (Impact Traf-5, -11, -21), SR 33 - Jensen Road to Yolo Street roadway segment (Impact Traf-6, -13), and the SR 33 & Stuhr Road intersection under cumulative conditions only (Impact Traf-15). These impacts would be reduced to less than significant levels through improvement measures identified in the respective MM.
- **Utilities and Service Systems.** Development in the Plan area would increase demand for wastewater collection, treatment and disposal, within the capacity of the existing wastewater collection system and treatment plant, though cumulative demand may require minor upgrades to the wastewater treatment plant to meet regulatory requirements (Impact Util-1). This impact would be reduced to less than significant through demonstration of wastewater system capacity (MM Util-1).

All other impacts would be less than significant without the need for mitigation.

ALTERNATIVES

Three alternatives to the proposed Plan were considered in detail in the alternatives analysis presented in Chapter 21 of this document, as discussed below.

Alternative 1, the No Project/No Development Alternative, assumes that no new development would occur in the Plan area, which would remain largely in agricultural use. Alternative 1 would not meet Project Objectives. Impacts under Alternative 1 would be less than under the proposed Project.

Alternative 2, the Reduced Intensity Alternative, assumes that the Plan area would develop according to a reduced intensity development plan that increases the amount of area for residential and reduces

the amount of area for commercial while still preserving a mix of uses. Alternative 2 would meet several Project objectives. Due to reductions in non-residential uses, however, Alternative 2 would meet to a reduced degree the commercial and employment potential of the SR 33 corridor along the Plan area. As a result, this alternative would not fully respond to current and future market conditions in and around the City of Newman. Because the same total area would be disturbed and developed under Alternative 2 as under the proposed Plan, most impacts would remain the same or similar to those identified for the proposed Plan. One impact, the SR 33 roadway segment from Jensen Road to Yolo Street (Impact Traf-6) would be substantially reduced to a less than significant level under Alternative 2, whereas it was significant and unavoidable under the proposed Plan. However, note that significant and unavoidable cumulative impacts along this segment (Impact Traf-24) would still occur with addition of cumulative traffic and MM Traf-6 would need to be funded to reduce, but not fully mitigate, impacts along this segment. Other impacts related to reduced traffic would be marginally reduced, but not to the point where significance conclusions would be changed and are therefore considered similar under Alternative 2 as to the proposed Plan.

Alternative 3, the Reduced Footprint Alternative, assumes that the total area for Plan development would be reduced by about half, with the plan for development in the eastern half being retained and the western half (proposed under the Plan as residential and park development) instead remaining in agricultural use. Under this alternative, the remaining Plan area would develop with a mix of residential, business park, community commercial, office, and parks uses, while reducing the total residential acreage available for development under the Plan. Alternative 3 would meet several Project objectives, but fewer than Alternative 2. Due to reductions in the footprint for developing residential and non-residential uses, however, Alternative 3 would meet to a reduced degree the provision of a diversity of active and passive parks and open space, the provisions of sufficient system of public facilities and services that accommodate the needs of future residents, and potentially the promotion of a high-quality residential area for move-up homes. As a result, this alternative would not necessarily respond to current and future market conditions in and around the City of Newman. Impacts under Alternative 3 would be less than under the proposed Project. Because only roughly half the area would be disturbed under Alternative 3 as under the proposed Plan, impacts related to disturbance such as those related to agricultural resources, biological resources, cultural resources, geology and soil, hydrology, etc., would also be reduced, though identified mitigation would still be required and significance conclusions would remain unchanged. Similarly, impacts related to increased population and development, such as those related to population, public services, and utilities would also be reduced, though again, identified mitigation would still be required and significance conclusions would remain unchanged. As with Alternative 2, Alternative 3 would substantially reduce the plan-specific contribution of traffic to a SR-33 roadway segment and reduce that impact (Impact Traf-6) to less than significant levels. However, the impact would only be reduced below threshold levels when considering development in the Plan area only. Cumulative increases in traffic in the region would still result in this segment operating below acceptable operation levels under future conditions, so the impact to this segment would not ultimately be avoided through either alternative.

TABLE 2.1: SUMMARY OF PROJECT IMPACTS AND MITIGATION MEASURES

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
General Plan Significant Impacts – No New Impact		
Impact Ag-1: Conversion of Farmland. The proposed Master Plan would result in the conversion of approximately 5 acres of Grazing Land and 305 acres of Prime Farmland to non-agricultural uses and contribute to cumulative loss of agricultural land. (General Plan Significant Impact - No New Impact)	No feasible mitigation has been identified. City institution of the Urban Growth Boundary to create strict limits for urban growth surrounding the developed portions of the city, and institution of a right-to-farm ordinance meet requirements of the County LAFCO Agricultural Preservation Policy.	No New Impact
Impact Noise-3: Increased Roadway Noise For Existing Uses. The Plan would increase traffic noise levels substantially at sensitive uses along project roadways in its vicinity. (General Plan Significant Impact - No New Impact)	No feasible mitigation has been identified.	No New Impact
Impact Noise-5: Cumulative Traffic Noise. The Plan in combination with the effects of buildout of the surrounding community would increase traffic noise levels substantially along roadways in its vicinity. (General Plan Significant Impact - No New Impact)	Noise-1a, -1b, and -2 would also be applicable to reduce Impact Noise-5. No other feasible mitigation has been identified.	No New Impact
Significant and Unavoidable		
Impact Air-1: Construction Emissions. Construction activity would temporarily affect local air quality, causing a temporary increase in particulate dust and other pollutants. While the exact timing of construction is not known for Plan build-out, it is possible that SJVAPCD thresholds could be exceeded and contributions to regional exceedances could be significant. This is a significant impact.	Air-1: Compliance with SJVAPCD Rule 9510. New development projects in the Plan area that would generate substantial air pollutant emissions would be required by SJVAPCD Rule 9510 to mitigate construction- and operation-period emissions by applying the SJVAPCD-approved measures and paying fees to support programs that reduce emissions. No other feasible mitigation has been identified.	Significant and Unavoidable
Impact Air-2: Operational Emissions. Operational emissions generated by Plan area development and related traffic would increase emissions in the region, affecting the attainment and maintenance of criteria air pollutant air quality standards. These increases would be above GAMAQI significance thresholds and the impact is considered significant.	Air-1 would also be applicable to Impact Air-2. No other feasible mitigation has been identified.	Significant and Unavoidable
Impact Air-4: Cumulative Construction and Operational Emissions. Construction and operational impacts of Plan build-out would also contribute to cumulative air quality impacts. This is a significant impact.	Air-1 would also be applicable to Impact Air-4. No other feasible mitigation has been identified.	Significant and Unavoidable
Impact Climate-1: Greenhouse Gas Emissions. New development in the Plan area would be an additional source of GHG emissions, primarily through consumption of energy for transportation and energy usage, which could contribute to significant impacts on the environment.	Climate-1: Implement Greenhouse Gas Emissions Reduction Measures. Development projects within the Plan area shall demonstrate GHG emissions reductions to comply with State and Federal requirements, as feasible, through implementation of SJVAPCD GHG emission reduction measures or quantification of reduction from additional measures. Or, if the City of Newman has adopted an alternate GHG emission reduction plan or GHG mitigation program in the interim, compliance with that plan or program will satisfy this mitigation measure.	Significant and Unavoidable

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p>Impact Noise-4: Construction Noise. Businesses and residences throughout the Northwest Newman Master Plan area would be intermittently exposed to high levels of noise throughout the plan horizon. Construction would elevate noise levels at adjacent businesses and residences by 15 dBA or more.</p>	<p>Noise-4: Construction Noise Mitigation. In addition to complying with construction noise controls outlined in the City of Newman General Plan, the following measures shall be implemented when applicable and feasible to reduce noise from construction activities:</p> <ul style="list-style-type: none"> • Ensure construction equipment is well maintained and used judiciously to be as quiet as practical. • Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment. • Utilize “quiet” models of air compressors and other stationary noise sources where technology exists. • Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction project area. • Prohibit unnecessary idling of internal combustion engine. • Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses, or erect temporary noise control blanket barriers as necessary. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling. • Route construction related traffic along major roadways and as far as feasible from sensitive receptors. • Ensure that all construction activities (including the loading and unloading of materials and truck movements) are limited to the hours of 7:00 a.m. to 7:00 pm on weekdays and between the hours of 8:00 a.m. and 7:00 p.m. on Saturdays. • Businesses, residences or noise-sensitive land uses adjacent to construction sites should be notified of the construction schedule in writing. Designate a “construction liaison” that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site. 	<p>Significant and Unavoidable</p>
<p>Impact Traf-17: SR 33 & Yolo Street, Cumulative. The addition of Plan traffic to this intersection would degrade the LOS from unacceptable F with overflow conditions in the a.m. peak hour and unacceptable E in the p.m. peak hours to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan.</p>	<p>Traf-3 includes measures identified to improve the operation of this intersection under existing and EPAP conditions. Traf-17 would modify the intersection different than the improvements identified in these mitigation measures.</p> <p>Traf-17: SR 33 & Yolo Street, Cumulative. The intersection should be improved as described below:</p> <ul style="list-style-type: none"> • Signalize the intersection. • Split the southbound combined through/right-turn lane into an exclusive southbound through lane and an exclusive southbound-to-westbound right-turn lane. • Split the eastbound single-lane approach into exclusive eastbound-to-northbound left-turn lane and an eastbound combined through/right-turn lane. <p>During the p.m. peak hour, the LOS would degrade from LOS E to LOS F even with the above mitigation. No</p>	<p>Significant and Unavoidable</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	other improvements at this intersection are considered feasible.	
Impact Traf-24: Roadway Segment SR 33 - Jensen Road to Yolo Street. The addition of Plan traffic to this roadway segment would degrade the LOS D to an unacceptable LOS F. This is a significant impact of the Plan.	Traf-6 includes measures identified to improve the operation of this roadway segment under existing conditions, which would also serve to mitigate Impact Traf-24. Achieving acceptable LOS (D or above) on this roadway segment would require widening the roadway to six lanes, requiring demolition of existing land use development, and dividing the City, which is not considered feasible.	Significant and Unavoidable
Impact Traf-25: Roadway Segments Stuhr Road - Draper Road to Eastin Road and Eastin Road to Interstate 5. The addition of Plan traffic to these roadway segments would degrade the LOS from an unacceptable D to an unacceptable LOS E. This is a significant impact of the Plan.	The Newman General Plan EIR forecasts these interregional roadway segments operating at an unacceptable LOS. No mechanism currently exists for City development to participate on a “fair share” basis in the costs of maintaining and improving roads outside of the City limits.	Significant and Unavoidable
Less than Significant with Mitigation		
Impact Bio-1: Disturbance of Nesting Swainson’s Hawks. Construction activities associated with buildout of the Plan Area could adversely affect nesting Swainson’s hawks.	Bio-1: Pre-Construction Swainson’s Hawk Survey. Pre-construction surveys for nesting Swainson’s hawks within 0.5 miles of proposed project sites shall be conducted if construction commences between March 1 and September 15 for public or private projects. If active nests are found, a qualified biologist, as approved by the Newman Planning Department, shall determine the need (if any) for temporal restrictions on construction or through setbacks from active nests. The determination shall be pursuant to criteria set forth by CDFW.	Less than Significant
Impact Bio-2: Burrowing Owl Disturbance. Site grading and other forms of construction disturbance could result in the direct loss or injury to burrowing owls or the forced evacuation from their burrows.	Bio-2: Pre-construction Burrowing Owl Survey. Pre-construction surveys for burrowing owls within a proposed project site in the Plan area shall be conducted if construction commences between February 1 and August 31. If occupied burrows are found, a qualified biologist, as approved by the Newman Planning Department, shall determine the need (if any) for temporal restrictions on construction. The determination shall be pursuant to criteria set forth by CDFW.	Less than Significant
Impact Bio-3: Disturbance of Nesting Birds or Roosting Bats. Construction activities associated with buildout of the Plan area could adversely affect nesting birds protected by the Migratory Bird Treaty Act of 1918 and/or Fish and Game Code of California or roosting special-status bat species.	Bio-3a: Pre-Construction Nesting Bird Survey. Pre-construction surveys for nesting birds protected by the MBTA of 1918 and/or Fish and Game Code of California within 100 feet of a development site in the Plan area shall be conducted if construction commences during the avian nesting season, between February 1 and August 31. The survey should be undertaken no more than 15 days prior to any site-disturbing activities, including vegetation removal or grading. If active nests are found, a qualified biologist, as approved by the Newman Planning Department, shall determine an appropriate buffer in consideration of species, stage of nesting, location of the nest, and type of construction activity. The buffers should be maintained until after the nestlings have fledged and left the nest. Bio-3b: Pre-Construction Roosting Bat Survey. Pre-construction surveys for roosting Western red bat, pallid bat, and other special-status bats within 100 feet of a development site in the Plan area shall be conducted if the	Less than Significant

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>removal of trees or structures commences during the avian nesting season, between March 1 and July 31. The survey should be undertaken by a qualified biologist, as approved by the Newman Planning Department, no more than 30 days prior to any removal of trees or structures. If active maternity roosts or hibernacula are found, removal of trees or structures should be delayed until after July 31 or until a qualified biologist determines the young are volant (i.e., flying).</p>	
<p>Impact Cultural-1: Disturbance of or Damage to Unidentified Surface or Subsurface Cultural Resources. Ground-disturbing activities associated with construction within the planning area have the potential to disturb previously undiscovered cultural resources. The potential also exists for previously undiscovered archaeological, paleontological, or human remains resources to be damaged or destroyed during construction activities.</p>	<p>Cultural-1a: Preconstruction Survey. Prior to initiating construction activities associated with the proposed Plan area, an archaeological inventory survey will be performed. If resources are discovered during survey, Mitigation Measures CR-1b through CR-1h will be implemented. (Note that existing uses within the Plan area are allowed to continue to perform maintenance and improvements on their property under applicable existing regulations.)</p> <p>Cultural-1b: Cultural Resource Avoidance. The lead agency will seek to avoid cultural resources as the preferred mitigation measure. Avoidance of cultural resources would result in a less-than-significant level of impact to any cultural resource identified. Under Cultural-1b, roads, buildings, facilities and any activity involving ground disturbance will be located to avoid cultural resources. To ensure that no inadvertent impacts occur to cultural resources designated for avoidance, cultural resource boundaries will be marked as exclusion zones both on the ground and on construction maps. This would include resources within 30 meters of proposed ground disturbing activities.</p> <p>Cultural-1c: Construction Personnel Notification. Construction supervisory personnel will be notified of the existence of cultural resources and required to keep personnel and equipment away from these areas. A qualified archeologist will be notified prior to initiation of construction activities. Periodic monitoring of cultural resources to be avoided will be completed by a qualified archeologist to ensure that no inadvertent damage to the resources occur as a result of construction or construction-related activities. The timing and frequency of this monitoring shall be at the discretion of the archaeologist. During construction and operations, personnel and equipment will be restricted to designated work sites.</p> <p>Cultural-1d: Training and Reporting. Prior to the initiation of ground disturbing activities within the proposed Plan area, all construction personnel will be alerted to the potential for encountering buried or unanticipated cultural remains, including prehistoric and/or historic period resources. Construction personnel will be instructed that upon discovery of buried cultural materials, all work within a 30-meter vicinity of the find will be halted immediately, and the lead agency will be notified. Once the find has been identified by a qualified archaeologist, the lead agency will make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the find is found to be a</p>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>historical resource per State CEQA Guidelines. Application of Mitigation Measure Cultural-1b would be appropriate if the find is to be avoided; if the find cannot be avoided, Mitigation Measure Cultural-1e would be implemented.</p> <p>Cultural-1e: Evaluation for the California Register of Historical Resources (CRHR). If avoidance is determined to be infeasible, the lead agency will retain a qualified archaeologist to evaluate any cultural resources encountered according to State CEQA Guidelines for their potential eligibility to be listed on the CRHR. In the case of a prehistoric archaeological site, evaluation may be completed by examining existing records and reports, through detailed recording, and/or through excavation to determine the data potential of the site. Evaluation of historic period resources may include further archival study, detailed recording and/or excavation. Resources determined not to be historically significant by the lead agency would require no further management. If cultural resources are considered historically significant per CEQA or eligible for the CRHR, a data recovery program would be implemented to reduce impacts to less-than-significant levels as required by State CEQA Guidelines. Data recovery could include excavation, detailed analysis, and/or further research depending on the nature and type of the resource. Excavated materials would be curated at an appropriate facility, to be identified by the lead agency.</p> <p>Cultural-1f: Cultural Resources Management Plan (CRMP). If cultural resources are encountered within the proposed Plan area through Mitigation Measure Cultural-1a, the lead agency will develop a CRMP for newly discovered cultural resources within areas of direct impact for the Plan area. This CRMP will include:</p> <ul style="list-style-type: none"> • procedures for protecting and avoiding cultural resources; • provisions for the evaluation and treatment of unanticipated discoveries, including human remains; • provisions for Native American consultation; • reporting requirements to be fulfilled by the selected archaeological contractor; • provisions for curation of any cultural materials collected; and • requirements specifying that archaeologists and other discipline specialists meet the Professional Qualifications Standards mandated by the California OHP. <p>Implementation of the CRMP will ensure that known cultural resources will be avoided during ground disturbing activities associated with the Plan area. Specific protective measures will be defined in the CRMP to reduce potential adverse impacts to any previously undiscovered cultural resources to less-than-significant levels. The CRMP will define construction procedures for areas near known/recorded cultural resources. Wherever ground disturbing activities are scheduled to occur within 30 meters of a cultural resource eligible or potentially</p>	

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>eligible for listing on the CRHR, the resource will be flagged as an exclusion zone or as an environmentally sensitive area (without disclosing the exact nature of the environmental sensitivity). Construction equipment will be directed away from the area, and construction personnel will be advised not to enter the environmentally sensitive area. Cultural resource monitoring of ground disturbing activities will be focused on the immediate vicinity surrounding designated environmentally sensitive area boundaries.</p> <p>Cultural-1g: Construction Monitoring. Cultural resource monitoring will be conducted by a qualified archaeologist familiar with the types of prehistoric and historic period resources that may be encountered within the proposed Plan area. Monitoring will occur in all areas of ground disturbing activity that occur within 30 meters of a cultural resource eligible or potentially eligible for listing on the CRHR. A Native American monitor may be required at culturally or traditionally sensitive locations.</p> <p>Cultural-1h: Human Remains. If human remains are encountered during ground disturbing activities, all work within a 30-meter vicinity of the find will be halted immediately, and the lead agency and the Stanislaus County Coroner will be notified. If the remains are determined to be Native American, the Native American Heritage Commission will be notified within 24 hours as required by PRC Sections 5097.94 and 5097.98. The Native American Heritage Commission will notify the designated Most Likely Descendant(s), who will in turn provide recommendations for the treatment of the remains within 48 hours of being granted access to the find.</p>	
<p>Impact Geo-1: Construction-Period Soil Erosion. Soils in the Plan area have a moderate erosion potential. Grading and construction activities will expose soil to the elements, which would be subject to erosion during storm events. Unprotected soils would erode during heavy seasonal rainstorms and this runoff would include significant sediment loading that could cause increased turbidity and sedimentation in downstream receiving channels. This is a potentially significant impact.</p>	<p>Geo-1: Erosion Control Plan/Stormwater Pollution Prevention Plan. Development within the Master Plan area shall comply with Central Valley RWQCB guidelines applicable at the time of the issuance of any grading permit and shall adopt acceptable BMPs for control of sediment and stabilization of erosion on the subject site. Acceptable BMPs for the protection of water quality shall also be adopted. Development under the Master Plan will be dependent upon approval of an Erosion Control Plan and a Stormwater Pollution Prevention Plan (SWPPP) as outlined below.</p> <p>(1) Erosion Control Plan</p> <p>An Erosion Control Plan shall be prepared and implemented for development projects in the Plan area. The plan shall be submitted to the City of Newman in conjunction with the Project Grading Plan prior to start of construction, and a final report is required prior to final building acceptance.</p> <p>The Plan shall include locations and specifications of recommended soil stabilization techniques, such as placement of straw wattles, silt fence, berms, and storm drain inlet protection. The Plan shall also depict staging and mobilization areas with access routes to and from the site for heavy equipment. The Plan shall include temporary measures to be implemented during construction, as well as permanent measures.</p>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<p>City staff or representatives shall visit the site during grading and construction to ensure compliance with the grading ordinance and plans, as well as note any violations, which shall be corrected immediately. A final inspection shall be completed prior to occupancy. Elements of this Plan may be incorporated into the SWPPP, where applicable.</p> <p>(2) Stormwater Pollution Prevention Plan (SWPPP) In accordance with the Clean Water Act and the State Water Resources Control Board (SWRCB), the Permittee shall file a SWPPP prior to the start of construction. The SWPPP shall include specific best management practices to reduce soil erosion. This is required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ).</p>	
<p>Impact Haz-1: Accidental Hazardous Materials Release. If hazardous materials are present in the Plan area, they could be released during site preparation, site grading, construction, and operation.</p>	<p>Haz-1: Hazardous Materials Treatment. To ensure that impacts from hazardous materials are reduced to an acceptable of risk within the Master Plan area, the following steps shall be taken by the developers of future individual construction projects:</p> <p>1) Prior to issuance of demolition, grading, or building permits, development projects in the Master Plan area shall submit to the Newman Community Development Department, a Phase I Environmental Site Assessment report signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer and a Phase II report, if warranted by the Phase I report for the individual site. The report(s) shall identify any hazardous materials present on site and make recommendations for timing and type of remedial action, if appropriate.</p> <p>If warranted by the Phase I analysis, development projects in the Master Plan area shall complete additional surface and subsurface soil sampling to determine if elevated levels of pesticides, fungicides, fertilizers or hydrocarbons are present in the former agricultural soil. These tests shall take place within the areas of the project site currently or previously in agricultural use.</p> <p>If warranted, a registered geologist or civil engineer shall perform soil sampling, and all soil testing shall be performed by a state certified analytical laboratory, with results reported to the Stanislaus County Department of Environmental Resources. If contamination exceeding residential guidelines such as the Regional Water Quality Control Board Environmental Screening Levels (ESL) for Residential Sites, U.S. EPA Preliminary Remediation Goals (PRG) for Residential sites, or the California Department of Toxic Substances Control Human Health Screening Levels (HHSL) is detected, then a Site Soil Management Plan and Health and Safety Plan shall be prepared and implemented.</p> <p>If contamination of site soils is detected, then results shall be reported to the DTSC and a Site Soil Management Plan shall be prepared in accordance with recommendations of the environmental consultant and established procedures for safe removal.</p>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	Demolition of existing structures in the Master Plan area shall only be approved by the City of Newman following testing for asbestos-containing materials and lead based paints and removal of these substances by a qualified contractor.	
<p>Impact Hydro-1: Soil Erosion. Grading activities for development projects in the Plan area, including grading and the construction of the building pads, streets, commercial areas, residential areas and parks, could result in erosion and associated siltation/sedimentation impacts from runoff.</p>	<p>Hydro-1: Preparation and Implementation of Project SWPPP. Development within the Plan area shall ensure that local and surface waters are protected from pollution. Future individual developments shall comply with Central Valley Regional Water Quality Control Board guidelines applicable at the time of the issuance of any grading permit and shall adopt acceptable BMPs for control of sediment and stabilization of erosion on the subject site. Acceptable BMPs for the protection of water quality shall also be adopted. Development under the Plan will be dependent upon approval of an Erosion Control Plan and a SWPPP as outlined below.</p> <p>1) An Erosion Control Plan shall be prepared and implemented for development projects in the Plan area. The plan shall be submitted to the City of Newman in conjunction with the Project Grading Plan prior to start of construction, and a final report is required prior to final building acceptance. The Plan shall include locations and specifications of recommended soil stabilization techniques, such as placement of straw wattles, silt fence, berms, and storm drain inlet protection. The Plan shall also depict staging and mobilization areas with access routes to and from the site for heavy equipment. The Plan shall include temporary measures to be implemented during construction, as well as permanent measures. City staff or representatives shall visit the site during grading and construction to ensure compliance with the grading ordinance and plans, as well as note any violations, which shall be corrected immediately. A final inspection shall be completed prior to occupancy. Elements of this Plan may be incorporated into the SWPPP, where applicable.</p> <p>2) Future individual developers shall file a SWPPP with the State Water Resources Control Board prior to the start of construction. The SWPPP shall include specific best management practices to minimize soil erosion.</p> <p>Pursuant to NPDES requirements, development project applicants in the Plan area shall develop a SWPPP to protect water quality during and after construction. Prior to the issuance of a grading permit, the Applicant shall file with the State Water Resources Control Board a Notice of Intent to comply with the General Permit for Storm Water Discharges Associated with Construction Activities (General Permit) under the NPDES regulations, and comply with the requirements of the permit to minimize pollution to storm water discharge during construction activities. The SWPPP shall include, but is not limited to, the following mitigation measures for the construction period:</p> <p>All pollutant sources, including sources of sediment that may affect storm water quality associated with construction activity shall be identified.</p>	<p>Less than Significant</p>

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
Impact Hydro-2: Increase in Non-Point Source Pollutants. Development of the Plan area would increase the potential to generate and spread non-point source pollutants by increasing impermeable surface area and potentially increasing runoff velocities. The impact of non-point source pollution could be significant.	Hydro-2: Implement Water Quality BMPs for All Stormwater Discharge Areas. Development project applicant shall implement storm water quality BMPs as required under the NPDES permit at the time of development. Possible BMPs include, pervious pavement, infiltration swales, or other treatment controls to be included and described in the SWPPP under Mitigation Measure Hydro-1. Final designs and calculations for the treatment capacity and efficiency of any water quality BMP implementation shall be submitted to the City Development Services Department prior to permit approval.	Less than Significant
Impact Hydro-3: Decrease in Groundwater Recharge or Quality. Removal and grading of surface soils and an increase in impervious surface areas will reduce the rate and location of groundwater recharge for the site and could decrease the quality of groundwater.	Hydro-3: Implement BMPs for Protection of Groundwater Quality and Supply. New development in the Plan area shall provide storm water management measures to maximize on-site infiltration of runoff from commercial, public facility, residential areas, and open space areas. Possible measures include design and construction of pervious surface areas, and infiltration swales and basins. Storm water infiltration measures at the site shall be approved by the City's Public Works Department and should follow, to the maximum extent practicable, California Stormwater Quality Association guidelines.	Less than Significant
Impact Hydro-4: Redirection of Flood Waters. Future grading activities and raising building pads during development in the Plan area would potentially redirect flood waters to other properties. This impact would be potentially significant.	Hydro-4: Project-specific Review of Flood Zone Parcels. New development in the Plan area shall be subject to project-specific review when the parcels proposed for development are located in a mapped flood zone. As specific projects are proposed within this area, design-level hydro calculations shall be submitted and considered as a part of City review of the projects. Through project design and/or project-specific mitigation, such projects shall not increase the potential for off-site flooding and shall address flooding potential onsite.	Less than Significant
Impact Noise-1: New Land Uses in Areas Exceeding Noise Thresholds. New development could be exposed to outdoor noise and indoor noise levels that would exceed the City's established noise and land use compatibility thresholds.	Noise-1a: Site-Specific Noise Reduction – Single- and Multi-family Residential. In single and multi-family residential areas proposed within 370 feet of the center of West Stuhr Road, 230 feet of the center of Jensen Road, and 90 feet of the center of Fig Lane or Harvey Lane, a site-specific acoustical design will be required for development projects to demonstrate that site-specific noise reduction measures have been incorporated and will meet the City's noise standards (60 dBA Ldn for single family outdoor activity areas, 65 dBA Ldn for multi-family common outdoor use areas, and 45 dBA Ldn for interior residential areas). These measures may include, but are not limited to, some or all of the following: <ul style="list-style-type: none"> • Use sound walls, or sound walls in combination with earthen berms where proposed, to reduce noise levels to 60 dBA Ldn or less in outdoor activity areas associated with proposed single family residential developments and 65 dBA Ldn or less in common outdoor activity areas associated with proposed multi-family residential developments. The final height and design of these walls would be completed during the site-specific review for these parcels when detailed site plans and grading plans are available. 	Less than Significant

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	<ul style="list-style-type: none"> • Utilize site planning to minimize noise in shared single-family residential areas by locating residences further from the centerline of the roadway or facing homes toward the roadway to shield backyard areas. Appropriate noise reduction would need to be demonstrated with site-specific acoustical analyses. • Utilize site planning to minimize noise in shared residential outdoor activity areas by locating the areas behind the buildings, in courtyards, or orienting the terraces to alleyways rather than streets, whenever possible. Appropriate noise reduction would need to be demonstrated with site-specific acoustical analyses. • If 60 dBA Ldn or less is not achieved for exterior noise levels where residential units are proposed (e.g., at unshielded upper stories of single or multi-family homes), the City of Newman requires project-specific acoustical analyses to achieve interior noise levels of 45 dBA Ldn or lower. Building sound insulation requirements would need to include the provision of forced-air mechanical ventilation in noise environments exceeding 60 dBA Ldn so that windows could be kept closed at the occupant’s discretion to control noise. Special building construction techniques (e.g., sound-rated windows and building facade treatments) may be required where exterior noise levels exceed 65 dBA Ldn. These treatments include, but are not limited to sound rated windows and doors, sound rated exterior wall assemblies, acoustical caulking, etc. The specific determination of what treatments are necessary will be conducted on a unit-by-unit basis during project design. Results of the analysis, including the description of the necessary noise control treatments, will be submitted to the City along with the building plans and approved prior to issuance of a building permit. Feasible construction techniques such as these would adequately reduce interior noise levels to 45 dBA Ldn or less. <p>Noise-1b: Site-Specific Noise Reduction – Recreational and Park Uses. In recreational and park use areas proposed within about 170 feet of the center of Stuhr Road, 110 feet of the center of Jensen Road, and 40 feet of the center of Fig Lane or Harvey Lane, a site-specific acoustical design will be required for development projects to demonstrate that site-specific noise reduction measures have been incorporated and will meet the City’s 65 dBA Ldn noise standard for common outdoor activity areas and noise sensitive recreational areas. These may include, but are not limited to, some or all of the following:</p> <ul style="list-style-type: none"> • Utilize site planning to minimize noise in noise sensitive recreational and park outdoor activity areas by locating the noise sensitive areas such as playgrounds, trails, activity areas, or picnic tables, further from the centerline of the roadway or in shielded areas. Appropriate noise reduction shall be demonstrated through site-specific acoustical analyses. • If the City’s noise standards are not able to be met through use of site planning as described above, sound 	

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
	walls, or sound walls in combination with earthen berms could also be used to reduce noise levels to 65 dBA Ldn or less. The final height and design of these walls would shall be completed during the site specific regulatory review for these parcels when detailed site plans and grading plans are available.	
Impact Noise-2: Potential Commercial Noise Conflicts with Residential. New commercial development proposed in the same building as residential development or commercial development proposed adjacent to residential development could result in noise levels exceeding City standards.	Noise-2: Non-Residential Noise Studies and Measures. Noise levels at residential property lines from non-residential development shall be maintained within the City of Newman Noise Limits. Noise barriers, equipment screens, fan sound attenuators, and other standard controls shall be incorporated as necessary. A noise study shall be required for new noise-generating commercial uses adjacent to noise-sensitive areas as part of the project approval. The noise studies shall demonstrate how these new commercial uses, including loading docks, refuse areas, and ventilation systems, etc., would comply with General Plan noise policies and be consistent with the City's noise standards. A noise study shall also be required for new noise-generating industrial uses adjacent to noise-sensitive areas as part of the project approval. The noise studies shall demonstrate how these new industrial uses, including loading docks, refuse areas, and ventilation systems, etc., would comply with General Plan noise policies and be consistent with the City's noise standards.	Less than Significant
Impact Traf-2: SR 33 & Jensen Road / Sherman Parkway. The addition of Plan traffic to this intersection would degrade the LOS from C in the a.m. peak hour and D in the p.m. peak hour, both of which are considered acceptable, to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan.	Traf-2: SR 33 & Jensen Road / Sherman Parkway. The intersection should be improved as described below: <ul style="list-style-type: none"> • Add an exclusive northbound through lane. • Add an exclusive southbound through lane. • Split the eastbound combined through/right-turn lane into an exclusive eastbound through lane and an exclusive eastbound-to-southbound right-turn lane. • Set the signal timing of the eastbound-to-southbound right-turn movement to overlap. • Prohibit northbound-to-southbound U-turns. 	Less than Significant
Impact Traf-3: SR 33 & Yolo Street. The addition of Plan traffic to this intersection would degrade the LOS from an acceptable C in the a.m. and p.m. peak hours to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan.	Traf-3: SR 33 & Yolo Street. The intersection should be improved as described below: <ul style="list-style-type: none"> • Signalize the intersection. • Add an exclusive northbound through lane. • Add an exclusive southbound through lane. 	Less than Significant
Impact Traf-4: Fig Lane / Q Street & Yolo Street. The addition of Plan traffic to this intersection would degrade the LOS from an acceptable B in the a.m. and p.m. peak hours to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan	Traf-4: Fig Lane / Q Street & Yolo Street. The intersection should be improved as described below: <p>Signalize the intersection.</p>	Less than Significant
Impact Traf-5: SR 33 & North Commercial Access. This intersection would be created by the Plan and would operate at unacceptable LOS E and F during the a.m. and p.m. peak hours, respectively. This is a significant impact of the Plan.	Traf-5: SR 33 & North Commercial Access. The intersection should be improved as described below: <ul style="list-style-type: none"> • Prohibit eastbound-to-northbound left-turn movements at this intersection. • Add an exclusive northbound through lane. • Add an exclusive southbound through lane. 	Less than Significant

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
Impact Traf-6: Roadway Segment SR 33 - Jensen Road to Yolo Street. The addition of Plan traffic to this roadway segment would degrade the LOS from an acceptable A to an unacceptable LOS F. This is a significant impact of the Plan.	Traf-6: SR 33 & Jensen Road / Sherman Parkway. Widen the roadway segment of SR 33 from Jensen Road to Yolo Street to four lanes (two lanes in each direction).	Less than Significant
Impact Traf-8: SR 33 & Jensen Road / Sherman Parkway, EPAP. The addition of Plan traffic to this intersection would degrade the LOS from C in the a.m. peak hour and D in the p.m. peak hour, both of which are considered acceptable, to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan.	Traf-2 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to partially mitigate Impact Traf-8. Traf-8: SR 33 & Jensen Road / Sherman Parkway, EPAP. In addition to improvements in Mitigation Measure Traf-2, the intersection should be improved as described below: <ul style="list-style-type: none"> • Split the westbound combined through/right-turn lane into an exclusive westbound through lane and an exclusive westbound-to-northbound right-turn lane. 	Less than Significant
Impact Traf-9: SR 33 & Yolo Street, EPAP. The addition of Plan traffic to this intersection would degrade the LOS from an acceptable C in the a.m. and p.m. peak hours to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan.	Traf-3 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to mitigate Impact Traf-9.	Less than Significant
Impact Traf-10: Fig Lane / Q Street & Yolo Street, EPAP. The addition of Plan traffic to this intersection would degrade the LOS from an acceptable B in the a.m. and p.m. peak hours to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan.	Traf-4 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to mitigate Impact Traf-10.	Less than Significant
Impact Traf-11: SR 33 & North Commercial Access, EPAP. This intersection would be created by the Plan and would operate at unacceptable LOS E and F during the a.m. and p.m. peak hours, respectively. This is a significant impact of the Plan.	Traf-5 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to mitigate Impact Traf-11.	Less than Significant
Impact Traf-13: Roadway Segment SR 33 - Jensen Road to Yolo Street. The addition of Plan traffic to this roadway segment would degrade the LOS from an acceptable A to an unacceptable LOS F. This is a significant impact of the Plan.	Traf-6 includes measures identified to improve the operation of this roadway segment under existing conditions, which would also serve to mitigate Impact Traf-13.	Less than Significant
Impact Traf-15: SR 33 & Stuhr Road, Cumulative. The addition of Plan traffic to this intersection would degrade the LOS from C in the a.m. peak hour and D in the p.m. peak hour, both of which are considered acceptable, to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan.	Traf-15: SR 33 & Stuhr Road, Cumulative. The intersection should be improved as described below: <ul style="list-style-type: none"> • Split the eastbound combined through/right-turn lane into an exclusive eastbound through lane and an exclusive eastbound-to-southbound right-turn lane. • Split the southbound combined through/right-turn lane into an exclusive southbound through lane and an exclusive southbound-to-westbound right-turn lane. • Split the northbound combined through/right-turn lane into an exclusive northbound through lane and an exclusive northbound-to-eastbound right-turn lane. 	Less than Significant
Impact Traf-16: SR 33 & Jensen Road / Sherman Parkway, Cumulative. The addition of Plan traffic to this intersection would degrade	Traf-2 and Traf-8 includes measures identified to improve the operation of this intersection under existing and EPAP conditions. Traf-16 would modify the intersection	Less than Significant

Potential Environmental Impacts	Recommended Mitigation Measures	Resulting Level of Significance
<p>the LOS from unacceptable F in the a.m. and p.m. peak hour with overflow conditions, to an unacceptable LOS F during both peak hours. This is a significant impact of the Plan.</p>	<p>different than the improvements identified in these mitigation measures.</p> <p>Traf-16: SR 33 & Jensen Road / Sherman Parkway, Cumulative. The intersection should be improved as described below:</p> <ul style="list-style-type: none"> • Split the eastbound combined through/right-turn lane into an exclusive eastbound through lane and an exclusive eastbound-to-southbound right-turn lane. • Split the southbound combined through/right-turn lane into an exclusive southbound through lane and an exclusive southbound-to-westbound right-turn lane. • Add a second northbound-to-westbound left-turn lane. • Split the northbound combined through/right-turn lane to include an exclusive northbound through lane and a free northbound-to-eastbound right-turn lane. • For the free northbound-to-eastbound right-turn lane, add an eastbound departure lane that merges into the eastbound departure. The length of the departure lane should be per the California Manual on Uniform Traffic Control Devices - FHWA's MUTCD 2009 Edition as amended for use in California – 2012 Edition (Caltrans 2012). • Add a second westbound-to-southbound left-turn lane. 	
<p>Impact Traf-20: Fig Lane / Q Street & Yolo Street, Cumulative. The addition of Plan traffic to this intersection would worsen already unacceptable LOS F with overflow conditions in the a.m. and p.m. peak hours. This is a significant impact of the Plan.</p>	<p>Traf-4 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to mitigate Impact Traf-20.</p>	<p>Less than Significant</p>
<p>Impact Traf-21: SR 33 & North Commercial Access, Cumulative. This intersection would be created by the Plan and would operate at unacceptable LOS F with overflow conditions during the a.m. and p.m. peak hours, respectively. This is a significant impact of the Plan.</p>	<p>Traf-5 includes measures identified to improve the operation of this intersection under existing and conditions. Traf-21 would modify the intersection different than the improvements identified in these mitigation measures.</p> <p>Traf-21: SR 33 & North Commercial Access, Cumulative. The intersection should be improved as described below:</p> <ul style="list-style-type: none"> • Restrict turn movements at this intersection to through movements and right-turn movements. Prohibit left-turn movements at this intersection. • Convert the exclusive eastbound-to-southbound right-turn lane into a free eastbound-to-southbound right-turn lane. Add a southbound departure lane to accept vehicles from the free right-turn movement that merges into the southbound departure. The length of the departure lane should be per the California MUTCD. 	<p>Less than Significant</p>
<p>Impact Util-1: Increased Wastewater Generation. The proposed Master Plan would increase demand for wastewater collection, treatment and disposal, within the capacity of the existing wastewater collection system and treatment plant, though cumulative demand may require minor upgrades to the wastewater treatment plant to meet regulatory requirements.</p>	<p>Util-1: Demonstration of Wastewater System Capacity. Prior to issuance of building permits, applicants of development projects in the Plan area shall coordinate with the City Engineer to demonstrate adequate wastewater treatment and disposal capacity will be available to support the development proposed.</p>	<p>Less than Significant</p>

PROJECT DESCRIPTION

For ease of reference, all figures for this chapter have been included at the end of the chapter, on pages 3-9 through 3-15.

SITE LOCATION AND CONDITIONS

LOCATION AND EXISTING CONDITIONS

The Northwest Newman Master Plan (Plan) area is located north of the current boundary of Newman, within the unincorporated portion of Stanislaus County, but within the City's primary Sphere of Influence. The Plan area includes approximately 362 acres of land bounded by Stuhr Road to the north, State Route 33 to the east, the Central California Irrigation District (CCID) canal to the west, and the existing City boundary/Jensen Road to the south, as shown on **Figure 3.1** (page 3-9).

The nearby unincorporated areas are predominately agricultural with a few ranchettes. Nearby properties within the city of Newman to the south are mostly single-family homes with Orestimba High School just south of the Plan area on Hardin Road and some commercial/industrial uses along SR 33.

The Plan area is generally flat. Properties within the Plan area currently contain a mix of agricultural uses (primarily row crops), ranchettes (single-family dwellings on larger lots) and single-family residences, highway-oriented commercial, and light industrial land uses (**Figures 3.2** and **3.3** on pages 3-10 and 3-11). Agricultural uses predominate in the central, northern, and western portions of the study area. Residential ranchettes and single-family dwellings are generally located in the southern and central portions of the area with a mix of residential, highway-serving commercial, and light industrial uses fronting along State Route 33 (SR 33).

GENERAL PLAN DESIGNATION AND REQUIRED APPROVALS

The Newman General Plan requires the approval of Master Plans for several unincorporated areas of the Newman Planning Area prior to annexation and development, including the proposed Plan area, which is identified as Master Plan Area 3 in the City's General Plan. Completion and approval of a Master Plan is required by the General Plan prior to annexation of these properties into the City. The Master Plan must establish the location and intensity of various land uses, the location of major roadways, identify provision of public facilities, parks and utilities, establish design guidelines, and provide for methods of financing improvements and implementation. A General Plan map amendment and pre-zoning will be required with approval of the Master Plan, which would occur prior to annexation through Stanislaus Local Agency Formation Commission (LAFCO).

PROJECT OBJECTIVES

The purpose of the proposed Master Plan is to develop the Plan area to meet the existing and future needs of the expanding Newman community, with the following objectives:

1. Develop land uses that will enhance and complement the small-town character of Newman.
2. Program land uses in response to current and future market conditions in and around the City of Newman.
3. Develop the commercial and employment potential of the SR 33 corridor along the Plan area.
4. Provide a diversity of active and passive parks and open space.
5. Locate land uses and roadway and walkway networks to support walking and bicycling.
6. Provide a safe and efficient neighborhood circulation network that promotes connectivity and access for motorists, pedestrians, bicyclists and transit throughout the Plan area.
7. Provide a sufficient system of public facilities and services that accommodate the needs of future residents within the Plan area and does not diminish current levels of public facilities and services.
8. Promote a high-quality residential area for move-up homes in the community.
9. Provide for public safety for future dwellings and residents, especially from flooding hazards.
10. Help to provide adequate and available sites for all forms of housing consistent with the Housing Element of the Newman General Plan..

PROJECT DESCRIPTION

SUMMARY

The project as proposed includes approval of the Plan and annexation of the Master Plan area into the City of Newman. Following annexation, the Plan area will fall into boundaries of the City of Newman Fire and the Newman-Crows Landing Unified School District.

The Northwest Newman Master Plan is a policy document to guide future growth, land use, infrastructure and public service planning and investment in the Master Plan area, and a regulatory document to provide rules and standards by which new development within the Master Plan area may proceed.

The land use plan for the Plan area is shown on **Figure 3.4** (page 3-12). The Plan is intended to meet the purposes, goals, and objectives of the General Plan for the long-term development of this portion of the Newman Plan area and could undergo minor modifications as planning progresses.

Table 3.1 summarizes the proposed land uses with a description following.

TABLE 3.1: MASTER PLAN LAND USES

Land Use Type	Acres	Density/Intensity	Max. Yield
<i>Non-Residential Uses</i>			
Business Park (BP)	59.2	0.35 FAR	902,563 sq. ft.
Community Commercial (CC)	27.3	0.25 FAR	297,297 sq. ft.
Professional Office (PO)	8.3	0.25 FAR	90,387 sq. ft.
<i>Total Non-Residential</i>	<i>94.8</i>		<i>1,290,247</i>
<i>Residential Uses</i>			
High Density Residential (HDR)	9.0	20 du/ac.	180 DU
Planned Mixed Residential (PMR)	159.5	7 du/ac.	1,118 DU
Very Low Density Residential (VLR) ¹	18.4	3 du/ac	55 DU
<i>Total Residential</i>	<i>186.9</i>		<i>1,353</i>
<i>Other Uses</i>			
Parks ²	38.5		
Elementary School	10.0	400 Students	
Trails/Open Space ^{3,4}	8.0		
Major Roads ⁵	23.6		
<i>Total Other</i>	<i>80.1</i>		
Total Plan Acres	361.8		
Park Expansion ⁶	12.1		10.0
Notes:			
¹ A future 111-foot-wide future flood protection levee may be constructed on the west side of the VLR area. No development may be allowed in the VLR area of the Master Plan until the final location and design of the flood protection is approved by the City of Newman and other applicable agencies.			
² Portion of proposed 111-foot-wide levee in proposed Sports Park included in the Sports Park acreage.			
³ Assumes 40-foot-wide combination trail/drainage swale adjacent to W. Stuhr Rd. and Jensen Rd.			
⁴ Park acreage includes dual use of storm drain basins for recreational use during non-winter months.			
⁵ Major roads include the build-out right-of-way of Jensen Road, the westerly half of the build-out of SR 33 and the full build-out right-of-way of Stuhr Road.			
⁶ The Park Expansion is located outside of the Plan area, so is not included in the total Plan acreage.			

Business Park (BP) uses are located in the northeast portion of the Plan area fronting on SR 33. Business Park uses allow for office, research and development, wholesale businesses, limited regional commercial uses, lodging facilities, and public and quasi-public uses.

The Community Commercial (CC) land use designation is intended for land-extensive commercial uses rather than intensive uses that are programmed for the Downtown area. Allowed uses include retail and wholesale establishments, professional offices (subject to discretionary approval), public and quasi-public and similar uses. The Plan designates properties fronting on the west side of SR 33 north and south of the extension of Jensen Road for CC uses.

Professional Office (PO) uses are located just to the west of the Community Commercial area and south of the extension of Jensen Road. Allowed uses include a range of business, professional and administrative offices and supporting land uses.

High Density Residential (HDR) uses are located in the northeastern portion of the Plan area, just south of Stuhr Road and west of the area designated for Business Park uses. Allowed residential product types include single-family attached dwellings and multi-family complexes, and secondary residential dwellings, and this designation also allows for parks, open space, and public, quasi-public, and similar land uses.

Planned Mixed Residential (PMR) is the predominant land use within the Master Plan area and is located in the central, northern, southern and western portions of the Plan area. The PMR land use allows for a range of residential building types, including single family attached and detached dwellings, secondary dwellings, and allows for parks, open spaces, public uses and similar uses. The General Plan requirement for residential development in this land use category is for a maximum of 75 percent of the dwellings in a PMR subarea to be at a density of 6 dwellings or less per gross acre. At least 10 percent of the total number of dwellings is to be developed at a density of 12 dwellings per gross acre or greater.

An area for Very Low Density Residential (VLR) use is proposed on the northwest portion of the Plan area. The VLR land use designation allows for single-family detached dwellings on larger lots, accessory uses, and public and similar uses. The westerly portion could be affected by a proposed 111-foot-wide future flood protection levee for the adjacent irrigation canal. The levee is not approved, but could affect the final acreage and number of dwellings constructed within the VLR area.

One elementary school site is provided in the central portion of the Plan area.

Proposed parks are distributed throughout the Plan area, ranging in size between 7.4 to 11.4 acres, including a sports park located on the western edge of the Plan area. A future 12.1-acre expansion to the proposed sports park is envisioned to the south of the Plan area. While this portion is outside the Plan area, it is a foreseeable expansion and will be included in environmental analysis.

INFRASTRUCTURE AND SERVICES

Development under the Plan would require the expansion, improvement and construction of new infrastructure and public facilities in the Plan, as summarized below.

Recreation

The total parks and recreation acreage within the Plan area comprises a total of 38.5 acres. Major park components include:

Park P1 (Sports Complex): Located in the western edge of the Master Plan area and consists of approximately 10 acres of land. The western portion of the park (approximately 110 feet in width adjacent to the CCID canal) includes a potential future flood control levee, service roads and a recreational trail. The majority of the park is devoted to active sports for the community. Key design features of the park include:

- Design Features: Predominantly play fields with trails linking terminus of Jensen Road and Collector Road "C" to levee trail.
- Potential Recreational Facilities; Soccer fields, Softball fields and similar, as size and park configuration permits.
- Other Facilities: Picnicking for groups of 6-8 people, bar-b-que facilities, restrooms, walking and jogging trails.
- Future Expansion: An additional 12.1 acres of parkland is identified to the south of the proposed Park P1 that will be developed separately to expand this park. This area is outside the Master Plan area and not included in park provision calculations.

Park P2: This park serves the surrounding neighborhood located in the approximate center of the Master Plan area adjacent to the Elementary School. This park contains 9.7 gross acres of land.

- Design Features: Central green space/open space feature for the neighborhood.
- Potential Recreational Facilities: Turf field for softball/baseball and Soccer pickup games, outdoor basketball courts, a tot lot for children aged 2-5 and an adjacent apparatus play area for older children with benches for parental supervision.
- Other Facilities: Picnicking for groups of 6-8 people, bar-b-que facilities, restrooms, walking and jogging trails.

Park P3: Park P3 is a neighborhood park located in the northwest portion of the planning area serving adjacent single family dwellings, an apartment community to the north and the Business Park to the east. This park contains 9.7 gross acres of land.

- Design. Features: Primarily recreation.
- Potential Recreational Facilities: Turf field for Softball/baseball and soccer pickup games, outdoor basketball courts, a tot lot for children aged 2-5 and an adjacent apparatus play area for older children with benches for parental supervision.
- Other Facilities: Picnicking for groups of 6-8 people, walking and jogging trails.

Park P4. Park P4 is designed as a combination neighborhood park and stormwater retention basin located on the north side of Jensen Road at the north/south collector road. This park contains approximately 10 net acres of land and is designed with gentle side slopes to collect and retain peak storm flows for a portion of the Master Plan area. The bottom of the facility is generally flat to be used for recreation activities during dry months.

Design Features: Combination recreation and stormwater retention.

Potential Recreational Facilities: Turf field for Softball, baseball, Soccer, football and similar informal and organized sports activities. The park is ringed with a jogging and pedestrian trail. A portion of the park may be lighted to accommodate night time activities.

Other Facilities: None.

Additionally, the Plan proposes a system of trails and associated open space to allow convenient pedestrian and bicycle connections between recreational amenities as well as to and between other land uses that are not included in park acreages.

Transportation

The Plan includes development of an internal circulation system of neighborhood and collector roads, as shown on the Land Use Plan (see **Figure 3.4**). Additional residential streets will be constructed within neighborhoods consistent with the Master Plan street cross-sections and guidelines.

Regularly scheduled bus service to the City of Newman is provided by Stanislaus Regional Transit (StaRT), operated by Stanislaus County. Route 45 serves communities in the southwest portion of the community (Patterson, Crows Landing, Newman and Gustine) via SR 33. Four runs per weekday are made with the closest stops being at Kern and Main Streets. Four transit runs are also made on Saturdays. Sunday and holiday service is not available. Dial-a-ride service is provided for StaRT for local residences. StaRT is currently evaluating expansion of public transit services.

Bicycle facilities consist of:

- • a Class I Trail (off road, vehicle separated) along the west side of SR 33;

- • a Class I Trail on the west side of the Planning Area adjacent to the CCID canal;
- • Class II striped bike lanes along both sides of Harvey Road and Fig Road; and
- • a multi-use path along the south side of Stuhr Road.

Bicyclists may also ride within the right-of-way of other Minor Collectors and local roads within subdivisions.

Water

Existing residences and business within the Master Plan area are served by private water wells. Agricultural uses within the Master Plan area receive water from the CCID from an existing open irrigation ditch on the west side of the Master Plan area.

Upon annexation to the City of Newman, water to the Master Plan area will be provided by the City of Newman. The City owns and operates a municipal water system to serve all uses within the community. The municipal system relies on pumped groundwater as the primary water supply, with four wells providing this supply.

The City is currently planning a new municipal well in the southwestern portion of the Master Plan area. When the new well comes on-line, the City of Newman has determined that an adequate long-term water supply will be available for domestic and fire-fighting purposes. The City is planning construction of a water storage tank near the new well.

Future development in the Master Plan area will also be subject to water conservation methods to minimize the need for water.

Figure 3.5 (page 3-13) shows the build-out of planned water lines and related facilities within the Master Plan area. Planned facilities include a combination 12- and 14-inch diameter water line in Jensen Road, 10-inch diameter water lines within the rights-of-way of SR 33, Stuhr Road, Harvey Road and the unnamed central north-south minor collector road. Local residential roads would each have an 8-inch diameter water line to serve future land uses.

At the present time, there is limited possibility of using treated wastewater effluent (recycled water) for irrigation purposes. This is due to the distance of the City's wastewater plant from the Master Plan area and the current need to dilute wastewater effluent to reduce salt and chemical loading into the groundwater. The City is instead considering the use of shallow wells in parks to irrigate with untreated groundwater (instead of recycled water) as an alternate method of conserving the potable water supply.

Wastewater

Wastewater treatment and disposal in the Plan area is currently provided by private septic systems on individual properties maintained by private landowners.

Since Master Plan land uses would be constructed in the City of Newman, future buildings and other uses generating wastewater are required to connect to the City's wastewater system. Ultimately, wastewater lines within the Master Plan area will connect to the wastewater treatment facility northwest of the City on Hills Ferry Road.

Figure 3.6 (page 3-14) shows the proposed expansion of the Newman wastewater system to accommodate future land uses in the Master Plan. Generally, wastewater will gravity flow through a series of underground pipes ranging from 10 to 15 inches in diameter to connect with an existing 15-

inch diameter pipe southeast of the Master Plan area in Sherman Parkway for transport to the City's wastewater plant. The City may be required to make minor upgrades to the wastewater treatment plant as well as secure additional properties to dispose of treated effluent to meet Regional Water Quality Control Board (RWQCB) permit requirements.

Stormwater

A number of open swales and open drainage ditches exist within the Master Plan area. No formal public drainage facilities have been built. Existing drainage in the Master Plan area is by sheet flow and a number of private drainage and irrigation ditches that flow in a southeastern direction. No City drainage facilities have been built in the Master Plan area.

Proposed City stormwater drainage facilities are shown on **Figure 3.7** (page 3-15). Storm drain facilities includes a combination of surface stormwater flows within the curb and gutter area of local in-tract local streets into a series of underground pipes ranging in size between 18 and 42 inches in diameter. Ultimately, storm drain lines within the Master Plan area will connect to the existing City of Newman storm drain system to the east located within Sherman Parkway.

Critical components of the Master Plan drainage system are one or more drainage basins located on the north side of Jensen Road. These are generally depicted on **Figure 3.7**, but the sizes and locations of the drainage basins may change based on future, more detailed engineering analyses and hydrology standards.

Storm water basins are intended to intercept peak stormwater flows and temporarily detain peak flows to ensure that the local and regional drainage system is not overburdened.

Storm water basins will be co-designed and constructed with park facilities to provide for use as playfields and other recreation outside of the rainy season.

IMPROVEMENTS OUTSIDE THE PLAN AREA

No improvements are planned outside the Plan area as a part of the Plan. However, mitigation measures have been identified for traffic impacts that would require roadway widening and intersection improvement outside of the Plan area, as detailed in the Chapter 18: Traffic. Upgrades to other off-site infrastructure may be performed to accommodate connection to the on-site well and cumulative development, but are not a part of the proposed Plan. No other improvements are contemplated outside the Plan area related to the proposed Plan.

PROJECT REVIEW AND APPROVAL

LEAD AGENCY

The City of Newman is a lead agency, pursuant to the State Guidelines for CEQA (CEQA Guidelines Section 15050). In conformance with Sections 15050 and 15367 of the CEQA Guidelines, the City of Newman has been designated the lead agency, which is defined as the “public agency which has the principal responsibility for carrying out or disapproving a project.”

CEQA ACTIONS

Prior to approving the proposed Master Plan, or any alternative project, the City is required to undertake CEQA review including:

- Certification of the EIR – Certification that the EIR adequately identifies any significant environmental effects of the Proposed Project, pursuant to CEQA and the CEQA Guidelines; and
- Mitigation Monitoring – Adoption of a Mitigation Monitoring Plan to reflect the measures required to mitigate significant impacts, if any, of the project.

REGULATORY PERMITS AND APPROVALS

In addition to certification of the EIR, adoption of the Master Plan would require the following City of Newman actions:

- Approval of the Master Plan – The Master Plan will become the planning document for development in the Plan area.
- Approval of a General Plan Amendment – The General Plan will be amended to ensure consistency with the Master Plan.
- Approval of Rezoning – Zoning designations will be declared that will become effective following annexation.
- Future approval of subdivision maps and development plans for non-residential development projects.
- Future issuance of demolition, grading, building, and encroachments permits.

Subsequent City of Newman actions that may be required to implement the proposed Master Plan following adoption include tentative and final subdivision maps; development agreements; infrastructure financing plan; municipal bond financing; formation of landscape, lighting and maintenance assessment districts; conditional use permits; and/or demolition, grading and building permits. The lead agency shall assess specific development projects to determine whether a subsequent project may cause any significant effect on the environment that was not examined in this EIR in accordance with CEQA Guidelines 21157.1 and make written findings either that the project is within the scope of the project covered in this EIR or that additional analysis is required.

Other responsible agency approvals that would be required for project implementation include:

- NPDES from the RWQCB if discharge to surface waters would be necessary, or if discharges would increase over currently permitted levels.
- State General Construction Activity Storm Water Permit, issued by the State Water Quality Control Board (SWQCB).
- Stanislaus LAFCO approval of annexation of the Plan area to the City of Newman.
- Potential approval of wetlands-related permits by the Army Corps of Engineers or other agencies such as the RWQCB or California Department of Fish & Wildlife (CDFW). (Only if construction to boundary waters including the Main Canal to the west and irrigation lateral to the north is subsequently proposed for infrastructure improvements and found not to be exempt from permits. See Chapter 7: Biological Resources for additional information.)

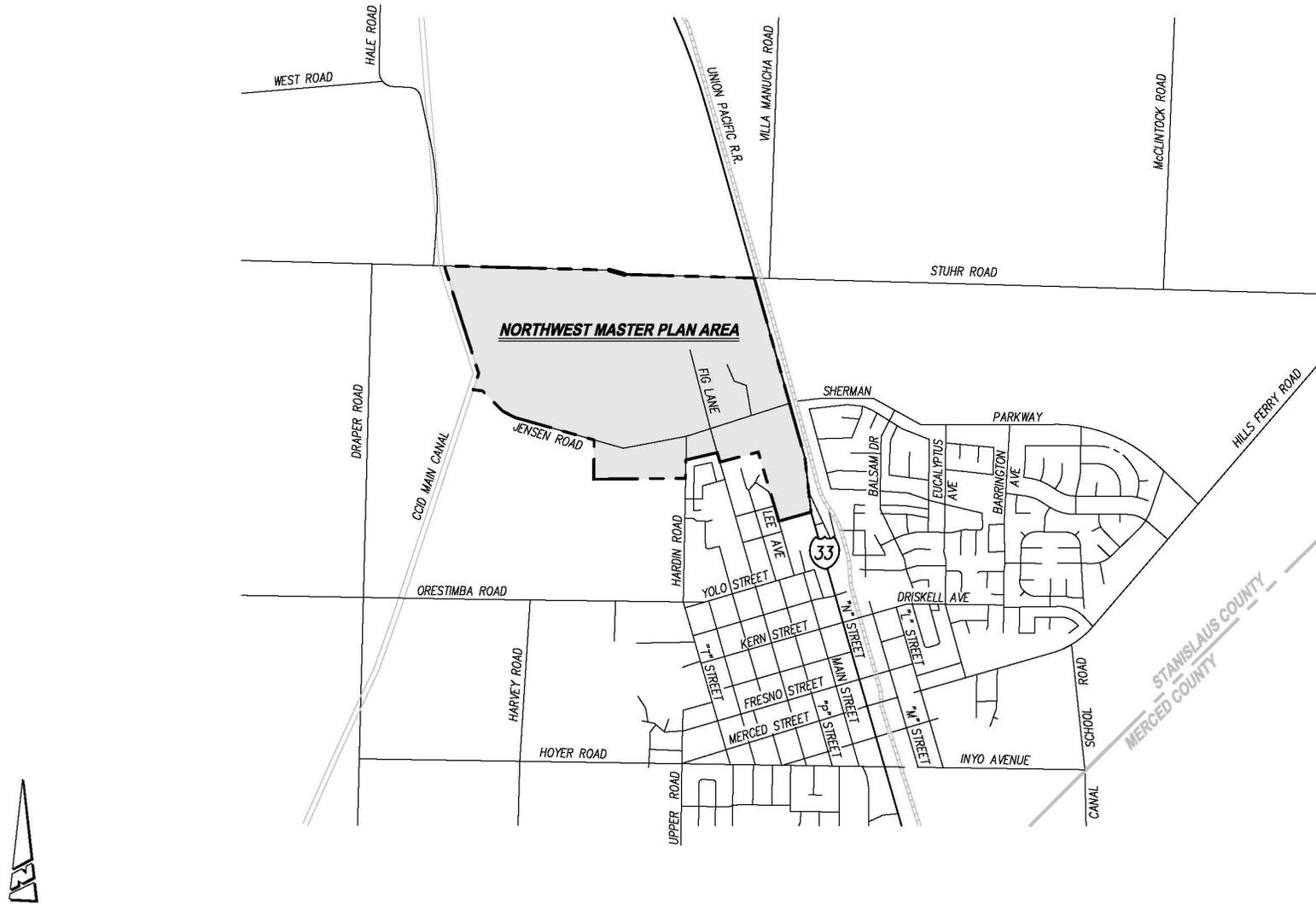


Figure 3.1: Plan Area and Vicinity



Figure 3.2: Plan Area Properties



Figure 3.3: Existing Uses

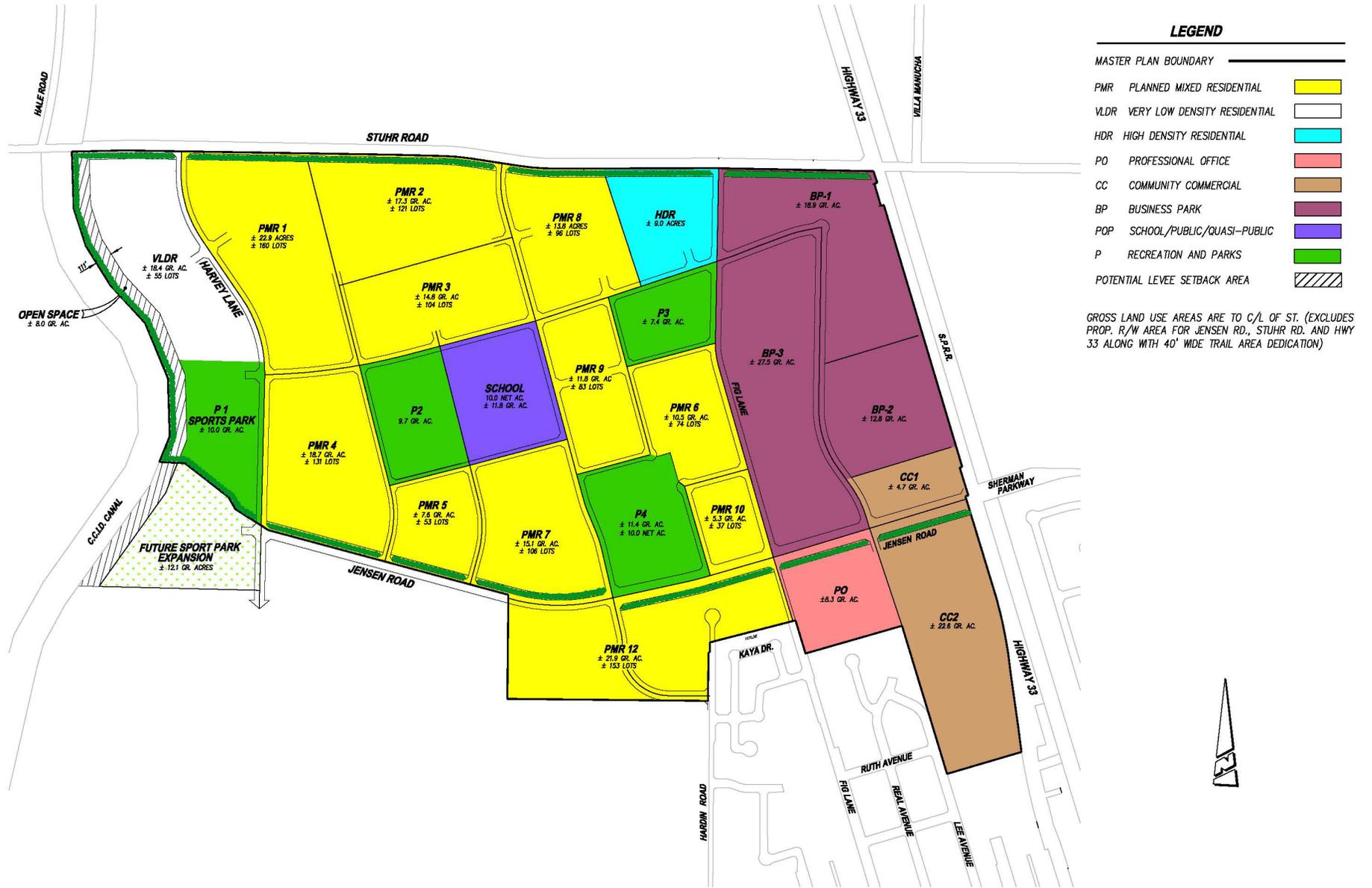


Figure 3.4: Land Use Plan

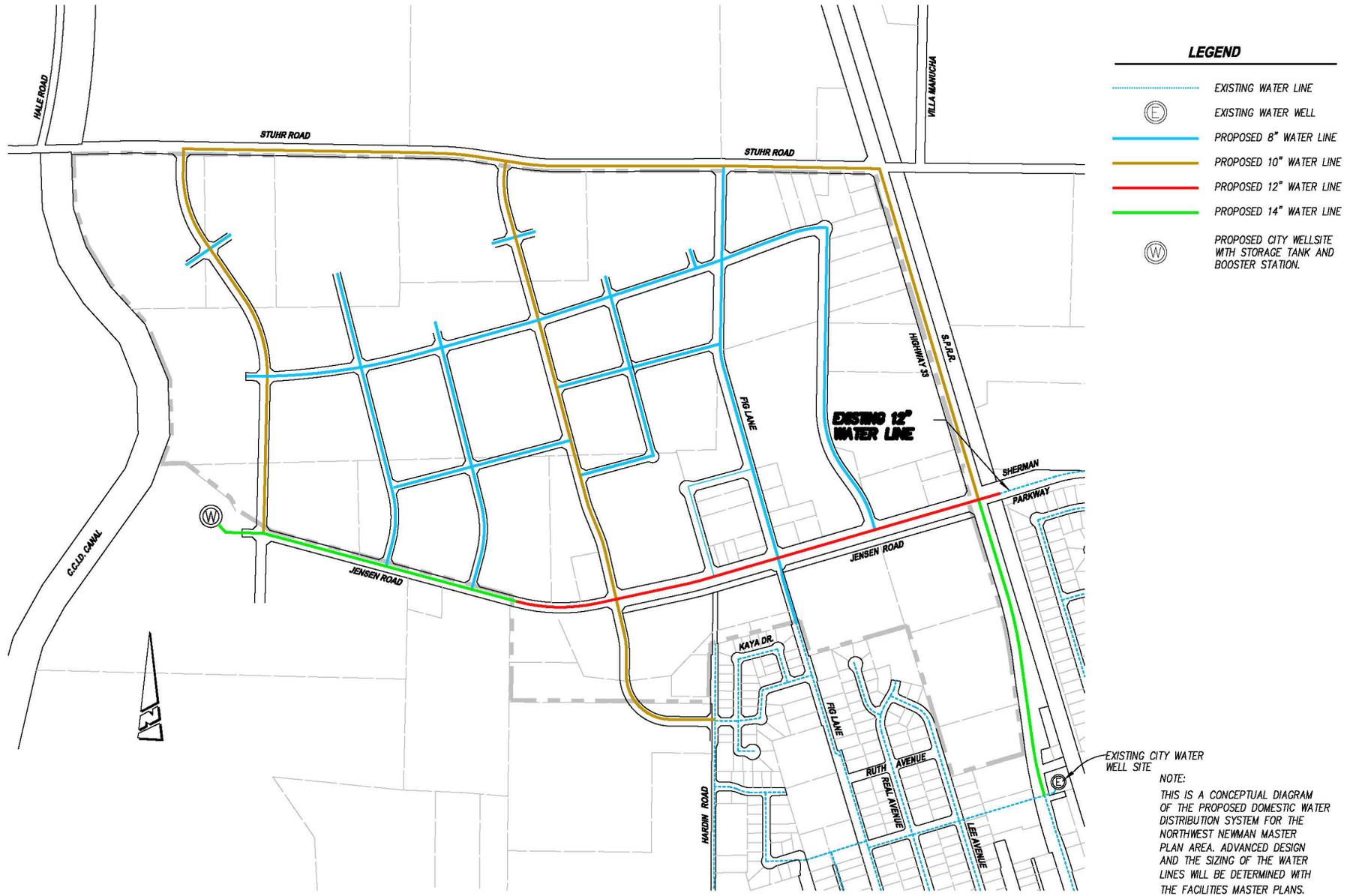


Figure 3.5: Preliminary Backbone Water System Plan

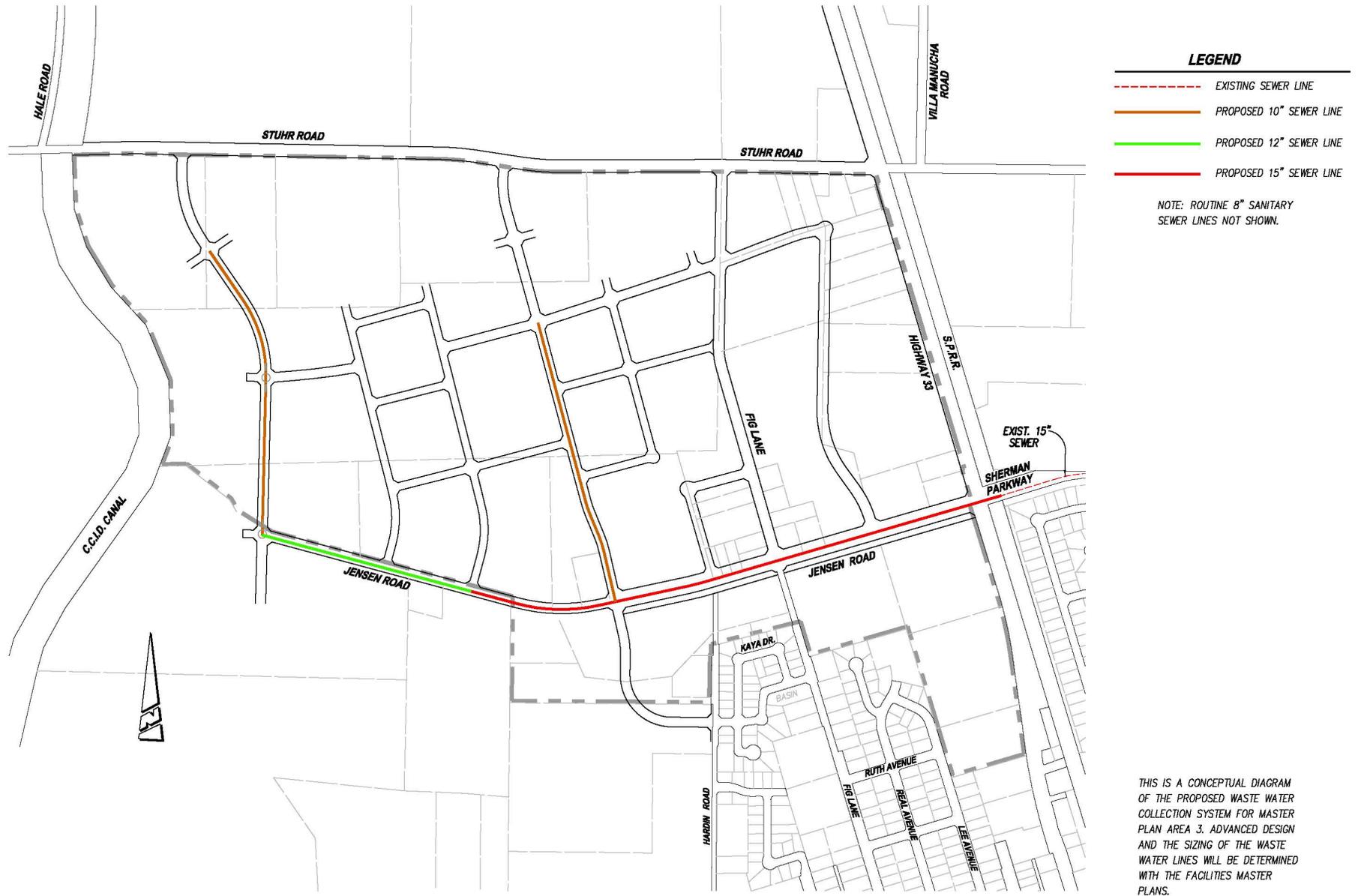


Figure 3.6: Preliminary Backbone Wastewater System Plan



Figure 3.7: Preliminary Backbone Stormwater System Plan

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AESTHETICS

INTRODUCTION

New development has the potential to substantially change visual qualities and characteristics within areas of agricultural use. In an area characterized by agricultural activity, new development may increase the attractiveness of developing other nearby areas in agricultural uses in desired or planned land uses. On the other hand, new development can change the character of an area by disrupting the existing visual and aesthetic features that establish the identity and value of an agricultural area in the minds of local residents. Over time, a new development may become a valued component of the area and enhance its identity, or it may generate dissatisfaction among local residents who might prefer the existing visual character of a parcel as it appears when in agricultural use to that associated with new development.

ENVIRONMENTAL SETTING

The Plan area is generally flat and contains a mix of agricultural (primarily row crops), residential, highway-oriented commercial, vacant properties, and light industrial land uses. Agricultural uses predominate in the central, northern, and western portions of the Plan area. Residential uses are generally in the southern and central portions of the area, with a mix of residential, highway-oriented commercial, and light industrial uses along SR 33.

The nearby unincorporated areas are predominately agricultural with a few ranchettes. Nearby properties within the city of Newman to the south are mostly single-family homes with Orestimba High School just south of the Plan area on Hardin Road and some commercial/industrial uses along SR 33.

With the exception of major stands of mature trees within the Plan area, no major visual features exist.

VISUAL CHARACTER AND RESOURCES

The City of Newman has a small town look and feel with strong ties to its agricultural heritage and economy. The visual character in the Plan area includes SR 33, which serves as the primary corridor and informal gateway (rural/suburban transition) where it intersects with Stuhr Road, and trees and landscaping.

Street trees and established larger trees in and around the Plan area are important features of its visual character. They also provide shade and cooling along residential streets.

SCENIC VISTAS

The Plan area is on the west side of the Central Valley and has distant views of the Diablo Range to the west. To the north, south, and east the views are limited to active agricultural lands, which include fruit and nut orchards, and row crops.

STATE SCENIC HIGHWAYS

There are no official State-designated scenic routes in or near the Plan area.¹

LIGHT AND GLARE

Nighttime lighting is brighter in the urbanized portion of the Plan area when compared to the mostly undeveloped, surrounding agricultural lands. Major light sources include:

- Households and street lighting.
- Lighting from commercial and industrial uses, such as parking lot illumination.
- Motor vehicles on local streets and surrounding highways.

Sources of glare are the sun or street lighting reflecting off large expanses of concrete or reflective rooftops. Glass and other reflective surfaces can also be a source of glare.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a Project's aesthetic impacts are based upon CEQA Guidelines thresholds:

1. Would the Project have a substantial adverse effect on a scenic vista (which could be caused by blocking panoramic views), views of significant landscape features, or landforms as seen from public viewing areas?
2. Would the Project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?
3. Would the Project substantially degrade the existing visual character or quality of the site and its surroundings?
4. Would the Project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?

¹ Officially Designated State Scenic Highways and Historic Parkways,
http://www.dot.ca.gov/hq/LandArch/16_livability/scenic_highways/, accessed March 2, 2016.

VISUAL CHARACTER

Impact Visual-1: Changed Visual Character. Development under the proposed Plan would result in development on land currently in agricultural use and would result in changes visible from the adjacent roadways and land uses. However, changes in visual character would be consistent and compatible with the existing adjacent community and would not substantially degrade the visual quality of the Plan area or its surroundings. This impact would be *less than significant*.

As described above, the Plan area is characterized visually as agricultural land. Development under the proposed Plan would involve the development of numerous structures (residential homes in low to medium densities; commercial, office, and business park buildings; and a school) on land currently in agricultural use, which would result in a substantial change in the existing visual character of the Plan area. Changes to the Plan area would be visible from the adjacent roadways and land uses. The existing view from houses south of Jensen Road would change from predominately agricultural views to views with a more urbanized character. Although the views from public roadways would change, they would be consistent and compatible with existing views further to the south, which consists of residential uses. Development under the proposed Northwest Newman Master Plan would be an extension of and visually compatible with the existing adjacent community, and implementation of the proposed Plan would not substantially degrade the visual quality of the Plan area or its surroundings. In addition, the proposed Plan would adhere to policies that work in conjunction with current City design and development regulations to ensure that new development complements the existing aesthetic fabric of the city and its surrounding environs. Impacts on visual character would be *less than significant*.

SCENIC VISTAS

Impact Visual-2: Changed Views of the Site. The Plan area is not considered a scenic vista. Development in the Plan area may obstruct existing distant views of the Diablo Range from adjacent areas or existing uses in the Plan area. The areas from which these views may be blocked are not designated scenic overlooks or otherwise places where people gather in order to gain a view of scenic vistas. This impact would be *less than significant*.

While the Plan area and much of the surrounding area are characterized by rural agricultural settings, the Plan area and vicinity are generally flat, affording little in the way of vantage points or panoramic views. Although the Plan area can be seen from numerous public roadways, it is not part of any formally identified scenic vista. Development associated with the Plan area may obstruct existing distant views of the Diablo Range for adjacent areas or existing uses. The areas from which these views may be blocked are not designated scenic overlooks, and are not places where people gather in order to gain a view of any notable landscape features. Therefore, any obstruction of existing views by development in the Plan area would be considered *less than significant*.

SCENIC HIGHWAY

As previously mentioned, there are no State-designated scenic highways in or around the Plan area. Implementation of the Northwest Newman Master Plan would have *no impact* on visual resources within a State-designated scenic highway.

LIGHT AND GLARE

Impact Visual-3: Increased Light and Glare. Development of the Plan area would result in new structures, uses, roads and associated lighting. Lighting quality, intensity and design is required to meet existing General Plan policies and current City design and development regulations to minimize light and glare. With adherence to applicable regulations and policies, impacts related to light and glare would be *less than significant*.

Development of the Plan area would result in the construction of new structures, park playfields that may include night lighting, and parking areas on land that is currently in active agricultural use, all of which would add new sources of light and glare. The proposed Plan would adhere to existing General Plan policies that work in conjunction with current City design and development regulations to ensure that new development does not exacerbate issues of light and glare. Additionally, the Master Plan requires all new non-residential uses adjacent to residential uses to submit a lighting plan demonstrating that light levels at boundaries are within allowable limits. The City of Newman would continue to enforce its existing regulations regarding light and glare in its Standard Conditions of Approval and Zoning Code and those in the Master Plan. Enforcement of existing regulations, as well as adherence to the Master Plan and General Plan, would reduce the potential for light and glare, and impacts would be *less than significant*.

CUMULATIVE AESTHETICS IMPACTS

Impact Visual-4: Cumulative Changes in Character. As Newman and other cities in the vicinity develop, there will be a cumulative change from agriculture to non-agricultural character adjacent to current city boundaries. These changes in character would be limited to approved development and as discussed under Impact Visual-1, would not “substantially degrade” visual quality in the area. This impact would be *less than significant*.

The context for the cumulative analysis is the City of Newman and surrounding agricultural uses. As discussed above, there are no designated scenic resources, scenic overlooks, or places where people gather in order to gain a view of any notable landscape features in the Plan area, nor is it viewable from a state scenic highway. While there would be a trend toward transitioning from agricultural to urban uses in the Plan area, this is a change in visual character that would not “substantially degrade” visual quality. Additionally, it is unlikely that the portion of Stanislaus and Merced counties near the Plan area and City of Newman would be significantly converted from agricultural land to urban uses. Therefore, aesthetics impacts would not be cumulatively considerable and would be *less than significant*.

AGRICULTURAL AND FOREST RESOURCES

INTRODUCTION

This section addresses the loss of farmland within the Plan area and potential incompatibilities between agricultural operations and the proposed Specific Plan.

ENVIRONMENTAL SETTING

Like many Central Valley counties, Stanislaus County has a large and diverse agricultural industry. In 2014, agricultural commodities in the county had a total gross production value of \$4.397 billion. Fruit and nut crops are the top agricultural commodity (by dollar value), followed by livestock and poultry products. A number of these agricultural products are produced in the area surrounding the City of Newman, primarily field and row crops, almonds, and other trees/vines.^{2,3}

FARMLAND CLASSIFICATION

The Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) identifies agricultural land that is lost or gained during two-year periods. Farmland monitoring is dependent upon farmland classifications, which are largely based on soil surveys. Agricultural land is quantified based upon acreage and classified as Prime, Farmland of Statewide Importance, Unique Farmland, or Farmland of Local Importance. The FMMP also quantifies the amount of urban land and grazing lands within the County. The farmland classifications in Stanislaus County are as follows:

Prime Farmland

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

Farmland of Statewide Importance

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

² Stanislaus County Department of Agriculture, *2014 Annual Crop Report*, 2015.

³ Stanislaus County Department of Agriculture, *2014 Annual Crop Report*, 2015, page 15.

Unique Farmland

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

Farmland of Local Importance

Land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In Stanislaus County, Farmland of Local Importance consists of "farmlands growing dryland pasture, dryland small grains, and irrigated pasture."

Grazing Land

Land on which the existing vegetation is suited to the grazing of livestock. This category was developed in cooperation with the California Cattlemen's Association, University of California Cooperative Extension, and other groups interested in the extent of grazing activities. The minimum mapping unit for Grazing Land is 40 acres.

Confined Animal Agriculture

Confined animal agricultural lands include poultry facilities, feedlots, dairy facilities, and fish farms. In some counties, confined animal agriculture is a component of the Farmland of Local Importance category.

Nonagricultural and Natural Vegetation

Nonagricultural and natural vegetation lands include heavily wooded, riparian, wetland, salt flat, barren or rocky natural areas, and grassland areas that, due to land management mandates, do not allow grazing. This includes constructed wetland and restoration areas.

Vacant or Disturbed Land

Vacant or disturbed lands include large vacant areas within urban, rural freeway interchanges, mineral extraction areas, mine tailings, borrow pits, irrigation ponds, irrigation canals and formerly farmed lands that do not qualify for grazing land or farmland of local importance.

Rural Residential and Commercial Land

Rural residential and commercial lands are residential areas of between 1 and 6 structures per 10 acres, farmsteads, gravel parking lots, small packing sheds, firewood lots, compost facilities, and equine centers.

Urban and Built-up Land

Land occupied by structures with a building density of at least 1 unit to 1.5 acres, or approximately 6 structures to a ten-acre parcel. This land is used for residential, industrial, commercial, construction, institutional, public administration, railroad and other transportation yard, cemeteries, airports, golf courses, sanitary landfills, sewage treatment, water control structures, and other developed purposes.

Water

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

COUNTY-WIDE SUMMARY

Stanislaus County was reported to have 832,668 acres of agricultural land in 2014, the latest date for which data are available, composed of the following⁴:

Prime Farmland	256,700
Farmland of Statewide Importance	32,182
Unique Farmland	105,630
Farmland of Local Importance	28,144
Grazing Land	414,012

For the above data, all agricultural represented 85.8 percent of all land inventoried in the County (970,172 acres total). In contrast, 65,017 acres in Stanislaus County were reported to be Urban and Built-up land, 6.7 percent of all inventoried land. (The remainder is “Other Land,” and “Water Area.”)⁵

The FMMP inventories the amount of farmland lost and gained and the amount of urban land gained over a two-year period, 2012 to 2014 being the most recent that is available. For the years 2012 to 2014, the FMMP inventory states that in Stanislaus County, there was a net gain of 212 acres of agricultural land, though this was largely driven by a gain of over 10,000 acres of Unique Farmland and loss of over 8,000 acres of Grazing Land.⁶

PROJECT AREA SUMMARY

Properties within the Plan area currently contain a mix of agricultural uses, primarily row crops, ranchettes and single-family residences, highway-oriented commercial and light industrial land uses (see **Figure 3.3**). Agricultural uses predominate in the central, northern and western portions of the study area. Residential ranchettes and single-family dwellings are generally located in the southern and central portions of the area with a mix of residential, highway serving commercial and light industrial uses fronting along SR 33.

Within the Master Plan area, agricultural crops are primarily alfalfa, with some other row crops, orchards, and pasture along the southern boundary.⁷

⁴ State of California, Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program, *Stanislaus County 2012-2014 Land Conversion*, 2015.

⁵ Ibid

⁶ Ibid.

⁷ City of Newman, prepared by DC&E, *Newman General Plan 2030*, adopted April 10, 2007, Figure NR-3.

The developed portions of the Master Plan area (Urban and Built-Up Land) total approximately 43 acres with an additional 9 acres identified as Vacant or Disturbed Land. The remainder of the Master Plan area is identified as approximately 5 acres of Grazing Land, and 305 acres of Prime Farmland. **Figure 5.1** shows Prime Farmland within the Plan area.

Storie Index Rating

The Natural Resources Conservation Service (NRCS) has identified and mapped soils in Stanislaus County and rated their suitability for intensive agriculture using the Storie Index. This index has six numerical ratings for soils, based on characteristics such as soil depth, surface texture, drainage, salts and alkalis, and topography. For simplification, Storie Index ratings have been combined into six grade classes as follows: Grade 1 (Excellent); Grade 2 (Good); Grade 3 (Fair); Grade 4 (Poor); Grade 5 (Very Poor); and Grade 6 (Nonagricultural).⁸

The soils in the Master Plan area have a Storie Index grade of one (excellent).

Capability Rating

The NRCS also rates soils for their suitability for most kinds of field crops. The ratings range from Class I to Class VIII, with Class I being soils with few limitations and Class VIII being soils that preclude their use for commercial plants. Prime Farmland is usually composed of Class I and Class II soils.

Soils in the Plan area are identified as Class I with irrigation or Class IV without irrigation. As such, they are all considered suitable for cultivation if irrigated, or severely limited for cultivation if not irrigated.

Williamson Act Contract Lands

Two parcels within the Plan area are under Williamson Act Contracts, shown in **Figure 5.1** of the Master Plan: APN 026-039-001 and 026-039-030, totaling 14.05 acres of land. The purpose and restrictions on these lands are discussed in Regulatory Setting, below.

Irrigation Facilities

Much of the agricultural land in the Plan area and vicinity is irrigated by surface water, delivered through a system of lateral canals, ditches and pipelines. CCID lines within the Plan area convey irrigation water to properties in the Plan area. Lines would remain until they are not needed for conveyance to areas still requiring irrigation water, at which time they will be abandoned. This may or may not coincide with development of each parcel.

REGULATORY SETTING

FEDERAL REGULATIONS

There are no federal laws or regulations affecting the land use and agriculture issues analyzed in this EIR.

⁸ United States Department of Agriculture, NRCS, Web Soil Service, <http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx>, accessed September 19, 2006.

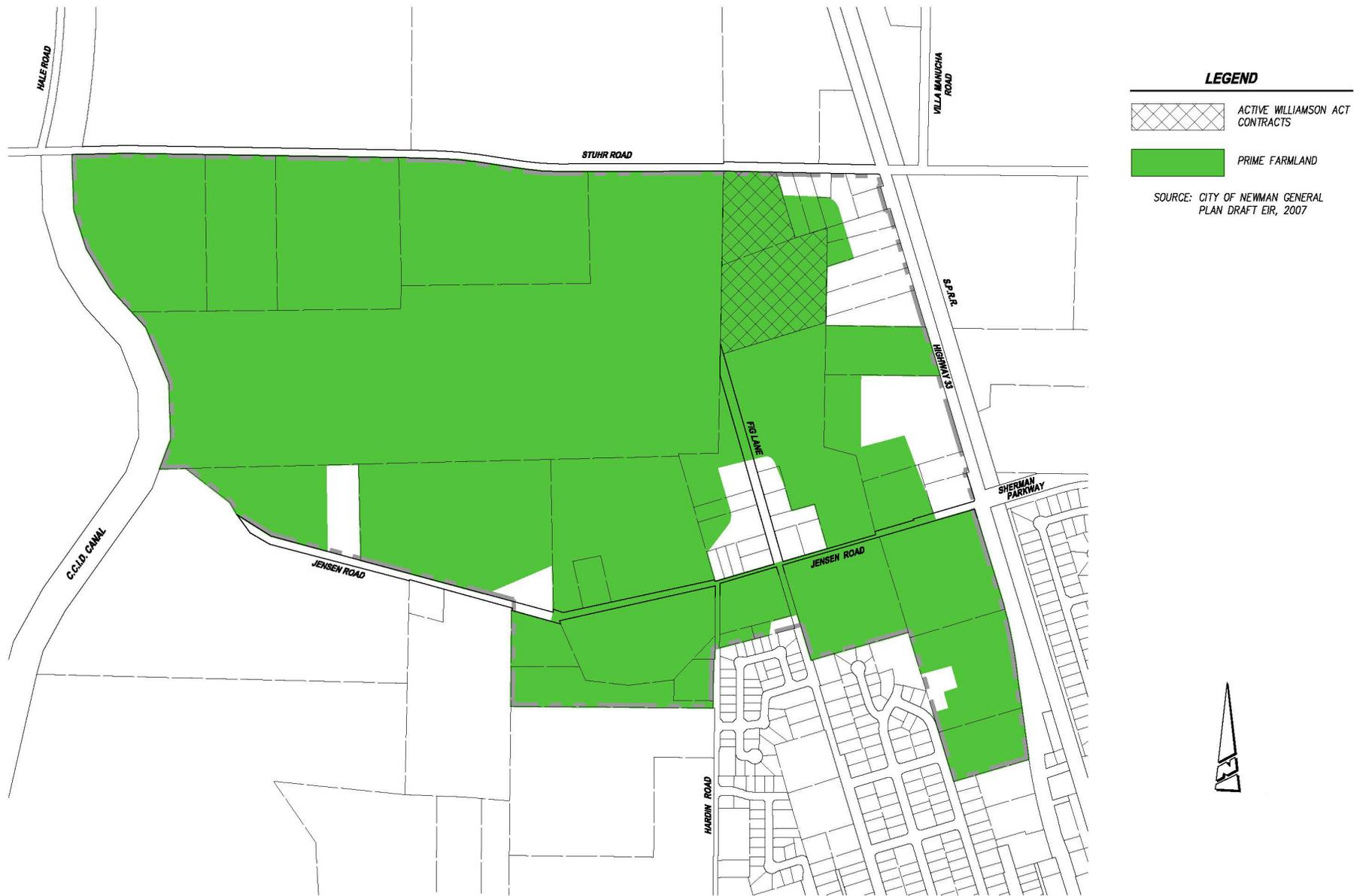


Figure 5.1: Prime Farmland and Williamson Act Contracts

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STATE REGULATIONS

California Code of Regulations (Title 3. Food and Agriculture)

CCR Title 3, Sections 6000-6920 regulate the registration, management, use, and application of pesticides on agricultural lands. These regulations are enforced by the Stanislaus County Agricultural Commissioner. Generally, specific regulations vary for each pesticide, its method of application and use. However, sections 6600 and 6614 have some general regulations relating to the application of pesticide uses as follows:

6600 General Standards of Care

Each person performing pest control shall:

- a. Use only pesticide equipment that is in good condition and safe to operate.
- b. Perform all pest control in a careful effective manner.
- c. Use methods and equipment suitable to ensure proper application of pesticide.
- d. Perform all pest control under climatic conditions suitable to ensure proper application of pesticides.
- e. Exercise reasonable precautions to avoid contamination of the environment.

6614 Protection of persons/ animals/ property

- a. An applicator prior to and while applying pesticide shall evaluate the equipment to be used, meteorological conditions, property to be treated, and surrounding properties to determine the likely hood of harm or damage.
- b. Notwithstanding that substantial drift would be prevented, no pest application shall be made or continue when:
 1. There is a reasonable possibility of contamination of the bodies or clothing of persons not involved in [the] application process;
 2. Possibility of damage to non-target crops, animals or other public private property; or
 3. There is a reasonable possibility of contamination of non-target public or private property including the creation of a health hazard preventing the normal use of such property. In determining a health hazard, the amount and toxicity of pesticide and type and use of property and related factors shall be considered.

Williamson Land Act

The California Land Conservation Act of 1965 or Williamson Act (California Government Code Section 51200) recognizes the importance of agricultural land as an economic resource that is vital to the general welfare of society. The enacting legislation declares that the preservation of a maximum amount of the limited supply of agricultural land is necessary to the conservation of the state's economic resources, and is necessary not only to the maintenance of the agricultural economy of the state, but also for the assurance of adequate, healthful, and nutritious food for future residents of the state and the nation.

Intended to assist the long-term preservation of prime agricultural land in the state, Williamson Act contracts provide the agricultural landowner with a substantial reduction in property tax in exchange for keeping land in agricultural use. When under contract, the landowner no longer pays property tax for an assessed valuation based upon the property's urban development potential. The Williamson Act stipulates that for properties under contract, "the highest and best use of such land during the life of the contract is for agricultural uses." Therefore, property under contract is assessed and taxed based upon its agricultural value.

Williamson Act contracts remain in effect for 10 years. Contracts are automatically renewed, unless the property owner files for a notice of nonrenewal with the County. Once that occurs, the contract would wind down starting at the next contract anniversary date and continuing over the remaining term. During this time, the property taxes gradually rise to the full unrestricted rate at the end of the nonrenewal period. If the land is restricted by a Farmland Security Zone Contract, the contract winds down over the remaining 19 years, with the property taxes gradually rising to the full unrestricted rate at the end of the nonrenewal period.

When Williamson Act contract lands are annexed to a City, the City succeeds to the administration of the contract, which remains in force until it is cancelled or expires. Under the following circumstances, delineated in Government Code Section 51243.5, a City may elect not to succeed to the contract:

- The land being annexed was within one mile of the City's boundary when the contract was executed;
- The City filed a resolution with the LAFCO protesting the execution of the contract;
- The LAFCO held a hearing to consider the City's protest; and
- The LAFCO found that the contract would be inconsistent with the publicly desirable future uses and control of the land.
- The LAFCO approved the City's protest.

If the above criteria are satisfied, and the City does not succeed to the contract, then the contract is canceled, and the subject land is no longer restricted to agricultural uses. However, there is currently no evidence to suggest these conditions apply to the Plan area.

Following annexation, a landowner may petition the City Council for immediate cancellation of the contract for all or part of the contracted land. The application must be referred to the state Department of Conservation for comment, and the state's comments must be taken into consideration by the City before approval of the cancellation. The Council may grant approval for cancellation only if the following findings are made as per Sections 51282 and 51284 of the California Government Code:

1. That the cancellation is consistent with the purposes of the...California Land Conservation Act of 1965, and
2. That cancellation is in the public interest.

Cancellation of a contract can be determined to be consistent with the purposes of the Act only if the Council makes all of the following findings:

1. That the cancellation is for land on which a notice of non-renewal has been served pursuant to Government Code Section 51245.
2. That cancellation is not likely to result in the removal of adjacent lands from agricultural use.
3. That cancellation is for an alternative use which is consistent with the applicable provisions of the city or county general plan.
4. That cancellation will not result in discontinuous patterns of urban development
5. That there is no proximate non-contracted land which is both available and suitable for the use to which it is proposed the contracted land be put, or that development of the contracted land would provide more contiguous patterns of urban development than development of proximate non-contracted land.

Cancellation of a contract is considered to be in the public interest only if the Council makes the following findings: (1) that other public concerns substantially outweigh the objectives of this chapter, and (2) that finding #5 above can be met.

LOCAL REGULATIONS

Stanislaus LAFCO Agricultural Preservation Policy

Adopted September 26, 2012 and amended March 25, 2015, the goals of this policy are as follows:

- Guide development away from agricultural lands where possible and encourage efficient development of existing vacant lands and infill properties within an agency's boundaries prior to conversion of additional agricultural lands.
- Fully consider the impacts a proposal will have on existing agricultural lands.
- Minimize the conversion of agricultural land to other uses.
- Promote preservation of agricultural lands for continued agricultural uses while balancing the need for planned, orderly development and the efficient provision of services.

The Commission encourages local agencies to identify the loss of agricultural land as early in their processes as possible, and to work with applicants to initiate and execute plans to minimize that loss, as soon as feasible. Local agencies may also adopt their own agricultural preservation policies, consistent with this Policy, to better meet their own local circumstances and processes.

Stanislaus LAFCO considers the Agricultural Preservation Policy, in addition to its existing goals and policies, as an evaluation standard for review of those proposals that could reasonably be expected to induce, facilitate, or lead to the conversion of agricultural land.

A. Plan for Agricultural Preservation Requirement

Upon application for a sphere of influence expansion or annexation to a city or special district ("agency") providing one or more urban services (i.e. potable water, sewer services) that includes agricultural lands, a Plan for Agricultural Preservation must be provided with the application to LAFCO. The purpose of a Plan for Agricultural Preservation is to assist the Commission in determining how a proposal meets the stated goals of this Policy.

The Plan for Agricultural Preservation shall include: a detailed analysis of direct and indirect impacts to agricultural resources on the site and surrounding area, including a detailed description of the agricultural resources affected and information regarding Williamson Act Lands; a vacant land inventory and absorption study evaluating lands within the existing boundaries of the jurisdiction that could be developed for the same or similar uses; existing and proposed densities (persons per acre); relevant County and City General Plan policies and specific plans; consistency with regional planning efforts (e.g., the San Joaquin Valley Blueprint and the Sustainable Communities Strategy); and an analysis of mitigation measures that could offset impacts to agricultural resources.

The Plan for Agricultural Preservation should be consistent with documentation prepared by the Lead Agency in accordance with the California Environmental Quality Act (CEQA).

The Plan for Agricultural Preservation shall specify the method or strategy proposed to minimize the loss of agricultural lands. The Commission encourages the use of one or more of the following strategies:

1. Removal of agricultural lands from the existing sphere of influence in order to offset, in whole or in part, a proposed sphere of influence expansion or redirection.
2. An adopted policy or condition requiring agricultural mitigation at a ratio of at least 1:1. This can be achieved by acquisition and dedication of agricultural land, development rights and/or conservation easements to permanently protect agricultural land, or payment of in-lieu fees to an established, qualified, mitigation program to fully fund the acquisition and maintenance of such agricultural land, development rights or easements, consistent with Section B-2 of this Policy.
 - a. In recognition of existing County policies applicable to agricultural land conversions in the unincorporated areas, as well as the goals of individual agencies to promote employment growth to meet the stated needs of their communities, an agency may select to utilize a minimum of 1:1 mitigation for conversions to residential uses.
 - b. Agricultural mitigation easements or offsets shall not be required for any annexations of land for commercial or industrial development.
3. A voter-approved urban growth boundary designed to limit the extent to which urban development can occur during a specified time period.

B. Commission Evaluation of a Plan for Agricultural Preservation

1. The Commission may consider approval of a proposal that contains agricultural land when it determines that there is sufficient evidence within the Plan for Agricultural Preservation that demonstrates all of the following:
 - a. Insufficient alternative land is available within the existing sphere of influence or boundaries of the agency and, where possible, growth has been directed away from prime agricultural lands towards soils of lesser quality.
 - b. For sphere of influence proposals, that the additional territory will not exceed the twenty year period for probable growth and development (or ten years within a proposed primary area of influence). For annexation proposals, that the development is imminent for all or a substantial portion of the proposal area.

- c. The loss of agricultural lands has been minimized based on the selected agricultural preservation strategy. For the purposes of making the determination in this section, the term “minimize” shall mean to allocate no more agricultural land to non-agricultural uses than what is reasonably needed to accommodate the amount and types of development anticipated to occur.
 - d. The proposal will result in planned, orderly, and efficient use of land and services. This can be demonstrated through mechanisms such as:
 - i. Use of compact urban growth patterns and the efficient use of land that result in a reduced impact to agricultural lands measured by an increase over the current average density within the agency’s boundaries (e.g. persons per acre) by the proposed average density of the proposal area.
 - ii. Use of adopted general plan policies, specific or master plans and project phasing that promote planned, orderly, and efficient development.
2. For those proposals utilizing agricultural mitigation lands or in-lieu fees, the Commission may approve a proposal only if it also determines all of the following:
- a. The mitigation lands must be of equal or better soil quality, have a dependable and sustainable supply of irrigation water, and be located within Stanislaus County.
 - b. An adopted ordinance or resolution has been submitted by the agency confirming that mitigation has occurred, or requires the applicant to have the mitigation measure in place before the issuance of a grading permit, building permit, or final map approval for the site, whichever comes first.
 - c. The agricultural conservation entity is a city or a public or non-profit agency that: has the legal and technical ability to hold and administer agricultural preservation easements and in-lieu fees for the purposes of conserving and maintaining lands in agricultural production; and has adopted written standards, policies and practices (such as the Land Trust Alliance’s “Standards and Practices”) and is operating in compliance with those standards.
 - d. The agricultural mitigation land is not already effectively encumbered by a conservation easement of any nature.
 - e. Proposed in-lieu fees shall fully fund the costs associated with acquiring and managing an agricultural conservation easement, including the estimated transaction costs and the costs of administering, monitoring and enforcing the easement. Should the proposed in-lieu fees be less than 35% of the average per acre price for five (5) comparable land sales in Stanislaus County, plus a 5% endowment, the applicant shall provide evidence that the lesser amount will in fact achieve the stated agricultural mitigation goals.

C. Exceptions

The following applications are considered exempt from the requirement for a Plan for Agricultural Preservation and its implementation, unless determined otherwise by the Commission:

1. Proposals consisting solely of the inclusion of lands owned by a city or special district and currently used by that agency for public uses.

2. Proposals which have been shown to have no significant impact to agricultural lands, including, but not limited to:
 - a. Proposals consisting solely of lands which are substantially developed with urban uses.
 - b. Proposals brought forth for the purpose of providing irrigation water to agricultural lands.

Newman Agricultural Preservation in Compliance with Stanislaus LAFCO Policy

The City of Newman complies with the requirements of the Stanislaus LAFCO Agricultural Preservation Policy through the following actions:

City of Newman Right-to-Farm Ordinance

The City of Newman acknowledges agricultural uses and finds that on-going uses are beneficial to the community and will not act on complaints to normal and customary agricultural operations as noted above and codified in section 5.23.140 of the Municipal Code.

City of Newman Urban Growth Boundary

The City of Newman established a voter-approved Urban Growth Boundary designed to limit the extent to which urban development can occur during a specified time period. The text description of the Urban Growth Boundary is as follows:

The City of Newman has established an Urban Growth Boundary (UGB) that is coterminous with the City's Sphere of Influence line established by the Local Agency Formation Commission for the City, as it existed of January 1, 2014. Until December 31, 2040, the City shall restrict urban services (except temporary mutual assistance with other jurisdictions) and urbanized uses of land to within the Newman UGB, except as provided herein and except for the purpose of completing roadways designated in the circulation element of the Newman General Plan as of January 1, 2014, construction of public potable water facilities, public schools, public parks or other government facilities. Other than the exceptions provided for herein, upon the effective date of this UGB General Plan amendment, the City and its departments, boards, commissions, officers and employees shall not grant, or by inaction allow to be approved by operation of law, any general plan amendment, rezoning, specific plan, subdivision map, conditional use permit, building permit or any other ministerial or discretionary entitlement, which is inconsistent with the purposes of this General Plan amendment, unless in accordance with the Amendment Procedures of Section D of this General Plan Amendment. "Urbanized uses of land" shall mean any development which would require the establishment of new community sewer and/or water systems or the significant expansion of existing community sewer and/or water systems; or, would result in the creation of residential densities greater than one primary residential unit per 10 acres in area; or, would result in the establishment of commercial or industrial uses which are neither agriculturally related nor related to the production of mineral resources. The Newman UGB may not be amended, altered, revoked or otherwise changed prior to December 31, 2040, except by vote of the people or by the City Council pursuant to the procedures set forth in Section D of this General Plan Amendment.

Master Plan Area Williamson Act Properties

The Master Plan additionally includes the policy that existing Williamson Act properties located in the Master Plan area may remain until either non-renewed by the property owner or cancelled by action of the Lead Agency (City of Newman or County of Stanislaus).

City of Newman General Plan

The following General Plan goals and policies relate to agricultural resources within the city and the Sphere of Influence.

Goal NR-1: Promote the continued productivity of agricultural land surrounding Newman and prevent the premature conversion of agricultural land to urban uses.

Policy NR-1.1: The City shall support the continuation of agricultural uses on lands designated for urban uses until urban development is imminent.

Policy NR-1.2: The City shall encourage the County to retain agricultural uses on lands surrounding Newman pending their annexation to the city.

Policy NR-1.3: The owners of lands designated Urban Reserve and Agriculture shall be encouraged to enter into and maintain Williamson Act contracts with the County.

Policy NR-1.4: New development at the edge of the City, including all Master Plan Subareas, shall minimize potential incompatibilities between agricultural and urban uses through the location of land uses, the layout of roads, parks and public facilities, density controls and transfers, and design guidelines for buildings and public and private improvements. Consideration shall be given to the use of roads, canals, and other features to separate uses, as well as incorporating buffers of adequate width and use, and restricting the intensity of residential uses adjacent to agricultural land.

Policy NR-1.5: The City shall minimize the creation of urban land use patterns such as peninsulas that would adversely affect the viability of adjacent agricultural lands.

Policy NR-1.6: The City shall continue to allow and encourage activities that support local agriculture such as farmers' markets, onsite sale of produce and special events promoting local agricultural products.

Policy NR-1.7: The City shall maintain and continue to enforce the City's right-to-farm ordinance that protects owners of agricultural land at the urban fringe from unwarranted nuisance suits brought by surrounding landowners and provides for resolution of urban-agricultural disputes.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

For purposes of this EIR, the following thresholds are used for measuring the Plan's environmental impacts related to agricultural resources:

- Would the Project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?
- Would the Project conflict with existing General Plan policies or zoning for agricultural use, or a Williamson Act contract?

- Would the Project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined in Public Resources Code section 4526)?
- Would the project result in the loss of forest land or conversion of forest land to non-forest use?
- Would the Project involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use or conversion of forest land to non-forest use?

CONVERSION OF FARMLAND

Impact Ag-1: Conversion of Farmland. The proposed Master Plan would result in the conversion of approximately 5 acres of Grazing Land and 305 acres of Prime Farmland to non-agricultural uses and contribute to cumulative loss of agricultural land. (*General Plan significant impact - No New Impact*)

As stated in the Setting section, approximately 305 acres of the Master Plan area is composed of Prime Farmland, and 5 acres as Grazing Land. All of the land currently in agricultural use within the Master Plan area would be converted to non-agricultural uses under the Master Plan.

The City of Newman General Plan EIR acknowledged significant and unavoidable impacts related to loss of agricultural land within the planning area (Impacts AG-1 through AG-4 of the General Plan EIR), including the current Northwest Master Plan area, and proposed no feasible mitigation. The impact of the Plan related to conversion of farmland would be fully within the scope of the impact previously identified. Pursuant to CEQA Guidelines section 15152, the site-specific and cumulative effect of loss of farmland in the Plan area was adequately addressed in the prior General Plan EIR and is therefore not treated as a significant impact for purposes of this EIR. The Plan would result in no new impacts related to conversion of farmland.

Since that time, the County LAFCO has adopted the Agricultural Preservation Policy and the City has taken actions to comply, including institution of an UGB to create strict limits for urban growth surrounding the developed portions of the city, and institution of a right-to-farm ordinance. Development in the Master Plan area would comply with the Stanislaus County LAFCO Agricultural Preservation Policy through compliance with an adopted UGB to limit the potential for urban development in agricultural areas. These actions are not only consistent with regional policies, but also act to help ensure cumulative impacts are constrained to those already identified in analysis of area plans, such as the City's General Plan EIR.

WILLIAMSON ACT CONTRACTS

Two parcels within the Master Plan area, totaling approximately 14.05 acres, are under Williamson Act contracts, which restrict use of the parcels to agriculture in exchange for tax benefits. Upon annexation, the City would become responsible for managing these contracts, consistent with state law. Property owners may petition the City of Newman to cancel the remaining years left on the Williamson Act Contract after annexation has occurred. Development could not take place on these parcels until they are no longer subject to Williamson Act Land Conservation Contract.

The Master Plan includes the following policy: Existing Williamson Act properties located in the Master Plan area may remain until either non-renewed by the property owner or cancelled by action of the Lead Agency (City of Newman or County of Stanislaus).

Because the Master Plan would not force the cancellation of the Williamson Act contracts, which would need to occur according to allowable cancellation procedures, the Plan would not conflict with Williamson Act Contracts or related policies and the impact related to loss of two properties totaling 14.05 acres of land currently under Williamson Act contract would be *less than significant*.

INDIRECT LOSS OF FARMLAND

The proposed Master Plan could result in land uses that are incompatible with agricultural land and operations surrounding the Plan area, or temporarily within the Plan area, which could impede agricultural operations and result in indirect loss of Farmland.

The areas to the east and south are largely developed with urban uses within the City of Newman. The proposed Master Plan would expand the City into areas that are still agricultural. Agricultural lands are located west and north of the Plan area (and to the south along the western half of the Plan area) and would continue to be active. It can be presumed that agricultural lands within the Plan area may also remain active, even with new development occurring on adjacent properties. Residents of the Plan area would be in proximity to active agricultural operations, both during and after full development of the Plan area.

Conflicts can occur between urban-density development and agricultural lands, particularly along the edges of developed land. Agricultural operations often produce noise, odors, and slow traffic that non-rural residents find annoying or disruptive. Complaints and other actions from residents who do not accept the conditions that result from living in proximity to agricultural operations can impede agricultural activity and/or create pressure for farmers to convert their land to urban uses.

Pesticide use is regulated by both the federal and State governments to ensure that pesticide application does not create a health hazard for adjacent uses. Since these regulations would minimize pesticides drifting into residential areas, residents should not be subject to health risks from pesticides.

As the Plan area develops, temporary adjacencies between developed areas and those continuing agricultural uses may be created. These temporary adjacencies would be corrected through build-out of the Plan area. Following build-out of the Plan area, residences would be separated from nearby agricultural uses by roadways, parkland, or the CCID canal (and potentially also a levee).

The City of Newman adopted a right-to-farm ordinance as section 5.23.140 of the Municipal Code, which declares farming operations not to be a nuisance and recognizes persons' and/or entities' right to farm. It is City policy to not act on complaints to normal and customary agricultural operations.

With compliance with the City's right-to-farm ordinance, the impact related to the adverse effect of new development on agricultural uses would be *less than significant*.

LOSS OF FOREST RESOURCES

The Plan area includes no forest land or timberland. There would be *no impact* related to loss of forest land.

CUMULATIVE IMPACTS AND MITIGATION MEASURES

The impact of loss of agricultural land under the Master Plan and contribution to cumulative loss of agricultural land was previously addressed in the General Plan EIR as discussed under Impact Ag-1 above and would be reduced through compliance with UGB constraints on development. This

analysis already takes into account the context of Stanislaus County/Central Valley agricultural land and is consistent with Stanislaus LAFCO Agricultural Preservation Policies. There would be no additional cumulative impact related to agricultural resources.

AIR QUALITY

INTRODUCTION

This chapter discusses the Plan’s potential impacts on the local and regional air quality. Development projects of this type in the San Joaquin Valley are most likely to cause air quality impacts from emissions generated during construction and indirect emissions from vehicle trips related to built-out projects. The San Joaquin Valley Air Pollution Control District (SJVAPCD) has published the Guide for Assessing and Mitigating Air Quality Impacts that was used to conduct this air quality analysis.⁹ The Plan’s potential greenhouse gas impacts are discussed separately in Chapter 10.

ENVIRONMENTAL SETTING

TOPOGRAPHIC CONSIDERATIONS

The City of Newman is located in the northern portion of the San Joaquin Valley in the area designated as the San Joaquin Valley Air Basin by the California Air Resources Board (CARB). The Sierra Nevada Mountains in the east, the Coast Ranges in the west, and the Tehachapi mountains in the south define the air basin. The valley is basically flat with a slight downward gradient to the northwest. The valley opens to the sea at the Carquinez Straits, where the San Joaquin-Sacramento Delta empties into San Francisco Bay. The San Joaquin Valley, thus, could be considered a “bowl” with the primary opening to the north. The surrounding topographic features restrict air movement through and out of the basin and, as a result, impede the dispersion of pollutants from the basin. Wind flow is usually down the valley from the north, but the Tehachapi Mountains block or restrict the southward progression of airflow. The Sierra Nevada is a substantial barrier from winds with a general westerly flow. The topographical features result in weak airflow. The flow is further restricted vertically by inversion layers that are common in the San Joaquin Valley air basin throughout the year. An inversion layer is created when a mass of warm dry air sits over cooler air near the ground, preventing vertical dispersion of pollutants from the air mass below. During the summer, the San Joaquin Valley experiences daytime temperature inversions at elevations from 1,500 to 3,000 feet above the valley floor. These inversions lead to a buildup of ozone and ozone precursor pollutants. During the fall and winter months, strong surface-based inversions occur from 500 to 1,000 feet above the valley floor. Wintertime inversions have very stable air trapped near the surface and lead primarily to a buildup of particulate matter air pollutants.¹⁰

AIR BASIN CHARACTERISTICS

The climate of the Plan area is characterized by hot dry summers and cool, mild winters. Clear days are common from spring through fall. Daytime temperatures in the summer often exceed 100 degrees,

⁹ SJVAPCD. March 19, 2015. Guidance for Assessing and Mitigating Air Quality Impacts.

¹⁰ Ibid.

with lows in the 60s. In the winter, daytime temperatures are usually in the 50s, with lows around 35 degrees. Radiation fog is common in the winter, and may persist for days. Partly to mostly cloudy days are common in winter, as most precipitation received in the Valley falls from November through April.

Winds are predominantly up-valley (from the north) in all seasons, but more so in the summer and spring months.¹¹ In this flow, winds are usually from the north end of the Valley and flow in a south-southeasterly direction, through Tehachapi Pass, into the Southeast Desert Air Basin. Annually, up-valley wind flow (i.e., northwest flow with marine air) is most common, occurring about 40 percent of the time. This type of flow is usually trapped below marine and subsidence inversions, restricting outflow through the Sierra Nevada and Tehachapi Mountains. The occurrence of this wind flow is almost 70 percent of the time in summer, but less than 20 percent of the time in winter. Winter and fall are characterized by mostly light and variable wind flow. Pacific storm systems do bring southerly flows to the valley during late fall and winter. Light and variable winds, less than 10 mph, are common in the colder months.

Superimposed on this seasonal regime is the diurnal wind cycle. In the Valley, this cycle takes the form of a combination of sea breeze-land breeze and mountain-valley regimes. The sea breeze-land breeze regime typically has a sea breeze flowing into the Valley from the north during the late day and evening and then a land breeze flowing out of the Valley late at night and early in the morning. The mountain-valley regime has an upslope (mountain) flow during the day and a down slope (valley) flow at night. These effects create a complexity of regional wind flow and pollutant transport within the Valley.

The pollution potential of the San Joaquin Valley is very high. The San Joaquin Valley has one of the most severe air pollution problems in the State and the Country. Surrounding elevated terrain in conjunction with temperature inversions frequently restrict lateral and vertical dilution of pollutants. Abundant sunshine and warm temperatures in late spring, summer, and early fall are ideal conditions for the formation of ozone (O₃), where the Valley frequently experiences unhealthy air pollution days. Low wind speeds, combined with low inversion layers in the winter, create a climate conducive to high carbon monoxide (CO) and particulate matter (PM₁₀) concentrations.

REGULATORY SETTING

The federal and California Clean Air Acts have established ambient air quality standards for different pollutants. National ambient air quality standards (NAAQS) were established by the federal Clean Air Act of 1970 (amended in 1977 and 1990) for six "criteria" pollutants. These criteria pollutants now include CO, O₃, nitrogen dioxide (NO₂), particulate matter with a diameter less than 10 microns PM₁₀, sulfur dioxide (SO₂), and lead (Pb). In 1997, the Environmental Protection Agency (EPA) added fine particulate matter (PM_{2.5}) as a criteria pollutant. The air pollutants that standards have been established for are considered the most prevalent air pollutants that are known to be hazardous to human health. California ambient air quality standards (CAAQS) include the NAAQS pollutants and also hydrogen sulfide, sulfates, vinyl chloride, and visibility reducing particles. These additional CAAQS pollutants tend to have unique sources and are not typically examined in environmental air quality assessments. In addition, Pb concentrations have decreased dramatically since it was removed from motor vehicle fuels.

¹¹ CARB 1984. California Surface Wind Climatology. June.

FEDERAL REGULATIONS

At the federal level, the EPA administers and enforces air quality regulations. Federal air quality regulations were developed primarily from implementation of the federal Clean Air Act. If an area does not meet NAAQS over a set period (three years), EPA designates it as a "nonattainment" area for that particular pollutant. EPA requires states that have areas that do not comply with the national standards to prepare and submit air quality plans showing how the standards would be met. If the states cannot show how the standards would be met, then they must show progress toward meeting the standards. These plans are referred to as the State Implementation Plan (SIP). In severe cases, EPA may impose a federal plan to make progress in meeting the federal standards.

EPA also has programs for identifying and regulating hazardous air pollutants. The Clean Air Act requires EPA to set standards for these pollutants and sharply reduce emissions of controlled chemicals. Industries were classified as major sources if they emitted certain amounts of hazardous air pollutants. The EPA also sets standards to control emissions of hazardous air pollutants through mobile source control programs. These include programs that reformulated gasoline, national low emissions vehicle standards, Tier 2 motor vehicle emission standards, gasoline sulfur control requirements, and heavy-duty engine standards.

The San Joaquin Valley Air Basin is subject to major air quality planning programs required by the federal Clean Air Act (1977, last amended in 1990, 42 United States Code [USC] 7401 *et seq.*) to address ozone and particulate matter air pollution. The Clean Air Act requires that regional planning and air pollution control agencies prepare a regional Air Quality Plan to outline the measures by which both stationary and mobile sources of pollutants can be controlled in order to achieve all standards within the deadlines specified in the Clean Air Act. These plans are submitted to the State, which after approval submits them to the EPA as the SIP.

STATE REGULATIONS

The California Clean Air Act of 1988, amended in 1992, outlines a program for areas in the State to attain the CAAQS by the earliest practical date. CARB is the state air pollution control agency, and is a part of the California EPA. The California Clean Air Act sets more stringent air quality standards for all of the pollutants covered under national standards, and additionally regulates levels of vinyl chloride, hydrogen sulfide, sulfates, and visibility-reducing particulates. If an area does not meet CAAQS, CARB designates the area as a nonattainment area. The San Joaquin Valley Air Basin does not meet the CAAQS for O₃, PM₁₀ and PM_{2.5}. CARB requires regions that do not meet CAAQS for O₃ to submit clean air plans that describe plans to attain the standard or show progress toward attainment.

In addition to the U.S. EPA, CARB regulates the amount of air pollutants that can be emitted by new motor vehicles sold in California. California motor vehicle emission standards have always been more stringent than federal standards since they were first imposed in 1961. CARB has also developed Inspection and Maintenance and Smog Check programs with the California Bureau of Automotive Repair. Inspection programs for trucks and buses have also been implemented. CARB also has authority to set standards for fuel sold in California.

SAN JOAQUIN VALLEY

The SJVAPCD is made up of eight counties in California's Central Valley: San Joaquin, Stanislaus, Merced, Madera, Fresno, Kings, Tulare, and the San Joaquin Valley portion of Kern. The primary role of the SJVAPCD is to develop plans and implement control measures in the San Joaquin Valley to control air pollution. These controls primarily affect stationary sources such as industry and power

plants. Rules and regulations have been developed by SJVAPCD to control air pollution from a wide range of air pollution sources. Recently, an indirect source review rule was adopted that controls air pollution from new land developments. SJVAPCD also conducts public education and outreach efforts such as the Spare the Air, Wood Burning, and Smoking Vehicle voluntary programs.

NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

The CAA and CCAA promulgate, respectively, national and state ambient air quality standards. Air quality standards have been established by US EPA (i.e., NAAQS) and California (i.e., CAAQS) for specific air pollutants most pervasive in urban environments. The NAAQS and CAAQS are shown in **Table 6.1**. Ambient standards specify the concentration of pollutants to which the public may be exposed without adverse health effects. Individuals vary widely in their sensitivity to air pollutants, and standards are set to protect more pollution-sensitive populations (e.g., children and the elderly). National and state standards are reviewed and updated periodically based on new health studies. California ambient standards tend to be at least as protective as national ambient standards and are often more stringent.

For planning purposes, regions like the San Joaquin Valley Air Basin are given an air quality status designation by the federal and state regulatory agencies. Areas with monitored pollutant concentrations that are lower than ambient air quality standards are designated “attainment” on a pollutant-by-pollutant basis. When monitored concentrations exceed ambient standards within an air basin, it is designated “nonattainment” for that pollutant. US EPA designates areas as “unclassified” when insufficient data are available to determine the attainment status; however, these areas are typically considered to be in attainment of the standard.

CRITERIA AIR POLLUTANTS

Ambient air quality standards have been established by state and federal environmental agencies for specific air pollutants most pervasive in urban environments. These pollutants are referred to as criteria air pollutants because the standards established for them were developed to meet specific health and welfare criteria set forth in the enabling legislation. The criteria air pollutants emitted by development of the proposed Plan include O₃ precursors (oxides of nitrogen [NO_x] and reactive organic gases [ROG]), CO, NO₂, and PM₁₀ and PM_{2.5}. Other criteria pollutants, such as Pb and SO₂, would not be substantially emitted by the development of the proposed Plan or the generated traffic, and air quality standards for them are being met throughout the San Joaquin Valley Air Basin.

Ozone

While O₃ serves a beneficial purpose in the upper atmosphere (stratosphere) by reducing ultraviolet radiation potentially harmful to humans, when it reaches elevated concentrations in the lower atmosphere it can be harmful to the human respiratory system and to sensitive species of plants. O₃ concentrations build to peak levels during periods of light winds, bright sunshine, and high temperatures. Short-term O₃ exposure can reduce lung function in children, make persons susceptible to respiratory infection, and produce symptoms that cause people to seek medical treatment for respiratory distress. Long-term exposure can impair lung defense mechanisms and lead to emphysema and chronic bronchitis. Sensitivity to O₃ varies among individuals, but about 20 percent of the population is sensitive to O₃, with exercising children being particularly vulnerable. O₃ is formed in the atmosphere by a complex series of photochemical reactions that involve “ozone precursors” that are two families of pollutants: NO_x and ROG. NO_x and ROG are emitted from a variety of stationary and mobile sources. While NO₂ is another criteria pollutant itself, ROG are not in that category, but are included in this discussion as O₃ precursors.

Recently, CARB adopted an 8-hour health based standard for O₃ of 0.070 parts per million (ppm). More recently, US EPA revised the 8-hour NAAQS for O₃ from 0.08 ppm to 0.075 ppm.

Carbon Monoxide

Exposure to high concentrations of CO reduces the oxygen-carrying capacity of the blood and can cause dizziness and fatigue, impair central nervous system function, and induce angina in persons with serious heart disease. Primary sources of CO in ambient air are passenger cars, light-duty trucks, and residential wood burning. The monitored CO levels in the Valley during the last 10 years have been well below ambient air quality standards.

Nitrogen Dioxide

The major health effect from exposure to high levels of NO₂ is the risk of acute and chronic respiratory disease. NO₂ is a combustion by-product, but it can also form in the atmosphere by chemical reaction. NO₂ is a reddish-brown colored gas often observed during the same conditions that produce high levels of O₃, and can affect regional visibility. NO₂ is one compound in a group of compounds consisting of NO_x. As described above, NO_x is an O₃ precursor compound. As described above, NO_x is an O₃ precursor compound. Monitored levels of NO₂ in the Valley are below ambient air quality standards.

Particulate Matter

Respirable particulate matter, PM₁₀, and fine particulate matter, PM_{2.5}, consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. PM₁₀ and PM_{2.5} represent fractions of particulate matter that can be inhaled and cause adverse health effects. PM₁₀ and PM_{2.5} are a health concern, particularly at levels above the Federal and State ambient air quality standards. PM_{2.5} (including diesel exhaust particles) is thought to have greater effects on health because minute particles are able to penetrate to the deepest parts of the lungs. Scientific studies have suggested links between fine particulate matter and numerous health problems including asthma, bronchitis, acute and chronic respiratory symptoms such as shortness of breath and painful breathing. Children are more susceptible to the health risks of PM_{2.5} because their immune and respiratory systems are still developing. Very small particles of certain substances (e.g., sulfates and nitrates) can also directly cause lung damage or can contain absorbed gases (e.g., chlorides or ammonium) that may be injurious to health.

Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter (such as mining, demolition and construction activities) are more local in nature, while others (such as vehicular traffic) have a more regional effect. In addition to health effects, particulates also can damage materials and reduce visibility. Dust comprised of large particles (diameter greater than 10 microns) settles out rapidly and is more easily filtered by human breathing passages. This type of dust is considered more of a soiling nuisance rather than a health hazard.

In 1983, CARB replaced the standard for suspended particulate matter with a standard for suspended PM₁₀ or respirable particulate matter. This standard was set at 50 micrograms per cubic meter (µg/m³) for a 24-hour average and 30 µg/m³ for an annual average. CARB revised the annual PM₁₀ standard in 2002, pursuant to the Children's Environmental Health Protection Act. The revised PM₁₀ standard is 20 µg/m³ for an annual average. PM_{2.5} standards were first promulgated by the EPA in 1997 and were recently revised to lower the 24-hour PM_{2.5} standard to 35 µg/m³ for 24-hour exposures and revoked the annual PM₁₀ standard due to lack of scientific evidence correlating long-term exposures of

ambient PM₁₀ with health effects. CARB has adopted an annual average PM_{2.5} standard, which is set at 12 µg/m³, which is more stringent than the Federal standard of 15 µg/m³.

TOXIC AIR CONTAMINANTS

Besides the criteria air pollutants, there is another group of substances found in ambient air referred to as Hazardous Air Pollutants (HAPs) under the federal Clean Air Act and Toxic Air Contaminants (TACs) under the California Clean Air Act. These contaminants tend to be localized, and are found in relatively low concentrations in ambient air. However, they can result in adverse chronic health effects if exposure to low concentrations occurs for long periods. They are regulated at the local, state, and federal level.

HAPs are the air contaminants identified by US EPA as known or suspected to cause cancer, serious illness, birth defects, or death. Many of these contaminants originate from human activities, such as fuel combustion and solvent use. Mobile source air toxics (MSATs) are a subset of the 188 HAPs. Of the 21 HAPs identified by EPA as MSATs, a priority list of six priority HAPs were identified that include: diesel exhaust, benzene, formaldehyde, acetaldehyde, acrolein, and 1,3-butadiene. While vehicle miles traveled in the U.S. is expected to increase by 64% over the period 2000 to 2020, emissions of MSATs are anticipated to decrease substantially as a result of efforts to control mobile source emissions (by 57% to 67% depending on the contaminant).¹²

California developed a program under the Tanner Toxics Act (Assembly Bill [AB] 1807) to identify, characterize and control TACs. Subsequently, AB 2728 incorporated all 188 HAPs into the AB 1807 process. TACs include all HAPs plus other contaminants identified by CARB. These are a broad class of compounds known to cause morbidity or mortality (cancer risk). TACs are found in ambient air, especially in urban areas, and are caused by industry, agriculture, fuel combustion, and commercial operations (e.g., dry cleaners). TACs are typically found in low concentrations, even near their source (e.g., diesel particulate matter near a freeway). Because chronic exposure can result in adverse health effects, TACs are regulated at the regional, state, and federal level.

Particulate matter from diesel exhaust is the predominant TAC in urban air and is estimated to represent about two-thirds of the cancer risk from TACs (based on the statewide average). According to CARB, diesel exhaust is a complex mixture of gases, vapors and fine particles. This complexity makes the evaluation of health effects of diesel exhaust a complex scientific issue. Some chemicals in diesel exhaust, such as benzene and formaldehyde, have been previously identified as TACs by ARB, and are listed as carcinogens either under State Proposition 65 or under the federal HAPs programs.

CARB reports that recent air pollution studies have shown an association that diesel exhaust and other cancer-causing toxic air contaminants emitted from vehicles are responsible for much of the overall cancer risk from TACs in California. Particulate matter emitted from diesel-fueled engines (diesel particulate matter [DPM]) was found to comprise much of that risk. In August 1998, CARB formally identified DPM as a TAC. Diesel particulate matter is of particular concern, since it can be distributed over large regions, thus leading to widespread public exposure. The particles emitted by diesel engines are coated with chemicals, many of which have been identified by EPA as hazardous air pollutants, and by CARB as TACs. Diesel engines emit particulate matter at a rate about 20 times greater than comparable gasoline engines. The vast majority of diesel exhaust particles (over 90 percent) consist of PM_{2.5}, which are the particles that can be inhaled deep into the lung. Like other

¹² Federal Highway Administration, 2006. Interim Guidance on Air Toxic Analysis in NEPA Documents.

particles of this size, a portion will eventually become trapped within the lung, possibly leading to adverse health effects. While the gaseous portion of diesel exhaust also contains TACs, CARB's 1998 action was specific to DPM, which accounts for much of the cancer-causing potential from diesel exhaust. California has adopted a comprehensive diesel risk reduction program to reduce DPM emissions 85 percent by 2020. The U.S. EPA and CARB adopted low sulfur diesel fuel standards in 2006 that will reduce diesel particulate matter substantially.

Smoke from residential wood combustion can be a source of TACs. Wood smoke is typically emitted during wintertime when dispersion conditions are poor. Localized high TAC concentrations can result when cold stagnant air traps smoke near the ground and, with no wind; the pollution can persist for many hours, especially in sheltered valleys during winter. Wood smoke also contains a significant amount of PM₁₀ and PM_{2.5}. Wood smoke is an irritant and is implicated in worsening asthma and other chronic lung problems.

NATIONAL AND STATE AMBIENT AIR QUALITY STANDARDS

The Clean Air Act and California Clean Air Act promulgate, respectively, national and state ambient air quality standards for CO, O₃, NO₂, PM₁₀, and PM_{2.5}.¹³ Ambient standards specify the concentration of pollutants to which the public may be exposed without adverse health effects. Individuals vary widely in their sensitivity to air pollutants, and standards are set to protect more pollution-sensitive populations (e.g., children and the elderly). National and state standards are reviewed and updated periodically based on new health studies. California ambient standards tend to be at least as protective as national ambient standards, and are often more stringent. National and California ambient air quality standards are shown in **Table 6.1**.

TABLE 6.1: HEALTH-BASED AMBIENT AIR QUALITY STANDARDS

Pollutant	Averaging Time	California Standard	National Standard
Ozone	1 Hour	0.09 ppm	---
	8 Hour	0.07 ppm	0.75 ppm
Carbon Monoxide	1 Hour	20 ppm	35 ppm
	8 Hour	9.0 ppm	9 ppm
Nitrogen Dioxide	1 Hour	0.18 ppm	0.100 ppm
	Annual	0.03 ppm	0.053 ppm
Sulfur Dioxide	1 Hour	0.25 ppm	0.75 ppm
	24 Hour	0.04 ppm	--
Particulates < 10 microns	24 Hour	50 µg/m ³	150 µg/m ³
	Annual	20 µg/m ³	---
Particulates < 2.5 microns	24 Hour	---	35 µg/m ³
	Annual	12 µg/m ³	12 µg/m ³
Concentrations: ppm = parts per million		µg/m ³ = micrograms per cubic meter	
Source: CARB February 16, 2010			

¹³ Other pollutants (e.g., Pb, SO₂) also have ambient standards, but they are not discussed in this document because emissions of these pollutants from the Project are expected to be negligible.

For planning purposes, regions like the San Joaquin Valley Air Basin are given an air quality status designation by the federal and state regulatory agencies. Areas with monitored pollutant concentrations that are lower than ambient air quality standards are designated “attainment” on a pollutant-by-pollutant basis. When monitored concentrations exceed ambient standards within an air basin, it is designated “nonattainment” for that pollutant. U.S. EPA designates areas as “unclassified” when insufficient data are available to determine the attainment status. However, these areas are typically considered to be in attainment of the standard.

EXISTING AIR QUALITY

As previously discussed, the San Joaquin Valley experiences poor air quality conditions, due primarily to elevated levels of ozone and particulate matter. CARB, in cooperation with SJVAPCD, monitors air quality throughout the San Joaquin Valley Air Basin. A monitoring station located 8 miles south in Turlock measures O₃, CO, NO₂, and PM₁₀, while another station 3 miles to the north in Modesto measures O₃, CO, SO₂, NO₂, PM₁₀ and PM_{2.5}. **Table 6.2** summarizes exceedances of the state and federal standards at these two sites.

TABLE 6.2: SUMMARY OF CRITERIA AIR POLLUTION MONITORING DATA

Pollutant	Standard	Monitoring Site	Days Standard Exceeded		
			2012	2013	2014
Ozone	State 1-Hour	Merced	2	5	3
		Turlock	17	1	4
		SJV Air Basin	72	41	48
Ozone	Federal 8-Hour	Merced	9	15	22
		Turlock	35	14	12
		SJV Air Basin	105	89	86
PM ₁₀	Federal 24-Hour	Merced	*	*	*
		Turlock	0	0	0
		SJV Air Basin	0	4	8.4
PM ₁₀	State 24-Hour	Merced	*	*	*
		Turlock	55	74	*
		SJV Air Basin	89	122	139
PM _{2.5}	2006 Federal 24-Hour	Merced	9	16	17
		Turlock	25	40	24
		SJV Air Basin	29	50	40

* indicates there was insufficient (or no) data available.

Note: PM₁₀ and PM_{2.5} are measured every sixth day, so the number of days exceeding the standard is estimated.

Source: CARB Air Quality Data Statistics (<http://www.arb.ca.gov/adam/>)

The table above shows that air quality is problematic in the San Joaquin Valley as a result of exceedances of O₃ and PM₁₀ standards. In recent years, both federal and State O₃ standards have been exceeded at least somewhere in the Valley on 65 to 95 days per year. At Turlock, the State O₃ standard was exceeded on 1 to 21 days per year, and the federal standard was exceeded 2 to 15 days. At Modesto, the State O₃ standard was exceeded on 1 to 14 days per year, and the federal standard was exceeded 0 to 8 days. PM₁₀ is just as problematic in the San Joaquin Valley, where exceedances of State standards are estimated at over 150 days per year. However, the Valley has only exceeded the federal PM₁₀ standard on 1 to 5 days per year. It is estimated that the older federal PM_{2.5} 24-hour standard of 65 µg/m³ was exceed 3 days per year in Modesto (Turlock does not measured PM_{2.5}). In 2006, US EPA reduced the 24-hour PM_{2.5} standard to 35 µg/m³. The estimated number of days that

the Modesto site would exceed the standard in 2008 is 39 days. Standards for CO and NO₂, or any other criteria air pollutant are not exceeded anywhere in the San Joaquin Valley.

Air quality in the Valley has improved significantly despite a natural low capacity for pollution, created by unique geography, topography, and meteorology. Emissions have been reduced at a rate similar or better than other areas in California. Since 1990, emissions of NO_x and ROG have been reduced by 40% or greater, resulting in much fewer days where ozone standards have been exceeded. Direct emissions of PM₁₀ and PM_{2.5} have been reduced by 10% to 13%. As a result, the San Joaquin Valley is the first air basin classified as “serious nonattainment” under the NAAQS to come into attainment of the PM₁₀ standards.

Attainment Status

Areas that do not violate ambient air quality standards are considered to have attained the standard. Violations of ambient air quality standards are based on air pollutant monitoring data, and are judged for each air pollutant. The San Joaquin Valley as a whole does not meet State or federal ambient air quality standards for O₃ and PM_{2.5} and the State standards for PM₁₀. The attainment status for the Valley is described in **Table 6.3**.

Under the federal Clean Air Act, the U.S. EPA has classified the region as *extreme nonattainment* for the 8-hour O₃ standard. On March 19, 2008, the U.S. EPA posted a final rule in the Federal Register affirming the agency’s October 30, 2006 determination that the Valley has attained the NAAQS for PM₁₀. The Valley is designated *nonattainment* for the PM_{2.5} NAAQS. The U.S. EPA classifies the region as *attainment* or *unclassified* for all other air pollutants, which include PM₁₀.

At the State level, the region is considered *severe nonattainment* for 1-hour O₃ and *non-attainment* for 8-hour O₃, PM_{2.5}, and PM₁₀. California ambient air quality standards are more stringent than the national ambient air quality standards. The region is required to adopt plans on a triennial basis that show progress towards meeting the State O₃ standard. The area is considered *attainment* or *unclassified* for all other pollutants.

TABLE 6.3: REGIONAL ATTAINMENT STATUS

Pollutant	Federal Status	State Status
Ozone (O ₃) – 1-Hour Standard	No Federal Standard	Severe Nonattainment
Ozone (O ₃) – 8-Hour Standard	Extreme Nonattainment	Nonattainment
Particulate Matter (PM ₁₀)	Attainment	Nonattainment
Fine Particulate Matter (PM _{2.5})	Nonattainment	Nonattainment
Carbon Monoxide (CO)	Unclassified/Attainment	Unclassified/Attainment
Nitrogen Dioxide (NO ₂)	Unclassified/Attainment	Attainment
Sulfur Dioxide (SO ₂)	Unclassified/Attainment	Attainment
Sulfates	No Federal Standard	Attainment
Lead (Pb)	No Designation	Attainment
Hydrogen Sulfide	No Federal Standard	Unclassified
Visibility Reducing Particles	No Federal Standard	Unclassified

Source: SJVAPCD. Ambient Air Quality Standards & Valley Attainment Status Website accessed June 28, 2016, at <http://www.valleyair.org/aqinfo/attainment.htm>.

REGIONAL AIR QUALITY PLANS

In response to not meeting federal standards, the region is required to submit attainment plans to U.S. EPA through the State, which are referred to as SIPs. California's adopted 2007 *State Strategy* was submitted to the EPA as a revision to its SIP in November 2007.¹⁴ That plan predicts attainment of the standard throughout the district by 2024, and earlier for most parts of the Valley. To accomplish these goals, the plan would reduce NO_x emissions further by 75% and ROG emissions by 25%. A wide variety of control measures are included in these plans, such as reducing or offsetting emissions from construction and traffic associated with land use developments.

SJVAPCD adopted the *2007 Ozone Plan* on April 30, 2007.¹⁵ This plan includes a dual path strategy that assures expeditious attainment of the Federal 8-hour ozone standard as set by EPA in 1997. The plan forecasts that the Valley will achieve the 8-hour ozone standard for all areas of the San Joaquin Valley Air Basin (SJVAB) no later than 2023. CARB approved the *2007 Ozone Plan* on June 14, 2007. US EPA approved the 2007 Ozone Plan effective April 30, 2012.

On April 25, 2008, US EPA proposed to approve the 2007 PM₁₀ *Maintenance Plan and Request for Redesignation*. The region now meets the NAAQS for PM₁₀. The SJVAPCD adopted the 2008 PM_{2.5} Plan on April 30, 2008. The plan was approved by CARB and US EPA in 2008.

The SJVAPCD adopted the *2012 PM_{2.5} Plan* on December 20, 2012.¹⁶ This plan was approved by CARB on January 24, 2013. This plan will assure that the Valley will attain the 2006 PM_{2.5} NAAQS. The plan uses control measures to reduce NO_x, which also leads to fine particulate formation in the atmosphere. The plan incorporates measures to reduce direct emissions of PM_{2.5}, including a strengthening of regulations for various SJVAB industries and the general public through new rules and amendments.

Both the ozone and PM_{2.5} plans include all measures (i.e., federal, state, and local) that would be implemented through rule making or program funding to reduce air pollutant emissions. Transportation Control Measures are part of these plans. The plans described above addressing ozone also meet the state planning requirements.

SJVAPCD RULES AND REGULATIONS

The SJVAPCD has adopted rules and regulations that apply to land use projects, such as the proposed Plan. These are described below.

Regulation IX - SJVAPCD Rule 9510 - Indirect Source Review Rule

The SJVAPCD adopted the Indirect Source Review Rule (or Rule 9510) in 2005 to reduce O₃ precursors (i.e., ROG and NO_x) and PM₁₀ emissions from new development projects. The rule is the result of state requirements outlined in the regions' portion of the SIP. New projects that would generate substantial air pollutant emissions are subject to this rule. The rule requires projects to mitigate both construction and operational period emissions by applying the SJVAPCD-approved mitigation measures and paying fees to support programs that reduce emissions. Fees are based on

¹⁴ CARB, 2007. Air Resources Board's Proposed State Strategy for California's 2007 State Implementation Plan. Note that the plan was adopted by CARB on September 27, 2007.

¹⁵ SJVAPCD, 2007. 2007 Ozone Plan.

¹⁶ SJVPACD, 2012. 2012 PM_{2.5} Plan.

estimated costs to reduce the emissions, and include expected costs to cover administration of the program.

To determine how an individual project would satisfy Rule 9510, each project is required to submit an air quality impact assessment (AIA) to the SJVAPCD as early as possible, but no later than prior to the project's final discretionary approval, to identify the project's baseline unmitigated emissions inventory for indirect sources: on-site exhaust emissions from construction activities and operational activities from mobile and area sources of emissions (excludes fugitive dust and permitted sources.) Rule 9510 requires the following:

Construction Equipment Emissions: The exhaust emissions for construction equipment greater than 50 horsepower used or associated with the development project shall be reduced by the following amounts from the statewide average as estimated by CARB:

- 20 percent of the total NO_x emissions, and
- 45 percent of the total PM₁₀ exhaust emissions.

Mitigation measures that may include those that reduce construction emissions on-site by using less polluting construction equipment, which can be achieved by utilizing add-on controls, cleaner fuels, or newer lower emitting equipment.

Operational Emissions:

- NO_x Emissions: Applicants shall reduce 33.3 percent of the project's operational baseline NO_x emissions over a period of ten years as quantified in the approved AIA.
- PM₁₀ Emissions: Applicants shall reduce of 50 percent of the project's operational baseline PM₁₀ emissions over a period of 10 years as quantified in the approved AIA.

These requirements listed above can be met through any combination of on-site emission reduction measures.

In the event that a project cannot achieve the above standards, through imposition of mitigation measures, then the project would be required to pay the applicable off-site fees.

Individual development projects would be subject to Indirect Source Review requirements if upon full build-out the project would include or exceed any one of the following:

- 50 dwelling units;
- 2,000 square feet of commercial space;
- 25,000 square feet of light industrial space;
- 100,000 square feet of heavy industrial space;
- 20,000 square feet of medical office space;
- 39,000 square feet of general office space;
- 9,000 square feet of educational space;
- 10,000 square feet of government space;
- 20,000 square feet of recreational space; or
- 9,000 square feet of space not identified above

The Indirect Source Review rule also applies to any transportation or transit project where construction exhaust emissions equal or exceed two (2) tons NO_x or two (2) tons of PM₁₀.

For projects subject to District Rule 9510, the District recommends that demonstration of compliance with District Rule 9510, including payment of all applicable fees before issuance of the first building permit, be made a condition of project approval.

Regulation II – Permitted Source Permits

District Regulation II (Permits) applies to permitted emission sources and includes rules such as District permit requirements (Rule 2010), New and Modified Stationary Source Review (Rule 2201), and implementation of Emission Reduction Credit Banking (Rule 2301).

Many industrial projects and some commercial projects require District permits. Rule 2010 states that “any person who plans to or does operate, construct, alter, or replace any source of emission of air contaminants” must obtain approval of the Air Pollution Control Officer and receive an Authority to Construct and a Permit to Operate.

Examples of air contaminant emitting equipment and processes include (but are not limited to) the following:

- Agricultural products processing
- Bulk material handling
- Chemical blending, mixing, manufacturing, storage, etc.
- Combustion equipment (boilers, engines, heaters, incinerators, etc.)
- Metals etching, melting, plating, refining, etc.
- Plastics & fiberglass forming and manufacturing
- Petroleum production, manufacturing, storage, and distribution
- Rock & mineral mining and processing
- Solvent use (degreasing, dry-cleaning, etc.)
- Surface coating and preparation (painting, blasting, etc.)

District Regulation II ensures that stationary source emissions will be reduced or mitigated to below the District’s significance thresholds. However, the Lead Agency can, and should, make an exception to this determination if special circumstances suggest that the emissions from any permitted or exempt source may cause a significant air quality impact. For example, if a source may emit objectionable odors, then odor impacts on nearby receptors should be considered a potentially significant air quality impact.

District implementation of New Source Review (NSR) ensures that there is no net increase in emissions above specified thresholds from New and Modified Stationary Sources for all nonattainment pollutants and their precursors. Furthermore, in general, permitted sources emitting more than the NSR Offset Thresholds for any criteria pollutant must offset all emission increases in excess of the thresholds. However, under certain circumstances, the District may be precluded by state law or other District rule requirements from requiring a stationary source to offset emissions increases.

Regulation VIII – Fugitive PM₁₀

SJVAPCD controls fugitive PM₁₀ through Regulation VIII (Fugitive PM₁₀ Prohibitions). The purpose of this regulation is to reduce ambient concentrations of PM₁₀ by requiring actions to prevent, reduce or mitigate anthropogenic fugitive dust emissions. This applies to activities such as construction, bulk materials, open areas, paved and unpaved roads, material transport, and agricultural areas. Sources regulated are required to provide dust control plans that meet the regulation requirements. Fees are collected by SJVAPCD to cover costs for reviewing plans and conducting field inspections.

Regulation IV, Rule 4901 – Residential Wood Smoke

SJVAPCD Rule 4901 regulates emissions from residential fireplaces and wood burning heaters and provides educational information to reduce wood smoke emissions. The provisions of the rule apply to construction of new homes, retrofit of existing homes, or homes that are transferred through a real estate transfer. Wood burning heaters are required to be U.S. EPA Phase II Certified. Wood burning residential fireplaces are prohibited in residential developments with a density greater than two dwelling units per acre. More than two U.S. EPA Phase II Certified wood burning heaters per acre are prohibited in any new residential development with a density equal to or greater than two dwelling units per acre. Only one fireplace or heater is allowed per dwelling unit where the density is less than two dwelling units per acre.

Regulation IX, Rule 9410 – Employer Based Trip Reduction

On December 17, 2009, the SJVAPCD adopted Rule 9410, Employer Based Trip Reduction. This rule requires larger employers to establish an Employer Trip Reduction Implementation Plan (ETRIP) to encourage employees to reduce single-occupancy vehicle trips, thus reducing pollutant emissions associated with work commutes. The rule applies to employers with at least 100 eligible employees at a worksite. The rule does identify several types of workers that are not included in determining the number of employees at one site (e.g., part-time employees and employees that do not normally commute during the morning). The ETRIP will contain a set of measures an employer chooses that will encourage employees at the worksite to use alternative transportation and ridesharing for their morning and evening commutes. The ETRIP is phased in over a period of 3 years. Annual reporting includes the results of the Commute Verification for the previous calendar year along with the measures implemented as outlined in the ETRIP and, if necessary, any updates to the ETRIP.

CITY OF NEWMAN GENERAL PLAN

The City of Newman General Plan includes goals and policies that relate to air quality:

Goal TC-4 Minimize air quality and noise impacts on surrounding land uses resulting from new roadway projects and improvements to existing roadways.

Policy TC-4.1 To the extent feasible, the City shall provide for separation of residential and other noise sensitive land uses from major roadways to reduce noise and air pollution impacts.

Goal NR-4 Promote and improve air quality in Newman and the region.

Policy NR-4.1 The City shall work with the San Joaquin Valley Unified Air Pollution Control District in an effort to ensure the earliest practicable attainment and subsequent maintenance of federal and state ambient air quality standards.

Policy NR-4.2 The City shall utilize the CEQA process to identify and avoid or mitigate potentially significant air quality impacts of new development.

Policy NR-4.3 The City should coordinate development project reviews with the San Joaquin Valley Air Pollution District in order to minimize future increases in vehicle travel and to assist in implementing appropriate indirect source regulations adopted by the Air Pollution Control District.

Policy NR-4.4 The City shall notify and coordinate with the Air Pollution Control District when new developments are proposed.

Policy NR-4.5 Design new intersections to function in a manner that reduces air pollutant emissions from stop and start and idling traffic conditions. Possible techniques include the use of roundabouts and/or using integrated signalization to improve traffic flow.

Policy NR-4.6 The City shall, to the extent practicable, separate sensitive land uses from significant sources of air pollutants, toxic air contaminants or odor emissions.

Policy NR-4.7 The City shall promote expansion of employment opportunities within Newman to reduce commuting to areas outside Newman.

Policy NR-4.8 The City shall actively promote ridesharing for Newman residents commuting to employment centers outside the city and shall promote the use of transit services.

Policy NR-4.9 The City shall support the efforts of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and other regional air quality management planning, programs, educational and enforcement measures.

Policy NR-4.10 Project-level environmental review, using the SJVAPCD analysis methods and significance thresholds, shall be required to identify impacts to air quality and consider alternatives that reduce emissions of air pollutants.

Policy NR-4.11 The City shall ensure that new development projects comply with SJVAPCD Rule 9510 – Indirect Source Review.

Policy NR-4.12 EPA-certified wood stoves, fireplaces, pellet stoves or natural gas fireplaces shall be required to replace conventional fireplaces during renovations. Consistent with SJVAPCD regulations, new residential development will only be allowed to install gas burning fireplaces.

Policy NR-4.13 The City shall incorporate site design features into new developments and capital improvement projects that encourage bicycle, pedestrian and transit modes of transportation.

Policy NR-4.14 The City shall require features in new development that would reduce the reliance on gas-powered landscape equipment.

Goal NR-5 Minimize the consumption of energy, water and non-renewable resources.

Policy NR-5.2 The City will encourage the use of water conservation technology to reduce water consumption by irrigation, domestic and industrial uses.

Policy NR-5.3 The City shall encourage the use of passive solar design, renewable energy systems, including solar energy, and green building techniques to improve energy conservation and comfort in residential, commercial and civic buildings.

Policy NR-5.4 Developers of new homes shall provide buyers with an option to have their new home include solar paneling.

SENSITIVE RECEPTORS

"Sensitive receptors" are defined as facilities where sensitive population groups, such as children, the elderly, the acutely ill and the chronically ill, are likely to be located. These land uses include residences, schools, playgrounds, childcare centers, retirement homes, convalescent homes, hospitals and medical clinics. The Project site is surrounded by mostly agricultural and rural residences and the Orestimba High School to the south and west, and by residential development to the north and east.

BUFFERS FROM SOURCES OF AIR POLLUTION AND ODORS

The SJVAPCD and CARB recommend that communities include buffers between sensitive receptors and sources of air toxic contaminant emissions and odors. In April 2005, CARB released the final version of the Air Quality and Land Use Handbook, which is intended to encourage local land use agencies to consider the risks from air pollution prior to making decisions that approve the siting of new sensitive receptors near sources of air pollution. Unlike industrial or stationary sources of air pollution, siting of new sensitive receptors does not require air quality permits, but could create air quality problems. The primary purpose of the CARB document is to highlight the potential health implications associated with proximity to common air pollution sources, so that those issues are considered in the planning process. CARB makes recommendations regarding the siting of new sensitive land uses near freeways, truck distribution centers, dry cleaners, gasoline-dispensing stations, and other air pollution sources. These "advisory" recommendations are based primarily on modeling information for studies conducted throughout the state and may not be entirely reflective of conditions in Newman. Siting of new sensitive land uses within these recommendation distances may be appropriate due to site-specific conditions (e.g., source strength or meteorology), but should only be done after site-specific studies are conducted to identify the actual health risks. CARB acknowledges that land use agencies have to balance other siting considerations such as housing and transportation needs, economic development priorities and other quality of life issues. Buffers should be considered with existing and proposed industrial sources to avoid health, odor and nuisance impacts.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

1. CEQA Appendix G Standards

The Project would have a significant impact with regard to air quality if it would:

- Conflict with or obstruct implementation of the applicable air quality plan.
- Violate any air quality standard or contribute substantially to an existing or projected air quality violation.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project area is in non-attainment under applicable federal or State ambient air quality standards (including releasing emissions which exceed quantitative Standards for ozone precursors or other pollutants).
- Expose sensitive receptors to substantial pollutant concentrations.
- Create objectionable odors affecting a substantial number of people.

The SJVAPCD has developed the Guide for Assessing and Mitigating Air Quality Impacts, also known as the GAMAQI (SJVAPCD 1998). The following thresholds of significance, obtained from the SJVAPCD's GAMAQI, are used to determine whether a proposed project would result in a significant air quality impact:

1. *Criteria Air Pollutants*. Emissions of any criteria air pollutant that would exceed the applicable threshold of significance identified below or that would generate emissions that equal or exceed 100 lbs per day is considered to result in elevated concentrations of air pollutants that have the potential to exceed the AAQS.
 - a. *Emissions of Ozone Precursors (ROG and NO_x)*. Construction or operational emissions associated with the Plan would be considered significant if the Plan generates emissions of ROG or NO_x that exceed 10 tons/year.
 - b. *Emissions of Particulate Matter (PM₁₀ and PM_{2.5})*. Construction or operational emissions associated with the Plan would be considered significant if the Plan generates emissions of PM₁₀ or PM_{2.5} that exceed 15 tons/year.
 - c. *Emissions of Carbon Monoxide (CO)*. Construction or operational emissions associated with the Plan would be considered significant if the Plan generates emissions of CO that exceeds 100 tons/year.
2. *Toxic or Hazardous Air Pollutants*. Exposure to hazardous air pollutants (HAPs) or toxic air contaminants (TACs) would be considered significant if the probability of contracting cancer for the Maximally Exposed Individual would exceed 10 in 1 million or would result in a Hazard Index greater than 1.
3. *Local CO Concentrations*. Traffic emissions associated with the proposed project would be considered significant if the project contributes to CO concentrations at receptor locations in excess of the ambient air quality standards (i.e., CAAQS of 9.0 ppm for 8 hours or 20 ppm for 1 hour).
4. *Odors*. Odor impacts associated with the proposed project would be considered significant if the project has the potential to frequently expose members of the public to objectionable odors through development of a new odor source or placement of receptors near an existing odor source. Due to the subjective nature of odor impacts, the number of variables that can influence the potential for an odor impact, and the variety of odor sources, there are no quantitative or formulaic methodologies to determine the presence of a significant odor impact. Rather, SJVAPCD recommends that odor analyses strive to fully disclose all pertinent information.

Project-related air quality impacts fall into two categories: short-term impacts due to construction, and long-term impacts due to Project operation. During construction, the Project would affect local particulate concentrations primarily due to fugitive dust sources. Over the long-term, the Project would result in an increase in emissions primarily due to increased motor vehicle trips.

Other criteria pollutants, SO₂ and Pb are generally not air pollutants of concern associated with land use development projects (e.g., Pb is only associated with major stationary sources and SO₂ concentrations have not been exceeded in the SJVAB as a result of regulations requiring use of low-sulfur fuel). Ambient concentrations of these air pollutants are well below ambient air quality standards and the Plan is not expected to change that condition. Therefore, impacts from these criteria air pollutants were not quantified for purposes of this analysis.

With respect to cumulative air quality impacts, the GAMAQI provides that any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative impact.

METHODOLOGY

Emissions

Construction and operational emissions were modeled using the California Emissions Estimator Model, Version 2011.1.1 (CalEEMod) using Project-specific inputs, including proposed land use types and sizes and trip generation from the traffic study. CalEEMod is a computer model developed by the South Coast Air Quality Management District (SCAQMD) to estimate air pollutant and greenhouse gas (GHG) emissions from land use development projects. For purposes of providing a conservative analysis and given that existing emissions are anticipated to be relatively low because of the existing uses, for purposes of this analysis existing operational emissions were not subtracted to provide net emissions. The CalEEMod inputs and outputs are detailed in **Appendix B**.

CONSTRUCTION IMPACTS

Impact Air-1: Construction Emissions. Construction activity would temporarily affect local air quality, causing a temporary increase in particulate dust and other pollutants. While the exact timing of construction is not known for Plan build-out, it is possible that SJVAPCD thresholds could be exceeded and contributions to regional exceedances could be significant. This is a *significant* impact.

For this analysis, it is assumed that development in the Plan area would occur over a period of about 15 years, which is consistent with CalEEMod default assumptions for build-out of the Plan area. **Table 6.4** shows the results of construction emission estimates from CalEEMod modeling. As indicated in **Table 6.4**, assuming emissions are equally averaged per year and day, emissions of all criteria pollutants would be below SJVAPCD thresholds. In actuality, the phasing of construction in the Plan area is not yet defined, and if large projects occur together, significance thresholds could be exceeded. Criteria air pollutant emissions that exceed the SJVAPCD significance thresholds would cumulatively contribute to the ozone and particulate matter non-attainment designations of the SJVAB under the NAAQS and CAAQS.

TABLE 6.4: UNMITIGATED PROJECT CONSTRUCTION EMISSIONS, AVERAGED BUILD OUT OF THE PLAN AREA

	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Average Annual Emissions (tons/year)	3.59	5.06	11	2.27	0.83
GAMAQI Annual Thresholds	10.00	10.00	100	15.00	15.00
Exceeds Threshold?	No	No	No	No	No
Average Daily Emissions (lbs/day) ¹	28 ¹	39 ¹	86 ¹	17 ¹	6 ¹
GAMAQI Daily Thresholds	100	100	100	100	100
Exceeds Threshold? ¹	No ¹	No ¹	No ¹	No ¹	No ¹

¹: This analysis assumes consistent development over the build-out of the Plan area. If numerous and/or large construction projects occur concurrently, daily emissions could be higher than reported in this table.

Source: Lamphier-Gregory 2016, CalEEMod results included in Appendix B.

New development within the Plan area would be required to comply with SJVAPCD Regulation VIII – Fugitive Dust Control. As part of the development process for individual, site-specific projects under the Master Plan, applicants would be required to develop and obtain approval of a Fugitive Dust Control Plan (from the City or SJVAPCD, as appropriate) to mitigate, as feasible, fugitive dust emissions to satisfy the requirements set forth under then-applicable SJVAPCD Rules and Regulations, including, without limitation, Regulation VIII. The effect of this rule would, at a minimum, reduce PM₁₀ fugitive dust emissions by approximately 55 percent. As a result, annual average PM₁₀ emissions would be reduced from 22 tons per year to 11 tons per year. The maximum annual fugitive dust emissions of 27 tons per year would be reduced to 14 tons per year.

Mitigation Measure

Air-1: Compliance with SJVAPCD Rule 9510. New development projects in the Plan area that would generate substantial air pollutant emissions would be required by SJVAPCD Rule 9510 to mitigate construction- and operation-period emissions by applying the SJVAPCD-approved measures and paying fees to support programs that reduce emissions.

New development within the Plan area would be required to comply with SJVAPCD Rule 9510. Individual development projects would be subject to these requirements if upon full build-out the project would include or exceed any one of the following:

- 50 dwelling units;
- 2,000 square feet of commercial space;
- 25,000 square feet of light industrial space;
- 100,000 square feet of heavy industrial space;
- 20,000 square feet of medical office space;
- 39,000 square feet of general office space;
- 9,000 square feet of educational space;
- 10,000 square feet of government space;
- 20,000 square feet of recreational space; or
- 9,000 square feet of space not identified above.

As part of the development process for individual, site-specific projects under the Master Plan, each applicant would be required, to the extent specific development at issue is subject to Rule 9510, to prepare a detailed AIA. To the extent applicable under Rule 9510 for each such individual development, SJVAPCD would require calculation of the construction and operational emissions from the development at issue. The purpose of the AIA is to confirm a development's construction exhaust emissions, and therefore be able to identify appropriate mitigation, either through implementation of specific mitigation measures or payment of applicable off-site fees. Under Rule 9510, each project that is subject to this Rule would be required to reduce construction exhaust emissions by 20 percent for NO_x and 45 percent for PM₁₀ or pay offset mitigation fees for emissions that do not achieve the mitigation requirements. Offset fees would be calculated in accordance with the procedures identified in the Rule 9510 and approved by the SJVAPCD. Measures to meet these requirements usually take the form of newer or retrofitted construction fleets, a reduction of construction traffic, use of electrical-powered stationary equipment, and possibly off site mitigation or fees payable to SJVAPCD to obtain off-site reductions.

Individual site-specific projects under the Master Plan may be subject to SJVAPCD Regulation VIII and Rule 9510. Implementation of Regulation VIII and Rule 9510 would result in the Project using less-polluting construction equipment, including newer equipment or retrofitting older equipment would reduce construction emissions on-site, as well as implementation of measures to reduce construction emissions. Nevertheless, while the analysis above assumes development will be spread

out over the build-out period, if large and/or numerous construction projects occur concurrently, Project emissions could exceed the SJVAPCD significance thresholds of criteria pollutants and could cumulatively contribute to the ozone and particulate matter non-attainment designations of the SJVAB. Therefore, construction impacts of the Project are considered *significant and unavoidable*.

OPERATIONAL IMPACTS

Development projects of this type in the San Joaquin Valley are most likely to violate an air quality standard or contribute substantially to an existing or projected air quality violation through vehicle trip generation. New vehicle trips add to ozone precursor concentrations and to carbon monoxide concentrations near roadways that provide access to the site.

Regional Emissions

Impact Air-2: **Operational Emissions.** Operational emissions generated by Plan area development and related traffic would increase emissions in the region, affecting the attainment and maintenance of criteria air pollutant air quality standards. These increases would be above GAMAQI significance thresholds and the impact is considered *significant*.

Buildout of the Plan area is not anticipated to result in the construction or modification of stationary air pollutant sources. If such sources are included in the Plan area at a later time, they may require permits from SJVAPCD. Such sources could include combustion emissions from boilers used for heating and cooling or standby emergency generators (rated 50 horsepower or greater). These sources would normally result in minor emissions, compared to those from traffic generation. Sources of air pollutant emissions complying with all applicable SJVAPCD regulations generally will not be considered to have a significant air quality impact. Stationary sources that are exempt from SJVAPCD permit requirements due to low emission thresholds would not be considered to have a significant air quality impact.

As previously mentioned, development projects in the Plan area are subject to SJVAPCD's Indirect Source Review or Rule 9510 to reduce NO_x and PM₁₀ emissions. Under Rule 9510, development projects in the Plan area would be required to reduce operational NO_x emissions by 33 percent and operational PM₁₀ emissions by 50 percent over 10 years. The actual required reductions would be determined by SJVAPCD when an application is submitted prior to "the last discretionary approval" for a project. However, the methods used by SJVAPCD to determine the required mitigations are consistent with the methods used in this analysis (e.g., use of latest CalEEMod model using project size and trip generation rates). The mitigations required by Indirect Source Review for development projects in the Plan area may be determined through several permit applications, since each individual project phase could apply at different times as final development plans are developed. The operational PM₁₀ and PM_{2.5} emissions shown in **Table 6.5** show the Plan's impact to air quality with respect to PM₁₀ and PM_{2.5} would be significant. These emissions would be reduced further than the levels reported in **Table 6.5** with the application of the measures outlined in the Indirect Source Review, Rule 9510. Emissions of O₃ precursors (i.e., ROG and NO_x) would also be reduced with the required Rule 9510 mitigation. However, the total Plan area emissions are predicted to remain above the SJVAPCD thresholds for O₃ precursor emissions.

**TABLE 6.5: UNMITIGATED PROJECT OPERATIONAL EMISSIONS,
FULL BUILD OUT OF THE PLAN AREA**

	ROG	NO _x	CO	PM ₁₀	PM _{2.5}
Average Annual Emissions (tons/year)	48	72	250	32	10
GAMAQI Annual Thresholds	10	10	100	15	15
Exceeds Threshold?	Yes	Yes	Yes	Yes	No
Average Daily Emissions (lbs/day)	307	449	1876	223	67
GAMAQI Daily Thresholds	100	100	100	100	100
Exceeds Threshold?	Yes	Yes	Yes	Yes	No

Source: Lamphier-Gregory 2016, CalEEMod results included in Appendix B.

Emissions projected in **Table 6.5** for all future buildout years would exceed the GAMAQI significance thresholds for O₃ precursor air pollutants. Emissions exceeding the thresholds are considered *significant*, since they may interfere with progress in the region towards attaining and maintaining ambient air quality standards for O₃.

Implementation of **Mitigation Measure Air-1** would require development projects in the Plan area to mitigate operational NO_x emissions by 33 percent and operational PM₁₀ emissions by 50 percent over ten years and would also help reduce **Impact Air-2**. However, even with all reasonable and feasible measures that could be implemented into the Plan area on-site, the mitigation is not expected to achieve reductions required under Rule 9510. Therefore, per **Mitigation Measure Air-1**, in addition to on-site mitigation measures, development projects in the Plan area will likely be required to provide off-site mitigation that would likely be in the form of fees payable to the SJVAPCD. The District would use these fees to further reduce emissions from a number of ongoing programs. Application of the Rule 9510 and **Mitigation Measure Air-1** would be considered application of the most reasonable mitigation available to the projects.

Adherence to SJVAPCD Rule 9510 would reduce the impact, but emissions would likely remain above the GAMAQI significance thresholds. The impact would be *significant and unavoidable*.

Carbon Monoxide

Emissions and ambient concentrations of CO have decreased greatly in recent years. These improvements are due largely to the introduction of cleaner burning motor vehicles and motor vehicle fuels. No exceedances of the State or National CO standard have been recorded at any of San Joaquin Valley's monitoring stations in the past 15 years. The SJVAB has attained the State and National CO standard.

However, despite this progress, localized CO concentrations still warrant concern in the Valley, and should be addressed. The region must safeguard against localized high concentrations of CO that may not be recorded at monitoring sites. Because elevated CO concentrations are generally fairly localized, heavy traffic volumes and congestion can lead to high levels of CO, or "hotspots," while concentrations at the closest air quality monitoring station may be below State and National standards.

Plan area traffic would increase concentrations of carbon monoxide along roadways providing access to the Plan area. Carbon monoxide is a localized air pollutant, where highest concentrations are found very near sources. The major source of carbon monoxide is automobile traffic. Elevated concentrations, therefore, are usually only found near areas of high traffic volume and congestion.

The GAMAQI recommends air quality modeling of CO concentrations following the Project-Level Carbon Monoxide Protocol developed by UC Davis¹⁷ in the following situations:

- A traffic study for the project indicates that the Level of Service (LOS) on one or more streets or at one or more intersections in the project vicinity will be reduced to LOS E or F; or
- A traffic study indicates that the project will substantially worsen an already existing LOS F on one or more streets or at more or more intersections in the project vicinity.

As shown in Chapter 18: Transportation and Traffic, the Plan does not meet these conditions that would require detailed CO analysis. Therefore, the Plan is below screening levels and the impact related to CO is *less than significant*.

SENSITIVE RECEPTORS

Impact Air-3: Nuisances and Odors. Development of the Plan would not include any activities that are typical sources of objectionable odors. However, future agricultural activities adjacent to the west side of the site could affect some proposed residences. With compliance with the City's right-to-farm ordinance, the impact related to the adverse effect of new development on agricultural uses would be *less than significant*.

Typical sources of objectionable odors include chemical plants, sewage treatment plants, large composting facilities, rendering plants, and other large industrial facilities that emit odorous compounds. This Plan would not include any such activities, and thus would not create objectionable odors. Land uses near the Plan area are residential, light industrial, agricultural or generally vacant undeveloped land. Residential or undeveloped lands with no approved future uses do not pose a potential for nuisances caused by odors or dust generation.

The Plan proposes development in areas currently in agricultural uses and that will ultimately be near areas expected to continue in agricultural uses (north of Stuhr Road and west of the CCID canal). The most common nuisance of agriculture in the area is blowing dust and odors. Plowing of fields on dry days can create substantial dust that is transported by wind. This would result in conflicts between existing agricultural and new residential uses.

The City of Newman adopted a right-to-farm ordinance as section 5.23.140 of the Municipal Code, which declares farming operations not to be a nuisance and recognizes persons' and/or entities' right to farm. It is City policy to not act on complaints to normal and customary agricultural operations.

With compliance with the City's right-to-farm ordinance, the impact related to the adverse effect of new development on agricultural uses would be *less than significant*.

CUMULATIVE AIR QUALITY IMPACTS

Impact Air-4: Cumulative Construction and Operational Emissions. Construction and operational impacts of Plan build-out would also contribute to cumulative air quality impacts. This is a *significant* impact.

¹⁷ UC Davis. 1998. Project-Level Carbon Monoxide Protocol. Institute of Transportation Studies.

The SJVAPCD has developed criteria to determine if a project could result in potentially significant regional emissions. According to Section 4.3.2 of the GAMAQI (Thresholds of Significance for Impacts from Project Operations), any proposed project that would individually have a significant air quality impact (i.e., exceed significance thresholds for ROG or NO_x) would also be considered to have a significant cumulative air quality impact. Implementation of **Mitigation Measure Air-1** would help to reduce this impact, but as discussed under Impacts Air-1 and Air-2, would not fully mitigate this impact. Therefore, the Plan's cumulative impact on air quality from operational and construction emissions is considered *cumulatively considerable* and *significant and unavoidable*.

BIOLOGICAL RESOURCES

INTRODUCTION

This chapter provides information on biological resources in the Plan area and a discussion of federal, state, and local laws, policies, and regulations that influence the protection of such biological resources. The chapter identifies impacts on biological resources that may result from site grading and construction, and habitat conversion, reduction or elimination. The chapter also identifies mitigation measures to avoid, minimize, or compensate for potential significant impacts to biological resources.

Information for this chapter came from Moore Biological Consultants, who conducted field surveys on May 17, 2013 and CDFW California Natural Diversity Database (CNDDDB) searches updated in 2016. The complete Biological Resources Assessment is included as **Appendix C**.

ENVIRONMENTAL SETTING

LOCAL SETTING

Surrounding land uses in this part of Stanislaus County are primarily agricultural, with residential development encroaching from the southeast. West Stuhr Road runs along the north edge of the site and SR 33 bounds the site on the east. A large irrigation canal (Main Canal) bounds the site on the west. There are agricultural fields to the north, west, northeast, and southwest of the site. There is a school to the south of the site and urban, commercial, and industrial development the southeast of the site.

The Plan area is essentially level and is at an elevation of approximately 100 feet above mean sea level. The body of the site is intensively farmed in vegetable and grain crops. At the time of the survey, most of the fields were being farmed in tomatoes, corn, and alfalfa; there is also an almond orchard and a walnut orchard in the site. Beyond the planted crops, there is little or no vegetation in these agricultural fields. Residential ranchettes and commercial and/or industrial parcels in the south and west parts of the site contain areas of disturbed ruderal grassland vegetation.

Plants

The patches of disturbed ruderal grassland vegetation and strips along the edges of the agricultural fields, dirt roads, irrigation canal, lateral, and ditches are vegetated with annual grass and weed species. Grasses including oats, soft chess brome, ripgut brome, red brome, foxtail barley, and perennial ryegrass are dominant grass species in the upland grassland habitats in the site. Other grassland species such as black mustard, bull thistle, prickly lettuce, curlycup gumweed, narrow-leaf milkweed, hairy fleabane, shepherd's purse, red-stem filaree, and common mallow are intermixed with the grasses.

The Main Canal, small on-site agricultural ditches, and a small agricultural return pond in the south-central part of the site are routinely maintained and support essentially no vegetation. An irrigation lateral along the north edge of the site is less well maintained and supports a discontinuous fringe of hydrophytic vegetation near the water line. Hydrophytic species such as water smartweed, rabbit's foot grass, Bermuda grass, Johnson grass, cattail, and umbrella sedge grow along the edges of this lateral. There is also a single small willow shrub along this lateral.

Trees in the Plan area include blue gum, California fan palm, ornamental pine, mulberry, coastal redwood, black walnut, edible fig, and at least one valley oak. No blue elderberry shrubs were observed within or adjacent to the Plan area.

A full list of plant species observed in the Plan area, including scientific names, is included as Table 1 in Appendix C, which also includes photographs.

Wildlife

A limited variety of wildlife species was observed in the Plan area. Turkey vulture, Swainson's hawk, red-tailed hawk, American kestrel, American crow, mourning dove, northern mockingbird, red-winged blackbird, Brewer's blackbird, and house finch are representative bird species observed in and near the site. All of these are species commonly found in agricultural areas in the greater Plan vicinity.

There are only a few potential nest trees within the Plan area that are suitable for nesting raptors and other protected migratory birds, including Swainson's hawks, which were observed foraging just west of the Plan area. Given the presence of trees and shrubs in and near the Plan area, it is likely one or more pairs of raptors and a variety of songbirds nest on-site during most years. It is possible a few songbirds nest within ruderal grassland habitats in the Plan area during some years.

A variety of mammals is likely to occur in the Plan area. California ground squirrel was the only mammal observed in the Plan area. However, sign of raccoon was also observed. Coyote, black-tailed hare, striped skunk, and Virginia opossum are expected to occur at the Plan area. A number of species of small rodents including mice and voles also likely occur.

A full list of plant and wildlife species observed in the Plan area, including scientific names, is included as Tables 1 and 2 in Appendix C, which also includes photographs of the site.

Based on habitat types present, only a few amphibian and reptile species are expected to use habitats in the Plan area. Western fence lizard was the only reptile observed in the Plan area and Pacific chorus frog was the only amphibian observed. Although none were observed, common species such as gopher snake, common king snake, and common garter snake are expected to occur in the Plan area.

Waters of the U.S. and Wetlands

Waters of the U.S., including wetlands, are broadly defined under 33 Code of Federal Regulations (CFR) 328 to include navigable waterways, many of their tributaries, and adjacent wetlands. State and federal agencies including CDFW, U.S. Army Corps of Engineers (ACOE), and California RWQCB have jurisdiction over these habitats.

"Waters of the U.S." are drainage features or water bodies as described in 33 CFR 328.4. Waters of the U.S. encompasses Territorial Seas, Tidal Waters, and Non-Tidal Waters; Non-Tidal Waters includes interstate and intrastate rivers and streams, as well as their tributaries. The limit of federal

jurisdiction of Non-Tidal Waters of the U.S. extends to the “ordinary high water mark”. The ordinary high water mark is established by physical characteristics such as a natural water line impressed on the bank, presence of shelves, destruction of terrestrial vegetation, or the presence of litter and debris.

Jurisdictional wetlands are vegetated areas that meet specific vegetation, soil, and hydrologic criteria defined by the ACOE Wetlands Delineation Manual and Regional Supplement (ACOE 1987; 2008). Jurisdictional wetlands are usually adjacent to or hydrologically associated with Waters of the U.S. Isolated wetlands are outside federal jurisdiction, but may still be regulated by state agencies including CDFW and RWQCB.

Jurisdictional wetlands and Waters of the U.S. include, but are not limited to, perennial and intermittent creeks and drainages, lakes, seeps, and springs; emergent marshes; riparian wetlands; and seasonal wetlands. Wetlands and Waters of the U.S. provide critical habitat components, such as nest sites and a reliable source of water, for a wide variety of wildlife species.

The majority of the Plan area consists of leveled upland fields farmed in annual crops. The only potential jurisdictional Waters of the U.S. in and or adjacent to the Plan area are the Main Canal and the irrigation lateral along the north edge of the Plan area.

Main Canal, a large irrigation canal that flows along the west edge of the site has potential to fall under ACOE jurisdiction due to hydrologic connectivity with Waters of the U.S. Water in this lateral is derived via gravity from the San Joaquin River at Mendota Pool, many miles southeast of the site. The water flows via gravity generally northwest from Mendota, providing irrigation water to farmland along the west edge of the valley. After leaving the site under West Stuhr Road, the canal continues north several miles and terminates.

Along its length, water is released from the Main Canal to laterals such as the one along the south side of West Stuhr Road. This lateral conveys water east, serving the on-site fields, as well as fields further east. Through the irrigation network northeast of the site, water derived from the Main Canal eventually has an opportunity to spill back into the San Joaquin River, many miles northeast of the site. This hydrological connectivity of Main Canal and the irrigation latera with jurisdictional Waters of the U.S. forms the basis for these irrigation features also falling under ACOE jurisdiction.

There are several much smaller annually installed irrigation ditches in the Plan area. These minor irrigation ditches are non-jurisdictional because they are created, hydrologically manipulated for crop irrigation, do not support hydrophytic vegetation, and terminate on site. There is also a small created and maintained irrigation recirculation pond in the central part of the Plan area that was dry during the survey. Because this pond was excavated in uplands, is hydrologically manipulated, and is hydrologically isolated from nearby creeks and rivers, it does not meet the technical and/or regulatory criteria of jurisdictional Waters of the United States.

Beyond the Main Canal and the irrigation lateral, no potential jurisdictional wetlands or Waters of the U.S. were identified in the Plan area. No other areas appear to have any potential to fall under ACOE jurisdiction. Specifically, no vernal pools, seasonal wetlands, marshes, ponds, or lakes of any type were observed within the Plan area.

Special-Status Species

Special-status species are plants and animals that are legally protected under the state and/or federal Endangered Species Act (ESA) or other regulations. The federal ESA of 1973 declares that all federal departments and agencies shall utilize their authority to conserve endangered and threatened plant and animal species. The California ESA of 1984 parallels the policies of the federal ESA and pertains to

native California species. Both prohibit unauthorized “take” of listed species, with take broadly defined in both acts to include activities such as killing, harassment, pursuit, and possession.

Special-status wildlife species also includes species that are considered rare enough by the scientific community and trustee agencies to warrant special consideration, particularly with regard to protection of isolated populations, nesting or denning locations, communal roosts, and other essential habitat. The federal Migratory Bird Treaty Act (MBTA) and Fish and Game Code of California protect special-status bird species year-round, as well as their eggs and nests during the nesting season. Fish and Game Code of California also provides protection for mammals and fish.

Special-status plants include species that are designated rare, threatened, or endangered and candidate species for listing by the U.S. Fish and Wildlife Service (USFWS). Special-status plants also include species considered rare or endangered under the conditions of Section 15380 of the CEQA Guidelines, such as those plant species identified on Lists 1A, 1B and 2 in the Inventory of Rare and Endangered Vascular Plants of California by the California Native Plant Society (CNPS 2010). Finally, special-status plants may include other species that are considered sensitive or of special concern due to limited distribution or lack of adequate information to permit listing or rejection for state or federal status, such as those included on List 3 in the CNPS Inventory.

Table 7.1 provides a summary of the listing status and habitat requirements of special-status plant and wildlife species that have been documented in the greater Plan vicinity or for which there is potentially suitable habitat in the Plan area. This table also includes an assessment of the likelihood of occurrence of each of these species in the Plan area. The evaluation of the potential for occurrence of each species is based on the distribution of regional occurrences (if any), habitat suitability, and field observations. Of the species listed in **Table 7.1**, most are considered unlikely to occur or with a low probability of occurrence in the Plan area. As discussed in more detail in the impacts section of this chapter, only Swainson’s hawk, burrowing owl, and special-status bats would be expected on anything other than a very occasional or transitory basis (e.g., for roosting, nesting, or foraging).

TABLE 7.1: SPECIAL-STATUS SPECIES DOCUMENTED OR POTENTIALLY OCCURRING IN THE PLAN AREA VICINITY

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Plan area
PLANTS						
Alkali milk-vetch	<i>Astragalus tener</i> var. <i>tener</i>	None	None	1B	Alkali playas and vernal pools.	Unlikely: there is no suitable habitat in the site for this species. The nearest occurrence of alkali milk vetch in the CNDDB (2016) search area is approximately 4 miles southeast of the site.
Heartscale	<i>Atriplex cordulata</i>	None	None	1B	Valley and foothill grassland, chenopod scrub	Unlikely: the leveled cropland and ruderal grassland in the site does not provide suitable habitat for heartscale. The nearest occurrence of this species in the CNDDB (2016) search area is approximately 5 miles northeast of the site.
Lesser saltscale	<i>Atriplex minuscula</i>	None	None	1B	Chenopod scrub, playas, valley and foothill grassland.	Unlikely: the leveled cropland and ruderal grassland in the site does not provide suitable habitat for lesser saltscale. The nearest occurrence of this species in the CNDDB (2016) search area is approximately 7.5 miles northeast of the site.
Vernal pool smallscale	<i>Atriplex persistens</i>	None	None	1B	Alkaline vernal pools.	Unlikely: no suitable habitat exists in the site for vernal pool smallscale. The nearest occurrence of this species in the CNDDB (2016) search area is approximately 5 miles southeast of the site.
Hispid bird's-beak	<i>Chloropyron molle</i> spp. <i>hispidum</i>	None	None	1B	Meadows, playas, valley and foothill grassland.	Unlikely: the ruderal grassland and cropland in the site do not provide suitable habitat for this species. The nearest occurrence of hispid bird's-beak in the CNDDB (2016) search area is approximately 7.5 miles southeast of the site.
Delta button celery	<i>Eryngium racemosum</i>	None	E	1B	Riparian scrub in seasonally inundated floodplain with clay substrate	Unlikely: there is no suitable habitat in the site for this species. The nearest occurrence of Delta button celery in the CNDDB (2016) search area is approximately 3 miles northeast of the site.
Spiny-sepaled button-celery	<i>Eryngium spinosepalum</i>	None	None	1B	Vernal pools or valley and foothill grassland.	Unlikely: there is no suitable habitat in the site for spiny-sepaled button-celery. The nearest occurrence of this species in the CNDDB (2016) search area is approximately 2.5 miles west of the site.
San Joaquin	<i>Extriplex</i>	None	None	1B	Chenopod scrub, alkali meadow,	Unlikely: the leveled cropland and ruderal grassland in the site does not provide suitable habitat for this species.

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Plan area
spearscale	joaquiniana				valley and foothill grassland.	The nearest occurrence of San Joaquin spearscale in the CNDDDB (2016) search area is approximately 8 miles southeast of the site.
Prostrate navarretia	Navarretia prostrata	None	None	1B	Alkali meadows, playas, and vernal pools.	Unlikely: there is no suitable habitat in the site for prostrate navarretia. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 8 miles southeast of the site.
California alkali grass	Puccinellia simplex	None	None	1B	Chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pool habitats; in alkaline, vernal mesic sinks, flats, and lake margins.	Unlikely: there is no suitable habitat in the site for California alkali grass. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 10 miles northeast of the site.
Sanford's arrowhead	Sagittaria sanfordii	None	None	1B	Standing or slow moving freshwater ponds, marshes and ditches.	Unlikely: the maintained irrigation lateral, ditches, and pond in the site do not provide suitable habitat for Sanford's arrowhead. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 6 miles southeast of the site.
WILDLIFE						
Birds						
Burrowing owl	Athene cucularia	None	None	N/A	Open, dry annual or perennial grasslands, deserts and scrublands characterized by low-growing vegetation.	Unlikely: while the cropland and ruderal grassland provides suitable foraging habitat for burrowing owls, ground squirrel burrows in the site are limited. There are no occurrences of burrowing owl in the CNDDDB (2016) search area.
Swainson's hawk	Buteo swainsoni	None	T	N/A	Nesting: large trees, usually within riparian corridors. Foraging: agricultural fields and annual grasslands.	Moderate: cropland and grassland in the site is suitable for foraging and large trees in and near the site are suitable for nesting. However, the site is outside or along the very west edge of the nesting range of this species. A Swainson's hawk was observed foraging in fields to the west of the site. The nearest occurrence of nesting Swainson's hawks in the CNDDDB (2016) search area is approximately 2 miles southeast of the site.
Tricolored blackbird	Agelaius tricolor	None	SC	N/A	Nests in dense brambles and emergent wetland vegetation associated with open water	Low: no patches of willows, blackberries, or other vegetation suitable for nesting were observed in the site. This species may occasionally fly over or forage in the

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Plan area
					habitat.	area. The nearest occurrence of tricolored blackbird in the CNDDDB (2016) search area is approximately 2 miles northeast of the site.
Loggerhead shrike	<i>Lanius ludovicianus</i>	None	SC	N/A	Annual grasslands and agricultural areas throughout the Central Valley.	Low: there are very few trees and shrubs in the site that could be used for nesting by this species. Loggerhead shrike may fly over or forage in the site on occasion. The closest occurrence of loggerhead shrike in the CNDDDB (2016) search area is approximately 8 miles southeast of the site.
Mammals						
San Joaquin kit fox	<i>Vulpes macrotis mutica</i>	E	T	N/A	Annual grasslands or grassy open stages with scattered shrubby vegetation.	Unlikely: the cropland and ruderal grassland in the site provides potentially suitable foraging habitat for San Joaquin kit fox. However, this species primarily occurs in the hills south and west of the site, and is rarely seen on the valley floor. The nearest occurrence of San Joaquin kit fox in the CNDDDB (2016) search area is approximately 6 miles southeast of the site.
Fresno kangaroo rat	<i>Dipodomys nitratoides exilis</i>	E	E	N/A	Alkali sink scrub habitats throughout the southwestern San Joaquin Valley.	Unlikely: there is no suitable habitat in the site for this species. There are no occurrences of Fresno kangaroo rat in the CNDDDB (2016) search area.
American badger	<i>Taxidea taxus</i>	None	SC	N/A	Drier open stages of most shrub, forest, and herbaceous habitats, with friable soils.	Unlikely: the cropland and ruderal grassland are highly disturbed and do not provide suitable habitat for American badger. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 8 miles southeast of the site.
Western red bat	<i>Lasiurus blossevelli</i>	None	SC	N/A	Roosts in trees in forests and woodlands from sea level up through the Sierra Nevada.	Possible: trees in the site may be used by this species for roosting. The nearest occurrence of western red bat in the CNDDDB (2016) search area is approximately 8 miles northeast of the site.
Pallid bat	<i>Antrozous pallidus</i>	None	SC	N/A	Open, dry habitats with rocky areas for roosting.	Unlikely: the site does not provide suitable habitat for this species; there are no rocky areas in the site. The nearest occurrence of pallid bat in the CNDDDB (2016) search area is approximately 4 miles northeast of the site.
Reptiles & Amphibians						
Giant garter snake	<i>Thamnophis gigas</i>	T	T	N/A	Freshwater marsh and low gradient streams; adapted to	Unlikely: there is no suitable habitat in or near the site for giant garter snake. The nearest occurrence of this

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Plan area
					drainage canals and irrigation ditches, primarily for dispersal or migration.	species in the CNDDDB (2016) search area is approximately 4.5 miles southeast of the site.
California red-legged frog	<i>Rana aurora draytonii</i>	T	SC	N/A	Lowlands and foothills in or near permanent sources of water with vegetation.	Unlikely: there is no suitable aquatic habitat for California red-legged frog in or near the site. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 5 miles southwest of the site. The site is not in designated for California red-legged frog critical habitat (USFWS, 2006).
California tiger salamander	<i>Ambystoma californiense</i>	T	T	N/A	Breeds in seasonal water bodies such as deep vernal pools or stock ponds. Requires small mammal burrows for summer refugia.	Unlikely: there are no potentially suitable breeding ponds for California tiger salamander in the site and the cropland throughout most of the site is not suitable for aestivation. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 7 miles southeast of the site. The site is not within an area designated critical habitat for California tiger salamander (USFWS, 2005a).
Blunt-nosed leopard lizard	<i>Gambelia sila</i>	E	E	N/A	Sparsely vegetated alkali and desert scrub habitats in areas of low topographic relief. Requires small mammal burrows for cover.	Unlikely: the site does not contain suitable habitat for blunt-nosed leopard lizard. There are no occurrences of this species recorded in the CNDDDB (2016) search area.
Western pond turtle	<i>Emys marmorata</i>	None	SC	N/A	Permanent or semi-permanent water bodies; require basking sites such as logs.	Unlikely: there is no suitable aquatic habitat for western pond turtle in site. The nearest occurrence of this species in the CNDDDB (2016) search area is approximately 2.5 miles east of the site.
Western spadefoot	<i>Spea hammondi</i>	None	SC	N/A	Breeds and lays eggs in seasonal water bodies such as deep vernal pools or stock ponds.	Unlikely: there is no suitable aquatic habitat for western spadefoot in or near the site. The nearest occurrence of western spadefoot in the CNDDDB (2016) search area is approximately 7 miles southeast of the site.
Fish						
Delta smelt	<i>Hypomesus transpacificus</i>	T	T	N/A	Shallow lower delta waterways with submersed aquatic plants and other suitable refugia.	Unlikely: there is no suitable aquatic habitat for delta smelt in or near the site. There are no occurrences of delta smelt recorded in the CNDDDB (2016) within the search area. There is no designated critical habitat for delta smelt (USFWS, 1994) in or near the site.

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Plan area
Central Valley steelhead	<i>Oncorhynchus mykiss</i>	T	None	N/A	Riffle and pool complexes with adequate spawning substrates within Central Valley drainages.	Unlikely: there is no suitable aquatic habitat for Central Valley steelhead in or near the site. The closest occurrence of this species in the CNDDDB (2016) search area is approximately 5 miles northeast of the site. The site is not within designated critical habitat for Central Valley steelhead (NOAA, 2005); the Merced River and the San Joaquin River downstream of the confluence of the Merced River are designated critical habitat for steelhead.
Sacramento splittail	<i>Pogonichthys macrolepidotus</i>	None	SC	N/A	Lakes and rivers of the central valley.	Unlikely: there is no suitable aquatic habitat for this species in or near the site. The closest occurrence of Sacramento splittail in the CNDDDB (2016) search area is approximately 7 miles northeast of the site in the San Joaquin River.
Invertebrates						
Vernal pool fairy shrimp	<i>Branchinecta lynchi</i>	T	None	N/A	Vernal pools and seasonally inundated depressions in the Central Valley.	Unlikely: there are no vernal pools or seasonal wetlands in the site. The nearest occurrence of vernal pool fairy shrimp in the CNDDDB (2016) search area is approximately 8 miles southeast of the site. The site is not within designated critical habitat for vernal pool fairy shrimp (USFWS, 2005b).
Conservancy fairy shrimp	<i>Branchinecta conservatio</i>	E	None	N/A	Vernal pools and seasonally inundated depressions in the Central Valley.	Unlikely: there are no vernal pools or seasonal wetlands in the site. The nearest occurrence of Conservancy fairy shrimp in the CNDDDB (2016) search area is approximately 8.5 miles southeast of the site. The site is not within designated critical habitat for any vernal pool shrimp species (USFWS, 2005b).
Longhorn fairy shrimp	<i>Branchinecta longiantennae</i>	E	None	N/A	Vernal pools	Unlikely: there are no vernal pools or seasonal wetlands in the site. The nearest occurrence of longhorn fairy shrimp in the CNDDDB (2016) search area is approximately 6 miles southeast of the site. The site is not within designated critical habitat for longhorn fairy shrimp (USFWS, 2005b).
Vernal pool tadpole shrimp	<i>Lepidurus packardii</i>	E	None	N/A	Vernal pools and seasonally wet depressions within the Central	Unlikely: there are no vernal pools or seasonal wetlands in the site. The nearest occurrence of vernal pool tadpole shrimp in the CNDDDB (2016) search area is

Common Name	Scientific Name	Federal Status ¹	State Status ¹	CNPS List ²	Habitat	Likelihood of Occurrence in the Plan area
					Valley.	approximately 8 miles southeast of the site. The site is not in designated critical habitat for this species (USFWS, 2005b).
Valley elderberry longhorn beetle	Desmocerus californicus dimorphus	T	one	N/A	Elderberry shrubs in the Central Valley and surrounding foothills	Unlikely: no blue elderberry shrubs were observed in the site. There are no occurrences of valley elderberry longhorn beetle recorded in the CNDDDB (2016) within the search area.

Notes:

1 T= Threatened; E = Endangered; SC = Species of Special Concern per CDFW.

2 CNPS List 1B includes species that are rare, threatened, or endangered in California and elsewhere.

Special-Status Plants

Nine species of special-status plants were identified in the CNDDDB search: alkali milk-vetch (*Astragalus tener* var. *tener*), heartscale (*Atriplex cordulata*), San Joaquin spearscale (*Atriplex joaquiniana*), lesser saltscale (*Atriplex minuscula*), vernal pool smallscale (*Atriplex persistens*), hispid bird's-beak (*Chloropyron molle* spp. *hispidum*), delta button celery (*Eryngium racemosum*), prostrate navarretia (*Navarretia prostrata*), and Sanford's arrowhead (*Sagittaria sanfordii*). There are no special-status plants included in the USFWS Species List.

Most of the special-status plants identified in the CNDDDB query in the Plan area vicinity (**Table 7.1**) occur in relatively undisturbed areas within vegetation communities such as marshes, swamps, alkali playas, vernal pools, and chenopod scrub. None of these habitat types was observed in the Plan area and due to lack of suitable habitat, no special-status plant species are expected to occur in the Plan area.

Delta button celery and Sanford's arrowhead occur in marshes, swamps, and/or riparian scrub. The irrigation lateral along the south side of West Stuhr Road supports a narrow and discontinuous fringe of hydrophytic vegetation, and does not provide suitable habitat for the species in **Table 7.1** that occur in wetland habitats. The Main Canal and on-site annually installed irrigation ditches are also not suitable for these wetland species. Alkali milk-vetch, vernal pool smallscale, hispid bird's-beak, and prostrate navarretia occur in alkali meadows, playas, and vernal pools; there are no vernal pools, playas, or meadows in the Plan area.

The remaining special-status plant species in **Table 7.1** occur in upland grassland habitats, chenopod scrub, playas, and meadows. The small patches ruderal grassland in the Plan area and along the edges of the fields, farm roads, irrigation laterals, and irrigation ditches are highly disturbed and do not provide suitable habitat for special-status species in **Table 7.1** that occur in upland annual grassland habitats. The leveled agricultural fields are also not suitable for special-status plants that occur in uplands.

Special-Status Wildlife

The potential for intensive use of habitats within the Plan area by special-status wildlife species is generally low. Special-status wildlife species that have been recorded in greater Plan area vicinity in the CNDDDB include

Swainson's hawk, burrowing owl, tricolored blackbird (*Agelaius tricolor*), San Joaquin kit fox (*Vulpes macrotis mutica*), American badger (*Taxidea taxus*), western red bat (*Lasiurus blossomvelli*), pallid bat (*Antrozous pallidus*), giant garter snake (*Thamnophis gigas*), California red-legged frog (*Rana aurora draytonii*), California tiger salamander (*Ambystoma californiense*), western pond turtle (*Emys marmorata*), western spadefoot (*Spea hammondi*), Central Valley steelhead (*Oncorhynchus mykiss*), Sacramento splittail (*Pogonichthys macrolepidotus*) vernal pool fairy shrimp (*Branchinecta lynchi*), Conservancy fairy shrimp (*Branchinecta conservatio*), longhorn fairy shrimp (*Branchinecta longiantennae*), and vernal pool tadpole shrimp (*Lepidurus packardi*). Although not included in the CNDDDB within the search area, Fresno kangaroo rat (*Dipodomys nitratoides exilis*), blunt-nosed leopard lizard (*Gambelila sila*), delta smelt (*Hypomesus transpacificus*), and valley elderberry longhorn beetle (*Desmocerus californicus dimorphus*) were added to **Table 7.1** because they are included in the USFWS Species List.

The Plan area and surrounding areas may have provided habitat for the special-status wildlife species listed in **Table 7.1** at some time in the past. However, farming, development, and construction and maintenance of roads and irrigation facilities have substantially modified natural habitats within the

greater Plan area vicinity. Of the wildlife species identified in the CNDDDB, Swainson's hawk and burrowing owl are the only species that have much potential to occur in the Plan area on more than a transitory or very occasional basis. These species are discussed in the impact assessment because they could be adversely affected by conversion of habitat to development; the birds could also be disturbed by noise if they nested on or near the Plan area during construction.

REGULATORY SETTING

This section describes the local, state, and federal plans, policies, and laws that are relevant to biological resources and that are applicable to the Plan.

FEDERAL REGULATIONS

Federal Endangered Species Act

Federally listed threatened and endangered species and their habitats are protected under provisions of the ESA. "Take" under the ESA includes activities that would harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect listed species. Harm specifically includes significant habitat modification or degradation of habitat of a listed species. The USFWS regulates activities that may result in "take" of individuals. Candidates and species proposed for listing also receive special attention from federal agencies during their review.

Clean Water Act Section 404

The ACOE has jurisdiction over Waters of the U.S. under Section 404 of the Clean Water Act and navigable waters of the U.S. under Section 10 of the Rivers and Harbors Act of 1899. Waters of the U.S. (jurisdictional waters) under Section 404 include all waters used, or potentially used, for interstate commerce. Such waters include wetlands, tidal waters, tributary waters, and other waters such as lakes. Wetlands include marshes, meadows, swamps, bogs, floodplains, basins, and seeps. Wetlands may also include less obvious areas such as seasonal ponds, seasonally wet pastures, or seasonal meadows. Navigable waters of the U.S. subject to ACOE jurisdiction under Section 10 include all lands below mean high water. Plan development activities that would result in placement of fill, dredging, destruction, or alteration of Waters of the U.S. must be in compliance with permit requirements of the Corps. A Water Quality Certification pursuant to Section 401 of the Clean Water Act is required for Federal Section 404 permit actions. If applicable, construction would also require a request for Water Quality Certification (or Waiver thereof) from the RWQCB.

Federal Migratory Bird Treaty Act

The MBTA (16 U.S.C., Sec. 703, Supp I) prohibits any person to:

pursue, hunt, take, capture, kill, attempt to take, capture or kill, possess, offer for sale, sell, offer to purchase, purchase, deliver for shipment, ship, cause to be shipped, deliver for transportation, transport, cause to be transported, carry, or cause to be carried by any means whatever, receive for shipment, transportation or carriage, or export, at any time, or in any manner, any migratory bird, included in the terms of this Convention ... for the protection of migratory birds ... or any part, nest, or egg of any such bird.¹⁸

¹⁸ MBTA of 1918 (16 U.S.C. 703-712; Ch. 128; July 13, 1918; 40 Stat. 755) as amended by Chapter 634; June 20, 1936; 49

The list of migratory birds includes almost every native bird in the United States. This law also extends to parts of birds, nests, and eggs. It is therefore a violation of the MBTA to directly kill or destroy an active nest of any bird species. The MBTA is typically applied on domestic projects to prevent injury or death of nesting birds and their chicks.

STATE REGULATIONS

California Endangered Species Act

State-listed rare, threatened, and endangered species are protected under provisions of the California SA. Activities that may result in take of individuals (e.g., “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by the CDFW. CDFW has interpreted take to include the destruction of nesting and foraging habitat necessary to maintain viable breeding populations of relevant state threatened or endangered species.

California Species of Special Concern

The CDFW recently changed its policy concerning California *Species of Special Concern*. Originally, the CDFW defined species of special concern as those animal species whose California breeding populations may face extirpation (extinction) in the near future. The CDFW has redefined species of special concern as a management designation used to track population trends of certain animal species. Species of special concern do not receive protection under the California ESA or any section of the California Fish and Game Code, and do not necessarily meet CEQA Guidelines Section 15380 criteria as rare, threatened, endangered, or of other public concern. Like federal species of concern, the determination of significance for California species of special concern must be made on a case-by-case basis.

California Fully Protected Species

Sections 3511 (birds), 4700 (mammals), 5050 (reptiles and amphibians), and 5515 (fish) of the California Fish and Game Code designate certain species as "fully protected." Fully protected species, or parts thereof, cannot be taken or possessed at any time. The California Fish and Game Commission, however, may authorize the collecting of such species for necessary scientific research. Section 3511 of the California Fish and Game Code may authorize the live capture and relocation of fully protected birds pursuant to a permit for the protection of livestock. Legally imported and fully protected species or parts thereof may be possessed only under a permit issued by CDFW.

California Fish and Game Code – Protection of Raptors

Birds of prey are protected in California under the California Fish and Game Code, §3503.5. Under §3503.5, it is unlawful to take, possess or destroy any raptors including owls, or to take, possess, or destroy the nest or eggs of raptors or owls. The CDFW considers a disturbance that causes nest abandonment or loss of reproductive effort as a “taking.” Construction disturbance during the breeding season can result in the incidental loss of fertile eggs or nestlings or otherwise lead to nest abandonment. Any losses of fertile eggs or nesting raptors or any activities resulting in nest abandonment are significant impacts.

Stat. 1556; P.L. 86-732; September 8, 1960; 74 Stat. 866; P.L. 90-578; October 17, 1968; 82 Stat. 1118; P.L. 91-135; December 5, 1969; 83 Stat. 282; P.L. 93-300; June 1, 1974; 88 Stat. 190; P.L. 95-616; November 8, 1978; 92 Stat. 3111; P.L. 99-645; November 10, 1986; 100 Stat. 3590 and P.L. 105-312; October 30, 1998; 112 Stat. 2956.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act, in part, implements the federal Clean Water Act to provide a mechanism for protecting the quality of the state's waters through the SWRCB and the nine RWQCBs.

California Fish and Game Code Section 1601-1606

Jurisdictional authority of the CDFW over wetland areas and streams is established under Sections 1601-1606 of the Fish and Game Code. This code pertains to activities that would disrupt the natural flow or alter the channel, bed or bank of any lake, river or stream, and requires an agreement identifying appropriate mitigation before any disturbance is allowed by the CDFW.

LOCAL REGULATIONS

City of Newman General Plan

The following General Plan goal and policies relate to biological resources within the city and the Sphere of Influence.

Goal NR-3: Protect sensitive native vegetation and wildlife communities and habitat.

Policy NR-3.1: New development shall meet all federal, State and regional regulations for habitat and species protection.

Policy NR-3.2: The City shall require site-specific surveys to identify significant wildlife habitat and vegetation resources for development projects located in or near sensitive habitat areas.

Policy NR-3.3: The City shall support and participate in local and regional attempts to restore and maintain viable habitat for endangered plant and animal species, and wetlands. To this end, the City shall work with surrounding jurisdictions and State and federal agencies in developing a regional Habitat Management Plan. Such a plan shall provide data for the Newman area on special-status species, including the Swainson's Hawk, and shall provide guidelines and standards for mitigation of impacts on special status species.

Policy NR-3.4: The City shall require mitigation of potential impacts on special-status plant and animal species based on a policy of no-net-loss of habitat value. Mitigation measures shall incorporate, as the City deems appropriate, the guidelines and recommendations of the US Fish and Wildlife Service and the California Department of Fish and [Wildlife]. Implementation of this policy may include a requirement that project proponents enter into an agreement with the City satisfactory to the City Attorney to ensure that the proposed projects will be subject to a City fee ordinance to be adopted consistent with the regional Habitat Management Plan.

Policy NR-3.5: The City should use native plants for landscaping of public projects including parks and community facilities.

Policy NR-3.6: The City shall encourage new development to use native vegetation, in landscape plans, where appropriate, instead of invasive, non-native plant species.

Policy NR-3.7: Parks, drainage detention areas and other open space uses shall incorporate, where feasible, areas of native vegetation and wildlife habitat.

Policy NR-3.8: New development shall ensure that suitable habitat for Valley Elderberry Longhorn Beetle is adequately avoided, any elderberry shrubs are identified on project sites, and adequate mitigation is provided where development is proposed within 100 feet of elderberry shrubs.

Policy NR-3.9: New development shall ensure that active nests for special status bird species shall be avoided during construction through pre-construction surveys, and if active nests are encountered, through restrictions on construction activities until any young have fledged. This shall include both ground nesting burrowing owl and tree nesting special-status birds.

Policy NR-3.10: New developments shall preserve, protect and incorporate established native trees into the site design, particularly mature native oak trees.

Policy NR-3.11: New development shall ensure that any jurisdictional waters are avoided to the maximum extent practicable, any required authorization is obtained from jurisdictional agencies, and adequate mitigation is provided for unavoidable impacts.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

State CEQA Guidelines and standard professional practice determine whether the proposed Master Plan would have a significant environmental effect. The Plan would have a significant impact on biological resources if it would:

1. Result in a substantial adverse effect, either directly or through habitat modification, on any species identified as a candidate, sensitive or special-status species in local or regional plans, policies, or regulations or by CDFW or USFWS;
2. Result in a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the CDFW or USFWS;
3. Result in a substantial adverse effect on wetlands as defined by the Corps under Section 404 of the Clean Water Act or the Regional Water Quality Control Board under the Porter-Cologne Act through direct removal, filling, hydrological interruption, or other means;
4. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
5. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; or
6. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.
7. Result in impacts to biological resources that are individually limited, but cumulatively considerable (i.e., the incremental effects of the 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).

SPECIAL STATUS SPECIES

Plants

The majority of the Plan area consists of leveled cropland farmed in grain and vegetable crops. Most of the on-site habitats are biologically unremarkable. No special-status plant species were observed in the Plan area and the likelihood of their occurrence is considered extremely low due to a lack of suitable habitat. Future development in the Plan area would have less than significant impacts to special-status plants.

Wildlife

The Plan area is not within designated critical habitat for California red-legged frog, California tiger salamander, federally listed vernal pool shrimp or plants, delta smelt, valley elderberry longhorn beetle, or Central Valley steelhead.

The Plan area does not provide suitable aquatic habitat for any type of fish, giant garter snake, California tiger salamander, or California red-legged frog, western spadefoot, or western pond turtle. There is no alkali sink scrub habitat in the site for Fresno kangaroo rat or blunt-nosed leopard lizard. There is no emergent wetland habitat in the site for nesting tricolored blackbirds. There are no blue elderberry shrubs in the site, precluding the potential occurrence of valley elderberry longhorn beetle. There are no vernal pools or seasonal wetlands in the site for vernal pool branchiopods (i.e., fairy and tadpole shrimp).

The intensively cultivated cropland and ruderal grassland in the Plan area provides potentially suitable foraging habitat for San Joaquin kit fox and American badger, but there is no suitable denning habitat in the Plan area for these species. San Joaquin kit fox also primarily occurs in the hills south and west of the Plan area, and is rarely seen on the valley floor. Western red bat, pallid bat, and other special-status bats may fly over or forage in the Plan area; bats may also roost in on-site trees.

The likelihood of occurrence of sensitive wildlife species in the site is also considered unlikely or low. With the exception of Swainson's hawk, burrowing owl, and special-status bats, discussed below, no sensitive wildlife species are expected to occur in or near the Plan area on more than a very occasional or transitory basis.

Swainson's Hawk

The Swainson's hawk is a migratory hawk listed by the State of California as a Threatened species. The MBTA and Fish and Game Code of California protect Swainson's hawks year-round, as well as their nests during the nesting season (March 1 through September 15). Swainson's hawks are found in the Central Valley primarily during their breeding season, a population is known to winter in the San Joaquin Valley.

Impact Bio-1: Disturbance of Nesting Swainson's Hawks. Construction activities associated with buildout of the Plan Area could adversely affect nesting Swainson's hawks.

Swainson's hawks prefer nesting sites that provide sweeping views of nearby foraging grounds consisting of grasslands, irrigated pasture, hay, and wheat crops. Most Swainson's hawks are migratory, wintering in Mexico and breeding in California and elsewhere in the western United States. This raptor generally arrives in the Central Valley in mid-March, and begins courtship and nest construction immediately upon arrival at the breeding sites. The young fledge in early July, and most Swainson's hawks leave their breeding territories by late August.

The CNDDDB contains several records of nesting Swainson's hawk in the greater Plan area vicinity, with most of them being along the San Joaquin River corridor. The nearest occurrence of nesting Swainson's hawks in the CNDDDB search area is approximately 4 miles northeast of the site. There are suitable nest trees within and surrounding the Plan area and the annual croplands that make up the majority of the site provide suitable foraging habitat for this species. A Swainson's hawk was observed foraging in fields to the west of the Plan area during the field survey; however, no active nests were observed in or near the Plan area. It is possible Swainson's hawks may nest in trees in or near the Plan area in the future.

Mitigation Measure

Bio-1: Pre-Construction Swainson's Hawk Survey. Pre-construction surveys for nesting Swainson's hawks within 0.5 miles of proposed project sites shall be conducted if construction commences between March 1 and September 15 for public or private projects. If active nests are found, a qualified, as approved by the Newman Planning Department, biologist shall determine the need (if any) for temporal restrictions on construction or through setbacks from active nests. The determination shall be pursuant to criteria set forth by CDFW.

Implementation of Mitigation Measure Bio-1 will reduce the impact related to potential disturbance of nesting Swainson's hawks to a level of *less than significant*.

Burrowing Owl

The MBTA and Fish and Game Code of California protect burrowing owls year-round, as well as their nests during the nesting season (February 1 through August 31). Burrowing owls are a year-long resident in a variety of grasslands as well as scrub lands that have a low density of trees and shrubs with low growing vegetation; burrowing owls that nest in the Central Valley may winter elsewhere.

Impact Bio-2: Burrowing Owl Disturbance. Site grading and other forms of construction disturbance could result in the direct loss or injury to burrowing owls or the forced evacuation from their burrows.

The primary habitat requirement of the burrowing owl is small mammal burrows for nesting. The owl usually nests in abandoned ground squirrel burrows, although they have been known to dig their own burrows in softer soils. In urban areas, burrowing owls often utilize artificial burrows including pipes, culverts, and piles of concrete pieces. This semi-colonial owl breeds from March through August, and is most active while hunting during dawn and dusk. Although the Plan area is well within the species' range, there are no occurrences of burrowing owl in the CNDDDB search area.

The intensity of development, irrigation, and cultivation within and surrounding the Plan area reduces the likelihood of burrowing owls using the site for nesting. No burrowing owls were observed in the Plan area during field survey. While a few suitable ground squirrel burrows were observed within the Plan area, none had evidence of burrowing owl occupancy (i.e. whitewash, feathers and/or pellets).

CDFW's Staff Report on Burrowing Owl Mitigation (CDFW 2012) provides the framework for minimizing potential construction impacts to burrowing owls through setbacks from active nests and relocation of any non-nesting owls that move into construction areas. As various parcels are developed over time consultation with CDFW is recommended on a project-by-project basis to determine the need for compensatory habitat mitigation.

Mitigation Measure

Bio-2: **Pre-construction Burrowing Owl Survey.** Pre-construction surveys for burrowing owls within a proposed project site in the Plan area shall be conducted if construction commences between February 1 and August 31. If occupied burrows are found, a qualified biologist, as approved by the Newman Planning Department, shall determine the need (if any) for temporal restrictions on construction. The determination shall be pursuant to criteria set forth by CDFW.

Implementation of Mitigation Measure Bio-2 will reduce the impact related to potential disturbance of burrowing owls to a level of *less than significant*.

Other Nesting Birds or Roosting Bats

Impact Bio-3: **Disturbance of Nesting Birds or Roosting Bats.** Construction activities associated with buildout of the Plan area could adversely affect nesting birds protected by the Migratory Bird Treaty Act of 1918 and/or Fish and Game Code of California or roosting special-status bat species.

On-site trees could be used by birds protected by the MBTA of 1918 and/or Fish and Game Code of California or special-status bat species, the latter of which could also roost in structures such as barns.

Mitigation Measures

Bio-3a: **Pre-Construction Nesting Bird Survey.** Pre-construction surveys for nesting birds protected by the MBTA of 1918 and/or Fish and Game Code of California within 100 feet of a development site in the Plan area shall be conducted if construction commences during the avian nesting season, between February 1 and August 31. The survey should be undertaken no more than 15 days prior to any site-disturbing activities, including vegetation removal or grading. If active nests are found, a qualified biologist, as approved by the Newman Planning Department, shall determine an appropriate buffer in consideration of species, stage of nesting, location of the nest, and type of construction activity. The buffers should be maintained until after the nestlings have fledged and left the nest.

Bio-3b: **Pre-Construction Roosting Bat Survey.** Pre-construction surveys for roosting Western red bat, pallid bat, and other special-status bats within 100 feet of a development site in the Plan area shall be conducted if the removal of trees or structures commences during the avian nesting season, between March 1 and July 31. The survey should be undertaken by a qualified biologist, as approved by the Newman Planning Department, no more than 30 days prior to any removal of trees or structures. If active maternity roosts or hibernacula are found, removal of trees or structures should be delayed until after July 31 or until a qualified biologist determines the young are volant (i.e., flying).

Implementation of Mitigation Measures Bio-3a and Bio-3b will reduce the impact related to potential disturbance of nesting birds and roosting bats to a level of *less than significant*.

Habitat for Special-Status Species

Conversion of the alfalfa fields, grain fields, and annual cropland within the Master Plan area to development would result in a permanent loss of potential foraging, nesting or roosting habitat for the above special-status species. The body of the site consists of leveled cropland farmed in grain and

vegetable crops. Most of the on-site habitats are biologically unremarkable. The likelihood of occurrence of special-status plant species in the site is considered extremely low due to a lack of suitable habitat. Future development in the Master Plan area is expected to have less than significant impacts to special-status plants. The likelihood of occurrence of special-status wildlife species in the site is also low.

With the exception Swainson's hawk and burrowing owl, no special-status wildlife species are expected to occur at or near the site on more than a very occasional or transitory basis. While occurrence of burrowing owls could be more than transitory if it occurred, the possibility is considered unlikely due to the lack of squirrel burrows and lack of previous occurrences in the area. Due to the location of the site along the west edge of the species' range, it is also unlikely Swainson's hawks intensively use on-site habitats and the loss of this habitat would not significantly contribute to the cumulative loss of potential Swainson's hawk foraging habitat in the greater Plan vicinity.

Therefore, the impact related to loss of special-status species habitat would be *less than significant*.

SENSITIVE NATURAL COMMUNITY

No riparian habitats or other sensitive natural communities were observed in the Plan area. Therefore, development of the Plan area will not have a substantial adverse effect on any riparian habitats or other sensitive natural communities (*no impact*).

WETLANDS

The only potentially jurisdictional Waters of the U.S. in the site are the CCID Main Canal and an irrigation lateral. No other areas were observed in the site appearing to meet the technical and regulatory criteria of jurisdictional waters of the U.S. or wetlands.

Jurisdictional Waters of the U.S. should be avoided to the maximum extent practicable. The Plan will not involve work in Main Canal. If the open irrigation lateral would be converted to an underground conveyance (i.e., pipe), this activity would likely be exempt from ACOE permit requirements per Regulatory Guidance Letter No. 07-02 (ACOE 2007). If construction such as an off-site road, utility line, or storm drain outfall structure needs to be constructed within Main Canal or the irrigation lateral, wetland permits and/or certification may be required from one or more agencies including ACOE and/or RWQCB. The necessity and type of permits will depend on the location and nature of the improvements. (Runoff is discussed in more detail in Chapter 12: Hydrology and Water Quality.)

The Plan will not have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (*less than significant impact*).

WILDLIFE MOVEMENT AND NURSERY SITES

There are no creeks, valleys, or other wildlife movement corridors in the site. The developed lands and intensively cultivated fields, orchards, and developed lands are not suitable nursery sites. Development of the Plan will not interfere substantially with wildlife movement or impede the use of wildlife nursery sites (*no impact*).

CONFLICT WITH POLICIES OR ORDINANCES

There are no known local policies or ordinances protecting biological resources. Future development in the Plan area is not expected to conflict with any local policies or ordinances protecting biological resources (*no impact*). There are a few notable trees in the Plan area and future development will

likely involve removal of some of these trees. Oaks and other large trees with wildlife habitat values should be retained and incorporated into future development, when feasible, but their removal would not constitute conflict with local policies or a significant environmental impact.

CONFLICT WITH A CONSERVATION PLAN

The Plan area is not located within an area covered by an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan (*no impact*).

CUMULATIVE BIOLOGICAL RESOURCES IMPACTS

Disturbance of burrowing owls and nesting Swainson's hawks, and other nesting birds and roosting bats during construction phases would be mitigated on a project level through implementation of mitigation measures Bio-1, Bio-2 Bio-3a and Bio-3b and the cumulative impact would be *less than significant*.

CULTURAL RESOURCES

INTRODUCTION

This chapter was prepared by Pacific Legacy, Inc. in coordination with Lamphier-Gregory. It discusses the environmental setting, existing conditions, regulatory context and potential impacts of the Plan in relation to cultural resources. Cultural resources may be defined as any building, structure, object or location of past human activity, occupation, or use that may be identified through documentary evidence, archaeological inventory, or oral history. They may encompass archaeological, traditional and/or built environment resources.

Cultural resources include both prehistoric and historic period remains. Prehistoric remains may consist of immovable features such as mounds or housepit depressions. More commonly, however they comprise scatters or concentrations of flaked stone debris or debitage, rock, ash, animal bone, greasy organic or “midden” soil, charcoal, shell, items of personal adornment (e.g., shell beads, charmstones), groundstone artifacts (e.g., stone mortars, pestles, handstones, millingstones), flaked stone artifacts (e.g., projectile points, bifacially worked flakes, awls), and/or human remains. Historic period remains may consist of features in the built environment such as buildings, roads, trails, homesteads, bridges, cemeteries, wells, pits and other structures relating to domestic, industrial, or commercial activity, occupation, or use. Historic period remains may also comprise scatters or concentrations of glass, metal, ceramic, wood, brick, bone and/or other items relating to the public or private use of space.

Traditional cultural resources most often include Native American sacred sites, sites of resource procurement, or sites of special cultural significance, though they may also comprise areas important to a specific ethnic community that are regarded as seminal to maintaining a community’s cultural traditions.

In order to explore existing conditions within the proposed Plan area as they relate to known and previously undiscovered archaeological, traditional, and/or built environment resources, the following data collection methodology was employed:

- an archival and record search was conducted at the Central California Information Center of the California Historical Resources Information System at California State University Stanislaus in Turlock, California;
- a review of archival materials for Stanislaus County on file at the Bay Area Division of Pacific Legacy in Berkeley, California was examined; and
- a search of the Sacred Lands Inventory maintained by the Native American Heritage Commission was undertaken, and potential Native American stakeholders within Stanislaus County were contacted for further information regarding the proposed Plan area.

No archaeological surveys or inventories were conducted specifically in preparation of this DEIR, however examination of the proposed Plan area is advised prior to its development.

Information presented on existing conditions is based primarily on the results of an archival and record search conducted by the Central California Information Center of the California Historical Information System for the proposed Plan area and a one-half mile radius surrounding it. In addition to a review of the available cartographic data, documents consulted included the

- National Register of Historic Places Directory of Determinations of Eligibility (California Office of Historic Preservation [OHP], Volumes I and II 2013a);
- California Inventory of Historical Resources (California OHP, 2013b);
- California Historical Landmarks (California OHP, 1996);
- California Points of Historical Interest listing (California OHP, 2013c);
- California Department of Transportation (Caltrans) State and Local Bridge Survey (California OHP, 2013d);
- Historic Property Data File (California OHP, 2013e); and,
- Survey of Surveys (California OHP, 2013f).

Other pertinent data for Stanislaus County on file at the Bay Area Division of Pacific Legacy in Berkeley, California, were also consulted; these data included historic period maps, relevant archaeological studies, and other resources concerning the local cultural and natural environment. The results of the archival and record search revealed that no cultural resources had been previously recorded within the proposed Plan area. Six cultural resources, all dating to the historic period, had been previously documented within a one-half mile radius of it. The archival and record search also revealed that the proposed Plan area has not been subject to previous cultural resource studies, but that seven cultural resource studies had been previously conducted within a one-half mile radius of the proposed Plan area.

A search of the Sacred Lands Inventory maintained by the Native American Heritage Commission failed to result in the identification of traditional sites significant to Native Americans within the proposed Plan area. A list of potential stakeholders with knowledge of the Plan area vicinity was provided by the Native American Heritage Commission, and requests for consultation have been issued to those tribes or individuals for further information regarding traditional use of the area.

HISTORICAL SETTING

A discussion of the environmental setting, or the prehistoric and historic period culture history of the proposed Plan area, is presented in the following sections so that the context for known and previously undiscovered cultural resources may be better understood. This cultural history is presented in three sections. In the first, a summary of the prehistoric occupation of the region will be presented. This will be followed by a consideration of the ethnographic use of the region, and then by a discussion of the historic period occupation and use of the proposed Plan area and surrounding region.

PREHISTORIC CULTURAL HISTORY

The Plan area vicinity lies within the Central Valley Region of California, which is bounded by the Siskiyou Mountains to the north, the Tehachapi Mountains to the south, the Coast Ranges to the west, and the Sierra Nevada and Cascade ranges to the east. The archaeological record within the Central Valley Region encompasses the full range of hunter-gatherer adaptation. Rosenthal et al. (2007) have noted that prehistoric peoples within the Central Valley Region developed a sophisticated material culture, became the nexus for an extensive trade system incorporating distant and neighboring regions, and reached population densities equaled only by agricultural societies in the American Southwest and Southeast. Despite the region's centrality, however archaeological research within the Central Valley Region has progressed relatively little within the three decades since Moratto's (1984) synthesis of California archaeology.

Divided into two main physiographic provinces, the Central Valley Region includes the Sacramento Valley to the north and the San Joaquin Valley to the south. The San Joaquin Valley is characterized by quarternary landscapes with low-elevation alluvial plains, river channels, lakebeds, sloughs, marshes, and low-relief uplands. Dramatic environmental changes occurred within the San Joaquin Valley during prehistory, including faunal extinctions, the emergence of wetlands, flooding and siltation of bottom lands, the cyclical advent and disappearance of shallow lakes, and climatic fluctuations (Moratto 1984).

No single cultural historical framework has been established that accommodates the entire prehistoric record of the Central Valley Region, though detailed cultural chronologies have been derived for certain sub-regions such as the lower Sacramento Delta. In discussing the cultural history of the Central Valley Region and, more specifically, the Plan area vicinity, it is therefore appropriate to use the broad period and stage classification system developed by Fredrickson (1973, 1974) and refined by Rosenthal et al. (2007:150) while referencing more localized cultural historical sequences put forth by Olsen and Payen (1969) and Moratto (1984). Broad periods identified for the Central Valley Region include the Paleo-Indian (11,550-8,550 BC), Lower Archaic (8,550-5,550 BC), Middle Archaic (5,550-550 BC), Upper Archaic (550 BC-1100 AD), and Emergent (AD 1000-Historic) periods. A more localized sequence relevant to the Plan area vicinity is defined largely by distinctive artifact types and mortuary practices, and includes the Positas (ca. 3300-2600 BC), Pacheco (2,600 BC- AD 300), Gonzaga (AD 300-1000), and Panoche (AD 1500-1850) complexes.

Evidence for human occupation of the Central Valley Region during the Paleo-Indian Period (11,550-8,550 BC) is sparse, though chipped stone tools have been recovered from several locations throughout the southern portion of the basin that may be dated to ca. 11,550-9,550 BC (Rondeau et al. 2007; Fiedel 1999). Within the area surrounding Tulare Lake, human bone from site CA-KIN-32 has produced similar date ranges (Rondeau et al. 2007).

As with the Paleo-Indian Period, evidence for human occupation within the Central Valley Region during the Lower Archaic Period (8,550-5,550 BC) is meager. Lower Archaic Period materials are typically encountered as isolated, chipped stone tools, though one Lower Archaic deposit dating to ca. 7,175-6,450 BC has been discovered that featured chipped stone tools, a human skull fragment, and a diverse faunal assemblage (Rosenthal et al. 2007:151). Although largely absent from the Central Valley basin, abundant milling implements have been recovered from the Sierra Nevada and Coast Ranges foothills, indicating that Native Californians within the Central Valley Region may have relied heavily on seasonal acorn and pine nut procurement from a very early time period (Rosenthal and McGuire 2004, Meyer and Rosenthal 1997). Marine shell beads from the Pacific Coast and obsidian from the eastern Sierras recovered from archaeological contexts on both sides of the Central Valley suggest that regional trade and interaction spheres also had been established within the region by the Lower Archaic Period (Bennyhoff and Hughes 1987; Fitzgerald et al. 2005; Rosenthal et al.

2007:151–152). No materials dating to the Paleo-Indian or Lower Archaic periods have been recovered from the Plan area vicinity, though it is likely that erosional and depositional episodes dating to the Late Pleistocene (ca. 9,050 BC) and the Middle Holocene (ca. 5,550 BC) have obscured many early archaeological deposits within the Central Valley.

The Middle Archaic Period (5,550-550 BC) witnessed substantial climatic changes in the form of warmer, dryer conditions and the formation of new wetland habitats produced by rising sea levels. Alluvial fans and floodplains also stabilized during the Middle Archaic Period, evidenced by buried alluvial landforms throughout Central California (Atwater et al. 1990; Rosenthal and McGuire 2004). Archaeological sites dating to the Middle Archaic have yielded evidence for increased residential stability, logistical organization, riverine adaptation, and far ranging regional exchange networks (Rosenthal et al. 2007:153-155).

The earliest evidence for human occupation of the Plan area vicinity dates to the Middle Archaic Period, specifically the Positas Complex (3,300-2,600 BC). The Positas Complex, known from the basal deposit at archaeological site CA-MER-94, is distinguished by small, shaped mortars; short cylindrical pestles; millingstones; perforated flat cobbles; and spire-lopped Olivella beads (Moratto 1984:191; Olsen & Payen 1969). The Pacheco Complex (2,600 BC-AD 300) also was represented at CA-MER-94. This complex was marked by two distinctive phases: Pacheco B, which pre-dated 1,600 BC, and Pacheco A, which post-dated 1,600 BC. Pacheco B was marked by foliate bifaces, rectangular Haliotis ornaments, and thick Olivella beads; Pacheco A was distinguished by a proliferation of Olivella bead types; perforated canine teeth; bone awls, whistles, and saws; stemmed and side-notched projectile points; and abundant millingstones, mortars, and pestles.

The Upper Archaic (550 BC-AD 1100) witnessed the onset of cooler, wetter but more stable climatic conditions within the Central Valley Region. Those conditions resulted in renewed fan and floodplain deposition that formed many of the surface soils observable today. Archaeologically, the Upper Archaic Period is better represented and understood than earlier periods. It was marked by cultural, technological, and economic diversity and saw the rise of large, mounded villages in the lower Sacramento Valley (Rosenthal et al. 2007:156). The localized Upper Archaic Period sequence documented within the Plan area vicinity was termed the Gonzaga Complex (AD 300-1000). The Gonzaga Complex has been noted at archaeological sites such as CA-MER-3, CA-MER-14, and CA-MER-94. It was marked by extended and flexed burials; bowl mortars and shaped pestles; squared and tapered-stem projectile points; bone awls and grass saws; distinctive Haliotis ornaments; and thin rectangular, split-punched, and oval Olivella beads.

By the Emergent Period (AD 1100-Historic), Native Californians living within the Central Valley Region had developed the cultural traditions that would be noted at the time of European contact. These traditions included technological advances such as the bow and arrow and the fish weir. Native trade networks also appear to have changed during the Emergent Period, as shell beads assumed the role of currency throughout much of the region. Population densities, which had been growing steadily in the Central Valley Region since the Middle Archaic, continued to increase during the Emergent Period; this growth correlated with an intensification of hunting, gathering, and fishing as well as increased socio-political complexity (Rosenthal et al. 2007:159). Within the vicinity of the Plan area, the Emergent Period was expressed through the Panoche Complex (AD 1500-1850), which was separated from the Gonzaga Complex by a 500-year break. It has been distinguished at many western Central Valley sites by the remains of large, circular structures; flexed burials as well as primary and secondary cremations; millingstones; varied mortar and pestle types; bone awls, saws, whistles, and tubes; side-notched projectile points; clamshell disk beads; Haliotis disk beads; and Olivella lipped, side-ground, and rough disk beads (Moratto 1984:193).

Despite the technological, economic, and social changes evident throughout the Central Valley Region and the Plan area vicinity through time, Olsen and Payen (1969) have argued that the western edge of the valley has long been occupied by groups oriented towards acorn gathering and hunting who maintained strong trade relations with other Delta, coastal, and inland groups.

ETHNOGRAPHIC EVIDENCE

The proposed Plan area lies within the traditional territory of the Northern Valley Yokuts (Kroeber 1925; Wallace 1978). The Yokuts were hunter-gatherers who divided themselves into dialectically and kinship-based tribelets, which resulted in a mosaic of smaller territories and discrete settlements (Kroeber 1925:474). An estimated 25,100-31,404 Yokuts once occupied the San Joaquin Valley (Cook 1955:49-68; Baumhoff 1963:221), primarily along the San Joaquin River and its tributaries. Fewer Yokuts are believed to have inhabited the plains and foothills along the western edge of the San Joaquin Valley, where villages were typically located along watercourses such as Los Banos and Panoche creeks (Wallace 1978:463).

The Yokuts' Penutian language was spoken by some 40 groups using distinctive but closely related dialects. Those groups inhabited the southern Central Valley, the northern Central Valley, and the adjacent foothills; they were broadly divided into the Northern Valley Yokuts and the Southern Valley Yokuts (Kroeber 1925, Wallace 1978). At the time of European contact, the Northern Valley Yokuts occupied lands between the crest of the Diablo Range to the west, the base of the Sierra Nevada foothills to the east, Bear Creek to the north, and the eastern bend of the San Joaquin River to the south (Wallace 1978).

The main socio-political unit of the Northern Valley Yokuts was the tribelet, or village community, which consisted of a principal village headed by a chief who served as the polity's main advisor; that principal village was typically surrounded by several satellite settlements (Kroeber 1955). Tribelet boundaries were most frequently defined by physiographic features such as mountains, sloughs, and rivers. Lightfoot and Parrish (2009:80) have posited that tribelet territories would have been sufficiently large and diverse so as to provide a range of biotic and environmental resources, but sufficiently manageable so as to remain accessible from just a few village locations.

Villages were comprised of large, semi-subterranean, round or oval dwellings with hard-packed floors (Wallace 1978:464-465). On the valley floor, tule stalks were readily available and were woven into mats and stretched over frames of light poles to form dwelling walls. Because of seasonal flooding and the wetland conditions that prevailed within the tule marshes on the San Joaquin Valley floor, villages were typically established on high ground or on piled earthen mounds constructed along water courses. Ceremonial sweat houses and assembly chambers also were frequently constructed within more substantial villages. A large village might include as many as 200 inhabitants who lived a primarily sedentary existence, with collecting trips taking place during particular times of the year for the acquisition of seasonally available resources (Wallace 1978).

Accounts of Northern Valley Yokuts subsistence practices suggest they relied on local plant and animal communities from village locations centered along watercourses (Cook 1955, 1960; Rosenthal et al. 2007; Wallace 1978). Positioned as it was on the grassy plains of the valley floor and near the foothills of the Diablo Range, the Plan area vicinity would have offered diverse natural resources. Rivers, creeks, sloughs, tule marshes, and ponds within Northern Valley Yokuts territory offered a variety of fish species including seasonal runs of anadromous fishes (e.g., salmon, sturgeon, and lamprey) and other freshwater fishes (e.g., Sacramento Sucker, Sacramento perch, and Thicktail Chub; Lightfoot et al. 2009:325-329). Shellfish, turtles, and reptiles also were collected or hunted. Nets with sinkers, baskets, bone and antler-tipped harpoons, and tule watercraft were employed (Cook 1960; Wallace 1978). Migratory waterfowl such as geese and ducks would have been taken for

food, bone, and feathers. Terrestrial mammals (e.g., elk, deer, rabbits/hares, antelope, and ground squirrels) were consumed and used as a source of raw materials (e.g., hides, bones, and ligaments), though Wallace (1978:464) has noted that big-game hunting likely represented a marginal activity. In addition to acorns, which could be collected from oak stands on both sides of the San Joaquin Valley, an array of seeds, roots, and corms were collected, processed, and consumed or stored (Lightfoot et al. 2009:307-323); various grasses, which were used in basketry, also would have been available. Ethnographic accounts have noted that the Yokuts routinely engaged in landscape modification through pruning, brush clearance, and prescribed burns that improved the quality and quantity of plant yields (Cook 1960:260).

Relatively little has been revealed about Northern Valley Yokuts material culture through the ethnographic record, though archaeological contexts have yielded a diverse array of stone tools and implements. Mortars and pestles, handstones and millingslabs, and bedrock mortars were used for processing acorns, nuts, seeds, and berries while flaked stone arrow points, knives, and scraping implements made from locally available chert, jasper, and chalcedony were used to hunt or process game animals (Wallace 1978:465). Bone tools, particularly awls, were prevalent and were widely used in basketry production. Although little evidence for Northern Valley Yokuts basketry has been recovered archaeologically, it was likely similar in form and function to ethnographically known examples from the Southern Valley Yokuts who produced cooking containers, winnowing trays, water bottles, and seed beaters among other items (Wallace 1978:451).

Although the Northern Valley Yokuts were the predominant group within the region encompassing the Plan area, evidence has indicated that there was close interaction between the Northern Valley Yokuts and the Costanoan/Ohlone and Salinan, who inhabited the Central Coast Region to the west (Golla 2007; Levy 1978; Milliken 1995:257; Gayton 1948). Pacheco Pass, a natural access route between the Central Valley and Central Coast regions, would have facilitated such interaction (Piling 1950). Archaeological materials recovered by Treganza (1960), Riddell and Olsen (1964), Olsen and Payen (1969), and Pritchard (1970, 1983), though analyzed and interpreted in terms of Central Valley Region cultural history, shared much in common with materials from the western side of the Diablo Range. Abalone shell has been recovered from many archaeological sites, and ethnographic accounts have indicated that salt, mussels, dried abalone, and shell beads were often traded with interior groups (Davis 1961:23); piñon nuts also found their way to coastal tribes from inland areas (Davis 1961:23). Obsidian from eastern Sierra Nevada sources (e.g., Bodie Hills and Casa Diablo) entered the San Joaquin Valley via trans-Sierran networks (Hughes and Milliken 2007), and obsidian from Napa Glass Mountain also reflected trade with Bay Miwok and Costanoan/Ohlone speakers occupying Suisun Bay. Arkush (1993) posited that Yokuts traders were not only active in pre-contact times but also played an important role in the introduction of European trade goods (e.g., glass beads, metal items) among other groups inhabiting the Central California interior and Sierra Nevada regions.

During the Mission Period (AD 1776-1830s), large numbers of Northern Valley Yokuts were relocated to Spanish missions in the San Francisco Bay Region, including Mission San Jose (Milliken 2008:9). Yokuts was one of the most frequently spoken languages at Mission San Jose from 1812-1826, as well as at Mission Santa Clara and Mission San Juan Bautista (Milliken 2008:9). Some Northern Valley Yokuts resisted missionization, either by fleeing to the tule marshes or by participating in raids that resulted in the theft or destruction of mission property (Cook 1960; Milliken 1995, 2008; Phillips 1993). Pacheco Pass and other canyon passes that served as routes of trade and exchange during the prehistoric period later served as avenues of escape for Yokut speakers and other groups seeking to flee the mission system.

The displacement of indigenous communities through missionization was further compounded in succeeding years by Mexican and American settlement. Northern Valley Yokut and other Native Californian tribal populations were dramatically affected by epidemic diseases in the early 19th

century. An influx of Euro-American settlers engaged in ranching, farming, and mining in the mid-19th through early 20th centuries further impacted Native lifeways and traditional tribal lands (Wallace 1978).

HISTORIC PERIOD CULTURAL HISTORY

Spanish Period (AD 1542-1821)

Although European contact with Native Californians commenced as early as 1542 with the voyage of Juan Rodriguez Cabrillo (Erlandson and Bartoy 1995), the historic period in Central California did not begin in earnest until the mid- to late 18th century when the Spanish expanded their frontiers northward from Mexico into Alta California. Using a tripartite system of religious missions, military presidios, and civilian pueblos, the Spanish government established a network of settlements spanning from San Diego to San Francisco. Initially, those settlements were centered along the coastal and near coastal areas of Alta California. The interior of Alta California, and specifically the northern portion of the San Joaquin Valley, remained largely unexplored until 1806 when an expedition led by Gabriel Moraga ventured from San Juan Bautista to the San Joaquin River and then north to the Mokelumne River. During that expedition, Moraga, accompanied by Father Pedro Munoz, traversed what would later become known as Pacheco Pass. Moraga, Munoz, and their party likely encamped along Cottonwood Creek on the night of June 21, the feast day of San Luis de Gonzaga, naming the area in the saint's honor. Moraga's 1806 expedition was particularly notable, as it essentially cleared the way for future use of Pacheco Pass as a transportation route from Mission San Juan Bautista to the Central Valley. In 1808, another expedition led by Moraga set out from San Jose, carried out further exploration of the San Joaquin River, and proceeded south to the Merced River (Byrd et al. 2009:16; Hoover et al. 1990:198). Further explorations were carried out in 1811, when Father Ramon Abella travelled along the San Joaquin River north into modern San Joaquin County (Byrd et al. 2009:16).

Through their exploratory expeditions, the Spanish established an interior north-south road called El Camino Viejo in the early 19th century. The route ran from the Los Angeles coast north along the western edge of the San Joaquin Valley to the Patterson Pass (near Tracy) and then west to San Antonio (current East Oakland; Hoover et al. 1990:85). One of the stopping points for water along the route was at El Arroyo de San Luis Gonzaga at Rancho Centinela, just east of what is today the San Luis Reservoir (Hoover et al. 1990:199).

Mexican Period (AD 1821-1848)

In 1822, Mexico gained its independence from Spain, and Alta California became part of the Mexican frontier. As the Mexican government consolidated their control of Alta California, several American and Hudson's Bay Company trappers and explorers came west over the Sierras into the Central Valley interior. Among the most notable of those explorers was John C. Fremont; in 1844, he and his party travelled south from the Merced River and east of the San Joaquin River (Byrd et al. 2009:16).

During the 1840s, the Mexican governors granted a string of land grants along the San Joaquin River in Merced and Stanislaus counties. These land grants included El Pescador, Rancho del Puerto, Orestimba Rancho, and Sanjon de Santa Rita. Other grants included Thompson's Rancho, Rancheria del Rio Estanislao, San Luis Gonzaga, and Panocha de San Juan y Los Carrisalitos (Beck and Haase 1974). These grants likely were aimed at securing the area by expanding the Mexican government's presence within the region. The Orestimba Rancho encompassed the eastern portion of the proposed Plan area and partially bounded the northern portion of it (GLO 1862a, 1862b). Orestimba Rancho was granted to Sebastian Nunez, the son-in-law of Francisco Pacheco, by Governor Juan B. Alvarado in 1844 (Hoover et al. 1990:488; Byrd et al. 2009). Based on the ca. 1837 rancho diseño map (U.S.

District Court 1856) and testimony provided in an 1856 land case (Hoffman 1862), the property appears to have been used for raising livestock rather than as a primary residence.

In the 1840s, relations between Mexico and the United States became strained as the United States expanded westward toward the Pacific Ocean. These political stresses erupted into the Mexican-American War, which lasted from 1846 to 1848. At the close of the war, Alta California became a part of the United States with the signing of the Treaty of Guadalupe Hidalgo.

American Period (AD 1849-Present)

In 1848, James Marshall discovered gold on the American River, which marked the beginning of the California Gold Rush. With the rapid influx of settlers into California during the American Period, land grants awarded by the Spanish or Mexican authorities were increasingly disputed. The new American government passed the Land Act of 1851, which placed the burden of proof-of-ownership on the grantees. As a result, the few Native Americans who had received land grants lost their titles, as did many Hispanic land grantees. By congressional action, grant claims were heard by a board of Land Commissioners and then appealed in federal Courts. By 1885, 97% of the claims had been decided. Sebastian Nunez filed a land grant claim in 1856 for the Orestimba Rancho, and the grant was confirmed in 1867 (Hoffman 1862; Byrd et al. 2009).

Early American Period settlement of the San Joaquin Valley tended to occur along streams and rivers. Among the earliest such settlements were Dover and Hills Ferry. Dover was established in 1844, five miles north of the confluence of the San Joaquin and Merced rivers (Hoover et al. 1990:203). It was abandoned in 1860 when the community of Hills Ferry was established at the confluence of the Merced River and the San Joaquin River. Starting in 1849, Jesse Hill ran a ferry, which was an important crossing point on the San Joaquin River (Byrd et al. 2009:17).

As the gold mining industry in California declined in the 1850s, the agricultural and ranching industries expanded and to become central to the state's economy. Farming in the American Period was characterized by three types of pursuits: cattle and sheep ranching, grain farming, and, irrigation agriculture. Cattle and sheep ranching were dominant until the 1880s. During that time, free-ranging, comparatively wild Spanish cattle were replaced by American breeds of livestock and dairy cows. Sheep breeds were also improved in the late 1850s and 1860s. With the completion of the transcontinental railway in 1869, farmers in the Central Valley began to export their crops, including many different types of fruits, nuts, and vegetables, to the rest of the nation.

The demand for water for gold mining and agriculture led to the development of numerous water conveyance systems in the Central Valley. In the San Joaquin Valley, large private land holders drove the movement to irrigate their land, which led to the formation of private water companies. Irrigation in Madera, Merced, Fresno and Stanislaus counties came from the Merced, San Joaquin, and Tuolumne rivers and facilitated the construction of the San Joaquin and Kings River Canal from Mendota. This canal comprised the largest single irrigation system in the state during the 1880s (Beck and Haase 1974:76). Private water companies still exist, however these early, privately financed systems were dwarfed by early 20th century systems created by municipalities and by the Federal government (Beck and Haase 1974).

In 1886, the Southern Pacific Railroad extended their line south along the west side of the San Joaquin Valley. Land for the rail line was largely provided by Miller and Lux (Byrd et al. 2009), though Simon Newman also provided land to Southern Pacific (Newman Centennial Association 1988). Newman owned a successful mercantile business in Hills Ferry. The City of Newman was established in 1888 along the new rail line upon land that had been donated by Simon Newman. The City's location along the Southern Pacific Railroad resulted in most of the residents of Hills Ferry

relocating to the new settlement, effectively abandoning Hills Ferry (Byrd et al. 2009). Simon Newman became the principal businessman as well as the largest landowner in Newman (Newman Centennial Association 1988). In 1908, the City of Newman was incorporated. Alfalfa had become the dominant crop in the region by the early 20th century. Unlike wheat, alfalfa tended not to deplete soil nutrients and its reliability helped to support the burgeoning dairy industry, which also increased in importance during the early 20th century (Napton 2008:12).

The Chinese community of Hills Ferry also migrated to the newly established City of Newman. They undertook the same occupations and services they had provided in Hills Ferry, which included ranch cooking, laundries, and selling vegetables. The City's China Town was established on the east side of the railroad line, while the majority of the community settled to the west of the rail lines. By 1935, most of the City's China Town had been abandoned, and the remaining buildings were removed after World War II (Newman Centennial Association 1988).

As agriculture became an increasingly significant part of California's economy, transient workers began to inundate communities throughout the Central Valley beginning in the 1880s (Byrd et al. 2009). Immigrant laborers, including Portuguese, Armenians, Japanese, Mexicans, Italians, and Chinese, answered the need of short-term agricultural labor. The Portuguese in particular would become strongly associated with the dairy industry in the San Joaquin Valley. The first Portuguese immigrants were employed as shepherders; however, by 1900, the dairy industry had begun to dominate local agriculture as the demand for wool declined (Byrd et al. 2009).

During the Great Depression, the Central Valley was further inundated with migrant laborers who fled the Dust Bowl in the South and the Midwest seeking employment (Byrd et al. 2009). The massive population influx left local communities unprepared to house these individuals and families, resulting in many improvised tent camps on the outskirts of towns, cities, and in rural areas. These improvised camps were notorious for their poor health and sanitation conditions. The Federal government, through the Farm Security Administration, began to construct camps throughout the Central Valley during the 1930s and 1940s to provide housing for these individuals (Byrd et al. 2009).

EXISTING CONDITIONS

All information regarding known cultural resources and cultural resource studies previously conducted within the proposed Plan area was derived from an archival and record search conducted at the Central California Information Center of the California Historical Resources Information System; from a review of archived cartographic and textual documents on file at the Bay Area Division of Pacific Legacy in Berkeley, California; and from consultation with the Native American Heritage Commission and local Native American tribes and individuals with a potential interest in or knowledge of the proposed Plan area. No archaeological surveys or inventories were conducted specifically in preparation of this Draft EIR to assess existing conditions for cultural resources within the proposed Plan area, or to document resources that may be present in areas not covered by previous studies.

PREVIOUSLY CONDUCTED CULTURAL RESOURCE STUDIES

According to information obtained from the Central California Information Center, no portion of the proposed Plan area has been subject to previous cultural resources inventory or reconnaissance survey. Seven cultural resource studies have been previously conducted within one-half mile of the proposed Plan area.

PREVIOUSLY IDENTIFIED CULTURAL RESOURCES

No cultural resources have been previously recorded within the proposed Plan area. Six cultural resources, all dating to the historic period, have been previously documented within a one-half mile radius (**Table 8.1**). Two of the cultural resources, a segment of the Southern Pacific Railroad (CA-STA-350H) and the San Joaquin and Kings River Canal (P-50-000065), were recorded adjacent to the proposed Plan area. The San Joaquin and Kings River Canal has been determined not eligible for listing on the National Register of Historic Places (NRHP), however it has not been evaluated for listing on the California Register of Historical Resources (CRHR) or local listings.

TABLE 8.1: PREVIOUS CULTURAL RESOURCE STUDIES WITHIN A ONE-HALF MILE RADIUS OF THE PROPOSED PLANNING AREA.

Study Number	Study	Author	Date	Study Type	Results
ST-00907	Cultural Resource Investigations of the Proposed Rose and Sherman School Sites, City of Newman, Stanislaus County, California	Napton	1998	Archaeological Survey	Negative
ST-00913	Cultural Resource Investigations of the Proposed Newman Elementary School (10 Acres), Stanislaus County, California	Napton	1991	Archaeological Survey	Negative
ST-02223	City of Newman, Historic Resources Survey Final Report	City of Newman	1985	Historic Resource Study	Negative for Archaeological Resources
ST-04107	Cultural Resource Assessment, One Parcel on State Highway 33 and Five Parcels on Hills Ferry Road, Newman, Stanislaus County	Busby	2000	Archaeological Survey	Negative
ST-04966	St. James Lutheran Church in Newman Celebrates its Centennial May 23	Jensen	1993	Journal Article	Negative for Archaeological Resources
ST-06693	Cultural Resource Investigations of the Driskell Avenue Properties, 3.5 Acres in Newman, Stanislaus County, California	Napton	2008a	Archaeological Survey	Positive within one-half mile Planning Area radius (P-50-001996)
ST-06803	Archaeological Survey Report for the Proposed City of Newman Downtown Plaza Project Stanislaus County, CA	Davis-King	2008	Archaeological Survey	Negative

Historic U.S. Geological Survey (USGS) Newman, California quadrangle maps as well as cadastral survey maps (General Land Office 1860a and 1860b) were inspected for potential historic period resources. These maps depict structures within the Plan area and its immediate vicinity by 1917 (USGS 1917). Only five structures and an irrigation lateral extending from the Kings River Irrigation Canal (**Table 8.2**) are depicted on the 1917 USGS topographic map. Development of the eastern portion of the Plan area along SR 33 and in the vicinity of Fig Lane and Jensen Road is visible on the 1952 quadrangle (USGS 1952). Most of the structures visible on the 1917 and 1952 maps (USGS 1917 and 1952) are represented on the modern Newman 7.5' Quadrangle (USGS 1978).

**TABLE 8.2: KNOWN POTENTIAL HISTORIC RESOURCES
IN THE VICINITY OF THE PLAN AREA**

Trinomial	Primary	Author	Date	Site Type	In Planning Area?	Description
CA-STA-350H	P-50-000001	Carey & Co.; Hosseinion	2007; 2008	Historic	No	Unrecorded segment of the Southern Pacific Railroad.
	P-50-000065	Levy	1995	Historic	No	San Joaquin and Kings River Canal, Main Canal. Determined ineligible for NR; not evaluated for CR or Local Listing (6Y).
	P-50-001294	Mulkey	1985	Historic	No	St. James Lutheran Church. Appears eligible for NR as an individual property through survey evaluation (3S).
	P-50-001857	Office of Historic Preservation (OHP)	2001	Historic	No	1873 Orestimba School house. Submitted to OHP for action – withdrawn (7W).
	P-50-001865	Guillory	1996	Historic	No	Residence at 1413 Orestimba Ave. Needs to be reevaluated (7N).
	P-50-001996	Napton	2008b	Historic	No	Residential complex at 759-809 Driskel Ave.

CONTACT WITH THE NATIVE AMERICAN COMMUNITY

Pacific Legacy, Inc. contacted the Native American Heritage Commission on March 14, 2013 to request a search of the Sacred Lands Inventory for those areas encompassed by the Plan area. Results of this search were negative with respect to Native American religious, cultural, or sacred sites within the proposed Plan area. The Native American Heritage Commission provided a list of potential Native American stakeholders who may have additional information regarding traditional use of the proposed Plan area, and recommended that Pacific Legacy contact those individuals or tribal representatives for further consultation.

On March 28, 2013, Pacific Legacy sent certified letters to 13 tribes or individuals to request information on unreported traditional resources or areas of concern within the proposed Plan area. These letters were sent to Neil Peyron, Chairperson of the Tule River Indian Tribe; Anthony

Brochini, Chairperson of the Southern Sierra Miwuk Nation; Kevin Day, Chairperson of the Tuolumne Band of Me-Wuk; Katherine Erolinda Perez of the North Valley Yokuts Tribe; Reba Fuller of the Tuolumne Band of Me-Wuk; Les James, Spiritual Leader of the Southern Sierra Miwuk Nation; Rhonda Morningstar Pope, Chairperson of the Buena Vista Rancheria; Silvia Burley, Chairperson of the California Miwok Tribe; Mary Camp, Tribal Administrator of Tuolumne Band of Me-Wuk; Gloria Grimes, Chairperson of the Calaveras Band of Mi-Wuk Indians; Adam Lewis, Tribal Preservation Assistant of the Calaveras Band of Mi-Wuk Indians; Stanley Cox, Cultural Resource Director of the Tuolumne Band of Me-Wuk; and Debra Grimes, Cultural Resource Specialist of the Calaveras Band of Mi-Wuk Indians.

On April 9, 2013, Pacific Legacy received a letter from Silvia Burley, Chairperson of the California Miwok Tribe. Ms. Burley stated the California Valley Miwok Tribe had no concerns or issues regarding the Newman EIR, as no ground disturbing activity was proposed. She requested that the tribe be notified in the future if the Plan area will be subject to ground disturbance. No responses from the remaining Native American tribes or individuals had been received as of April 29, 2013, however any correspondence received by Pacific Legacy will be forwarded to the City to facilitate consultation efforts.

REGULATORY SETTING

The regulatory context for cultural resources is described below.

STATE REGULATIONS

California Environmental Quality Act

The CEQA, as codified at Public Resources Code (PRC) Sections 21000 et seq., requires lead agencies to determine if a project would have a significant effect on archaeological resources. As defined in PRC Section 21083.2, a “unique” archaeological resource is an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

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

In addition, the CEQA Guidelines define historical resources as: (1) a resource in the California Register of Historical Resources (CRHR); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); or (3) any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the lead agency’s determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is a historical resource, the provisions of PRC Section 21084.1 and CEQA Guidelines Section 15064.5 would apply. If an archaeological site does not meet CEQA Guidelines criteria for a historical resource, then the site is to be treated in accordance with the provisions of PRC Section 21083 regarding unique archaeological resources. The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of a project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064[c][4]).

Under CEQA, development of the Plan area would be considered to have a significant impact on the environment if it would

- cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5;
- cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or
- disturb any human remains, including those interred outside of formal cemeteries.

California Register of Historic Resources

The CRHR is “an authoritative listing and guide to be used by state and local agencies, private groups, and citizens in identifying the existing historical resources of the state and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change” (PRC Section 5024.1[a]). The eligibility criteria for inclusion on the CRHR are based on National Register of Historic Places (NRHP) criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the CRHR, including California properties formally determined eligible for, or listed in, the NRHP.

To be eligible for the CRHR, a prehistoric or historic period property must be significant at the local, state, and/or federal level under one or more of the following criteria:

1. It is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. It is associated with the lives of persons important in our past;
3. It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4. It has yielded, or may be likely to yield, information important in prehistory or history.

For a resource to be eligible for the CRHR, it must also retain enough of its character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. A historic resource that does not retain sufficient integrity to meet NRHP criteria may still be eligible for listing in the CRHR.

The CRHR consists of resources that are listed automatically as well as those that must be nominated through an application and public hearing process. The CRHR automatically includes the following:

- California properties listed on the NRHP and those formally determined to be eligible for the NRHP;
- California Historical Landmarks from No. 770 onward; and
- California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Resources Commission for inclusion on the CRHR.

Other resources that may be nominated to the CRHR include the following:

- historical resources with a significance rating of Category 3 through 5 (i.e., properties identified as eligible for listing in the NRHP, the CRHR, and/or a register maintained by a local jurisdiction);
- individual historical resources;
- historical resources contributing to historic districts; or
- historical resources designated or listed as local landmarks, or designated under any local ordinance, such as a historic preservation overlay zone.

Senate Bill 18

In order to aid in the protection of traditional tribal cultural places through local land use planning, Senate Bill (SB) 18, effective September 2004, requires local government to notify and consult with California Native American tribes when the local government is considering adoption or amendment of a general or specific plan. The Plan area falls under the SB 18 requirements as defined by the Office of Planning and Research. Contact with the local Native American community was initiated by Pacific Legacy (cf. Contact with the Native American Community). Any correspondence received by Pacific Legacy will be forwarded to the City to facilitate local government and tribal consultation efforts as outlined in SB 18 by the City of Newman.

California Public Resources and Administrative Codes

Human remains, including those buried outside of formal cemeteries, are protected under several state laws, including PRC Section 5097.98 and Health and Safety Code Section 7050.5. Impacts include intentional disturbance, mutilation, or removal of interred human remains.

LOCAL REGULATIONS

Newman Title 5 Zoning Code

The City's Title 5 Zoning Code includes an H-C Historical /Cultural Resource District. Chapter 5.13 establishes that the purpose of the district is to:

- A. Preserve and protect the historic character of Newman and its historically significant structures, neighborhoods, sites and artifacts.
- B. Promote and facilitate the restoration and rehabilitation of historically significant structures, neighborhoods and sites.

- C. Assure that buildings and building groups located in proximity to historically significant buildings are protected from noncompatible construction or reconstruction. (Ord. 97-17, 10-28-1997; City of Newman 2012).

This district applies to the City's downtown area, which does not include the Plan area.

City of Newman General Plan

The following General Plan goal and policies relate to cultural resources within the city and the Sphere of Influence.

Goal RCR-5: Preserve and enhance Newman's cultural and historic heritage resources.

Policy RCR-5.1: The City shall exercise its responsibility to identify, document and evaluate Newman's historic resources that may be affected by proposed development projects and other landscape-altering activities.

Policy RCR-5.2: The City shall set as a high priority the protection and enhancement of Newman's historically and architecturally significant buildings.

Policy RCR-5.3: New development near designated historic landmark structures and sites, or within or adjacent to a designated historic district, shall be designed to be compatible with the character of the designated historic resources and/or district.

Policy RCR-5.7: Structures of historical, cultural or architectural merit that are proposed for demolition shall be considered for relocation as a means of preservation. Relocation within the same neighborhood or to another compatible neighborhood shall be encouraged. If relocation is not possible these structures shall be fully documented, following the Secretary of the Interior standards and procedures, prior to demolition.

Policy RCR-5.8: Development projects that will have a significant impact to historic resources that meet the criteria for eligibility to the California Register of Historic Places or the Federal Register of Historic Properties shall:

- Reduce impacts through modification of plans, which could include protecting the site through capping, changing development footprint or modify construction techniques.
- Implement appropriate mitigation measures, which could include conducting data recovery, photo documentation and/or public outreach with displays and literature.

Policy RCR-5.10: Consistent with CEQA and/or the National Historic Preservation Act (NHPA) and prior to project approval, developers shall provide an assessment by appropriate professionals regarding the presence and condition of on-site historical, archaeological and paleontological resources on and adjacent to a project site, the potential for adverse impacts on these resources and appropriate mitigation. This assessment will be conducted for all projects subject to CEQA, NHPA and ministerial projects with the potential to either affect buildings 45 years or older as well as the potential to affect buried cultural resources. As part of this assessment, historical buildings will be assessed as to the viability of their continued use and re-use.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines thresholds:

1. Cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines §15064.5.?
2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?
3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?
4. Disturb any human remains, including those interred outside of formal cemeteries?

CRITERIA FOR DETERMINING SIGNIFICANCE

Defining Significant Cultural Resources

As noted in above, State CEQA Guidelines require lead agencies to consider the potential effects of a project on historical resources. A cultural resource is considered a "historical resource" if it qualifies as eligible for listing on the CRHR, is included in a local register of historical resources, is determined by a project lead agency to be historically significant, or meets the criteria found in PRC Section 5024.1(g). The CRHR automatically includes properties listed on the NRHP and those formally determined to be eligible for listing; California Historical Landmarks No.770 and above; and California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Resources Commission for inclusion on the CRHR.

As noted in above, to be determined eligible for listing on the CRHR, a prehistoric or historic period cultural resource must meet one or more of the following criteria:

1. The resource is associated with events that have made a contribution to the broad patterns of California history;
2. The resource is associated with the lives of important persons from our past;
3. The resource embodies the distinctive characteristics of a type, period, region or method of construction, or represents the work of an important individual or possesses high artistic values;
or
4. The resource has yielded, or may be likely to yield, important information in prehistory or history.

In addition to one or more of those criteria, a historical resource also must retain integrity, interpreted by the CRHR as the intactness of its character or appearance. Integrity is evaluated by examining the resource's location, design, setting, materials, workmanship, feeling and association. If the resource has retained these qualities, it may be said to have integrity. It is possible that a cultural resource may not retain sufficient integrity to be listed on the NRHP, yet still be eligible for listing on the CRHR. If

a cultural resource retains the potential to convey significant historical or scientific data, it may be said to retain sufficient integrity for potential listing on the CRHR.

Most significant Native American prehistoric sites are eligible because of their age, scientific potential and/or burial remains. A historical resource also may be one that is included in a local register of cultural resources, as defined in PRC Section 5020.1(k) or identified as significant in a cultural resource survey meeting the requirements of PRC Section 5024.1(g). Objects, buildings, structures, sites, areas, places, records or manuscripts may also be considered a historical resource if the lead agency determines that the resource is historically significant. The lead agency is tasked with providing evidence for this determination, generally following the criteria for listing on the CRHR. Subsurface testing of archaeological resources, analysis of recovered data, further archival review, and interpretation may be required in order to determine the potential eligibility of a cultural resource for listing on the CRHR.

Defining Significant Impacts to Cultural Resources

Per State CEQA Guidelines, proposed development of the Plan area would result in a significant impact on cultural resources if it would cause a substantial adverse change in the significance of a historical resource as defined in Section 15064.5(a); would directly or indirectly destroy a unique paleontological resource or site; or would disturb human remains, including those interred outside formal cemeteries.

Section 15064.5(b) of State CEQA Guidelines defines a “substantial adverse change” as physical demolition, destruction, relocation or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired. The significance of a historical resource is considered to be materially impaired if a project

- demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, the CRHR; or
- demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to PRC Section 5020.1(k) or its identification in a historical resources survey meeting the requirements of PRC Section 5024.1(g) unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or
- demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion on the CCRHR as determined by a lead agency for purposes of CEQA.

METHODOLOGY

Per Section 15064.5 of State CEQA Guidelines, lead agencies must consider the potential effects of a project on historical resources. As noted above, historical resources are those listed or eligible for listing on the CRHR or in a local register, or those identified through a survey that meets the requirements of PRC Sections 5020.1(k) and 5024.1(g). The identification of historical resources involves several steps, including identifying cultural resources within a project’s boundaries; evaluating the resources to determine if they qualify as historical resources; and determining the direct or indirect effects of a project on significant historical resources. Resources found not to be “historical resources” or otherwise “historically significant” require no further management. In general, effects on significant resources per CEQA may be reduced to less-than-significant levels by

applying the proper treatment or management measures, such as avoidance, further documentation, evaluation for eligibility to be included on CRHR, and/or data recovery.

UNDISCOVERED CULTURAL RESOURCES

A discussion of potential impacts to cultural resources and proposed mitigation or management measures is provided below. These proposed measures include preconstruction surveys and preparation of an Archaeological Survey Report, avoidance, monitoring, evaluation of finds, data recovery and the establishment of protocols for inadvertent cultural resource discoveries.

No known cultural resources have been identified within the proposed Plan area, although six historic period cultural resources have been identified within a one-half mile radius of it, as shown in **Table 8.2**.

Impact Cultural-1: Disturbance of or Damage to Unidentified Surface or Subsurface Cultural Resources. Ground-disturbing activities associated with construction within the planning area have the potential to disturb previously undiscovered cultural resources. The potential also exists for previously undiscovered archaeological, paleontological, or human remains resources to be damaged or destroyed during construction activities.

According to cadastral information, historic period structures appeared within the Plan area by 1917, though it remains unclear whether the remnants of any of those structures persist today (USGS 1917). Although no prehistoric resources have been identified within a one-half mile radius of the Plan area, only a small portion of that area has been subject to prior cultural resource inventory or reconnaissance survey. Prehistoric habitation sites, including CA-MER-215 (Wolfsen Mound) and CA-MER-86, are known to exist within the vicinity of the Plan area (Design, Community & Environment 2006). The proximity of the Plan area to both Orestimba Creek and the San Joaquin River, in addition to numerous drainages, creeks, and wetlands, indicates there is potential for currently unidentified prehistoric and historic period resources to exist within the Plan area.

As noted under above, the proposed Plan area has not been subject to archaeological inventory or reconnaissance survey. Regardless of whether or not an area has been subject to previous archaeological inventory or reconnaissance survey, unanticipated and potentially significant cultural resources may still be encountered during construction activities. The potential to discover unanticipated cultural resources will tend to be greater in areas within or proximate to known cultural resources, in areas of poor ground visibility, in areas that have not been subject to previous cultural resource inventory or reconnaissance, and/or in areas that have not been subject to previous ground disturbing activity or development. There is also the potential for the inadvertent discovery of human remains, particularly Native American remains, outside the boundaries of an established cemetery. The following mitigation measures will be applied to all proposed components requiring ground disturbance or construction activity. The lead agency will ensure that that the following measures are implemented by the selected archaeological contractor.

Mitigation Measures

Cultural-1a: Preconstruction Survey. Prior to initiating construction activities associated with the proposed Plan area, an archaeological inventory survey will be performed. If resources are discovered during survey, Mitigation Measures CR-1b through CR-1h will be implemented. (Note that existing uses within the Plan area are allowed to continue to perform maintenance and improvements on their property under applicable existing regulations.)

- Cultural-1b: Cultural Resource Avoidance.** The lead agency will seek to avoid cultural resources as the preferred mitigation measure. Avoidance of cultural resources would result in a less-than-significant level of impact to any cultural resource identified. Under Cultural-1b, roads, buildings, facilities and any activity involving ground disturbance will be located to avoid cultural resources. To ensure that no inadvertent impacts occur to cultural resources designated for avoidance, cultural resource boundaries will be marked as exclusion zones both on the ground and on construction maps. This would include resources within 30 meters of proposed ground disturbing activities.
- Cultural-1c: Construction Personnel Notification.** Construction supervisory personnel will be notified of the existence of cultural resources and required to keep personnel and equipment away from these areas. A qualified archeologist will be notified prior to initiation of construction activities. Periodic monitoring of cultural resources to be avoided will be completed by a qualified archeologist to ensure that no inadvertent damage to the resources occur as a result of construction or construction-related activities. The timing and frequency of this monitoring shall be at the discretion of the archaeologist. During construction and operations, personnel and equipment will be restricted to designated work sites.
- Cultural-1d: Training and Reporting.** Prior to the initiation of ground disturbing activities within the proposed Plan area, all construction personnel will be alerted to the potential for encountering buried or unanticipated cultural remains, including prehistoric and/or historic period resources. Construction personnel will be instructed that upon discovery of buried cultural materials, all work within a 30 meter vicinity of the find will be halted immediately, and the lead agency will be notified. Once the find has been identified by a qualified archaeologist, the lead agency will make the necessary plans for treatment of the find(s) and for the evaluation and mitigation of impacts if the find is found to be a historical resource per State CEQA Guidelines. Application of Mitigation Measure Cultural-1b would be appropriate if the find is to be avoided; if the find cannot be avoided, Mitigation Measure Cultural-1e would be implemented.
- Cultural-1e: Evaluation for the California Register of Historical Resources (CRHR).** If avoidance is determined to be infeasible, the lead agency will retain a qualified archaeologist to evaluate any cultural resources encountered according to State CEQA Guidelines for their potential eligibility to be listed on the CRHR. In the case of a prehistoric archaeological site, evaluation may be completed by examining existing records and reports, through detailed recording, and/or through excavation to determine the data potential of the site. Evaluation of historic period resources may include further archival study, detailed recording and/or excavation. Resources determined not to be historically significant by the lead agency would require no further management. If cultural resources are considered historically significant per CEQA or eligible for the CRHR, a data recovery program would be implemented to reduce impacts to less-than-significant levels as required by State CEQA Guidelines. Data recovery could include excavation, detailed analysis, and/or further research depending on the nature and type of the resource. Excavated materials would be curated at an appropriate facility, to be identified by the lead agency.
- Cultural-1f: Cultural Resources Management Plan (CRMP).** If cultural resources are encountered within the proposed Plan area through Mitigation Measure Cultural-1a, the lead agency will develop a CRMP for newly discovered cultural resources within areas of direct impact for the Plan area. This CRMP will include:

- procedures for protecting and avoiding cultural resources;
- provisions for the evaluation and treatment of unanticipated discoveries, including human remains;
- provisions for Native American consultation;
- reporting requirements to be fulfilled by the selected archaeological contractor;
- provisions for curation of any cultural materials collected; and
- requirements specifying that archaeologists and other discipline specialists meet the Professional Qualifications Standards mandated by the California OHP.

Implementation of the CRMP will ensure that known cultural resources will be avoided during ground disturbing activities associated with the Plan area. Specific protective measures will be defined in the CRMP to reduce potential adverse impacts to any previously undiscovered cultural resources to less-than-significant levels. The CRMP will define construction procedures for areas near known/recorded cultural resources. Wherever ground disturbing activities are scheduled to occur within 30 meters of a cultural resource eligible or potentially eligible for listing on the CRHR, the resource will be flagged as an exclusion zone or as an environmentally sensitive area (without disclosing the exact nature of the environmental sensitivity). Construction equipment will be directed away from the area, and construction personnel will be advised not to enter the environmentally sensitive area. Cultural resource monitoring of ground disturbing activities will be focused on the immediate vicinity surrounding designated environmentally sensitive area boundaries.

Cultural-1g: **Construction Monitoring.** Cultural resource monitoring will be conducted by a qualified archaeologist familiar with the types of prehistoric and historic period resources that may be encountered within the proposed Plan area. Monitoring will occur in all areas of ground disturbing activity that occur within 30 meters of a cultural resource eligible or potentially eligible for listing on the CRHR. A Native American monitor may be required at culturally or traditionally sensitive locations.

Cultural-1h: **Human Remains.** If human remains are encountered during ground disturbing activities, all work within a 30-meter vicinity of the find will be halted immediately, and the lead agency and the Stanislaus County Coroner will be notified. If the remains are determined to be Native American, the Native American Heritage Commission will be notified within 24 hours as required by PRC Sections 5097.94 and 5097.98. The Native American Heritage Commission will notify the designated Most Likely Descendant(s), who will in turn provide recommendations for the treatment of the remains within 48 hours of being granted access to the find.

Destruction of potentially significant cultural resources without mitigation constitutes a significant impact per Section 15064.5(b) of State CEQA Guidelines. The procedures and provisions in Mitigation Measures Cultural-1a through Cultural-1h, however should ensure that impacts to unanticipated surface or subsurface cultural resources discoveries are reduced to a level of less than significant. Implementation of these measures will reduce Impact Cultural-1 to *less than significant*.

GEOLOGY AND SOILS

INTRODUCTION

This section describes the regulatory framework and existing conditions related to seismicity and soils in and around the Plan area, and the potential seismic and soils impacts of the proposed Northwest Newman Master Plan.

ENVIRONMENTAL SETTING

REGIONAL GEOLOGY

The Plan area lies in the San Joaquin Valley of the Great Valley geomorphic province of California. The Great Valley is a relatively flat alluvial plain that is in-filled with as much as six vertical miles of alluvial and marine sediment. This sediment has been deposited nearly continuously since the Jurassic period (160 million years ago). The Great Valley is bounded to the west by the Coast Ranges and to the east by the Sierra Nevada. The Coast Range is composed of deformed sedimentary and metamorphic rocks, and is broken by numerous faults. The Sierra Nevada is a tilted fault block dipping towards the southwest. It consists of pre-Tertiary igneous and metamorphic rocks.

SEISMIC HAZARDS

The Plan area lies between two seismically active regions, the Sierra foothills and the Coast Range, and may occasionally experience earthquakes, although the risk to life and property from earthquake hazards is low compared to other locations in California.

The Alquist-Priolo Earthquake Fault Zoning Act of 1972 initiated a program of mapping active and potentially active faults (faults with displacement within Quaternary time- the last 1.6 million years). According to the program, active faults must be zoned and development projects within the Earthquake Fault Zones investigated to establish the location and age of any faulting across the development site. The California Geological Survey has published maps depicting these zones. The Plan area is not within an Alquist-Priolo Earthquake Fault Zone.¹⁹

Earthquakes present primary and secondary hazards. Primary hazards include ground rupture and ground shaking. Because the Plan area is not within an Alquist-Priolo Earthquake Fault Zone, the risk of ground rupture is low. Faults in the region are capable of generating significant earthquakes producing ground shaking in the Plan area and vicinity. According to the USGS National Seismic

¹⁹ California Geological Survey Regulatory Maps, <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>, accessed March 3, 2016.

Hazard Mapping Project, ground-shaking seismic hazards in the Newman area are lower than most of California.²⁰

Secondary earthquake-related hazards can include earthquake-induced landslides or mudslides, liquefaction, and seiche. Since the Plan area and vicinity are flat, the potential for landslides or mudslides is low. Liquefaction is a phenomenon primarily associated with saturated, cohesionless soil layers located close to the ground surface. During liquefaction, soils lose strength and ground failure may occur. The California Department of Conservation has not yet mapped the Newman area to identify the potential for soil liquefaction.²¹ Since soils must be saturated to be at risk of liquefaction, the areas in and around Newman most susceptible to liquefaction include areas along the San Joaquin River and where there are high groundwater levels. Seiches are waves caused by earthquakes in bodies of water that can be compared to the back-and-forth sloshing of water in a tub. The risk of seiche is considered very low since there are no significant water bodies in the Newman area.

Most loss of life and injuries during an earthquake are related to the collapse of buildings and structures. Building codes and engineering requirements are now designed so that new construction will better withstand a major earthquake. The City of Newman requires new development and substantial renovations to comply with current seismic standards and requires geotechnical engineering studies for major new buildings or earth works.

SOILS

Geotechnical concerns, such as erosion and expansion, are more common with certain soils types. Identifying local soil types and understanding the associated characteristics helps cities establish appropriate engineering and construction standards for new building and remodeling.

Since Newman is flat, there is a limited potential for erosion. The greatest potential for erosion is due to wind. Expansive soils contain higher levels of clay and expand and shrink depending on water content, damaging structures that were not appropriately engineered. Special design commonly is needed in areas with expansive soils.

There are two soil series in the Plan area—El Solyo and Vernalis Loam. The El Solyo soils have moderate to high erosion and expansion potential; the Vernalis Loam soils have moderate erosion potential and low to moderate expansion potential.²²

REGULATORY SETTING

ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT

The Alquist-Priolo Earthquake Fault Zoning Act was passed in 1972 to mitigate the potential hazard of surface faults to structures for human occupancy. The main purpose of the Act is to prevent the

²⁰ US Geological Survey, <http://earthquake.usgs.gov/regional/states/california/hazards.php>, as cited in the City of Newman General Plan EIR, 2006.

²¹ California Geological Survey, <http://gmw.consrv.ca.gov/shmp/MapProcessor.asp?Action=SHMP&Location=All&Version=6&Browser=IE&Platform=Win>, as cited in the City of Newman General Plan EIR, 2006.

²² Natural Resources Conservation Service, 1996. Soil Survey of Stanislaus County, CA. Western Part. <http://www.ca.nrcs.usda.gov/mlra02/wstan/>, as cited in the City of Newman General Plan EIR, 2006.

construction of buildings used for human occupancy over active faults. The Act only addresses the hazard of surface fault rupture and is not directed toward other earthquake hazards. The law requires the State Geologist to establish regulatory zones (known as Earthquake Fault Zones or Alquist-Priolo Zones) around the surface traces of active faults and to issue maps to all affected cities, counties and State agencies for their use in planning and controlling development. Local agencies must regulate most development projects within the zones and there can generally be no construction within 50 feet of an active fault zone.²³ The California Geological Survey does not show the Plan area as being within an Alquist-Priolo Earthquake Fault Zone.²⁴

SEISMIC HAZARDS MAPPING ACT

The Seismic Hazards Mapping Act addresses earthquake hazards other than fault rupture, including liquefaction and seismically induced landslides. Seismic hazard zones are to be mapped by the State Geologist to assist local governments in land use planning. The Act states that, “It is necessary to identify and map seismic hazard zones in order for cities and counties to adequately prepare the safety element of their general plans and to encourage land use management policies and regulations to reduce and mitigate those hazards to protect public health and safety.” Section 2697(a) of the Act additionally requires that, “Cities and counties shall require, prior to the approval of a project located in a seismic hazard zone, a geotechnical report defining and delineating any seismic hazard.”²⁵ Stanislaus County has not been mapped under the Seismic Hazards Mapping Act yet since the State has targeted higher risk areas, such as the San Francisco Bay Area and the Los Angeles/Riverside areas.²⁶ The Plan area has a low risk of seismic hazards.

CALIFORNIA BUILDING CODE

Development in the Newman area is subject to the California Building Standards Code—or Title 24—which provides a minimum standard for building design and construction. Title 24 incorporates the Uniform Building Code, a widely adopted model building code in the United States, and contains specific requirements for seismic safety, excavation, foundations, retaining walls and site demolition. It also regulates grading activities, including drainage and erosion control.²⁷

CITY OF NEWMAN GENERAL PLAN

The following General Plan goal and policies relate to geologic and seismic hazards within the city and the Sphere of Influence.

²³ California Geological Survey, Alquist-Priolo Earthquake Fault Zones, <http://www.consrv.ca.gov/CGS/rghm/ap/> as cited in the City of Newman General Plan EIR, 2006.

²⁴ California Geological Survey Regulatory Maps, <http://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=regulatorymaps>, accessed March 3, 2016.

²⁵ California Public Resources Code, Division 2, Chapter 7.8, Article 7.8, Section 2691(c), <http://www.consrv.ca.gov/cgs/codes/prc/chap-7-8.htm> as cited in the City of Newman General Plan EIR, 2006.

²⁶ California Geological Survey, Seismic Hazards Zonation Program, Data Access Page, <http://gmw.consrv.ca.gov/shmp/MapProcessor.asp?ActionSHMP&Location=All&Version=6&Browser=IE&Platform=Win>, as cited in the City of Newman General Plan EIR, 2006.

²⁷ California Code of Regulations, Title 24 (California Building Standards Code) summary page, http://www.bsc.ca.gov/title_24.html, as cited in the City of Newman General Plan EIR, 2006.

Goal HS-1: Prevent loss of life, injury, and property damage due to geologic and seismic hazards.

Policy HS-1.1: The City shall require preparation of soils reports for all new development. Based on the findings of these reports, the City shall require that any identified soil problems are mitigated in the design and construction of new structures.

Policy HS-1.2: The City shall require preparation of geotechnical reports for all new major development projects, and for projects proposed in areas where geological hazards may exist. Based on the findings of these reports, the City shall require that new structures are designed and built to withstand the effects of seismically-induced ground failure.

Policy HS-1.3: Underground utilities, particularly water and natural gas mains, shall be designed to withstand seismic forces in accordance with state requirements.

Policy HS-1.4: All new construction and renovations in Newman shall conform to the California Uniform Building Code, which includes specific seismic design and construction requirements.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

Appendix G of the CEQA Guidelines provides that a project would involve a significant geologic or soils impact if it would:

1. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:
 - a. rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault;
 - b. strong seismic ground shaking;
 - c. seismic-related ground failure, including liquefaction and seismic-induced landslides; and/or
 - d. landslides.
2. Result in substantial soil erosion or the loss of topsoil.
3. Be located on a geologic unit or soil that is unstable (or that would become unstable as a result of the project) and which could potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse.
4. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1997), creating substantial risks to life and property.
5. Be located in areas where soils are incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.

RUPTURE OF A KNOWN SURFACE FAULT

Although CEQA does not require an agency to consider the impact of existing conditions on future project users per recent case law²⁸, the following discussion is included for informational purposes.

The Plan area is not within an Alquist-Priolo Earthquake Fault Zone, and there are no other faults mapped as crossing the area. The Plan area has a low risk of surface fault rupture. Future development associated with the implementation of the Northwest Newman Master Plan would be required to conduct project-specific geotechnical studies and to comply with the design-level recommendations contained therein. In addition, all development shall meet seismic design standards as outlined in the California Building Standards Code.

SEISMIC GROUND SHAKING

Although CEQA does not require an agency to consider the impact of existing conditions on future project users per recent case law²⁹, the following discussion is included for informational purposes.

Existing faults in the region are capable of generating significant earthquakes producing ground shaking in the Plan area and vicinity; however, ground-shaking seismic hazards in the Plan area are low. To address the potential for the future development to be affected by strong seismic ground shaking, individual projects associated with the implementation of the Northwest Newman Master Plan would be required to conduct project-specific geotechnical studies and to comply with the design-level recommendations contained therein. In addition, all development shall meet seismic design standards as outlined in the California Building Standards Code.

SEISMIC-RELATED GROUND FAILURE

Although CEQA does not require an agency to consider the impact of existing conditions on future project users per recent case law³⁰, the following discussion is included for informational purposes.

The Plan area is not within an area where soils are subject to saturation. Therefore, the risk of seismic-related ground failure such as liquefaction, subsidence, lurch cracking, and lateral spreading is considered to be low. To address the potential for the future development to be affected by seismic-related ground failure, individual projects associated with the implementation of the Northwest Newman Master Plan would be required to conduct project-specific geotechnical studies and to comply with the design-level recommendations contained therein. In addition, all development shall comply with seismic safety requirements and construction and design standards to reduce risks associated with subsidence and liquefaction, as well as other seismic design standards outlined in the California Building Standards Code.

LANDSLIDES

The Plan area is nearly flat, and slope stability is not expected to be an issue. The potential for landslides is low. Therefore, implementation of the Northwest Newman Master Plan would not result in risks to people from landslides and there would be ***no impact***.

²⁸ *CBIA v. BAAQMD*, December 17, 2015.

²⁹ *Ibid.*

³⁰ *Ibid.*

SOIL EROSION AND LOSS OF TOPSOIL

Impact Geo-1: Construction-Period Soil Erosion. Soils in the Plan area have a moderate erosion potential. Grading and construction activities will expose soil to the elements, which would be subject to erosion during storm events. Unprotected soils would erode during heavy seasonal rainstorms and this runoff would include significant sediment loading that could cause increased turbidity and sedimentation in downstream receiving channels. This is a *potentially significant* impact.

Development projects in the Plan area would be required to obtain and comply with the State General Construction Activity Stormwater Permit, which requires use of Best Management Practices (BMPs) to prevent eroded soils and other contaminants from entering surface waters.

Mitigation Measure

Geo-1: Erosion Control Plan/Stormwater Pollution Prevention Plan. Development within the Master Plan area shall comply with Central Valley RWQCB guidelines applicable at the time of the issuance of any grading permit and shall adopt acceptable BMPs for control of sediment and stabilization of erosion on the subject site. Acceptable BMPs for the protection of water quality shall also be adopted. Development under the Master Plan will be dependent upon approval of an Erosion Control Plan and a Stormwater Pollution Prevention Plan (SWPPP) as outlined below.

(1) Erosion Control Plan

An Erosion Control Plan shall be prepared and implemented for development projects in the Plan area. The plan shall be submitted to the City of Newman in conjunction with the Project Grading Plan prior to start of construction, and a final report is required prior to final building acceptance.

The Plan shall include locations and specifications of recommended soil stabilization techniques, such as placement of straw wattles, silt fence, berms, and storm drain inlet protection. The Plan shall also depict staging and mobilization areas with access routes to and from the site for heavy equipment. The Plan shall include temporary measures to be implemented during construction, as well as permanent measures.

City staff or representatives shall visit the site during grading and construction to ensure compliance with the grading ordinance and plans, as well as note any violations, which shall be corrected immediately. A final inspection shall be completed prior to occupancy. Elements of this Plan may be incorporated into the SWPPP, where applicable.

(2) Stormwater Pollution Prevention Plan

In accordance with the Clean Water Act and the SWRCB, the Permittee shall file a SWPPP prior to the start of construction. The SWPPP shall include specific best management practices to reduce soil erosion. This is required to obtain coverage under the General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit, 99-08-DWQ).

Implementation of mitigation measure **Geo-1** would reduce the impacts related to erosion to a level of *less than significant*.

UNSTABLE AND/OR EXPANSIVE SOILS

Although CEQA does not require an agency to consider the impact of existing conditions on future project users per recent case law³¹, the following discussion is included for informational purposes.

Soils in the Plan area have a moderate erosion potential. As noted above, the Plan area is not within an area where soils are subject to saturation. Therefore, the risk of liquefaction, subsidence, and lateral spreading is considered to be low. Additionally, because the topography of the Plan area is relatively flat, the risk of landslide is considered to be low.

To reduce the risk associated with expansive soils, individual projects associated with the implementation of the Northwest Newman Master Plan would be required to conduct project-specific geotechnical studies and to comply with the design-level recommendations contained therein. These studies are required prior to issuance of building permits by the City. In addition, all development shall comply with construction and design standards to reduce risks associated with expansive soils as outlined in the California Building Standards Code.

SOILS INCAPABLE OF SUPPORTING THE USE OF A SEPTIC SYSTEM

New development under the proposed Plan would be required to connect to the city's municipal wastewater treatment system. Therefore, the capacity of local soils to effectively accommodate septic systems is not an issue and there would be *no impact*.

CUMULATIVE GEOLOGY AND SOILS IMPACTS

Strong seismic ground shaking and soil erosion during project construction and post construction can be common occurrences with projects developed in this seismically active region. The Plan area would be one of numerous sites anticipated to undergo development/redevelopment in the vicinity and would contribute to a cumulative increase in sites facing these hazards and impacts. The project-specific contribution to soil erosion would be reduced to *less than significant* with the implementation of identified project-specific mitigation measures.

³¹ Ibid.

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GREENHOUSE GAS EMISSIONS

INTRODUCTION

In addition to the air pollutants discussed in Chapter 6: Air Quality, other emissions may not be directly associated with adverse health effects, but are suspected of contributing to global climate change. Global climate change has occurred in the past as a result of natural processes, but the term is often used now to refer to the warming predicted by computer models to occur as a result of increased emissions of GHGs (e.g., carbon dioxide, methane, chlorofluorocarbons, nitrous oxide, O₃, and water vapor).

ENVIRONMENTAL SETTING

Naturally occurring and anthropogenic-generated (generated by humans) atmospheric gases, such as water vapor, carbon dioxide (CO₂), methane, and nitrous oxide can have an effect on global temperatures.³² Gases that trap heat in the atmosphere are called GHGs. Solar radiation enters the earth's atmosphere from space, and a portion of the radiation is absorbed at the surface. The earth emits this radiation back toward space as infrared radiation. GHGs, which are mostly transparent to incoming solar radiation, are effective in absorbing infrared radiation and redirecting some of this back to the earth's surface. As a result, this radiation that otherwise would have escaped back into space is now retained, resulting in a warming of the atmosphere. This is known as the greenhouse effect. The greenhouse effect is necessary for the planet to maintain a habitable climate. Natural processes and human activities emit GHGs. Emissions from human activities, such as electricity production, motor vehicle use and agriculture, however, are elevating the concentration of GHGs in the atmosphere, and are reported to have led to a trend of unnatural warming of the earth's natural climate, known as global warming or global climate change. Other than water vapor, the GHGs contributing to global climate change include the following gases:

- CO₂, primarily a byproduct of fuel combustion.
- Nitrous oxide is a byproduct of fuel combustion and also associated with agricultural operations such as fertilization of crops.
- Methane is commonly created by off gassing from agricultural practices (e.g. keeping livestock) and landfill operation.
- Chlorofluorocarbons that were widely used as refrigerants, propellants and cleaning solvents, however their production has been mostly reduced by international treaty.

³² IPCC, 2007: Summary for Policymakers. In: Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change (Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Averyt, M. Tignor and H.L. Miller (eds.)). Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA. Available at: <http://www.ipcc.ch/>.

- Hydrofluorocarbons are now used as a substitute for chlorofluorocarbons in refrigeration and cooling.
- Perfluorocarbons and sulfur hexafluoride emissions are commonly created by industries such as aluminum production and semiconductor manufacturing.

Gases in the atmosphere can contribute to the greenhouse effect both directly and indirectly. Direct effects occur when the gas itself absorbs outgoing radiation. Indirect effects occur when gases cause chemical reactions that produce other GHGs or prolong the existence of other GHGs. The Global Warming Potential (GWP) concept is used to compare the ability of each GHG to trap heat in the atmosphere relative to CO₂, which is the most abundant GHG. CO₂ has a GWP of 1, expressed as CO₂e. Other GHGs, such as methane and nitrous oxide are commonly found in the atmosphere but at much lower concentrations. However, the GWP for methane is 21, while nitrous oxide has a GWP of 310. Other trace gases, such as chlorofluorocarbons and hydrochlorofluorocarbons, which are halocarbons that contain chlorine, have much greater GWPs. Fortunately these gases are found at much lower concentrations and many are being phased out as a result of global efforts to reduce destruction of stratospheric ozone. In the U.S., CO₂ emissions account for about 85 percent of the CO₂e emissions, followed by methane at about 8 percent and nitrous oxide at about 5 percent³³.

Many of the world's leading climate scientists have reached consensus that global climate change is underway, is very likely caused by humans, and hotter temperatures and rises in sea level would continue for centuries, no matter how much humans control future emissions. A report of the Intergovernmental Panel on Climate Change (IPCC)—an international group of scientists and representatives—concludes that “The widespread warming of the atmosphere and ocean, together with ice-mass loss, support the conclusion that it is extremely unlikely that global climate change of the past 50 years can be explained without external forcing, and very likely that it is not due to known natural causes alone.”³⁴

Human activities have exerted a growing influence on some of the key factors that govern climate by changing the composition of the atmosphere and by modifying vegetation. The concentration of CO₂ in the atmosphere has increased from the burning of coal, oil, and natural gas for energy production and transportation and the removal of forests and woodlands around the world to provide space for agriculture and other human activities. Emissions of other GHGs, such as methane and nitrous oxide, have also increased due to human activities. Since the Industrial Revolution (i.e., about 1750), global atmospheric concentrations of CO₂ have risen about 36 percent, due primarily to the combustion of fossil fuels³⁵.

The IPCC predicts a temperature increase of between 2 and 11.5 degrees Fahrenheit (1.1 and 6.4 degrees Celsius) by the end of the 21st century under 6 different scenarios of emissions and CO₂ equivalent concentrations.³⁶ Sea levels are predicted to rise by 0.18 to 0.59 meters (7 to 23 inches)

³³ *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2006*. U.S. EPA. April 15, 2008.

³⁴ *Climate Change 2007 - The Physical Science Basis Contribution of Working Group I to the Fourth Assessment Report of the IPCC*. February 2, 2007. (<http://ipcc-wg1.ucar.edu/wg1/wg1-report.html>]

³⁵ IPCC. 2007: Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. (<http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf>]

³⁶ IPCC. 2007: Summary for Policymakers. In: *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change*. (<http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-spm.pdf>]

during this time, with an additional 3.9 to 7.8 inches possible depending upon the rate of polar ice sheets melting from increased warming. The IPCC report states that the increase in hurricane and tropical cyclone strength since 1970 can likely be attributed to human-generated GHGs.

REGULATORY SETTING

Global climate change resulting from GHG emissions is an emerging environmental concern being raised and discussed at the international, national, and statewide level. At each level, agencies are considering strategies to control emissions of gases that contribute to global climate change.

U.S. EPA

The United States participates in the United Nations Framework Convention on Climate Change (UNFCCC). While the U.S. signed the Kyoto Protocol, which would have required reductions in GHGs, the Congress never ratified the protocol. The federal government chose voluntary and incentive-based programs to reduce emissions and has established programs to promote climate technology and science. In 2002, the U.S. announced a strategy to reduce the GHG intensity of the American economy by 18 percent over a 10-year period from 2002 to 2012. In the past, the U.S. EPA has not regulated GHGs under the Clean Air Plan (note that a 2007 Supreme Court ruling held that the U.S. EPA can regulate GHG emissions)³⁷. In response to this ruling, the EPA has recently made an endangerment finding that GHGs pose a threat to the public health and welfare. These findings were signed by the Administrator on December 7, 2009. On December 15, 2009, the final findings were published in the *Federal Register* (www.regulations.gov) under Docket ID No. EPA-HQ-OAR-2009-0171. The final rule was effective January 14, 2010. This is the first step necessary for the establishment of federal GHG regulations under the Clean Air Act.

As part of the commitments to UNFCCC, the U.S. EPA has developed an inventory of anthropogenic emissions by sources and removals by sinks of all GHGs. This inventory is periodically updated with the latest update being 2008³⁸. EPA reports that total U.S. emissions have risen by 14.7 percent from 1990 to 2006, while the U.S. gross domestic product has increased by 59 percent over the same period. A 1.1 percent decrease was noted from 2005 to 2006, which is reported to be attributable to: (1) climate conditions, (2) reduced use of petroleum products for transportation, and (3) increased use of natural gas over other fuel sources. The inventory notes that the transportation sector emits about 33 percent of CO₂ emissions, with 60 percent of those emissions coming from personal automobile use. Residential uses, primarily from energy use, accounted for 20 percent of CO₂ emissions.

As a part of U.S. EPA's responsibility to develop and update an inventory of U.S. GHG emissions and sinks, EPA compared trends of other various U.S. data. Over the period between 1990 and 2006, GHG emissions grew at a rate of about 0.9 percent per year. Population growth was slightly higher at 1.1 percent, while energy and fossil fuel consumption were more closely related at 1.0 percent. Gross domestic product and energy generation grew at much higher rates.

³⁷ On April 2, 2007, the United States Supreme Court issued a 5-4 decision in *Massachusetts v. EPA*, which holds that the U.S. Environmental Protection Agency has authority, under the Clean Air Act, to regulate GHG emissions from new vehicles. The U.S. EPA had previously argued it lacked legal authority under the Clean Air Act to regulate GHGs. The majority opinion of the Supreme Court decision noted that GHGs meet the Clean Air Act's definition of an "air pollutant," and the EPA has the statutory authority to regulate the emission of such gases from new motor vehicles.

³⁸ *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990 – 2006*. U.S. EPA. April 15, 2008.

STATE OF CALIFORNIA

The State of California is concerned about GHG emissions and their effect on global climate change. The State recognizes that “there appears to be a close relationship between the concentration of GHGs in the atmosphere and global temperatures” and that “the “evidence for climate change is overwhelming.” The effects of climate change on California, in terms of how it would affect the ecosystem and economy, remain uncertain. The State has many areas of concern regarding climate change with respect to global climate change. According to the 2006 Climate Action Team Report³⁹ the following climate change effects and conditions can be expected in California over the course of the next century:

- A diminishing Sierra snow pack declining by 70 percent to 90 percent, threatening the state’s water supply;
- Increasing temperatures from eight to 10.4 degrees Fahrenheit (F) under the higher emission scenarios, leading to a 25 to 35 percent increase in the number of days ozone pollution levels are exceeded in most urban areas;
- Coastal erosion along the length of California and seawater intrusion into the Sacramento River Delta from a four-to 33-inch rise in sea level. This would exacerbate flooding in already vulnerable regions;
- Increased vulnerability of forests due to pest infestation and increased temperatures;
- Increased challenges for the state’s important agricultural industry from water shortages, increasing temperatures, and saltwater intrusion into the Delta; and
- Increased electricity demand, particularly in the hot summer months.

California emissions of GHG gases or CO₂ equivalent emissions was estimated at 484 million metric tons of equivalent CO₂ emissions (MMTCO₂e), which is about 7 percent of the emissions from the entire United States⁴⁰. It is estimated that the U.S. contributes up to 35 percent of the world’s CO₂ equivalent emissions. Transportation is the largest source of GHG emissions in California, contributing about 40 percent of the emissions. Electricity generation is second at over 20 percent, but California does import electricity during the summer bringing energy sources up to about 25 percent. Industrial activities account for about 20 percent of the State’s emissions. Transportation is the largest source of GHG emissions in California, followed by industrial sources and electric power generation.⁴¹ On a per-person basis, GHG emissions are lower in California than most other states; however, California is a populous state and the second largest emitter of GHGs in the U.S. and one of the largest emitters in the world.⁴²

Under a “business as usual” scenario, emissions of GHG in California are estimated to increase to approximately 600 MMTCO₂e by 2020. CARB staff has estimated the 1990 statewide emissions level

³⁹ California EPA. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. (http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF)

⁴⁰ CARB. 2008. *Climate Change Draft Scoping Plan*. June.

⁴¹ California EPA. 2006. *Climate Action Team Report to Governor Schwarzenegger and the Legislature*. (http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT.PDF)

⁴² California Legislative Analyst’s Office. 2006. *Analysis of the 2006-07 Budget Bill (Governor’s Climate Change Initiative)*. (http://www.lao.ca.gov/analysis_2006/resources/res_04_an106.html)

to be 427 MMTCO₂e, therefore, requiring a reduction of almost 30 percent in emissions by 2020 to meet the AB 32 goal.

State of California Executive Order S-3-05

In June 2005, the Governor of California signed Executive Order S-3-05, which identified Cal/EPA as the lead coordinating State agency for establishing climate change emission reduction targets in California. A Climate Action Team, a multi-agency group of state agencies, was set up to implement Executive Order S-3-05. Under this order, the state plans to reduce GHG emissions to 80 percent below 1990 levels by 2050. In 2006, the California Climate Action Team identified GHG emission reduction strategies and measures to reduce global climate change.⁴³

Assembly Bill 32—The California Global Warming Solutions Act of 2006

In 2006, the governor of California signed AB 32, the Global Warming Solutions Act, into legislation. The Act requires that California cap its GHG emissions at 1990 levels by 2020. This legislation requires CARB to establish a program for statewide GHG emissions reporting and monitoring/enforcement of that program. CARB recently published a list of discrete GHG emissions reduction measures that can be implemented immediately. CARB is also required to adopt rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emission reductions. CARB's Early Action Plan identified regulations and measures that could be implemented in the near future to reduce GHG emissions.

Much of the measures to reduce GHG emissions from transportation will come from CARB. AB 1493, the Pavley Bill, directed CARB to adopt regulations to reduce emissions from new passenger vehicles. CARB's AB32 Early Action Plan released in 2007 included a strengthening of the Pavley regulation for 2017 and included a commitment to develop a low carbon fuel standard (LCFS). In April 2009, CARB adopted the new LCFS aimed at diversifying the variety of fuels used for transportation. This regulation is designed to increase the use of alternative fuels, replacing 20 percent of the fuel used by cars in California with clean alternative fuels by 2020. These fuels include electricity, biofuels, and hydrogen.

CARB is relying on increased fuel efficiency to reduce GHG emissions substantially. In May 2009, President Obama announced a new national policy aimed at both increasing fuel economy to reduce GHG emissions from new cars and trucks sold in the United States. The new standards would apply to new vehicles sold beginning in 2012, and ultimately require an average fuel economy standard of 35.5 miles per gallon (mpg) in 2016. This surpasses the previous 2007 standard of 35 mpg for 2020 model vehicles established in 2007. California had proposed a State standard similar to the new announced federal standard, but the U.S. EPA hindered implementation.

CARB is targeting other sources of emissions. The main measures to reduce GHG emissions are contained in the AB32 Scoping Plan. A draft of the plan was released in June 2008 and was approved in December 2008. This plan includes a range of GHG reduction actions. Central to the plan is a cap and trade program covering 85 percent of the state's emissions. This program will be developed in conjunction with the Western Climate Initiative, comprised of seven states and three Canadian

⁴³ California Environmental Protection Agency. 2006. *Climate Action Team Executive Summary Climate Action Team Report to Governor Schwarzenegger and the California Legislature*. (http://www.climatechange.ca.gov/climate_action_team/reports/2006-04-03_FINAL_CAT_REPORT_EXECSUMMARY.PDF)

provinces, to create a regional carbon market. The plan also proposes that utilities produce a third of their energy from renewable sources such as wind, solar and geothermal, and proposes to expand and strengthen existing energy efficiency programs and building and appliance standards. The plan also includes full implementation of the Pavley standards to provide a wide range of less polluting and more efficient cars and trucks to consumers who will save on operating costs through reduced fuel use. It also calls for development and implementation of the Low Carbon Fuel Standard, which will require oil companies to make cleaner domestic-produced fuels. The regulatory process began in 2009 to implement the plan. The details in regulating emissions and developing targeted fees to administer the program will be developed through this process. This will last two years and measures must be enacted by 2012.

Senate Bill 97—Modification to the Public Resources Code

Pursuant to Senate Bill 97, the Natural Resources Agency reviewed and adopted the amendments to the CEQA Guidelines on December 30, 2010 prepared and forwarded by the Governor's Office of Planning and Research (OPR), including guidelines addressing GHGs. The Amendments became effective on March 18, 2010. OPR recommends that each agency develop an approach to addressing GHG emissions that is based on best available information. The approach includes three basic steps: (1) identify and quantify emissions; (2) assess the significance of the emissions; and (3) if emissions are significant, identify mitigation measures or alternatives that will reduce the impact to a less-than-significant level.

California's Energy Efficiency Standards for Residential Buildings, Title 24, Part 6, of the California Code of Regulations

The Energy Efficiency Standards for Residential Buildings were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2008 Standards went into effect January 1, 2010. Projects that apply for a building permit on or after this date must comply with the 2010 Standards.

Senate Bill 375—California's Regional Transportation and Land Use Planning Efforts

Recently, California enacted legislation (SB 375) to expand the efforts of AB 32 by controlling indirect GHG emissions caused by urban sprawl. SB 375 would develop emissions-reduction goals in which regions can apply in planning activities. SB 375 provides incentives for local governments and developers to implement new conscientiously planned growth patterns. This includes incentives for creating attractive, pedestrian friendly and sustainable communities and revitalizing existing communities. The legislation also allows developers to bypass certain environmental reviews under CEQA if they build projects consistent with the new sustainable community strategies. Development of more alternative transportation options that would reduce vehicle trips and miles traveled, along with traffic congestion, would be encouraged. SB 375 enhances CARB's ability to reach the AB 32 goals by directing the agency in developing regional GHG emission reduction targets to be achieved from the transportation sector for 2020 and 2035. CARB would work with the metropolitan planning organizations (e.g., Association of Bay Area Governments and Metropolitan Transportation Commission) to align their regional transportation, housing, and land use plans to reduce vehicle miles traveled and demonstrate the region's ability to attain its GHG reduction targets. A similar process is used to reduce transportation emissions of O₃ precursor pollutants in the Bay Area.

California Green Building Standards Code

The Green Building Standards Code (CALGreen), requiring all new buildings in the state to be more energy efficient and environmentally responsible, took effect on January 1, 2011. These comprehensive regulations will achieve major reductions in GHG emissions, energy consumption and water use to create a greener California.

CALGreen will require that every new building constructed in California

- Reduce water consumption by 20 percent,
- Divert 50 percent of construction waste from landfills
- Install low pollutant-emitting materials
- Requires separate water meters for nonresidential buildings' indoor and outdoor water use
- Requires moisture-sensing irrigation systems for larger landscape projects
- Requires mandatory inspections of energy systems (e.g., heat furnace, air conditioner and mechanical equipment) for nonresidential buildings over 10,000 square feet to ensure that all are working at their maximum capacity and according to their design efficiencies.

REGIONAL

Stanislaus Council of Governments 2014 Regional Transportation Plan/Sustainable Communities Strategy

The Stanislaus Council of Governments (StanCOG) prepared the 2014 Regional Transportation Plan (RTP)/Sustainable Communities Strategy (SCS) under SB 375. The RTP/SCS presents a strategy to accommodate anticipated regional growth while promoting economic vitality, providing more housing and transportation choices, promoting healthy living, and improving communities through an efficient and well-maintained transportation network. The RTP/SCS addresses SB 375 requirements for reductions in GHG emissions from the transportation sector, as well as new federal mandates under Moving Ahead for Progress in the 21st Century, which emphasizes a performance-based planning approach to addressing GHG emissions.

San Joaquin Valley Air Pollution Control District

The Plan area falls within the SJVAB and therefore under the jurisdiction of the SJVAPCD. In December 2009, SJVAPCD adopted policy⁴⁴ and guidance for addressing GHG emissions impacts within its jurisdiction.

⁴⁴ *Guidance for Valley Land-use Agencies in Addressing GHG Emission Impacts for New Projects under CEQA and the policy: District Policy – Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency, December 19, 2009*

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

This analysis has been written to address the adopted changes to the CEQA Guidelines in relation to addition of GHG emissions. These amendments became effective on March 18, 2010. According to these amended guidelines, the Plan would have a significant impact on GHG emissions if it would:

1. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?
2. Conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?

In December 2009, SJVAPCD adopted policy and guidance for addressing greenhouse gas emissions impacts within its jurisdiction.⁴⁵

SJVAPCD has concluded that existing science is inadequate to support characterization of impacts that project specific GHG emissions have on global climatic change and therefore, that the effects of project-specific GHG emissions are cumulative. Unless reduced or mitigated, the incremental contribution to global climatic change could be considered significant.

SJVAPCD's guidance includes use of performance-based standards to determine significance of GHG emission impacts using GHG emission reduction measures that have demonstrated effective reduction or limiting of GHG emissions. SJVAPCD considers GHG emissions impacts to be less than significant when GHG emission reductions of 29% or more (compared to business-as-usual) are reached through application of GHG emission reduction measures.

GREENHOUSE GAS IMPACTS

Emissions associated with implementation of the Plan were analyzed taking into account implementation of state-wide regulations and plans, such as the AB 32 Scoping Plan and adopted state regulations such as Pavley and the low carbon fuel standard. Therefore, there would be *no impact* in relation to consistency with GHG reduction plans.

Impact Climate-1: Greenhouse Gas Emissions. New development in the Plan area would be an additional source of GHG emissions, primarily through consumption of energy for transportation and energy usage, which could contribute to significant impacts on the environment.

Carbon dioxide, the primary human-caused GHG of concern, would be generated by the Plan primarily from mobile sources and energy usage. Whether these emissions would be “new” impacts, however, is speculative, since even if the Plan area is not developed as proposed, people would continue to live and travel in other areas and would likely produce GHGs, just in a different part of the world. Air quality impact assessments for projects have traditionally assumed that emissions associated with projects would be entirely new to the air basin. This is a widely accepted assumption, since projects could bring new housing into an air basin, resulting in increased vehicle travel and other activities that may not have occurred without the project. Moreover, many of the air pollutants

⁴⁵ Ibid.

of concern have more localized impacts on health and the environment. GHG emissions, however, have an impact on the planet as a whole. GHG emissions generated in one city, state, or country have the same climate change impacts as those generated in any other city, state, or country. Thus, there is no evidence to justify the assumption that simply because the project would bring new housing to the City, and result in increased vehicle activity within the City's boundaries, that there would be an "increase" in GHG emissions to the earth as a whole.

In fact, new development may actually generate fewer GHGs than older development. For example, measures that reduce energy consumption and waste can be included in new development that would reduce emissions. These would include energy-efficient construction methods, inclusion of solar photovoltaic panels to produce energy, passive solar design, appropriate landscape and water recycling systems, etc.

Because specific survey of existing development and related emissions was not performed, emissions associated with the development of the proposed Plan are reported for the purposes of this environmental analysis without subtracting any emissions from existing development. Note that net emissions would be lower than those reported in this analysis. The California Air Pollution Control Officers Association (CAPCOA) has provided guidance for calculating project emissions.⁴⁶ Emissions from area, mobile and electricity usage are recommended by CAPCOA. Area and mobile source emissions were calculated using the CalEEMod model. The inputs to the model are the same as the inputs used to calculate emissions of air pollutants used in the Air Quality Section of this EIR. **Table 10.1** shows the annual GHG emissions in tons per year. Emission calculations are contained in **Appendix B**.

TABLE 10.1: ANNUAL OPERATIONAL GHG EMISSIONS

Emissions Source	Proposed Project CO ₂ e (metric tons/year)
Area	1,066
Energy	9,641
Mobile	39,866
Waste	1,365
Water	1,073
Annualized Construction	722
Total:	53,733

Source: Lamphier-Gregory results from CalEEMod version 2011.1.1, included in full in Appendix B.

Development of the Plan area as proposed would result in the generation of GHG emissions, both during construction and once the proposed land uses are in place. As shown in **Table 10.1**, this would total the generation of GHG emissions of approximately 53,733 MTCO₂e per year, including construction emissions annualized over an estimated 50-year life-span of structures.

⁴⁶ CEQA & Climate Change, California Air Pollution Control Officers Association, January 2008.

Mitigation Measure

Climate-1: Implement Greenhouse Gas Emissions Reduction Measures. Development projects within the Plan area shall demonstrate GHG emissions reductions to comply with State and Federal requirements, as feasible, through implementation of SJVAPCD GHG emission reduction measures or quantification of reduction from additional measures.

Or, if the City of Newman has adopted an alternate GHG emission reduction plan or GHG mitigation program in the interim, compliance with that plan or program will satisfy this mitigation measure.

SJVAPCD is working to quantify the mitigation points for potential measures in order to fully implement their current guidance/policy to require a 29% reduction in GHG emissions. Prior to finalization, SJVAPCD has directed use of interim measures and reductions. A list of the interim measures and reductions are included as Appendix J of SJVAPCD's *Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act*. A calculator, which will be updated as measures and reductions are finalized then periodically thereafter has been posted on-line at http://www.valleyair.org/programs/CCAP/CCAP_idx.htm#bps%20development.

Through review of the Master Plan document, the City, in conjunction with the preparers of this environmental analysis, have identified GHG emissions reduction measures that are included in the Master Plan or are likely to be included in some or all specific development projects in the Plan area, as summarized in **Table 10.2** and discussed in more detail following.

TABLE 10.2: GREENHOUSE GAS REDUCTION MEASURES

<i>Measure Number¹</i>	<i>Measure Name¹</i>	<i>Included in the Master Plan</i>	<i>Potential to be Included in Development Projects²</i>	<i>Estimated CO₂ Equivalent Point Reductions¹</i>
Bicycle/Pedestrian/Transit Measures				
1	Bike parking	x		0.625
2	End of trip facilities	x		0.625
3	Bike parking at multi-unit residential		x	0.625
4	Proximity to bike path/bike lanes	x		0.625
5	Pedestrian network	x		1
5a	Pedestrian Network	x		0.5
6	Pedestrian barriers minimized	x		1
7	Bus shelter for existing transit service		x	0.5
8	Bus shelter for planned transit service		x	0.25
9a	Traffic calming		x	0.25
9b	Traffic calming			0.5
9c	Traffic calming			0.75
9d	Traffic calming			1
Parking Measures				
10a	Paid parking			5
10b	Paid parking			1.50

<i>Measure Number¹</i>	<i>Measure Name¹</i>	<i>Included in the Master Plan</i>	<i>Potential to be Included in Development Projects²</i>	<i>Estimated CO₂ Equivalent Point Reductions¹</i>
10c	Paid parking			2
10d	Paid parking			1
10e	Paid parking			0.6
11	Minimum parking		x	3
12	Parking reduction beyond code		x	6
13	Pedestrian pathway through parking		x	0.5
14a	Off street parking		x	1.5
14b	Off street parking		x	1
14c	Off street parking		x	0.1
Site Design Measures				
15a	Office/Mixed-Use proximate to Planned Light Rail Transit			0.4-0.75
15b	Office/Mixed-Use proximate to Planned Bus Rapid Transit			0.2-0.3
15c	Office/Mixed-Use proximate to Existing Light Rail Transit			0.75-1.5
15d	Office/Mixed-Use proximate to Existing Bus Rapid Transit			0.4-0.75
16	Orientation toward existing transit, bikeway, or pedestrian corridor		x	0.5
17	Orientation toward planned transit, bikeway, or pedestrian corridor		x	0.25
18a	Residential Density with No Transit		x	1
18b	Residential Density with No Transit		x	3
18c	Residential Density with No Transit		x	5
18d	Residential Density with No Transit		x	6
18e	Residential Density with No Transit		x	8
18f	Residential Density with No Transit		x	10
18a	Residential density With Planned Light Rail Transit			0-10.75
18b	Residential density With Planned Bus Rapid Transit			0-10.25
18c	Residential Density with Existing Light Rail Transit			0-11.5
18d	Residential Density with Existing Bus Rapid Transit			0-11
19	Street grid			1
20a	Neighborhood Electric Vehicle access			1.5
20b	Neighborhood Electric Vehicle access			1
20c	Neighborhood Electric Vehicle access		x	0.5
21	Affordable Housing Component		x	0.6-4
Mixed-Use Measures				
22a	Urban Mixed-Use Measure			3
22b	Urban Mixed-Use Measure			6.6
22c	Urban Mixed-Use Measure			9
22d	Urban Mixed-Use Measure			7.29
22e	Urban Mixed-Use Measure			6

<i>Measure Number¹</i>	<i>Measure Name¹</i>	<i>Included in the Master Plan</i>	<i>Potential to be Included in Development Projects²</i>	<i>Estimated CO₂ Equivalent Point Reductions¹</i>
22f	Urban Mixed-Use Measure			5
22g	Urban Mixed-Use Measure			4.2
23	Suburban mixed-use		x	3
24	Other mixed-use		x	1
Building Component Measures				
25	Energy Star roof		x	0.5
26	Onsite renewable energy system		x	1
27	Exceed title 24		x	1
28	Solar orientation		x	0.5
29	Non-Roof Surfaces		x	1
30	Green Roof			0.5
TDM and Misc.				
31	Electric Lawnmower		x	1
Additional Measures Not Yet Quantified³				
1	Bike Lane Street Design		x	TBD
2	Bike and Pedestrian Design		x	TBD
3	School Siting		x	TBD
4	Transit Street Design		x	TBD
5	Site Design Measures		x	TBD
6	Other Mixed-Use			TBD
7	Mixed-Use			TBD
8	Open Space		x	TBD
9	Natural Gas		x	TBD
10	Solar Design			TBD
11	Vehicle Idling			TBD
12	Ride Sharing			TBD
13	Shuttle Service			TBD
14	School Bus Service			TBD
15	Shuttle Bus Service			TBD
16	Energy Efficient Appliances		x	TBD
17	Renewable Energy Use			TBD
18	Solar Panels in Parking Areas			TBD
19	Photovoltaic Roofing Tiles			TBD
20	Tree Planting		x	TBD
21	Local Farmer's Market			TBD
22	Community Gardens			TBD
23	Best Management Practices		x	TBD

Measure Number ¹	Measure Name ¹	Included in the Master Plan	Potential to be Included in Development Projects ²	Estimated CO ₂ Equivalent Point Reductions ¹
24	Land Use Density		x	TBD
25	Zero Emission Infrastructure			TBD
26	Low Carbon Fuel Incentive Program			TBD
<p>1 Measure Number, Name and Equivalent Point Reductions corresponds to those listed in Appendix J of SJVAPCD's <i>Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act</i>, December 2009.</p> <p>2 This column indicates measures that are considered likely to be implemented by some or all development projects in the Plan area. Development Projects are not precluded from implementing measures that are not indicated here.</p> <p>3 While equivalent point reductions have not yet been quantified for these measures, their likely applicability to the Plan and/or development projects in the Plan area has been indicated.</p>				

With the implementation of measures shown in **Table 10.2** the GHG emissions will be reduced. The amount of reductions that are estimated to occur with the implementation of these measures is calculated by multiplying the reduction factor by the total CO₂e emissions and would equal a reduction of up to about 16,000, representing a reduction of about 30%.

Other regulations by CARB and others will further reduce GHG emissions as shown in **Table 10.1**.

Description of Greenhouse Gas Reduction Measures Applicable to the Plan Area

Through review of the Master Plan document, the City, in conjunction with the preparers of this environmental analysis, have identified the following interim GHG emissions reduction measures that are potentially applicable to the Plan area. Note that the numbers correspond to those listed in Appendix J of SJVAPCD's *Addressing Greenhouse Gas Emissions Impacts Under the California Environmental Quality Act* followed by the name of the measure, the resultant mitigation points applicable under the Plan, and a description of the measure. These measures represent a menu of specific reductions that can be taken to reach an overall targeted reduction level (e.g., 30 percent).

Bicycle/Pedestrian/Transit Measures

1. Bike Parking Measure – Reduction = 0.625%

Non-residential projects provide plentiful short-term and long-term bicycle parking facilities to meet peak season maximum demand. Short-term facilities are provided at a minimum ratio of one bike rack space per 20 vehicle spaces. Long-term facilities provide a minimum ratio of one long-term bicycle storage space per 20 employee parking spaces.

2. End of Trip Facilities Measure - Reduction = 0.625%

Non-residential projects provide “end-of-trip” facilities including showers, lockers, and changing space. Facilities shall be provided in the following ratio: four clothes lockers and one shower provided for every 80-employee parking spaces. For projects with 160 or more employee parking spaces, separate facilities are required for each gender.

4. Proximity to Bike Path/Bike Lanes Measure - Reduction = 0.625%

Entire project is located within 1/2 mile of an existing Class I or Class II bike lane and project design includes a comparable network that connects the project uses to the existing offsite facility. Existing facilities are defined as those facilities that are physically constructed and ready for use prior to the first 20% of the projects occupancy permits being granted. Project design includes a designated bicycle route connecting all units, on-site bicycle parking facilities, offsite bicycle facilities, site entrances, and primary building entrances to existing Class I or Class II bike lane(s) within 1/2 mile. Bicycle route connects to all streets contiguous with project site. Bicycle route has minimum conflicts with automobile parking and circulation facilities. All streets internal to the project wider than 75 feet have class II bicycle lanes on both sides.

5. Pedestrian Network Measure - Reduction = 1%

The project provides a pedestrian access network that internally links all uses and connects to **existing** external streets and pedestrian facilities. Existing facilities are defined as those facilities that are physically constructed and ready for use prior to the first 20% of the projects occupancy permits being granted.

5a. Pedestrian Network Measure - Reduction = 0.5%

The project provides a pedestrian access network that internally links all uses for connecting to **planned** external streets and pedestrian facilities (facilities must be included pedestrian master plan or equivalent).

6. Pedestrian Barriers Minimized - Reduction = 1%

Site design and building placement minimize barriers to pedestrian access and interconnectivity. Physical barriers such as walls, berms, landscaping, and slopes between residential and non-residential uses that impede bicycle or pedestrian circulation are eliminated. Barriers to pedestrian access of neighboring facilities and sites are minimized. This measure is not meant to prevent the limited use of barriers to ensure public safety by prohibiting access to hazardous areas, etc.

Greenhouse Gas Reduction Measures Potentially Applicable to Development Projects Within the Plan Area

Subsequent development projects under the Plan will be required to demonstrate additional mitigation points on a project-specific basis to achieve the full 29% reduction over business-as-usual. Measures that are likely to be implemented on a project-specific basis through subsequent development projects within the Plan area are listed below, though this is not intended to be a comprehensive list.

3. Bike Parking at Multi-Unit Residential Measure - Reduction = 0.625%

Long-term bicycle parking is provided at apartment complexes or condominiums without garages. Project provides one long-term bicycle parking space for each unit without a garage. Long-term facilities shall consist of one of the following: a bicycle locker, a locked room with standard racks and access limited to bicyclists only, or a standard rack in a location that is staffed and/or monitored by video surveillance 24 hours per day.

7. Bus Shelter for existing Transit Service - Reduction = 0.5%

Bus or Streetcar service provides headways of one hour or less for stops within 1/4 mile; project provides safe and convenient bicycle/pedestrian access to transit stop(s) and provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting).

8. Bus Shelter for planned Transit Service - Reduction = 0.25%

Project provides transit stops with safe and convenient bicycle/pedestrian access. Project provides essential transit stop improvements (i.e., shelters, route information, benches, and lighting) in anticipation of future transit service.

9a. Traffic Calming Measure - Reduction = 0.25%

Project design includes pedestrian/bicycle safety and traffic calming measures in excess of jurisdiction requirements. Roadways are designed to reduce motor vehicle speeds and encourage pedestrian and bicycle trips by featuring traffic calming measures. Traffic calming measures include: bike lanes, center islands, closures (cul-de-sacs), diverters, education, forced turn lanes, roundabouts, speed humps, etc.

The listed mitigation points assumes 25% to 50% of streets and intersections include traffic calming measures, consistent with the Master Plan.

11. Minimum Parking - Reduction = 3%

Provide minimum amount of parking required. If zoning codes in the San Joaquin Valley area have provisions that allow a project to build less than the typically mandated amount of parking if the development features design elements that reduce the need for automobile use. This measure recognizes the air quality benefit that results when facilities minimize parking needs, and grants mitigation value to project that implement all available parking reductions. Once land uses are determined, the trip reduction factor associated with this measure can be determined by utilizing the Institute of Transportation Engineers (ITE) Parking generation publication. The reduction in trips can be computed as shown below by the ratio of the difference of minimum parking required by code and ITE peak parking demand to ITE peak parking demand for the land uses multiplied by 50%. The maximum achievable trip reduction is 6%. For projects where retail space occupies 50% or more of the total built space, do not use December specific parking generation rates (from ITE). Percent Trip Reduction = $50 * [(min\ parking\ required\ by\ code - ITE\ peak\ parking\ demand) / (ITE\ peak\ parking\ demand)]$.

12. Parking Reduction Beyond Code Measure - Reduction = 6%

Provide parking reduction less than code. Recommend a Shared Parking strategy. Trip reductions associated with parking reductions beyond code shall be computed in the same manner as described under measure 11, as the same methodology applies. The maximum achievable trip reduction is 12%. This measure can be readily implemented through a Shared Parking strategy, wherein parking is utilized jointly among different land uses, buildings, and facilities in an area that experience peak parking needs at different times of day and day of the week. For example, residential uses and/or restaurant/retail uses, which experience peak parking demand during the evening/night and on the weekends, arrange to share parking facilities with office and/or educational uses, which experience peak demand during business hours and during the week.

13. Pedestrian Pathway through Parking Measure - Reduction = 0.5%

Provide a parking lot design that includes clearly marked and shaded pedestrian pathways between transit facilities and building entrances. Pathway must connect to all transit facilities internal or adjacent to project site. Site plan should demonstrate how the pathways are clearly marked, shaded, and are placed between transit facilities and building entrances.

14a-c. Off Street Parking Measure - Reduction = 0.1% to 1.5%

Parking facilities are not adjacent to street frontage.

For 1.5% reduction, parking facilities shall not be sited adjacent to public roads contiguous with project site. Functioning pedestrian entrances to major site uses are located along street frontage. Parking facilities do not restrict pedestrian, bicycle, or transit access from adjoining uses. Proponent shall provide information demonstrating compliance with measure requirements including, but not limited to, a description of where parking is located relative to the buildings on the site, site plans, maps, or other graphics, which demonstrate the placement of parking facilities behind on-site buildings relative to streets contiguous with the project site. Surrounding uses should be high density or mixed-use, there shall be other adjoining pedestrian and bicycle connections, such as wide sidewalks and bike lanes, and surrounding uses shall also implement measure 15.

For 1.0% reduction, (parking structures only) proponent must show that parking facilities that face street frontage feature ground floor retail along street frontage. Proponent shall provide information demonstrating compliance with measure requirements including, but not limited to, a written description of the parking facility and the amount of retail space on the ground floor, site plans, maps, or other graphics demonstrating the placement of retail/commercial space along all street fronts contiguous with parking structure.

For 0.1% reduction, the project is not among high-density or mixed uses, is not connected to pedestrian or bicycle access ways, or is among uses that do not also hide parking. This point value is reflective of the importance that other pedestrian and density measures be in place in order for this measure to be effective.

17. Orientation toward planned transit, bikeway, or pedestrian corridor - Reduction = 0.25%

Project is oriented towards planned transit, bicycle, or pedestrian corridor. Setback distance is minimized. Planned transit, bicycle or pedestrian corridor must be in the MTP, RT Master Plan, General Plan, or Community Plan. Setback distance between project and existing or planned adjacent uses is minimized or non-existent. Setback distance between different buildings on project site is minimized. Setbacks between project buildings and planned or existing sidewalks are minimized. Buildings are oriented towards existing or planned street frontage. Primary entrances to buildings are located along planned or existing public street frontage. Project provides bicycle access to any planned bicycle corridor(s). Project provides pedestrian access to any planned pedestrian corridor(s).

18. Residential Density Measure - Reduction = 0% to 10%

Residential Density with “no transit”, project provides high-density residential development. Mitigation value is based on project density with no transit. Density is calculated by determining the number of units per acre (du/acre) within the residential portion of the project's net lot area. (Note that shuttle and standard bus service does not change the mitigation points and falls under the “no transit” category.)

The net densities will be project-specific for residential development projects within the Master Plan area. The following list displays the net densities and resultant mitigation points:

3-6 Du/acre, Reduction = 0%

7-10 Du/acre, Reduction = 1%

11-20 Du/acre, Reduction = 3%

21-30 Du/acre, Reduction = 5%

31-40 Du/acre, Reduction = 6%

41-50 Du/acre, Reduction = 8%

50+ Du/acre, Reduction = 10%

20c. Neighborhood Electric Vehicle Access - Reduction = 0.5%

Make physical development consistent with requirements for neighborhood electric vehicles (NEV). Current studies show that for most trips, NEVs do not replace gas, fueled vehicles as the primary vehicle. For the purpose of providing incentives for developers to promote NEV use, assume the percent reductions noted below.

For 0.5% reduction, a neighborhood has internal connections only.

Note that street-safe NEVs generally have a top speed of 25 mph and can be driven legally and safely on local streets with speed limits of 35 mph or below. The internal roadway network in the Master Plan will have low speed limits allowing the use of NEVs.

Mixed-Use Measures

23. Suburban Mixed-Use Measure - Reduction = 3%

Have at least three of the following on site and/or offsite within ¼ mile: Residential Development, Retail Development, Park, Open Space, or Office.

24. Other Mixed-Use Measure - Reduction = 1%

All residential units are within ¼ mile of parks, schools or other civic uses.

Building Component Measures

25. Energy Star Roof Measure - Reduction = 0.5%

Install Energy Star labeled roof materials. Energy star qualified roof products reflect more of the sun's rays, decreasing the amount of heat transferred into a building.

27. Exceed Title 24 Measure - Reduction = 1%

Project Exceeds Title 24 requirements by 20%.

29. Non Roof Surfaces Measure - Reduction = 1%

Provide shade (within 5 years) and/or use light-colored/high-albedo materials (reflectance of at least 0.3) and/or open grid pavement for at least 30% of the site's non-roof impervious surfaces, including parking lots, walkways, plazas, etc.; OR place a minimum of 50% of parking spaces underground or covered by structured parking; OR use an open-grid pavement system (less than 50% impervious) for a minimum of 50% of the parking lot area. Unshaded parking lot areas, driveways, fire lanes, and other paved areas have a minimum albedo of .3 or greater.

This measure is implemented by the Parking/Paved Areas Section of the Master Plan, Section 9.7

The above GHG reduction measures incorporated into the design or policy provisions of the Master Plan would add up to 11.25% mitigation points out of the 29% required under the SJVAPCD guidelines. Note that these GHG reduction measures and mitigation points are not officially adopted, and are subject to change prior to development project submittal. Additional measures are applicable on a Plan level, but not currently quantified. Thus, the Plan currently does not demonstrate that it can achieve GHG reductions of a minimum of 29% over business-as-usual on a Plan level.

31. Electric Lawnmower Measure - Reduction = 1%

Provide a complimentary electric lawnmower to each residential buyer.

The above GHG reduction measures potentially applicable to development projects within the Plan area could amount to up to an additional 23.5% mitigation points out of the 29% required under the SJVAPCD guidelines and mitigation measure Climate-1. (However, note that these GHG reduction measures and mitigation points are not officially adopted, so could change prior to development project submittal.)

Potentially Applicable Greenhouse Gas Reduction Measures That Are Not Yet Quantified

Additional GHG reduction measures for which mitigation points have not yet been quantified may be applicable to the Plan area and/or specific development projects. These measures are listed here with the preface NQ to indicate they could be applicable, but are currently not quantified.

NQ1. Bike Lane Street Design Measure - Reduction = Not Quantified

Incorporate bicycle lanes and routes into street systems, new subdivisions, and large developments.

NQ2. Bike & Pedestrian Design Measure – Reduction = Not Quantified

Include pedestrian and bicycle-only streets and plazas within developments. Create travel routes that ensure that destinations may be reached conveniently by public transportation, bicycling or walking.

NQ3. School Siting Measure – Reduction = Not Quantified

Site schools to increase the potential for students to walk and bike to school.

NQ4. Transit Street Design Measure – Reduction = Not Quantified

The project will provide for on-site road and off-site bus turnouts, passenger benches, and shelters as demand and service routes warrant subject to review and approval by local transportation planning agencies.

NQ5. Site Design Measures – Reduction = Not Quantified

Site design to minimize the need for external trips by including services/facilities for day care, banking/ATM, restaurants, vehicle refueling, and shopping.

NQ8. Open Space Measure – Reduction = Not Quantified

Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.

NQ9. Natural Gas Stove Measure – Reduction = Not Quantified

Project features only natural gas or electric stoves in residences.

NQ16. Energy Efficient Appliances Measure – Reduction = Not Quantified

Install energy efficient heating and cooling systems, appliances and equipment, and control systems.

NQ20. Tree Planting Measure – Reduction = Not Quantified

Protect existing trees and encourage the planting of new trees. Adopt a tree protection and replacement ordinance, e.g., requiring that trees larger than a specified diameter that are removed to accommodate development must be replaced at a set ratio.

NQ24. Land Use Density – Reduction = Not Quantified

The project should provide densities of nine units per acre or greater, where allowed by the General Plan and/or Zone Plan, along bus routes and at bus stops to encourage transit use, where feasible.

California Attorney General Global Warming Measures

The California Attorney General has published a list of Global Warming Mitigation Measures to meet AB32 GHG emission reduction targets.⁴⁷ While SJVAPCD guidelines and measures are intended to be the more local version of an implementation plan, because they have not yet been adopted, the Attorney General's measures have been identified that could be applicable to the Plan development projects within the Plan area, as follows:

*Energy Efficiency***Meet recognized green building and energy efficiency benchmarks.**

Projects in the Plan area will be required to at a minimum, meet Title 24 energy efficiency standards and development projects can surpass this standard for additional mitigation points (see SJVAPCD GHG reduction measure 27).

⁴⁷ California Attorney General's Office, Revised 1/6/2010, *Addressing Climate Change at the Project Level*, available at: http://ag.ca.gov/globalwarming/pdf/GW_mitigation_measures.pdf

Install light colored “cool” roofs and cool pavements.

Projects in the Plan area could include Energy Star qualified roof products (see SJVAPCD GHG reduction measure 25).

Install efficient lighting, (including LEDs) for traffic, street and other outdoor lighting.

Efficient lighting will be considered in new public and private applications.

Reduce unnecessary outdoor lighting.

Can be applied for specific development projects, but is not addressed in the Master Plan.

Use automatic covers, efficient pumps and motors, and solar heating for pools and spas.

Can be applied for specific development projects, but is not addressed in the Master Plan.

Water Conservation and Efficiency

Incorporate water-reducing features into building and landscape design.

Buildings within the plan will use water-efficient fixtures.

Create water-efficient landscapes.

The Master Plan specifies that yard plantings shall be limited to low water use species, preferably native species. In lieu of plantings, attractive hardscaping shall be used to the extent feasible.

Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls and use water-efficient irrigation methods.

Public and non-residential landscaped areas will utilize water-efficient irrigation systems.

Make effective use of graywater. (Graywater is untreated household wastewater from bathtubs, showers, bathroom wash basins, and water from clothes washing machines. Graywater to be used for landscape irrigation.)

The Plan is designed to provide for use of recycled or collected (via shallow wells) water to irrigate public landscaped areas and parks.

Implement low-impact development practices that maintain the existing hydrology of the site to manage storm water and protect the environment.

The Plan design provides for retention and percolation of all stormwater within the Project boundaries.

Devise a comprehensive water conservation strategy appropriate for the project and location.

Water conservation and efficiency measures addressed in this section combine into a water conservation strategy for the Plan area.

Design buildings to be water-efficient. Install water-efficient fixtures and appliances.

Buildings within the Plan will use low-flow plumbing fixtures.

Provide education about water conservation and available programs and incentives.

This measure is implemented by the Master Plan, requiring developers to furnish currently available information on these topics at closing.

Solid Waste Measures

Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).

Recycling of demolition waste is encouraged, and facilities for such recycling are locally available.

Integrate reuse and recycling into residential, industrial, institutional, and commercial projects.

Recycling is integrated through a waste pick-up program that uses a separate container for recyclables, and separate pick-up for green waste. This program is in place for residential projects and is currently being developed for commercial projects.

Provide easy and convenient recycling opportunities for residents, the public, and tenant businesses.

The City provides a waste pick-up program that uses a separate container for recyclables, and separate pick-up for green waste.

Provide education and publicity about reducing waste and available recycling services.

The City has a regular program of dissemination of publicity and educational materials regarding recycling.

Land Use Measures

Ensure consistency with “smart growth” principles – mixed-use, infill, and higher density projects that provide alternatives to individual vehicle travel and promote the efficient delivery of services and goods.

The Master Plan provides a mix of uses within close proximity to promote walking and other alternative forms of transportation, including high-density residential, commercial, business parks, schools and parks.

Incorporate public transit into the project’s design.

The Plan includes opportunities for expansion of transit service transit stops.

Preserve and create open space and parks. Preserve existing trees, and plant replacement trees at a set ratio.

The Plan makes specific provision for parks, open space and required street trees.

Include pedestrian and bicycle facilities within projects and ensure that existing non-motorized routes are maintained and enhanced.

The plan includes pedestrian and bicycle facilities.

Transportation and Motor Vehicles

Incorporate bicycle lanes, routes and facilities into street systems, new subdivisions, and large developments.

The Plan incorporates bicycle lanes and routes throughout.

Require amenities for non-motorized transportation, such as secure and convenient bicycle parking.

The Plan incorporates a non-motorized circulation facility. Bicycle parking will be provided at non-residential facilities.

Ensure that the project enhances, and does not disrupt or create barriers to, non-motorized transportation.

Site design, building placement, and pedestrian pathways through parking lots minimize barriers to pedestrian access and interconnectivity within the Plan area. Barriers such as walls, berms, landscaping, and slopes to pedestrian access between residential and non-residential sites are minimized.

Connect parks and open space through shared pedestrian/bike paths and trails to encourage walking and bicycling. Create bicycle lanes and walking paths directed to the location of schools, parks and other destination points.

The Plan incorporates such connections.

Work with the school districts to improve pedestrian and bike access to schools and to restore or expand school bus service using lower-emitting vehicles.

Schools in the Plan area are sited to provide ready access by walking and bicycle to surrounding neighborhoods.

Provide information on alternative transportation options for consumers, residents, tenants and employees to reduce transportation-related emissions.

San Joaquin Commute Connection provides this service in the area.

Educate consumers, residents, tenants and the public about options for reducing motor vehicle-related greenhouse gas emissions. Include information on trip reduction; trip linking; vehicle performance and efficiency (e.g., keeping tires inflated); and low or zero-emission vehicles.

The City has a regular program of dissemination of publicity and educational materials regarding recycling.

Create a ride sharing program. Promote existing ride sharing programs e.g., by designating a certain percentage of parking spaces for ride sharing vehicles, designating adequate passenger

loading and unloading for ride sharing vehicles, and providing a web site or message board for coordinating rides.

A ride-sharing program is in place through San Joaquin Commute Connection. Non-residential projects will be encouraged to participate in this program.

Create local “light vehicle” networks, such as neighborhood electric vehicle systems.

The internal roadway network in the Master Plan will have low speed limits allowing the use of street-safe Neighborhood Electric Vehicle Systems.

Enforce and follow limits idling time for commercial vehicles, including delivery and construction vehicles.

The City of Newman enforces this existing law.

CONCLUSION

With full implementation of mitigation measure Climate-1, it is feasible that GHG emissions could be reduced by at least 29% over business-as-usual, and the impact would be considered less than significant under the SJVAPCD guidelines. However, implementation of additional GHG reduction measures applicable to subsequent development projects is not certain. These additional project-specific measures are dependent upon the design and practices of subsequent development projects that are not yet designed or fully envisioned. It is uncertain how many of these project-specific measures can be reasonably and feasibly implemented by these subsequent development projects. Additionally, SJVAPCD’s interim GHG reduction measures and mitigation points are not yet officially adopted. Therefore, because specifics of finalized measures and resultant reductions are unknown and the feasibility of additional project-specific measures is uncertain, the impact would be considered to remain *significant and unavoidable*.

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HAZARDOUS MATERIALS

INTRODUCTION

The California Health and Safety Code⁴⁸ defines hazardous materials in broad terms. It states that a hazardous material is any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and the environment if released into the workplace or the environment. Expanding on this definition, a hazardous material is a substance or combination of substances that, because of its quantity, concentration, or physical, chemical, or infectious characteristics, may either: (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating irreversible illness; or (2) pose a substantial present or potential hazard to human health and safety, or the environment when improperly treated, stored, transported, or disposed. Hazardous materials include waste that has been abandoned, discarded, or recycled on the property, and as a result would represent a continuing hazard to the proposed development. Hazardous materials may also include any contaminated soil or imported fill (i.e., soil placed on the site from another location), should these materials be found to contain hazardous substances.

The following section summarizes hazardous materials that could present a risk to human health or the environment resulting from development of the Plan area.

ENVIRONMENTAL SETTING

POSSIBLE CONTAMINANTS

Products as diverse as gasoline, paint solvents, film solvents, household cleaning products, refrigerants and radioactive substances are categorized as hazardous materials. What remains of a hazardous material after use, or processing, is considered a hazardous waste. Hazardous materials and waste come from a number of sources in the City of Newman. For example, residents use hazardous materials such as cleaning supplies and waste, and commercial and industrial business such as motor vehicle repair shops, gasoline stations and dry cleaners produce a variety of solvents and hazardous waste. Hazardous materials and hazardous wastes in Newman are heavily regulated by a range of federal, state and local agencies. One of the primary hazardous materials regulatory agencies is the California EPA, Department of Toxic Substances Control (DTSC), which is authorized by the U.S. EPA to enforce and implement federal hazardous materials laws and regulations, including disposal and transportation of hazardous materials.

For the City of Newman, agricultural activities pose a special risk in regards to hazardous materials, since the community is surrounded by agricultural operations which use a range of hazardous materials, such as pesticides, herbicides and some fertilizers. The County Agricultural Commission

⁴⁸ *California Health and Safety Code*, <http://leginfo.legislature.ca.gov/faces/codes.xhtml>

and the California Environmental Protection Agency, Department of Pesticide Regulation are the major enforcement agencies responsible for controlling and monitoring pesticide use.

As the Plan area's history involves agricultural uses, there may be residual levels of pesticides, fungicides, or fertilizer present in the soils. Most modern pesticides are less of a concern to the DTSC than so called legacy pesticides such as dichlorodiphenyltrichloroethane (DDT), which are no longer legal to use, but may have been used in the past allowing the possibility that some lingering contamination may exist in site soils. The use of most chlorinated hydrocarbons (such as DDT and endosulfan) was associated with row crops and livestock operations, not orchards.

Agricultural land uses also require machinery and equipment that use various hazardous materials such as gasoline, diesel, lubricant oils, batteries, etc. In the Central Valley, it is common for farmers to have motor vehicle fuel tanks (typically several hundred gallons) on their property.

ENVIRONMENTAL DATABASE SEARCH

A database search encompassing all mapped hazardous and potentially hazardous sites in and near the Plan area was conducted on March 3, 2016. The results of the site records review are presented in **Table 11.1**.

TABLE 11.1: HAZARDOUS MATERIALS SITES IN THE PLAN AREA VICINITY

Facility Name	Address	Type of Site	Status	Contaminants of Concern
Within the Plan Area				
Maffei Seed Company	27431 Hwy 33 Newman, CA 95360	LUST Cleanup Site	Completed Case Closed as of May 1999	Gasoline
Within an approximate 0.25-mile radius of the Plan Area				
Atwood Flying Service	207 Villa Manucha Newman, CA 95360	Land Disposal Site	Open	–
Atwood Flying Service	207 Villa Manucha Newman, CA 95360	Cleanup Program Site	Open Inactive As Of June 2009	Nitrate, Other Insecticides / Pesticide / Fumigants / Herbicides
Auto King Mini Mart	750 N Street Newman, CA 95360	LUST Cleanup Site	Completed Case Closed as of May 2013	Gasoline

Source: State Water Resources Control Board GeoTracker Database

REGULATORY SETTING

FEDERAL AND STATE REQUIREMENTS

The chief environmental regulator at the federal level is the U.S. EPA, Region IX for California, Nevada, Arizona, and Hawaii. In California, the DTSC is chiefly responsible for regulating the safe handling, use, and disposal of toxic materials, while the Central Valley RWQCB (a division of the SWRCB) regulates discharges of potentially hazardous materials into waterways and aquifers. Programs intended to protect workers from exposure to hazardous materials and from accidental upset are covered under the Occupational Health and Safety Administration (OSHA) at the federal level, and at the state level through the California Department of Occupational Safety and Health, as well as through the California Department of Health Services. Air quality is regulated through the California Air Resources Board.

Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) is the primary federal law governing the handling and disposal of solid hazardous waste. RCRA is an amendment (made in 1976) to the solid waste disposal act of 1965, but the amendments were so comprehensive that it is generally referred to as a new act. RCRA defines solid and hazardous wastes, authorizes the EPA to set standards for facilities that generate or manage hazardous waste, and establishes a permit program for hazardous waste treatment, storage, and disposal facilities. RCRA was last re-authorized by the Hazardous and Solid Waste Amendments of 1984. The authorization for appropriations under the Act expired September 30, 1988, but funding for the EPA's programs in this area has continued. The Act's other authorities do not expire.⁴⁹

Pre-Disaster Hazard Mitigation Program

The Pre-Disaster Hazard Mitigation Program was authorized by the Robert T. Stafford Disaster Assistance and Emergency Relief Act. Funding for the program is provided through the National Pre-Disaster Mitigation Fund to assist state and local governments in implementing cost-effective hazard mitigation activities that complement a comprehensive mitigation program. CFR Title 44, Part 201, Hazard Mitigation Planning, established criteria for state and local hazard mitigation planning authorized by the Stafford Act. After November 1, 2003, local and tribal governments applying for these funds through the state are required to approve a local hazard mitigation plan prior to the approval of local hazard mitigation project grants. The County of Stanislaus has prepared a Draft Multi-Jurisdictional Hazard Mitigation Plan, approved by the Federal Emergency Management Agency in January, 2006.⁵⁰ This plan serves to fulfill this requirement.

Department of Transportation

Transportation of hazardous materials on the highways is regulated through the federal Department of Transportation (DOT) and Caltrans. This includes a system of placards, labels, and shipping papers

⁴⁹ McCarthy, J and Tiemann, M, Congressional Research Service Report RL30032 – Solid Waste Disposal Act/Resource Conservation and Recovery Act, National Council for Science and the Environment, obtained from <http://www.lisdc.org/crs-report-links>

⁵⁰ Stanislaus County, *Multi-Jurisdictional Hazard Mitigation Plan*, March 2005, accessed through <http://www.stanoes.com/mjhmp.shtm>

required to identify the hazards of shipping each class of hazardous materials. Existing federal and state laws address risks associated with the transport of hazardous materials. These laws include regulations outlined in the Hazardous Materials Transportation Act administered by the DOT. Caltrans is mandated to implement the regulations established by the DOT, CFR Title 49. The California Highway Patrol enforces these regulations. Regulation of hazardous materials and wastes include the manufacture of packaging and transport containers; packing and repacking; labeling; marking or placarding; handling; spill reporting; routing of transports; training of transport personnel; and registration of highly hazardous material transport.

Department of Toxic Substance Control

The DTSC regulates hazardous waste, cleans up existing contamination and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of RCRA and the California Health and Safety Code. DTSC oversees the implementation of the hazardous waste generator and onsite treatment program, one of the six environmental programs at the local level consolidated within the Unified Program. DTSC participates in the triennial review of the Certified Unified Program Agencies to ensure their programs are consistent statewide, conform to standards, and deliver quality environmental protection at the local level.

REGIONAL REQUIREMENTS

Following are the county-level agencies which oversee hazards and hazardous materials in Stanislaus County, and the hazards plans in place in the county.

Stanislaus County Agricultural Commission

The Stanislaus County Agricultural Commission is largely responsible for controlling and monitoring pesticide and other agricultural chemical use. Services the Commission offers include the registration of pest control operators and advisors, the supervision of pesticide dealers, and monitoring of pesticide use by the public through inspections and the issuance of pesticide permits. The Commission is also responsible for local use enforcement of State pesticide laws. Training, coordination, supervision, and technical and legal support for the Commission is provided by the State's Department of Pesticide Regulation.

Stanislaus County Hazardous Material Area Plan

Stanislaus County maintains a Hazardous Material Area Plan, in accordance with the California Health and Safety Code (Division 20, Chapter 6.95, §25500 et seq.) and the California Code of Regulations (CCR; Title 19, Article 3, §2270 et seq.). The Plan is updated every five years. It protects human health and the environment through hazardous materials emergency planning, response and agency coordination, and community right-to-know programs. The Plan outlines the roles and responsibilities of federal, state, county and local agencies in responding to hazardous material releases and incidents.

Stanislaus County Hazards Mitigation Plan

Stanislaus County has an established plan to reduce the impacts of hazards by preventing injury, loss of life and damage to homes, businesses and neighborhoods. The Stanislaus County Hazards Mitigation Plan was written in March 2005 and identifies threats to public safety and strategies to reduce the dangers presented by earthquakes, landslides, dam failures, floods and wildfire.

LOCAL REQUIREMENTS

The City of Newman has the following plans in place to address risks involving hazards and hazardous materials.

City of Newman Emergency Operations Plan

The City of Newman has its own Emergency Operations Plan to establish emergency preparedness procedures and designate evacuation routes to respond to a variety of natural and human-created disasters that could confront the community. In the event of an emergency, Newman employees, including those with the Fire, Police and Public Works Departments, will assess the situation and the damage and respond according to the emergency plan. Coordination with other agencies would occur as necessary.

Newman Fire Code

The City of Newman has adopted the Uniform Fire Code, with some amendments, as part of its Municipal Code. The amendments reflect the specific conditions in Newman in order to ensure that development occurs in a manner that reduces the threat of urban and wildland fire.

CITY OF NEWMAN GENERAL PLAN

The following General Plan goal and policies relate to hazardous materials within the city and the Sphere of Influence.

Goal HS-4: Prevent loss of life, injury, and property damage due to the release of hazardous materials.

Policy HS-4.1: The City will limit the location of hazardous material producers and users to areas in the community that will not negatively impact residential areas.

Policy HS-4.2: Producers and users of hazardous materials in Newman shall conform to all State and federal regulations regarding the production, disposal and transportation of these materials.

Policy HS-4.4: Where deemed necessary, based on the history of land use, the City shall require site assessment for hazardous and toxic soil contamination prior to approving development.

Policy HS-4.5: Land uses and development which emit odors, particulates, light glare, or other environmentally sensitive contaminants shall be prohibited from being located within proximity of schools.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a Project's environmental impacts are based upon CEQA Guidelines:

1. Would the Project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
2. Would the Project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
3. Would the Project produce hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
4. Would the Project be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
5. Would the Project be located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport? Would the Project result in a safety hazard for people residing or working in the Project Area?
6. For a Project within the vicinity of a private airstrip, would the Project result in a safety hazard for people residing or working in the Project Area?
7. Would the Project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?
8. Would the Project expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

ROUTINE TRANSPORT, USE, OR DISPOSAL OF HAZARDOUS MATERIALS

Implementation of the proposed Plan would allow residential growth, which could result in increased use of household hazardous materials. Household use of hazardous materials is generally limited and is not generally considered a major hazard. However, to facilitate the proper disposal of household hazardous waste within the Plan area, future residents would have access to the household hazardous materials drop-off facility provided by Stanislaus County in Modesto and County mobile collection services.

The proposed Plan includes residential, commercial Business Park and office as well as community facilities such as a new school and park areas. Construction and future operation of these uses would require the limited use of some hazardous materials, including, but not limited to the following: gasoline, diesel, motor oil, hydraulic oil, solvents, and paint. Improper management of hazardous materials during construction and operational phases of the development could pose a hazard to human health and the environment. Management of hazardous materials during and after construction shall follow best management practices and applicable laws regarding hazardous materials.

Impacts related to the routine transport, use, or disposal of hazardous materials would be *less than significant*.

As applicable, Stanislaus County requires businesses that use hazardous materials to complete a Hazardous Materials Business Plan for the safe storage and use of chemicals. The Business Plan must include the type and quantity of hazardous materials, a site map showing storage locations of hazardous materials and where they may be used and transported from, risks of using these materials, material safety data sheets for each material, a spill prevention plan, an emergency response plan, employee training consistent with OSHA guidelines, and emergency contact information. Businesses qualify for the program if they store a hazardous material equal to or greater than the minimum reportable quantities. These quantities are 55 gallons for liquids, 500 pounds for solids and 200 cubic feet (at standard temperature and pressure) for compressed gases or hazardous waste in any quantity.

Exemptions include businesses selling only pre-packaged consumer goods; medical professionals who store oxygen, nitrogen, and/or nitrous oxide in quantities not more than 1,000 cubic feet for each material, and who store or use no other hazardous materials; or facilities that store no more than 55 gallons of a specific type of lubricating oil, and for which the total quantity of lubricating oil not exceed 275 gallons for all types of lubricating oil. These exemptions are not necessarily expected to apply to future uses in the Plan area.

The Hazardous Materials Business Plan must be recertified yearly by filling out and submitting the Hazardous Materials Business Plan Certification Statement that is mailed out at the end of every year. A current copy of the Business Plan must be maintained at the site where the hazardous materials are stored.

A completed Business Activities form must be submitted for all new businesses. After the initial submission, the business will be reviewed to see if they qualify to submit a Hazardous Materials Business Plan. Businesses requiring a Hazardous Materials Business Plan must submit the plan prior to the start of operations, and must recertify the Business Plan yearly or within 30 days of any significant change. Plans are submitted to the Stanislaus County Department of Environmental Resources, Hazardous Materials Division, located within the county facility in the Plan area at 3800 Cornucopia Way, Suite C.

All transportation of hazardous materials and hazardous waste to and from the site shall be in accordance with 49 CFR, DOT, Caltrans, and local laws, ordinances and procedures including placards, signs and other identifying information.

Businesses would need to comply with laws and regulations that govern the use and storage of hazardous materials including, but not limited to, Chapter 6.95 of the California Health and Safety Code (inventory and emergency response), Title 8 of the CCR (workplace safety), and Titles 22 and 26 of the CCR (hazardous waste). Delivery of hazardous materials to the site and along public roadways would be required to comply with 49 CFR, as monitored and enforced by the California Highway Patrol and Caltrans. Storage of all flammable materials at the Plan area would be subject to the regulations of Title 19 of the CCR and the Uniform Fire Code. In addition, as discussed in the Hydrology and Water Quality chapter of this EIR, contractors would have to prepare Stormwater Pollution Prevention Plans that ensure that soil and contaminants do not enter surface waters. Assuming compliance with these regulations, impacts related to potential exposure of people to hazardous materials associated with implementation of the proposed Plan would be *less than significant*.

RISK OF UPSET

Impact Haz-1: Accidental Hazardous Materials Release. If hazardous materials are present in the Plan area, they could be released during site preparation, site grading, construction, and operation.

Accidental release of hazardous materials into the environment is considered most likely during the temporary construction phase, when concrete, wood preservatives, paint, asphalt, and other potentially hazardous materials would be stored, used, and moved around on the Plan area. Another potential source of contamination during the construction period is from fueling and maintaining heavy equipment used in grading and construction. Additionally, there exists the threat of a spill or leak following construction due to storage and use of normal residential or household hazardous wastes.

A separate risk would occur from the release of hazardous pesticides potentially present in site soils during site grading activities and site remediation activities if required, which could include transport of contaminated soils.

Mitigation Measure

Haz-1: Hazardous Materials Treatment. To ensure that impacts from hazardous materials are reduced to an acceptable level of risk within the Master Plan area, the following steps shall be taken by the developers of future individual construction projects:

1) Prior to issuance of demolition, grading, or building permits, development projects in the Master Plan area shall submit to the Newman Community Development Department, a Phase I Environmental Site Assessment report signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer and a Phase II report, if warranted by the Phase I report for the individual site. The report(s) shall identify any hazardous materials present on site and make recommendations for timing and type of remedial action, if appropriate.

If warranted by the Phase I analysis, development projects in the Master Plan area shall complete additional surface and subsurface soil sampling to determine if elevated levels of pesticides, fungicides, fertilizers or hydrocarbons are present in the former agricultural soil. These tests shall take place within the areas of the project site currently or previously in agricultural use.

If warranted, a registered geologist or civil engineer shall perform soil sampling, and all soil testing shall be performed by a state certified analytical laboratory, with results reported to the Stanislaus County Department of Environmental Resources. If contamination exceeding residential guidelines such as the Regional Water Quality Control Board Environmental Screening Levels (ESL) for Residential Sites, U.S. EPA Preliminary Remediation Goals (PRG) for Residential sites, or the California Department of Toxic Substances Control Human Health Screening Levels (HHSL) is detected, then a Site Soil Management Plan and Health and Safety Plan shall be prepared and implemented.

If contamination of site soils is detected, then results shall be reported to the DTSC and a Site Soil Management Plan shall be prepared in accordance with recommendations of the environmental consultant and established procedures for safe removal.

Demolition of existing structures in the Master Plan area shall only be approved by the City of Newman following testing for asbestos-containing materials and lead based paints and removal of these substances by a qualified contractor.

Although accidents involving hazardous materials cannot be completely avoided, the threat of accidents is decreased by existing federal, state, county, and local regulations that direct the production, use, emissions, and transportation of hazardous materials. Implementation of mitigation measure **Haz-1** would reduce potential impacts associated with accidental release of hazardous materials into the environment during site preparation and construction activities, and following the completion of such activities to a level of *less than significant*.

HAZARDOUS MATERIALS HANDLING/EMISSIONS NEAR SCHOOLS

The closest existing schools to the Plan area are Orestimba High School, approximately 0.25 mile to the south and Hunt Elementary School, approximately 0.5 mile to the southeast. One elementary school site is proposed in the central portion of the Plan area. Grading and construction activities associated with development within the Plan area may disturb potentially contaminated soil, leading to a potential emission of hazardous material within 0.25 mile of the existing and proposed schools. Project-specific environmental site assessments and soils management plans may be required by the City to identify any hazardous materials present on site and make recommendations for timing and type of remedial action, if appropriate. Additionally, all future projects would be subject to federal, state, county, and local laws, which ensure that hazardous material use, emission, and transportation are controlled to a safe level. Compliance with existing standards and policies would be required of all future development projects under the proposed Plan and impacts would therefore be *less than significant*.

REGISTERED HAZARDOUS MATERIALS SITES

The Plan area is not included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Therefore, there would be *no impact*.

AIRPORT HAZARDS

The public airport nearest to the Plan area is Gustine Airport, approximately 5.5 miles to the southeast. The private airport nearest to the Plan area is Ahlem Farms Airport, approximately 7 miles to the northeast. The Plan area is not within 2 miles of any public or private airport and is not within an airport land use plan. Patterson Flying Corps operates out of 207 Villa Manucha Road to the north of the Plan area and provides only agricultural services. This facility does not appear consistent with siting standards under existing conditions, and the county-wide airport land use plan does not include restrictions related to development near this facility. The impact related to airport hazards would be *less than significant*.

EMERGENCY RESPONSE/EVACUATION PLANS

The proposed Plan would result in new development and population growth, which could affect the implementation of adopted emergency response and evacuation plan during disasters. To ensure safety of new projects during and after construction, the City has policies in place to ensure that identified emergency routes are kept free of all of traffic impediments resulting from new projects both during and after construction. Development projects would be required to be consistent with City policy regarding adequate emergency response times for new developments. In addition, the Fire Department shall review construction plans for roadway modifications, and establish temporary alternative emergency routes necessary for the duration of construction at development projects

within the Plan area. During design review, the City shall establish that roads and driveways meet all ordinance and California Building Code requirements for emergency access. Impacts would be considered *less than significant*.

WILDLAND FIRE

The Plan area is subject to a low risk of wildfires given that the majority of the area is devoted to agriculture. Agriculture decreases the risk of wildland fires because of the tendency to irrigate fields and orchards, and because fuel is not generally allowed to build up. Implementing the Northwest Newman Master Plan would add structures and people to this area; however, the existing wildfire risk is low, and the impact would be considered *less than significant*.

CUMULATIVE HAZARDS AND HAZARDOUS MATERIALS IMPACTS

The Plan area would be one of numerous sites that are anticipated to undergo development / redevelopment in the vicinity. Development of the Plan area would contribute to a cumulative increase in the number of sites handling hazardous materials, both in the vicinity in general as well as near a school, and would result in a cumulative increase in transportation, use, disposal, and potential for exposure to and/or accidental release of hazardous materials—including lead-based paints, asbestos, and agricultural chemicals—during demolition, construction, and operations. The cumulative impact is expected to be slight, however, and impacts would be *less than significant*.

HYDROLOGY AND WATER QUALITY

INTRODUCTION

This section presents an evaluation of potential impacts related to utilities and service systems. In addition to the Northwest Master Plan, the discussion is based on:

- (1) July 2013, Water Supply Assessment Report for Master Plan Area 3, City of Newman, prepared by NV5, Inc.

ENVIRONMENTAL SETTING

CLIMATE

The climate in Newman is characterized by mild winters and hot summers. Average annual precipitation is 10.3 inches, 85% of which occurs from November through April.

Temperatures during the winter usually drop into the 40s at night and occasionally fall below the freezing point. Snow is rare. In the summer, temperatures rise above 100 degrees. The days are typically hottest between 4 p.m. and 5 p.m., and temperatures cool off noticeably in the evenings.

The regional climate is typical of the San Joaquin Valley. The climate has significant influence on water demands in the City. Winters are characterized by relatively low water demands, while the summers have substantially higher demands. Landscape irrigation in the summer is a major contributor to the higher summer demands.

SITE AND REGIONAL HYDROLOGY

There are no sources of surface water within the city limits; however, just outside the Sphere of Influence are three waterways, the Newman Wasteway, the Orestimba Creek, and the San Joaquin River. A CCID canal runs immediately to the west of the Plan area, referred to as the Main Canal.

GROUNDWATER

The Plan area is located within the Turlock Sub basin of the San Joaquin Valley Groundwater Basin, the primary hydrogeologic units of which include both consolidated and unconsolidated sedimentary deposits. The consolidated deposits lie in the eastern portion of the sub basin and generally yield small quantities of water to wells. The continental deposits and older alluvium are the main water-yielding units in the unconsolidated deposits.

Groundwater has historically been the only source of potable water for Newman. Currently, groundwater is provided through four operational wells, which withdraw water from the alluvial deposits underlying the City. Groundwater near the City is also used by CCID as well as private domestic and irrigation wells. CCID uses groundwater to supplement their surface water supplies.

Except for two periods of drought, a slight increase in water level was observed from the early 1960s to the late 1990s. This increase indicates that the aquifers are not in a condition of overdraft. However, increased pumping without accompanying recharge has the potential to increase the depth to water in adjacent areas and increase pumping lifts in existing wells.

STORM DRAINAGE

Storm drain facilities includes a combination of surface stormwater flows within the curb and gutter area of local in-tract local streets into a series of underground pipes ranging in size between 18 and 42 inches in diameter. Ultimately, storm drain lines within the Master Plan area will connect to the existing City of Newman storm drain system to the east located within Sherman Parkway.

Critical components of the Master Plan drainage system are one or more drainage basins located on the north side of Jensen Road. These are generally depicted on **Figure 3.7**, but the sizes and locations of the drainage basins may change based on future, more detailed engineering analyses and hydrology standards.

Stormwater drainage within the Plan area generally flows west to east. Stormwater basins are intended to intercept peak stormwater flows and temporarily detain peak flows to ensure that the local and regional drainage system is not overburdened. Stormwater basins are used for parks and playfields during the non-winter months of the year.

FLOODING

The NRCS ranks sites according to flood frequency on a scale of ranging from none, very rare, rare, occasional, frequent, to very frequent, the Plan area is classified as "None," meaning that flooding is not probable. The chance of flooding is nearly 0 percent in any year and flooding occurs less than once in 500 years.

The 100-year flood is the flood event that has a one percent chance of occurring in any given year. This is considered a severe flood, but one with a reasonable possibility of occurrence for purposes of land use planning, property protection, and human safety. The Federal Emergency Management Agency prepares maps showing areas which are likely to flood during a 100-year flood event.

Portions of the Master Plan area are subject to flooding during a 100-year storm event. These properties are depicted on **Figure 12.1**. Generally flooding in the area occurs as a result of the elevated railroad tracks east of the Master Plan area impounding stormwater runoff from Orestimba Creek to the north, which then backs up into the area west of the tracks.

Stanislaus County, working with the Federal Emergency Management Agency, the ACOE and the City of Newman have recently proposed construction of an earthen "chevron levee" that would be constructed immediately east of the CCID irrigation canal that forms the western boundary of the Master Plan area. The levee would require dedication of an approximately 111-foot-wide corridor on the west side of the Master Plan area that would also extend north and south of the Master Plan area. Construction of the proposed levee would reduce the developable area of the Very Low Density land use area just east of the proposed levee and would also reduce the usable acreage of the proposed sports park. As of the preparation of this Master Plan, the proposed levee's feasibility study and accompanying environmental assessment have been approved by appropriate local, state and federal agencies, however a funding source has not been identified.

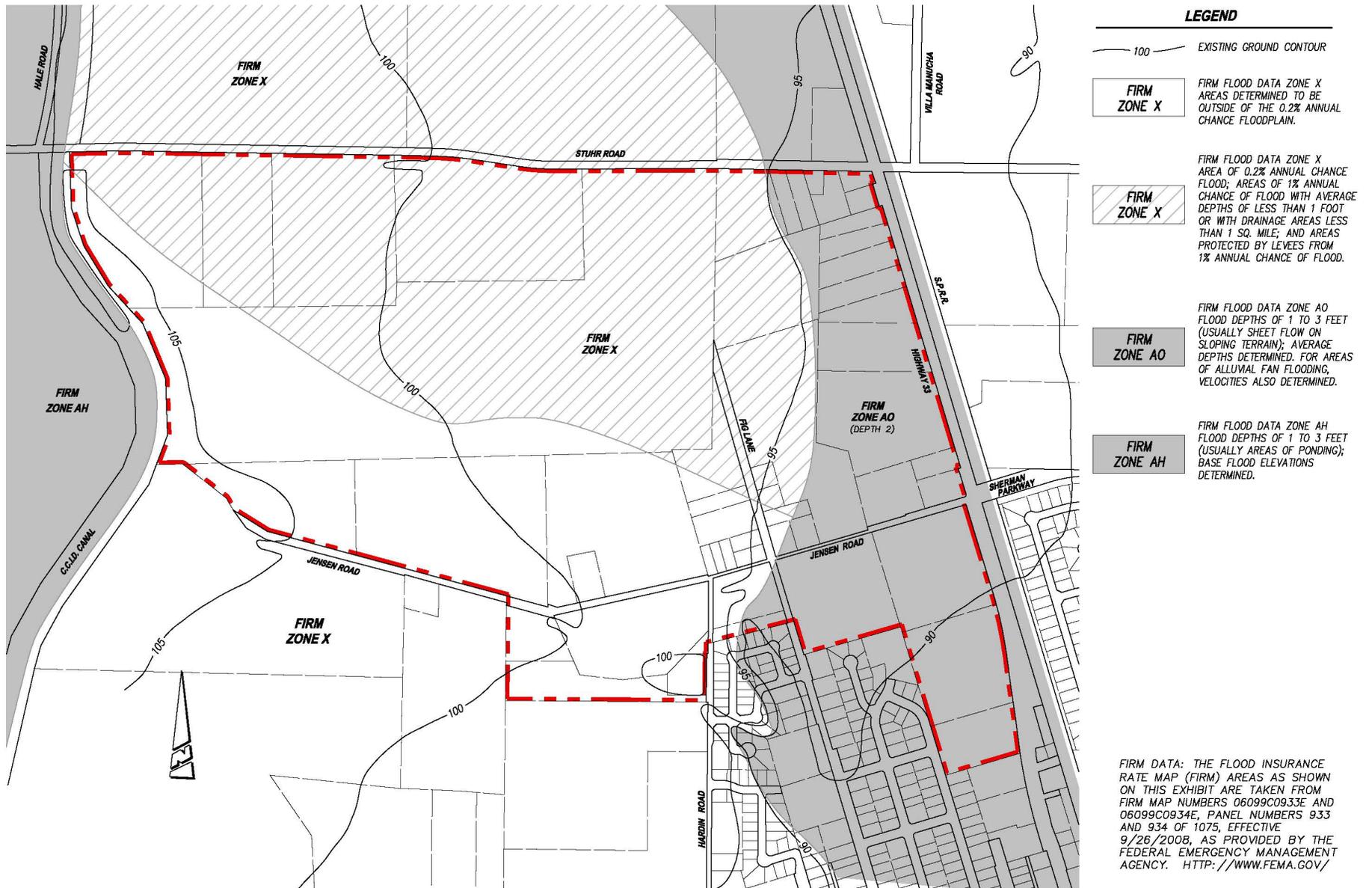


Figure 12.1: Flood Prone Areas

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As noted on **Figure 12.1**, the portions of the Master Plan area subject to a flood hazard area (Zone AO on the Figure) is located along the eastern portion of the Master Plan area and these properties are designated for future Community Commercial and Business Park uses, and not residential development. The City of Newman will review future applications for building and grading permits in flood prone areas and possibly require that future building pads be constructed at an elevation a minimum of one foot above the maximum flood level elevation.

REGULATORY SETTING

Development within the Plan area must be constructed in accordance with several regulatory programs, laws, and regulations that aim to protect surface water resources. In some cases, federal laws are administered and enforced by state and local government. In other cases, state and local regulations in California are stricter than those imposed by federal law. This section summarizes relevant regulatory programs, laws, and regulations with respect to hydrology and water quality and how they relate to the proposed Plan.

FEDERAL LAWS AND REGULATIONS

Clean Water Act

The Clean Water Act was enacted by Congress in 1972 and amended several times since inception. It is the primary federal law regulating water quality in the United States, and forms the basis for several state and local laws throughout the country. Its objective is to reduce or eliminate water pollution in the nation's rivers, streams, lakes, and coastal waters. The Clean Water Act prescribes the basic federal laws for regulating discharges of pollutants, and sets minimum water quality standards for all waters of the United States. Several mechanisms are employed to control domestic, industrial, and agricultural pollution under the Clean Water Act. At the federal level, the Clean Water Act is administered by the U.S. EPA. At the state and regional level, the Clean Water Act is administered and enforced by the SWRCB and the RWQCBs. The State of California has developed a number of water quality laws, rules, and regulations, in part to assist in the implementation of the Clean Water Act and related federally mandated water quality requirements. In many cases, the federal requirements set minimum standards and policies and the laws, rules, and regulations adopted by the state and regional boards exceed them.

CALIFORNIA LAWS AND REGULATIONS

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act establishes the SWRCB and the RWQCB as the principal state agencies having primary responsibility for coordinating and controlling water quality in California. The Porter-Cologne Act establishes the responsibility of the RWQCBs for adopting, implementing, and enforcing water quality control plans (Basin Plans), which set forth the state's water quality standards (i.e., beneficial uses of surface waters and groundwater) and the objectives or criteria necessary to protect those beneficial uses. The NPDES permits must be consistent with the Basin Plans.

NPDES Permit Requirements

On December 8, 1999, the EPA circulated Phase II regulations for non-point sources requiring permits for stormwater. Permits will be required for discharges from Small Municipal Separate Storm

Sewer System (MS4) operators. The municipal sewer system for the City of Newman is considered an MS4.

The City of Newman Municipal Code Chapter 11.12 contains regulations implementing the City's NPDES Phase II Stormwater Permit, establishing minimum stormwater management requirements and controls for project in Newman.

The SWRCB is responsible for implementing the CWA and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for stormwater discharges – individual permits and general permits. The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0004-DWQ) for MS4s covered under the Clean Water Act to efficiently regulate numerous stormwater discharges under a single permit. Permittees must meet the requirements in Provision D of the General Permit, which require development and implementation of a Storm Water Management Plan (SWMP) with the goal of reducing the discharge of pollutants to the maximum extent practicable.

California Well Standards

Given that existing water wells are located on the site, standards for preservation, use, or destruction of a well require conformance with State of California Well Standards Bulletin 74-90. These standards govern the protection of water supply and ground water quality by assuring that proper methods are followed for monitoring wells and water wells, even if an existing well is to be destroyed. Contamination of groundwater poses serious public health and economic problems for many areas of California. Improperly constructed and abandoned water wells, cathodic protection wells, groundwater monitoring wells, and geothermal heat exchange wells can contaminate the usable groundwater. This can occur by allowing contaminated water on the surface to flow down the well casing, or by allowing unusable or low quality groundwater from one groundwater level to flow along the well casing to usable groundwater levels.⁵¹ Work must be conducted by a C-57 Licensed Water Well Contractor and a report must be filed with State of California Department of Water Resources.

Senate Bill 5: Urban Level of Flood Protection Criteria

SB5 relies on the due diligence of cities and counties to incorporate flood risk considerations into floodplain management and planning and requires that the California Department of Water Resources develop criteria for cities to use.

Cities and counties are required to make a finding related to an urban level of flood protection or the national FEMA standard of flood protection based on substantial evidence in the record for one of the following before approving any affected land-use decisions:

- That the facilities of the SPFC or other flood management facilities provide the required level of flood protection to the property, development project, or subdivision (California Government Code Sections 65865.5, 65962, and 66474.5).
- That the imposed conditions by the city or county on a property, development project, or subdivision are sufficient to provide the required level of flood protection (California Government Code Sections 65865.5, 65962, and 66474.5).

⁵¹ California Department of Water Resources, 2003. California Laws for Water Wells, Monitoring Wells, Cathodic Protection Wells, Geothermal Heat Exchange Wells. Division of Planning and Local Assistance.

- That the local flood management agency has made adequate progress as defined in California Government Code Section 65007(a) on the construction of a flood protection system that will result in flood protection equal to or greater than the required level of flood protection. For urban and urbanizing areas protected by SPFC levees, the urban level of flood protection shall be achieved by 2025 (California Government Code Sections 65865.5, 65962, and 66474.5).
- That for urban and urbanizing areas, the property in an undetermined risk area has met the urban level of flood protection based on substantial evidence in the record. An undetermined risk area shall be presumed to be at risk during flooding that has a 1-in-200 chance of occurring in any given year unless deemed otherwise by the SPFC, an official NFIP rate map issued by FEMA, or a finding made by a city or county based on a determination of substantial evidence by a local flood agency (California Government Code Sections 65865.5 and 65302.9(b)).

LOCAL PROGRAMS AND REGULATIONS

Water Quality Control Plan for the San Joaquin River Basin (Basin Plan)

The Central Valley RWQCB is responsible for the development, adoption, and implementation of the Water Quality Control Plan for Region 5, the Central Valley Region. The Basin Plan is the master policy document that contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the Central Valley Region. The Basin Plan identifies beneficial uses of surface waters and groundwater within its region and specifies water quality objectives to maintain the continued beneficial uses of these waters. The proposed Plan is required to adhere to all water quality objectives identified in the Basin Plan.

Beneficial Uses of Surface Waters and Groundwater

The Basin Plan defines beneficial uses for surface waters and groundwater in its corresponding jurisdiction. The beneficial uses of surface waters in the San Joaquin River Basin include municipal and domestic supply, agricultural supply, and industrial service and process supply.⁵²

City of Newman General Plan

The following policies of the City of Newman General Plan address hydrology and water quality considerations, particularly as they affect new development:

Goal NR-2 Protect water quality in the San Joaquin River and the area's groundwater.

Policy NR-2.1 The City shall prohibit the establishment of any new septic systems within areas where City sewer and water service will be available in the foreseeable future, and shall eliminate the use of existing septic systems in the city.

Policy NR-2.2 New development proposals shall be designed and constructed using Best Management Practices (BMPs) to avoid adversely affecting water quality in the San Joaquin River and the area's groundwater.

⁵² California Regional Water Quality Control Board Central Valley Region, *The Water Quality Control Plan (Basin Plan), the Sacramento River Basin and the San Joaquin River Basin*, revised October 2007.

Policy NR-2.3 The City shall regularly monitor water quality in City wells for evidence of toxins and other contaminants.

Policy NR-2.4 The City shall support efforts at the county, regional and State levels to reduce runoff of toxic agricultural chemicals into the area's watercourses and groundwater basin.

Policy NR-2.5 Prior to project approval, the City shall require developers to prepare and implement a soil erosion and sediment control plan that includes features such as mitigation of sediment runoff beyond project boundaries and revegetation and stabilization of disturbed soils.

Policy NR-2.6 The City shall comply with the requirements of the National Pollution Discharge Elimination System (NPDES).

Goal PFS-5 Maintain an adequate level of service in the City's storm drainage system to accommodate runoff from existing and future development and to prevent property damage due to flooding.

Policy PFS-5.1 The City shall expand and develop storm drainage facilities, including storm drains and detention ponds, to accommodate the needs of existing and planned development.

Policy PFS-5.2 Future drainage system discharges shall comply with applicable State and federal pollutant discharge requirements.

Policy PFS-5.4 The City shall encourage the reduction of impervious surface areas in new development projects as a means to reduce storm water runoff.

Goal HS-2 Prevent loss of life, injury, and property damage due to flooding.

Policy HS-2.1 New residential development, including mobile homes, shall be constructed so that the lowest floor is at least 12 inches above the 100-year flood level.

Policy HS-2.2 Non-residential development shall be anchored and flood-proofed to prevent damage from the 100-year flood, alternatively, elevated to at least 12 inches above the 100-year flood level.

Policy HS-2.4 Construction of storm drainage improvements shall be required, as appropriate, to prevent flooding during periods of heavy rainfall.

Policy HS-2.5 Continue to participate in the National Flood Insurance Program. To this end, the City shall ensure that its regulations are in full compliance with standards adopted by the Federal Emergency Management Agency.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's hydrology and water quality impacts are based upon CEQA Guidelines thresholds:

1. Would the Project violate any water quality standards or waste discharge requirements?

2. Would the Project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?
3. Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site.
4. Would the Project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or off-site?
5. Would the Project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?
6. Would the Project otherwise substantially degrade water quality?
7. Would the Project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?
8. Would the Project place within a 100-year flood hazard area structures, which would impede or redirect flood flows?
9. Would the Project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?
10. Would the Project cause inundation by seiche, tsunami, or mudflow?

SOIL EROSION FROM GRADING AND CONSTRUCTION ACTIVITIES

Impact Hydro-1: Soil Erosion. Grading activities for development projects in the Plan area, including grading and the construction of the building pads, streets, commercial areas, residential areas and parks, could result in erosion and associated siltation/sedimentation impacts from runoff.

While a largely level site, development of the proposed Plan would require the excavation for installation of utilities lines and detention basins as well as clearing, fill, and grading of agricultural parcels. Vegetation that currently helps to stabilize site soils would be removed during construction. Site grading will occur over the majority of the Plan area. Site preparation and construction operations associated with the Plan would present a potential threat of soil erosion from soil disturbance by subjecting unprotected bare soil areas to the erosional forces of wind and runoff.

Eroded soil can contain nitrogen, phosphorus, and other nutrients that, when transported downstream, could increase pollution concentrations that reduce water quality and create odors. Eroded sediments could also interfere with the natural flow of storm waters or reduce the storage capacity of detention basins. Such interference could aggravate downstream conditions, cause flooding or accelerated erosion where it would not otherwise occur.

Mitigation Measure**Hydro-1:**

Preparation and Implementation of Project SWPPP. Development within the Plan area shall ensure that local and surface waters are protected from pollution. Future individual developments shall comply with Central Valley Regional Water Quality Control Board guidelines applicable at the time of the issuance of any grading permit and shall adopt acceptable BMPs for control of sediment and stabilization of erosion on the subject site. Acceptable BMPs for the protection of water quality shall also be adopted. Development under the Plan will be dependent upon approval of an Erosion Control Plan and a SWPPP as outlined below.

- 1) An Erosion Control Plan shall be prepared and implemented for development projects in the Plan area. The plan shall be submitted to the City of Newman in conjunction with the Project Grading Plan prior to start of construction, and a final report is required prior to final building acceptance. The Plan shall include locations and specifications of recommended soil stabilization techniques, such as placement of straw wattles, silt fence, berms, and storm drain inlet protection. The Plan shall also depict staging and mobilization areas with access routes to and from the site for heavy equipment. The Plan shall include temporary measures to be implemented during construction, as well as permanent measures. City staff or representatives shall visit the site during grading and construction to ensure compliance with the grading ordinance and plans, as well as note any violations, which shall be corrected immediately. A final inspection shall be completed prior to occupancy. Elements of this Plan may be incorporated into the SWPPP, where applicable.
- 2) Future individual developers shall file a SWPPP with the State Water Resources Control Board prior to the start of construction. The SWPPP shall include specific best management practices to minimize soil erosion.

Pursuant to NPDES requirements, development project applicants in the Plan area shall develop a SWPPP to protect water quality during and after construction. Prior to the issuance of a grading permit, the Applicant shall file with the State Water Resources Control Board a Notice of Intent to comply with the General Permit for Storm Water Discharges Associated with Construction Activities (General Permit) under the NPDES regulations, and comply with the requirements of the permit to minimize pollution to storm water discharge during construction activities. The SWPPP shall include, but is not limited to, the following mitigation measures for the construction period:

All pollutant sources, including sources of sediment that may affect storm water quality associated with construction activity shall be identified.

Implementation of these mitigation measures would reduce construction-related erosion and siltation/sedimentation impacts to a level of *less than significant*.

CHANGES IN PEAK RUNOFF

Development in the Plan area would represent a substantial increase in impervious area and therefore a related increase in the potential for runoff from the site. Storm drainage facilities are proposed (see Chapter 3, including **Figure 3.7**) as a part of the Plan and required in non-residential developments that will ensure runoff does not exceed current conditions or applicable regulations.

As specific development projects are proposed in the Plan area, they will be required under NPDES to demonstrate the availability of adequate stormwater conveyance and retention capacity. The impact of the Plan related to increased runoff is *less than significant*.

INCREASE IN NON-POINT SOURCE POLLUTION

Impact Hydro-2: Increase in Non-Point Source Pollutants. Development of the Plan area would increase the potential to generate and spread non-point source pollutants by increasing impermeable surface area and potentially increasing runoff velocities. The impact of non-point source pollution could be significant.

Non-point source pollutants (NPS) are washed by rainwater from roofs, landscape areas, streets and parking areas into the drainage network. Development of the proposed Plan would contribute to the levels of NPS pollutants and litter downstream. An increase in NPS pollutants could have adverse effects on wildlife, vegetation, and human health. NPS pollutants could also concentrate and infiltrate into groundwater and degrade the quality of potential groundwater drinking sources. Under the NPDES 3.C provisions, development of the proposed Plan area is required to provide permanent treatment for site runoff.

To meet this requirement, the proposed Plan includes a system of retention basins and conveyance pipes. Details regarding the capacity, function, grading, and the stormdrain network, or other complimentary water quality BMPs, would be provided for each development project in the Plan area.

Mitigation Measure

Hydro-2: Implement Water Quality BMPs for All Stormwater Discharge Areas. Development project applicant shall implement storm water quality BMPs as required under the NPDES permit at the time of development. Possible BMPs include, pervious pavement, infiltration swales, or other treatment controls to be included and described in the SWPPP under **Mitigation Measure Hydro-1**. Final designs and calculations for the treatment capacity and efficiency of any water quality BMP implementation shall be submitted to the City Development Services Department prior to permit approval.

Implementation of this mitigation measure would reduce impacts related to increases in non-point source pollution to a level of *less than significant*.

GROUNDWATER DEPLETION, RECHARGE AND QUALITY

Impact Hydro-3: Decrease in Groundwater Recharge or Quality. Removal and grading of surface soils and an increase in impervious surface areas will reduce the rate and location of groundwater recharge for the site and could decrease the quality of the groundwater.

The Plan proposes to draw water via a new well in the Plan area from the Turlock groundwater sub-basin. Per the Water Supply Assessment completed for the Plan (NV5, Inc. 2013), the aquifers are generally not in a condition of overdraft and proposed new groundwater pumping would be within the capacity that the aquifers in the vicinity of the City can produce (7,500 acre-feet per year) without causing depletion of groundwater or poor quality groundwater.

Properly designed wells are engineered to function despite variations in groundwater levels of several feet or more. Therefore, cumulative growth, including the Plan build-out, would not be anticipated to

have a significant impact on groundwater users within the Turlock sub-basin. The Plan would not substantially deplete groundwater supplies such that there would be a net deficit in aquifer volume or a significant lowering of the local groundwater table level.

Much of the Plan area is currently covered in pervious soil surfaces. Grading and redevelopment of the site would result in removal of the more permeable surface soils, and a net increase in impervious surface areas such as rooftops, streets, sidewalks, and paved commercial and public parking areas. Existing pervious surfaces act to naturally filter stormwater as it percolates to groundwater supplies.

Although the Plan includes retention basins, parks, and community and private landscaped areas that would serve to filter storm water runoff and recharge groundwater, site grading and drainage structures would be required to facilitate distributing runoff from precipitation to appropriate infiltration areas. Grading and drainage plans and BMP designs will need to be reviewed as specific development projects are proposed. Provided that grading, stormwater routing, water quality treatment, infiltration, other BMP design and calculations are included in the project design and are approved by City of Newman Public Works Department, groundwater recharge would be mitigated. Until such plans are submitted and approved, this represents a potentially significant impact.

Mitigation Measure

Hydro-3: Implement BMPs for Protection of Groundwater Quality and Supply. New development in the Plan area shall provide storm water management measures to maximize on-site infiltration of runoff from commercial, public facility, residential areas, and open space areas. Possible measures include design and construction of pervious surface areas, and infiltration swales and basins. Storm water infiltration measures at the site shall be approved by the City's Public Works Department and should follow, to the maximum extent practicable, California Stormwater Quality Association guidelines.

Implementation of this mitigation measure would ensure infiltration to groundwater is maximized utilizing methods that will protect the groundwater quality and therefore reduce impacts related to reductions in groundwater recharge and quality to a level of *less than significant*.

ALTERATION OF THE EXISTING DRAINAGE PATTERN OF THE SITE

Most of the natural drainage courses in the area have already been altered by agricultural and roadside ditches. Any proposed future development would include standard plan review, including appropriate drainage. Relocating the ditches or underground pipes would neither increase flooding nor represent a significant source of erosion relative to current conditions. In terms of impacts related to flooding and erosion, relocating the existing agricultural and roadside ditches would represent a *less than significant* impact.

INCREASED RISK FROM FLOODING

Impact Hydro-4: Redirection of Flood Waters. Future grading activities and raising building pads during development in the Plan area would potentially redirect flood waters to other properties. This impact would be *potentially significant*.

As noted above, flooding in the Plan area generally results the elevated railroad tracks east of the Master Plan area impounding stormwater runoff from Orestimba Creek to the north, which then backs up into the area west of the tracks.

Figure 12.1, the portion of the Master Plan area subject to a flood hazard area (Zone AO on **Figure 12.1**) is located along the eastern portion of the Master Plan area and these properties are designated for future Community Commercial and Business Park uses, and not residential development. The City of Newman will review future applications for building and grading permits in flood prone areas and possibly require that future building pads be constructed at an elevation a minimum of one foot above the maximum flood level elevation.

Mitigation Measure

Hydro-4: Project-specific Review of Flood Zone Parcels. New development in the Plan area shall be subject to project-specific review when the parcels proposed for development are located in a mapped flood zone. As specific projects are proposed within this area, design-level hydro calculations shall be submitted and considered as a part of City review of the projects. Through project design and/or project-specific mitigation, such projects shall not increase the potential for off-site flooding and shall address flooding potential onsite.

Implementation of this mitigation measure would ensure impacts related to redirection of flood waters onto other properties would be *less than significant*.

Additionally, Stanislaus County, the Federal Emergency Management Agency, the ACOE, and the City of Newman are proposing a regional “chevron levee” that would be constructed immediately east of the CCID irrigation canal. Once constructed, this levee would prevent regular flooding events in that portion of the Plan area. Construction of the levee, however, would not address the potential for flooding in the western portion of the Plan area resulting from UPRR tracks impoundment of Orestimba Creek runoff and the above mitigation would be required regardless of levee construction.

INCREASED RISK FROM DAM INUNDATION

The risk of dam failure is generally considered remote. Dam failure can occur under three general conditions: earthquake, structural instability, or an intense rainfall in excess of a dam's holding capacity. According to the Newman General Plan, only eastern portions of the city are subject to inundation from dam failure. The Plan area is not within a dam inundation area.⁵³ The impact related to dam inundation would be considered a *less than significant*.

SEICHE, TSUNAMI OR MUDFLOW

Seiches, or waves generated in bodies of water similar to the back-and-forth sloshing of water in a tub, could possibly occur in swimming pools and water tanks; however, they also do not pose a serious threat to the Newman area since there are no major water bodies in or near the city. Newman is not at risk from tsunami due to its inland location. Finally, the Newman area is also not at risk of mudflows due to its relatively flat topography and distance from any hillsides (*no impact*).⁵⁴

CUMULATIVE HYDROLOGY IMPACT ANALYSIS

Assuming concurrent implementation of the Plan with other reasonably foreseeable future projects in the vicinity, adverse cumulative effects on hydrology and water quality could include construction

⁵³ City of Newman, prepared by DC&E, Newman General Plan EIR, October 4, 2006, Figure 4.8-2.

⁵⁴ City of Newman, prepared by DC&E, Newman General Plan EIR, October 4, 2006, Figure 4.8-10.

impacts related to increases in stormwater runoff and pollutant loading and operational impacts related to decreases in water quality, and groundwater depletion and recharge.

Development under the Plan and other future projects in the city would be required to comply with drainage and grading ordinances intended to control runoff and regulate water quality at each development site both during the construction period and following development.

Cumulative development within the region contributes to an overall increase in the area of impervious surfaces such as roadways, driveways, parking lots, and rooftops, resulting in increased runoff and associated urban pollutants. Development of the proposed Plan has the potential to contribute to this cumulative impact by paving a large portion of the Plan site for internal circulation and parking and by constructing several large structures with impervious rooftops. However, implementation of mitigation measure Hydro-3 will minimize decreases in groundwater recharge and ensure groundwater quality.

Therefore, the Plan's contribution to cumulative water quality and hydrology impacts is considered *less than cumulatively considerable*.

LAND USE AND PLANNING

INTRODUCTION

This Chapter evaluates the relationship of the proposed Plan to the applicable land use plans and policies of the City of Newman and other agencies with jurisdiction over the site. Consistent with Appendix G of the CEQA Guidelines, the discussion of land use plans and policies is limited to those policies that have been adopted for the purpose of avoiding, mitigating, or reducing adverse environmental impacts of development.

The “Setting” section of this Chapter begins with a description of the existing land uses on and around the Plan area. It then provides an assessment of the Plan as currently proposed within the context of the relevant Goals, Objectives and Policies of the Newman General Plan and the Newman Zoning Ordinance. Although the Plan area is currently within the jurisdiction of Stanislaus County, annexation of the Plan area to the City of Newman would be required prior to the proposed development of the site, which is why those Goals, Objectives and Policies from the Newman General Plan are the primary focus here.

That the Plan might be inconsistent with particular policies in the General Plan, Zoning Ordinance, or other applicable plan, policies or regulations does not necessarily constitute a significant environmental effect.⁵⁵ Rather, inconsistency with current City policies that embody environmental protection commitments is an indication that Plan approval might lead to adverse effects on the physical environment. Under CEQA, significant environmental effects must involve an adverse change in physical conditions, as opposed to mere inconsistency with existing policies.

The following discussion reviews the Plan and its consistency with land use plans and policies of the City of Newman. These plans and policies include the General Plan, zoning, and other land use controls. Policy language is often subject to varying interpretations. The following conclusions are focused on an analysis of current policies and regulations that might lead to adverse effects on the physical environment. This environmental analysis is not intended to pre-suppose the City’s determinations on consistency, or prevent imposition of "conditions of approval" to correct any determined inconsistencies outside of the CEQA forum.

ENVIRONMENTAL SETTING

Properties within the Plan area currently contain a mix of agricultural uses, primarily row crops, ranchettes and single-family residences, highway-oriented commercial and light industrial land uses (see **Figure 3.4**). Agricultural uses predominate in the central, northern and western portions of the study area. Residential ranchettes and single-family dwellings are generally located in the southern

⁵⁵ See *Baldwin v. City of Los Angeles* (1999) 70 Cal. App 4th 819,8420843

and central portions of the area with a mix of residential, highway serving commercial and light industrial uses fronting along SR 33.

LAND USE DESIGNATIONS AND ZONING

The Newman General Plan requires the approval of Master Plans for several unincorporated areas of the Newman Planning Area, including the proposed Plan area, which is identified as Master Plan Area 3 in the City's General Plan. Completion and approval of a Master Plan is required by the General Plan prior to annexation of these properties into the City. The Master Plan must establish the location and intensity of various land uses, the location of major roadways, identify provision of public facilities, parks and utilities, establish design guidelines, and provide for methods of financing improvements and implementation. A General Plan map amendment and pre-zoning will be required with approval of the Master Plan, which would occur prior to annexation through Stanislaus LAFCO.

SURROUNDING LAND USES

The nearby unincorporated areas are predominately agricultural with a few ranchettes. Nearby properties within the city of Newman are mostly single-family homes with Orestimba High School just south of the Plan area on Hardin Road and some commercial/industrial uses along SR 33.

REGULATORY SETTING

FEDERAL REGULATIONS

There are no federal laws or regulations affecting the land use and planning issues analyzed in this EIR.

STATE REGULATIONS

Cortese-Knox-Hertzberg Local Government Reorganization Act of 2000

The Cortese-Knox-Hertzberg Act governs reorganization of cities and districts. Section 56001 of the Act requires that a LAFCO be formed in every county. Each LAFCO reviews and approves annexation to and reorganization of cities and urban services districts in order to encourage orderly growth and development essential to the social, fiscal and economic well-being of the state. Specific elements established by the Act encourage orderly development patterns by discouraging urban sprawl and preserving open-space and prime agricultural lands.

In order to implement the requirements listed above, LAFCOs have the specific authority to review the following actions:

- Annexations to, or detachment from, cities or districts,
- Formations or dissolution of districts,
- Incorporation or disincorporation of cities,
- Consolidation or reorganization of cities and districts,
- Establishment of subsidiary districts, and
- Development of, and amendments to, spheres of influence.

Stanislaus LAFCO policies are discussed later in this section.

Local Agency Formation Commission

The Stanislaus LAFCO must approve all annexations within the County, including annexation of the Plan area. LAFCO considers the following factors when deciding whether annexation is appropriate:

POLICY 1 - PURPOSE.

The purposes of the Local Agency Formation Commission are provided by the Cortese-Knox-Hertzberg Local government Reorganization Act of 2000, and include the following:

- Discourage urban sprawl;
- Encourage orderly formation and development of local governmental agencies, based on local conditions and circumstances;
- Initiate and make studies of governmental agencies;
- Adopt spheres of influence for each local governmental agency.

The following Goals will guide the Commission in implementing the purposes of LAFCO (*amended April 23, 2003*):

1. To encourage planned, well-ordered, efficient development patterns.
2. To encourage efficient and effective delivery of Governmental Services by the agencies who provide those services.
3. To encourage urban land use patterns which balance urban growth with the conservation of open space and primary agricultural lands.
4. To encourage the cities and the County to plan urban land use patterns, which include a harmony between housing for residents and jobs provided by commercial and industrial development.

POLICY 5 - PREZONING FOR CITY ANNEXATION

Prezoning is mandated by Government Code Section 56375. All prezoning designations shall remain in effect for at least two years unless the City Council makes specified findings relating to changed conditions and circumstances. No city annexation application will be deemed complete unless the prezoning process has been completed. The adopted procedure for prezoning is as follows:

Such prezoning shall also require that the city become the lead agency for environmental review for the proposed change and shall prepare and submit to LAFCO the environmental assessment forms in sufficient time for LAFCO's Executive Officer to comment before a determination of environmental effects is made.

POLICY 20 – LOGICAL BOUNDARIES

The following shall be considered as favorable factors in determining logical boundaries for a proposal:

- A. The Commission encourages the creation of logical boundaries and proposals which do not create islands and would eliminate existing islands, corridors, or other distortion of existing boundaries.
- B. Proposals which are orderly and will either improve or maintain the agency's logical boundary are encouraged.

POLICY 21 – DEVELOPMENT OF VACANT OR UNDERUTILIZED LAND PRIOR TO ANNEXATION OF ADDITIONAL TERRITORY

The following shall be considered with regards to development of vacant or underutilized land prior to annexation of additional territory:

- A. Development of existing vacant non-open space, and non-prime agricultural land within an agency's boundaries is encouraged prior to further annexation and development.
- B. Annexation proposals to cities or districts providing urban services of undeveloped or agricultural parcels shall show: that urban development is imminent for all or a substantial portion of the proposal area; that urban development will be contiguous with existing or proposed development; and that a planned, orderly, and compact urban development pattern will result. Proposals resulting in leapfrog, non-contiguous urban development patterns shall not be approved.

Typically, the issues listed above would be addressed within a General Plan, then, at the time of proposed expansion, LAFCO would review whether the expansion meets the above criteria. The LAFCO would need to adopt findings for each of the criteria and indicate whether the expansion conforms to State and Stanislaus LAFCO policies. All annexation proposals are scrutinized, approved, or disapproved, based on factors listed in the Cortese-Knox Hertzberg Act under Section 56841.

LOCAL REGULATIONS

City of Newman General Plan

Although the Plan area is under the jurisdiction of Stanislaus County at present, if the proposed Plan is approved, the Plan area will be annexed to the City of Newman, and will be subject to the City's General Plan and codes. Therefore, this section considers only the City's General Plan.

The following General Plan goals and policies apply to annexation of the Plan area to the City, and land uses within the Plan area.

Goal LU-1 Preserve Newman's traditional small-town qualities, while increasing its residential and employment base.

Policy LU-1.1 The City shall encourage development of a scale and type that is compatible with the existing scale and character of Newman. Large residential development that has the look and feel of a single project and does not have variation in terms of densities, building typology and design shall be discouraged.

Policy LU-1.2 To preserve and enhance the existing small town character of Newman and ensure orderly growth, new planned development shall be phased over the time frame of this General Plan. No more than two neighborhood Master Plan subareas should be developed concurrently. Before development an additional Master Plan subarea can be initiated, one of the two Master Plan subareas developing concurrently must be substantially completed, or the City must find that concurrent development of an additional Master Plan subarea will allow for continued orderly growth and maintenance of small town character.

Goal LU-2 Provide for orderly, well-planned and balanced growth consistent with the limits imposed by the city's infrastructure and the city's ability to assimilate new growth.

Policy LU-2.1 The City will link the rate of growth in Newman to the provision of adequate services and infrastructure, including schools and District-wide school support facilities, roadways, police, fire and medical services, and water supply and wastewater treatment infrastructure. The City shall, through the Citywide Services Master Plan, ensure that growth occurs in an orderly fashion and in pace with the provision of public facilities and services. New development shall not negatively impact existing infrastructure and level of services.

Policy LU-2.2 The City shall, through the use of Master Plans, ensure that growth and development occur in an orderly and contiguous manner. Development shall be considered contiguous if it meets the following three Criteria;

- ◆ It is adjacent to any phase or tract of incorporated or City-approved development (not including new public or quasi-public land uses).
- ◆ All permanent services and facilities, including roads, sewer, water, storm drainage, and utilities have been extended for the area proposed to be developed, accepted by the City, and are available for use consistent with the Citywide Services Maser Plan.
- ◆ No islands of unincorporated or underdeveloped territory that the City has not approved for development are created.

Policy LU-2.3 The City shall require preparation and approval of Master Plans for all the newly developing areas shown in Figure LU-4 prior to annexation and development of these areas. Master Plans shall comply with the requirements specified in Section C of the Land Use Element above.

Policy LU-2.4 The City shall only approve a Master Plan after making a finding that the students to be generated by the Plan's development can be accommodated in existing or planned School Facilities of the NCLUSD.

Policy LU-2.5 For those Master Plan Areas planned for both residential and business park uses, development of the business park uses and the housing units are to run concurrently. Prior to approval of residential development in these areas, the City will set specific requirements that tie the timing of development of the business park uses to the development of residences.

Policy LU-2.7 To promote the development of cohesive neighborhoods with a distinct character and with adequate park land and other neighborhood serving public facilities, master plan areas planned for residential uses shall be no larger than 350 acres and shall generally be in the 200 to 250 acre range.

Policy LU-2.8 The City shall promote the development of employment uses that improve the City's current jobs-housing imbalance.

Policy LU-2.9 The City shall ensure that its designation of land uses and approval of development projects do not hinder efforts to maintain a positive fiscal balance for the City.

Policy LU-2.10 New development in Newman shall emphasize pedestrian accessibility and facilitate the use of non-automobile forms of transportation.

Policy LU-2.11 The City shall promote development that maintains and reinforces the downtown as the geographic and economic center of Newman.

Policy LU-2.12 Upon annexation to the city, land within the Planning Area shall be developed to urban standards. Pending annexation to the city, such land shall remain in agriculture, open space, or other low-intensity non-urban uses.

Goal LU-4 Provide housing in a range of residential densities and product and tenure type to address the housing needs of all segments of the community, including all income groups expected to reside in Newman.

Policy LU-4.1 The City will maintain an adequate supply of residential land in appropriate land use designations and zoning categories to accommodate Newman's fair share of projected regional growth, and maintain normal vacancy rates.

Policy LU-4.2 New residential projects shall meet or exceed the minimum density specified in the land use designation for that given area and shall not exceed the specified maximum density.

Policy LU-4.3 The City shall seek to maintain an overall mix of 75 percent single-family detached units and 25 percent multi-family units in its housing stock. Multi-family units are defined as being either ownership or rental units and include single family attached, units in a duplex or triplex and units in buildings consisting of four or more attached units.

Policy LU-4.4 The City shall provide for the development of affordable housing to meet the needs of low and moderate-income households.

Policy LU-4.5 The City shall encourage the development and operation of senior assisted living facilities.

Policy LU-4.6 Generally, higher density housing shall be located along collector and arterial streets and within easy walking distance of the downtown and public facilities.

Policy LU-4.7 The City shall promote the preservation of the integrity and stability of existing residential neighborhoods.

Policy LU-4.8 The City shall ensure that new residential development pays its fair share in financing public facilities and services.

Goal LU-5 Provide adequate land for and promote the development of commercial uses providing goods and services to Newman residents, employees and visitors.

Policy LU-5.1 The City shall promote expansion of the range of retail goods and services offered in Newman to capture a larger share of expenditures by Newman's residents and minimize the need for residents to shop outside the city.

Policy LU-5.2 The City shall promote the establishment, maintenance and expansion of businesses in Newman that generate high retail sales as important contributors to the local economy.

Policy LU-5.3 Major new retail development shall be concentrated within the downtown and in areas along California State Highway 33 designated with a Community Commercial land use designation.

Policy LU-5.5 New commercial and office development along California State Highway 33 outside of downtown shall be designed to complement the character, scale and mass of the historic downtown and to avoid the appearance of strip development.

Policy LU-5.6 The City shall encourage the aggregation of smaller lots in the Community Commercial and Business Park designations to provide adequate sites for designated land uses.

Goal LU-6 Provide adequate land for and promote development of employment uses that create high quality jobs and enhance the economy of Newman.

Policy LU-6.1 The City shall commit itself to a long-term program of economic development to promote the maintenance and expansion of employment in Newman including employment in its industrial sector.

Policy LU-6.2 The City shall seek to establish greater diversification in future industrial and business development to provide residents of Newman with a range of an employment opportunities from entry level jobs to highly skilled and professional jobs.

Policy LU-6.3 The City shall promote the development of clean industries that do not create problems or pose health risks associated with water and air pollution or potential leaks or spills.

Policy LU-6.4 The City shall encourage new agriculture-related industry which provides year-round or counter-seasonal employment.

Policy LU-6.5 The City shall make maximum use of the Newman Industrial Park in the southeast part of the city and reserve selected sites with good rail access for industrial development.

Policy LU-6.6 The development of new industrial lands and sites shall be planned and carried out through Master Plans and Master Plans shall comply with the Master Plan requirements of the Land Use Element.

Goal LU-7 Provide adequate land for development of public and quasi-public uses to support existing and new residential, commercial, and industrial land uses.

Policy LU-7.1 The City shall designate adequate, appropriately located land for City and County facilities and School Facilities, particularly through the Master Plan process.

Policy LU-7.3 The City shall promote the clustering of public and quasipublic uses such as schools, parks, child care facilities and community activity centers. Joint-use of public facilities shall be promoted, and agreements for sharing costs and operational responsibilities among public service providers shall be encouraged.

Policy LU-7.4 The City shall designate adequate, appropriately located land for quasi-public uses such as medical facilities, churches, private school facilities and utility uses.

Policy LU-7.6 The City shall encourage the development and operation of childcare facilities.

Goal TC-1 Create and maintain a roadway network that provides for the safe and efficient movement of people and goods throughout the City while maintaining the quality of life for residents.

Policy TC-1.1 The City shall endeavor to maintain a LOS "C" as defined by the 2000 Highway Capacity Manual or subsequent revisions, on all streets and signalized intersections within the

City except on Merced Street downtown, Kern Street between Main Street and Highway 33, and Highway 33, where a level of service lower than “C” is acceptable.

Policy TC-1.2 To identify the potential impacts of new development on traffic service levels, the City shall require the preparation of traffic impact analyses at the sole expense of the developer for developments determined to be large enough to have potentially significant traffic impacts. All development proposals shall be reviewed to assure consistency with the circulation policies and standards contained in the General Plan.

Policy TC-1.3 Streets shall be dedicated, widened, extended and constructed according to City standards as shown in Sections B, C, D and E of this Transportation and Circulation Element. Dedication and improvements of full right-of-ways shall not be required in existing developed areas where the City determines that such improvements are either infeasible or undesirable. The City may allow other deviations if the City Engineer determines that safe and adequate public access and circulation are preserved by such deviations.

Policy TC-1.4 The City shall encourage the development of a grid pattern of collector and local streets in newly developing areas. Development of paved alleys may be allowed in conjunction with grid street patterns. Development of cul-de-sacs that do not provide for through bicycle and pedestrian connections shall be discouraged.

Policy TC-1.5 The City shall provide for the phased development of an arterial grid street system to facilitate travel around the existing developed portion of the City and ensure access to new areas of the city as it expands. The arterial street system shall be constructed with a sufficient number of lanes to satisfy traffic volumes through 2030, although right-of-way may be reserved for traffic volumes beyond 2030. Arterial streets may be widened subsequently (after 2030) to respond to increased traffic volumes.

Policy TC-1.6 Street widths for new or improved arterials, collector and local streets shall be limited to the minimum width necessary to adequately carry the volume of anticipated traffic and meet the City’s Level of Service Policy of C while allowing for adequate bicycle and pedestrian facilities and emergency access.

Policy TC-1.7 Traffic calming measures shall be incorporated into the design and construction of new roadways to discourage speeding of motor vehicles. On arterials and collectors, traffic calming measures could include intersection and mid-block bulb-outs, large canopy street trees, pedestrian refuge islands, and narrower street widths, consistent with Policy TC-1.5 above. On local streets, traffic calming measures could also include street trees, bulb-outs and narrower streets widths or other measures approved by the City.

Policy TC-1.8 The City shall cooperate with the County and Caltrans in monitoring traffic volumes on Highway 33 and at the Stuhr Road interchange at Interstate 5. The City shall support appropriate actions and improvements to maintain adequate levels of service on Highway 33 to the extent feasible and adequate levels of service at the Stuhr Road/I-5 interchange.

Policy TC-1.10 The City shall prohibit development of private streets in new residential projects, except in extraordinary circumstances.

Policy TC-1.11 On-street truck parking shall be prohibited in residential areas and where such parking restricts adequate sight distances or otherwise poses a potentially hazardous situation. The City shall maintain appropriate truck routes. Industrial and commercial development shall be planned so that truck access through residential areas is minimized.

Policy TC-1.12 New development shall ensure that safe and efficient emergency vehicle access is provided.

Policy TC-1.13 The City shall ensure through a combination of traffic impact fees and other funding mechanisms that new development pays its share of the costs of circulation improvements. The total cost of required improvements shall be paid for by new development.

Goal TC-2 Promote and maintain public and private transit systems that are responsive to the needs of Newman residents.

Goal TC-3 Promote ridesharing and telecommuting.

Policy TC-3.3 New residential development in the Master Plan Subareas and areas designated with a Planned Mixed Residential Land Use Designation shall be developed with a structured cabling system to allow for modern telephone and computer connections as a means to promote and facilitate telecommuting.

Goal TC-4 Minimize air quality and noise impacts on surrounding land uses resulting from new roadway projects and improvements to existing roadways.

Policy TC-4.1 To the extent feasible, the City shall provide for separation of residential and other noise sensitive land uses from major roadways to reduce noise and air pollution impacts.

Goal TC-6 Ensure the adequate provision of both on- and off-street parking.

Policy TC-6.2 The City shall require provision of adequate off-street parking in conjunction with all new developments. Shared parking arrangements shall be encouraged. ...

Policy TC-6.3 In the design of new or reconfiguration of existing streets, the City shall balance the need for improved traffic flow with need for on-street parking. On-street parking not only provides public parking opportunities, but also provides a barrier between pedestrians and through vehicular traffic, thereby creating a more pedestrian friendly environment. The Street Master Plan shall develop criteria for developing on-street parking by street type.

Goal TC-7 Provide a bicycle and pedestrian network to encourage bicycling and walking for both transportation and recreation.

Policy TC-7.1 The City shall create and maintain a safe and convenient system of pedestrian and bicycle facilities that encourages walking or bicycling as an alternative to driving. These routes should directly link residential neighborhoods, parks, schools, downtown, neighborhood shopping centers public facilities and employment centers. New development shall be required to develop and/or contribute to the development of these facilities.

Policy TC-7.2 The City shall promote development and street patterns that encourage walking, bicycling and other forms of non-motorist transportation.

Policy TC-7.3 The City shall require installation of sidewalks and/or walking paths along all city streets in newly developing areas.

Policy TC-7.4 New development shall meet the requirements of the ADA to further facilitate the mobility of persons with accessibility needs.

Policy TC-7.5 Within the Master Plan Subareas a system of pedestrian trails shall be developed within linear open space corridors linking residential neighborhoods, downtown, shopping areas, employment centers, and parks, schools and other public facilities.

Policy TC-7.6 Bicycle facilities shall be developed on all new arterials and collectors and on all existing arterials and collectors, where feasible. Bicycle facilities on arterials should consist of either Class I (Bike Path) or Class II (Bike Lane) facilities. On collector streets, Bicycle facilities should consist of Class II bike lanes. Figure TC-2, the Bicycle Network Diagram, shows the ultimate location of Class I and Class II bicycle facilities in Newman.

Policy TC-7.7 The City shall require inclusion of bicycle parking facilities at all new major public facilities and commercial and employment sites.

Policy TC-7.8 Bicycle and pedestrian safety shall be considered when designing and implementing improvements for automobile traffic operations. Improvements for motor vehicle circulation shall not detract from or degrade the pedestrian and bicycle circulations system.

Goal PFS-1 Maintain and provide an adequate and sufficient level of public facilities and services to meet the needs of existing and future development prior to or concurrent with new development.

Policy PFS-1.1 In all newly developing areas, the City shall require detailed public facility planning as part of required Master Plans.

Policy PFS-1.2 The City shall ensure, insofar as possible, that public facilities and services are developed, and operational, as they are needed to serve new development.

Policy PFS-1.4 New development shall not be permitted at the expense of the deterioration, over-utilization or obsolescence of existing public facilities and services.

Policy PFS-1.5 The City shall ensure, through the Citywide Services Master Plan and through review of private development projects, that City service level standards are maintained. The City shall consider denial of development projects that would result in service levels falling below City standards.

Policy PFS-1.6 The City shall, when approving Master Plans or entitlements for large scale development proposals, ensure that the public infrastructure, facilities and services needed to serve proposed developments are consistent with the plans of public or quasi-public service agencies responsible for their provision.

Policy PFS-1.8 The City shall ensure, through a combination of development fees and other funding mechanisms, that new development pays its fair share of the costs of developing new facilities and services.

Policy PFS-1.9 The City shall provide for oversizing, as appropriate, of infrastructure to serve the long-term plans for development.

Policy PFS-1.10 The City shall ensure that adequate rights-of-way are provided for the extension of public utilities to all properties in the city.

Goal PFS-2 Promote efficiency, convenience and complementary relationships in the siting of public facilities.

Policy PFS-2.1 Public facilities, such as utility substations, water storage or treatment facilities, pumping stations, and wastewater treatment facilities, shall be located, designed, and maintained so that noise, light, glare, or odors associated with these facilities will not adversely affect nearby land uses. Building and landscaping materials that make these facilities compatible with neighboring properties shall be used.

Policy PFS-2.2 State, railroad and utility company rights-of-way shall be considered for use as public or open space, trails, parkland, or other compatible recreational uses.

Policy PFS-2.3 The City shall require all new electrical, communication, and telecommunication lines to be installed underground, unless the City deems it infeasible. The City shall actively promote the undergrounding of existing overhead facilities.

Policy PFS-2.4 The City shall promote the selective clustering of public and quasi-public facilities such as schools, parks, libraries, child care facilities, and community activity centers. The City shall promote joint-use of public facilities and agreements for sharing costs and operational responsibilities among public service providers.

Goal PFS-3 Maintain an adequate level of service in the City's water system to meet the needs of existing and future development.

Policy PFS-3.1 The City shall approve new development only if adequate water supply to serve such development is demonstrated.

Policy PFS-3.2 The City will start planning and implementing additional improvements necessary to provide high quality water and an adequate water supply and storage system for the future demand anticipated by the General Plan at least two years in advance of reaching capacity of existing water supplies.

Policy PFS-3.4 The City will develop, maintain, upgrade, and replace city water wells as necessary to ensure adequate and assured water supply for existing and new development and for fire protection.

Policy PFS-3.6 To minimize the need for the development of new water sources and facilities and to minimize wastewater treatment needs, the City shall promote water conservation both in City operations and in private development. The City shall require water-conserving water fixtures in all new development.

Policy PFS-3.7 New development shall provide looped water systems to provide greater water supply and pressure.

Policy PFS-3.8 Recycled water piping systems (“purple pipe”) shall be constructed in all Master Plan Subareas and large development projects to facilitate the distribution and use of recycled water for landscape irrigation. The specific location and size of the recycled water systems shall be determined during the development review process.

Policy PFS-3.9 The City will, as funding becomes available, develop recycled water systems, including pipelines, pump stations and storage facilities, to serve parks and other City owned facilities, schools and new large scale developments, including development in the Master Plan Subareas. The City’s recycled water system will be designed to hook up to the recycled water systems constructed as part of large new developments within the Master Plan Subareas or elsewhere.

Policy PFS-3.10 The City shall require the use of drought-tolerant plant species and drip irrigation systems in the landscaping of new public and private open space areas, common areas and parks. Where the recycled water (“purple pipe”) system is developed and available for hook up, recycled water shall also be used to irrigate these landscaped areas.

Goal PFS-5 Maintain an adequate level of service in the City's storm drainage system to accommodate runoff from existing and future development and to prevent property damage due to flooding.

Policy PFS-5.1 The City shall expand and develop storm drainage facilities, including storm drains and detention ponds, to accommodate the needs of existing and planned development.

Policy PFS-5.2 Future drainage system discharges shall comply with applicable State and federal pollutant discharge requirements.

Policy PFS-5.4 The City shall encourage the reduction of impervious surface areas in new development projects as a means to reduce storm water runoff.

Goal PFS-6 Continue to provide for the drainage of agricultural lands as the city grows.

Policy PFS-6.1 As the Master Plan Subareas and other portions of the city develop, the City shall ensure that urban runoff does not enter the tile drain system, thereby entering directly into the San Joaquin River.

Policy PFS-6.2 Parks and greenbelts will be developed above those portions of the tile drain system that are within developed areas or areas to be developed. No buildings shall be placed on top of the tile drain system.

Goal PFS-7 Provide for the collection and disposal of solid waste while minimizing the generation of waste.

Policy PFS-7.1 The City shall continue to comply with the City’s State-approved Source Reduction and Recycling Element and will update this element as necessary.

Policy PFS-7.2 The City shall provide appropriate waste collection, recycling and disposal services throughout the incorporated area.

Policy PFS-7.4 The City shall meet or exceed all state laws relative to waste management and reductions.

Goal PFS-8 Provide an adequate level of police service as new development occurs and promote the protection of people and property.

Policy PFS-8.4 The City shall encourage the use of physical site planning as an effective means of preventing crime. Criminal activity can be discouraged through physical site planning by locating walkways, open spaces, landscaping, parking lots, parks, play areas and other public spaces in areas that are visible from buildings and streets.

Goal PFS-9 Provide an adequate level of fire service as new development occurs.

Policy PFS-9.3 The City shall continue to maintain its mutual aid agreement with the West Stanislaus County Fire Protection District and work collaboratively with the District to ensure that fire service is maintained and expanded as Newman and the west side grows.

Goal PFS-10 Maintain the highest possible level of educational services, School Facilities and education programs for all Newman residents, regardless of socioeconomic status or place of residence in Newman.

Policy PFS-10.1 The City shall cooperate with the Newman-Crows Landing Unified School District in the development of District Facilities. To this end, the City shall assist the Newman-Crows Landing Unified School District in locating, designating and reserving appropriate sites for new schools.

Policy PFS-10.4 The City shall cooperate with and support the Newman-Crows Landing Unified School District in its efforts to ensure adequate financing of new School Facilities. To this end, the City shall cooperate with and support the School District in the collection of school facility development fees and voluntary financing from new residential and nonresidential development. The City and the School District shall identify, establish and implement additional measures to fully mitigate the impacts of new development on the school system.

Policy PFS-10.5 The City shall work with the Newman-Crows Landing Unified School District to ensure that school facilities are planned and constructed and that funding mechanisms are in place, pursuant to state guidelines and policies, to meet future student population needs.

Policy PFS-10.6 The City shall include the Newman-Crows Landing Unified School District in the City's development review process for new residential developments, providing the District with adequate time to supply relevant data and to review and evaluate residential proposals that could impact School Facilities and services.

Policy PFS-10.7 The planning and design of School Facilities shall be based on the policies and requirements of the Newman-Crows Landing Unified School District and the requirements and/or guidelines of the State of California (e.g. classroom size and site size). Schools shall be designed in conformance with the School District's lifecycle policies to insure that the quality of schools are maintained over time. In the planning and design of schools, it shall be ensured that schools have adequate site access/egress, sufficient utilities, and sufficient off-site public infrastructure provided to the property lines of designated school sites.

Policy PFS-10.8 The City shall coordinate with the Newman-Crows Landing Unified School District on the siting and design of school sites in order to facilitate private and public transportation vehicle access and pedestrian and bicycle routes which promote safe and hazard-free access and egress to schools.

Policy PFS-10.9 New development shall be responsible for the construction of School Facilities and/or provision of public and/or private financing, as necessary, to fund the costs of developing School Facilities, to the extent permitted by State law.

Policy PFS-10.10 School Facilities and District-wide support facilities shall be sited, financed, and developed in accordance with the District's Facilities Master Plan then in effect.

Goal PFS-11 Provide sufficient library service to meet the informational, cultural and educational needs of the population of Newman.

Policy PFS-11.1 The City will work with the Stanislaus County Library system to ensure that adequate funding is available to continue the level of services currently provided by the Newman Library.

Policy PFS-11.2 The City will assist the Stanislaus County Library with identifying new locations for additional library facilities if new facilities are need as the City grows.

Goal RCR-1 Establish and maintain a system of public parks, open spaces and recreation facilities suited to the needs of Newman residents.

Policy RCR-1.1 The City shall strive to maintain a standard of five acres of developed park land per 1,000 residents.

Policy RCR-1.2 New development shall contribute to meeting the City standard of five acres per 1,000 residents by dedicating land, dedicating improvements or paying in-lieu fees, or a combination of these, to the maximum extent authorized by law.

Policy RCR-1.3 The City shall acquire land or options on land for future parks and recreation facilities at the earliest practical time, to take advantage of lower land costs. Such properties may be land banked for future park development.

Policy RCR-1.4 Master plans for each Master Plan Subarea shall include the distribution and location of parks, recreational facilities and trails.

Policy RCR-1.5 Neighborhood parks shall be integrated into, and become focal points of, all neighborhoods.

Policy RCR-1.6 All parks shall be designed to be accessible to all ages and disabled persons.

Policy RCR-1.7 The City shall develop a community park in Newman. This park should include athletic complexes such as baseball and soccer fields and areas with natural qualities for outdoor recreation such as walking, running and picnicking. The park should also include playground equipment, concession facilities, water and sanitary facilities and group-use facilities or a community center.

Policy RCR-1.9 Parks shall be located, oriented and designed to facilitate security, policing and maintenance.

Policy RCR-1.10 New high-activity-level parks and parks intended for night use shall be designed to buffer existing and planned surrounding residential uses from excessive noise, light and other potential nuisances.

Policy RCR-1.11 The City shall design and maintain park and recreation facilities to minimize water, energy and chemical (e.g. pesticides and fertilizer) use, preserve wildlife habitat where appropriate, and incorporate native plants and drought resistant turf.

Policy RCR-1.14 The City shall pursue development of a citywide network of pedestrian and bicycle ways that is coordinated with the future Park and Recreation Master Plan. Within the Master Plan Subareas, pedestrian and bicycle pathways shall be provided within linear open space corridors. The pedestrian and bicycle ways system should be designed to directly link residential neighborhoods, parks, schools, downtown, neighborhood shopping centers and employment centers.

Goal RCR-2 Provide private recreational facilities and opportunities for Newman's residents.

Policy RCR-2.1 The City shall promote the provision of private open space and recreation facilities in large-scale residential developments. Private facilities shall be in addition to the public park land dedication requirements to maintain the City standard of five acres per 1,000 residents.

Policy RCR-2.2 The drainage detention facilities developed in conjunction with major new developments shall be designed to incorporate recreational opportunities.

Policy RCR-2.3 The City shall promote the development of commercial recreational facilities that meet community needs and complement public parks, facilities and programs.

Goal NR-1 Promote the continued productivity of agricultural land surrounding Newman and prevent the premature conversion of agricultural land to urban uses.

Policy NR-1.1 The City shall support the continuation of agricultural uses on lands designated for urban uses until urban development is imminent.

Policy NR-1.4 New development at the edge of the City, including all Master Plan Subareas, shall minimize potential incompatibilities between agricultural and urban uses through the location of land uses, the layout of roads, parks and public facilities, density controls and transfers, and design guidelines for buildings and public and private improvements. Consideration shall be given to the use of roads, canals, and other features to separate uses, as well as incorporating buffers of adequate width and use, and restricting the intensity of residential uses adjacent to agricultural land.

Policy NR-1.5 The City shall minimize the creation of urban land use patterns such as peninsulas that would adversely affect the viability of adjacent agricultural lands.

Policy NR-1.7 The City shall maintain and continue to enforce the City's right-to-farm ordinance that protects owners of agricultural land at the urban fringe from unwarranted nuisance suits brought by surrounding landowners and provides for resolution of urban-agricultural disputes.

Goal NR-2 Protect water quality in the San Joaquin River and the area's groundwater.

Policy NR-2.1 The City shall prohibit the establishment of any new septic systems within areas where City sewer and water service will be available in the foreseeable future, and shall eliminate the use of existing septic systems in the city.

Policy NR-2.2 New development proposals shall be designed and constructed using Best Management Practices (BMPs) to avoid adversely affecting water quality in the San Joaquin River and the area's groundwater.

Policy NR-2.3 The City shall regularly monitor water quality in City wells for evidence of toxins and other contaminants.

Policy NR-2.4 The City shall support efforts at the county, regional and State levels to reduce runoff of toxic agricultural chemicals into the area's watercourses and groundwater basin.

Policy NR-2.5 Prior to project approval, the City shall require developers to prepare and implement a soil erosion and sediment control plan that includes features such as mitigation of sediment runoff beyond project boundaries and revegetation and stabilization of disturbed soils.

Policy NR-2.6 The City shall comply with the requirements of the National Pollution Discharge Elimination System (NPDES).

Goal NR-3 Protect sensitive native vegetation and wildlife communities and habitat.

Policy NR-3.1 New development shall meet all federal, State and regional regulations for habitat and species protection.

Policy NR-3.2 The City shall require site-specific surveys to identify significant wildlife habitat and vegetation resources for development projects located in or near sensitive habitat areas.

Policy NR-3.3 The City shall support and participate in local and regional attempts to restore and maintain viable habitat for endangered plant and animal species, and wetlands. To this end, the City shall work with surrounding jurisdictions and State and federal agencies in developing a regional Habitat Management Plan. Such a plan shall provide data for the Newman area on special-status species, including the Swainson's Hawk, and shall provide guidelines and standards for mitigation of impacts on special-status species.

Policy NR-3.4 The City shall require mitigation of potential impacts on special-status plant and animal species based on a policy of no-net-loss of habitat value. Mitigation measures shall incorporate, as the City deems appropriate, the guidelines and recommendations of the US Fish and Wildlife Service and the California Department of Fish and Game. Implementation of this policy may include a requirement that project proponents enter into an agreement with the City satisfactory to the City Attorney to ensure that the proposed projects will be subject to a City fee ordinance to be adopted consistent with the regional Habitat Management Plan.

Policy NR-3.5 The City should use native plants for landscaping of public projects including parks and community facilities.

Policy NR-3.6 The City shall encourage new development to use native vegetation, in landscape plans, where appropriate, instead of invasive, non-native plant species.

Policy NR-3.7 Parks, drainage detention areas and other open space uses shall incorporate, where feasible, areas of native vegetation and wildlife habitat.

Policy NR-3.8 New development shall ensure that suitable habitat for Valley Elderberry Longhorn Beetle is adequately avoided, any elderberry shrubs are identified on project sites, and adequate mitigation is provided where development is proposed within 100 feet of elderberry shrubs.

Policy NR-3.9 New development shall ensure that active nests for special status bird species shall be avoided during construction through pre-construction surveys, and if active nests are encountered, through restrictions on construction activities until any young have fledged. This shall include both ground nesting burrowing owl and tree nesting special-status birds.

Policy NR-3.10 New developments shall preserve, protect and incorporate established native trees into the site design, particularly mature native oak trees.

Policy NR-3.11 New development shall ensure that any jurisdictional waters are avoided to the maximum extent practicable, any required authorization is obtained from jurisdictional agencies, and adequate mitigation is provided for unavoidable impacts.

Goal NR-4 Promote and improve air quality in Newman and the region.

Policy NR-4.2 The City shall utilize the CEQA process to identify and avoid or mitigate potentially significant air quality impacts of new development.

Policy NR-4.3 The City should coordinate development project reviews with the San Joaquin Valley Air Pollution District in order to minimize future increases in vehicle travel and to assist in implementing appropriate indirect source regulations adopted by the Air Pollution Control District.

Policy NR-4.4 The City shall notify and coordinate with the Air Pollution Control District when new developments are proposed.

Policy NR-4.5 Design new intersections to function in a manner that reduces air pollutant emissions from stop and start and idling traffic conditions. Possible techniques include the use of roundabouts and/or using integrated signalization to improve traffic flow.

Policy NR-4.6 The City shall, to the extent practicable, separate sensitive land uses from significant sources of air pollutants, toxic air contaminants or odor emissions.

Policy NR-4.7 The City shall promote expansion of employment opportunities within Newman to reduce commuting to areas outside Newman.

Policy NR-4.9 The City shall support the efforts of the San Joaquin Valley Air Pollution Control District (SJVAPCD) and other regional air quality management planning, programs, educational and enforcement measures.

Policy NR-4.10 Project-level environmental review, using the SJVAPCD analysis methods and significance thresholds, shall be required to identify impacts to air quality and consider alternatives that reduce emissions of air pollutants.

Policy NR-4.11 The City shall ensure that new development projects comply with SJVAPCD Rule 9510 – Indirect Source Review.

Policy NR-4.12 EPA-certified wood stoves, fireplaces, pellet stoves or natural gas fireplaces shall be required to replace conventional fireplaces during renovations. Consistent with SJVAPCD regulations, new residential development will only be allowed to install gas burning fireplaces.

Policy NR-4.13 The City shall incorporate site design features into new developments and capital improvement projects that encourage bicycle, pedestrian and transit modes of transportation.

Policy NR-4.14 The City shall require features in new development that would reduce the reliance on gas-powered landscape equipment.

Goal NR-5 Minimize the consumption of energy, water and non-renewable resources.

Policy NR-5.1 New residential development shall meet or exceed the guidelines of the California Energy Star New Homes Program and be designed and constructed to exceed the State standards

for energy efficiency (Title 24) by at least 15 percent. New commercial development and new civic buildings shall also exceed the state standards for energy efficiency (Title 24) by at least 15 percent.

Policy NR-5.2 The City will encourage the use of water conservation technology to reduce water consumption by irrigation, domestic and industrial uses.

Policy NR-5.3 The City shall encourage the use of passive solar design, renewable energy systems, including solar energy, and green building techniques to improve energy conservation and comfort in residential, commercial and civic buildings.

Policy NR-5.4 Developers of new homes shall provide buyers with an option to have their new home include solar paneling.

Goal HS-1 Prevent loss of life, injury, and property damage due to geologic and seismic hazards.

Policy HS-1.1 The City shall require preparation of soils reports for all new development. Based on the findings of these reports, the City shall require that any identified soil problems are mitigated in the design and construction of new structures.

Policy HS-1.2 The City shall require preparation of geotechnical reports for all new major development projects, and for projects proposed in areas where geological hazards may exist. Based on the findings of these reports, the City shall require that new structures are designed and built to withstand the effects of seismically induced ground failure.

Policy HS-1.3 Underground utilities, particularly water and natural gas mains, shall be designed to withstand seismic forces in accordance with state requirements.

Policy HS-1.4 All new construction and renovations in Newman shall conform to the California Uniform Building Code, which includes specific seismic design and construction requirements.

Goal HS-2 Prevent loss of life, injury, and property damage due to flooding.

Policy HS-2.1 New residential development, including mobile homes, shall be constructed so that the lowest floor is at least 12 inches above the 100-year flood level.

Policy HS-2.2 Non-residential development shall be anchored and flood-proofed to prevent damage from the 100-year flood, alternatively, elevated to at least 12 inches above the 100-year flood level.

Policy HS-2.4 Construction of storm drainage improvements shall be required, as appropriate, to prevent flooding during periods of heavy rainfall.

Policy HS-2.5 Continue to participate in the National Flood Insurance Program. To this end, the City shall ensure that its regulations are in full compliance with standards adopted by the Federal Emergency Management Agency.

Goal HS-3 Prevent the loss of life, injury and property damage due to fires.

Policy HS-3.1 The City shall require that new development provide all necessary water service, fire hydrants, and roads consistent with the City of Newman's standards.

Policy HS-3.4 All new development shall be constructed according to the fire safety and structural stability standards contained in the Fire and Building Codes as adopted and amended by the City of Newman. New development shall also be constructed in conformance with all related regulations.

Policy HS-3.6 The City shall ensure that new development provides for adequate fire equipment access and, where appropriate, includes the use of fire-resistant landscaping and building materials.

Goal HS-4 Prevent the loss of life, injury and property damage due to the release of hazardous materials.

Policy HS-4.1 The City will limit the location of hazardous material producers and users to areas in the community that will not negatively impact residential areas.

Policy HS-4.4 Where deemed necessary, based on the history of land use, the City shall require site assessment for hazardous and toxic soil contamination prior to approving development.

Goal HS-5 Maintain emergency response procedures that are adequate in the event of natural or man-made disasters.

Policy HS-5.4 The City shall ensure that the design of new neighborhoods will provide for adequate response times and maintain or improve response times in existing neighborhoods.

Goal HS-6 Provide compatible noise environments for new development and control sources of excessive noise.

Policy HS-6.1 As a guide for future planning and development decisions the City shall use the Noise and Land Use Compatibility Standards shown in Figure HS-5, the noise level performance standards indicated in Table HS-4 and the projected future noise contours for the buildout of the General Plan.

Policy HS-6.2 Noise increases at noise sensitive land uses resulting from new projects shall be minimized. Noise-sensitive uses include residential, hotel/motel, schools, libraries, museums, meeting halls, care facilities, churches and hospitals. Exterior noise levels would be measured in residential backyards, patios, outdoor instructional areas of schools, outdoor courtyards and play areas at care facilities or at the property line of undeveloped lands designated as noise-sensitive uses.

Policy HS-6.3 New non-transportation noise sources, including, but not limited to, industrial and commercial noise sources, mechanical equipment, amplified sound, and on-site truck circulation and deliveries, shall be mitigated so as not to exceed the noise level standards as indicated in Table HS-4.

Policy HS-6.4 Noise can be mitigated through site design, building design and materials, landscaping, hours of operation and other techniques. This policy does not apply to noise sources associated with operations on lands zoned for agricultural uses.

Policy HS-6.5 The City shall minimize potential transportation-related noise through the use of setbacks, street circulation design, coordination of routing and other traffic control measures, the construction of noise barriers, and consider use of “quiet” pavements when resurfacing roadways.

Policy HS-6.6 Where proposed new development of noise-sensitive uses is anticipated to exceed the noise level standards, an acoustical analysis shall be required so that noise mitigation may be included in the project design.

Policy HS-6.7 New development of noise sensitive land uses shall not be permitted in noise impacted areas unless effective mitigation measures are incorporated into the project design to reduce exterior and interior noise levels to acceptable levels, as specified in Policy HS-6.1 and as follows:

- ◆ For new single-family residential development, maintain a standard of 60 Ldn (day/night average noise level) for exterior noise in private use areas.
- ◆ For new multi-family residential development maintain a standard of 65 Ldn in community outdoor recreation areas. Noise standards are not applied to private decks and balconies.
- ◆ Interior noise levels shall not exceed 45 Ldn in all new residential units (single- and multi-family). Development sites exposed to noise levels exceeding 60 Ldn shall be analyzed following protocols in Appendix Chapter 12, Section 1208, A, Sound Transmission Control, 2001 California Building Code.
- ◆ Where new residential units (single- and multi-family) would be exposed to intermittent noise levels generated during train operations, maximum railroad noise levels inside homes shall not exceed 50 dBA in bedrooms or 55 dBA in other occupied spaces. These single event limits are only applicable where there are normally 4 or more train operations per day.

Policy HS-6.8 Where noise mitigation measures are required to achieve the noise level standards, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered after practical design-related noise mitigation measures have been integrated into the project.

Policy HS-6.9 During all phases of construction activity, reasonable noise reduction measures shall be utilized to minimize the exposure of neighboring properties to excessive noise levels. Noise reduction measures could include, but would not be limited to:

- ◆ Construction activities shall normally be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday, and 8 a.m. to 7 p.m. Saturday.
- ◆ Use available noise suppression devices and properly maintain and muffle loud construction equipment.
- ◆ Avoid staging of construction equipment and unnecessary idling of equipment within 200 feet of noise sensitive land uses.

Goal CD-1 Maintain, as the community grows, a coherent and distinctive physical form and structure that reflects Newman's small-town qualities and agricultural heritage.

Policy CD-1.2 The City shall use the circulation system and the pedestrian and bicycle pathway system as important structural elements to link and define neighborhoods and districts in Newman.

Policy CD-1.3 The City shall seek to maintain a distinct agricultural definition to the urban edge of the city as a means of emphasizing Newman's small-town qualities and agricultural heritage.

Goal CD-4 Create new residential neighborhoods that preserve and enhance the existing community character and fabric of Newman, create a sense of place, provide a high quality living environment and emphasize pedestrian access.

Policy CD-4.1 The City shall encourage the creation of new well-defined residential neighborhoods.

Policy CD-4.2 New residential development shall reflect the human scale and pedestrian oriented character of existing neighborhoods in Newman.

Policy CD-4.3 New neighborhoods should generally be no more than ½ mile wide in any direction and should not be bisected by a physical barrier, such as an arterial street.

Policy CD-4.4 Each neighborhood should have at least one clear focal point, such as a park, school, or other open space and community facility. Focal points shall have ample public spaces, and shall be within ¼ mile from any point in a neighborhood.

Policy CD-4.5 New neighborhoods shall be designed to maximize direct pedestrian, bicycle and vehicular connections both within the neighborhood and to surrounding neighborhoods. Using Newman's existing grid system as model, new neighborhoods shall be designed on a traditional or curvilinear grid. In most instances block lengths should be short, typically no more than 400 feet, to create a fine-grained street pattern that allows for multiple routes through a neighborhood and encourages walking. Cul-de-sacs may be used within the grid if through bicycle, pedestrian and emergency vehicular access is provided at the end of the cul-de-sac.

Policy CD-4.6 Gated neighborhoods or neighborhoods that have bicycle, pedestrian and vehicular circulation systems that are not integrated with the circulation systems of surrounding neighborhoods and areas shall not be allowed.

Policy CD-4.7 New residential development shall be designed with street networks and housing types that allow buildings to face or side onto local and collector streets and two lane arterials. Sound walls along public rights of way shall be discouraged and shall only be used along arterials when no other design solution exists for reducing the impact of roadway noise on residential areas. Where sound walls are used, they shall be set back from the street, include design features that enhance visual interest and shall be landscaped to mitigate their impact on the community character and pedestrian environment.

Policy CD-4.8 Garage doors shall not dominate the street facing facades of residential buildings. Garages for new single-family house, duplexes and townhouses should be subordinate in visual importance to the living area and front entryways. A number of different design strategies can achieve consistency with this policy including locating garages towards the back of properties, constructing alleys and placing the garages along the alleys, limiting the width of garages to two car spaces, building garages as separate structures from the house, requiring garages to be set back from the front façade of the house, and orientating garage doors at 90 degrees to the street.

Policy CD-4.9 A variety of architectural styles shall be provided with in each neighborhood. Within each neighborhood block, the exterior design of residential buildings shall be varied to provide visual interest to the streetscape.

Policy CD-4.10 Buildings shall include appropriate, consistent details and design treatments on all sides of the building and not just on the sides that face a street.

Policy CD-4.11 Buildings located at corners shall be designed to address the corner, with porches and main entryways oriented towards the corner or located on the portion of the structure adjacent to the corner.

Policy CD-4.12 Elementary and middle schools shall be encouraged to be located and designed to be compatible with residential neighborhoods as a means to foster the concept of neighborhood schools, minimize bussing of students, and encourage neighborhood identity.

Goal CD-5 Highway 33 will be an attractive corridor through Newman and new development along Highway 33 will be of high quality design and be pedestrian oriented.

Policy CD-5.1 New commercial development along Highway 33 and outside of the downtown shall be consistent with the “Highway District” design guidelines contained within the “Highway 33 Specific Plan” and shall be designed with a rural/agrarian design theme to complement the rural character of the region and Newman’s small town character. Franchise architecture that consists of a standard corporate design and is not consistent with the rural/agrarian design theme is discouraged.

Policy CD-5.2 New commercial development along Highway 33 and within or adjacent to downtown will be consistent with the “Downtown District” design guidelines contained within the Highway 33 Plan. New development on the west side of Highway 33, between Kern and Merced Street, shall also be consistent with the design guidelines contained within the “Downtown Revitalization Plans.”

Policy CD-5.3 New commercial development shall include building frontages with human scale design elements, varied and articulated facades, and entries oriented to public sidewalks or pedestrian pathways. Building facades located along pedestrian pathways and public rights of way shall also have window opening and not consist of solid blank walls.

Policy CD-5.4 New business park and industrial development along Highway 33 shall, through site and building design and landscaping, contribute towards creating an attractive Highway 33 corridor.

Policy CD-5.5 Commercial and business park development shall hold to corners to create a pedestrian friendly environment and to create a strong building presence at intersections. Surface parking lots located at intersections are discouraged.

Policy CD-5.6 The presence of surface parking lots along Highway 33 and roadways shall be minimized by moving buildings adjacent and parallel to property lines abutting public rights of way. Ample landscaping and low walls should be provided to create a buffer between off-street parking and circulation areas and the adjacent public sidewalk.

Goal CD-6 Business park, commercial and industrial development will be compatible in design with surrounding uses.

Policy CD-6.1 New industrial and office park development shall be designed and sited to be compatible with surrounding uses and not negatively detract from the character of the surrounding area.

Policy CD-6.2 New industrial and business park development adjacent to residentially designated areas shall include buffers to minimize impacts on adjacent residential development. Buffers can

be provided by trees and landscaping, building setbacks and placement, and by appropriately placed walls on the back and sides of industrial and business park projects.

Policy CD-6.3 New commercial and business park development should provide for convenient and direct pedestrian access to surrounding uses and neighborhoods.

Goal CD-7 Maintain and enhance the quality of Newman's landscape, streetscape and gateways.

Policy CD-7.1 The City shall protect and enhance the tree canopy created by mature trees and heritage trees in existing developed areas.

Policy CD-7.2 The existing canopy of street trees and landscaping along major streets shall be extended as the City grows to enhance the visual character of special and important streets within Newman.

Policy CD-7.3 New development shall provide evenly spaced street trees planted between the curb and the adjacent sidewalk in park strips. Street trees shall be of species that will provide a canopy of shade over the public right of way when the trees reach maturity and the species of trees planted on a given street shall be consistent. In developed areas with an existing and prevailing species of street trees, new street trees shall be consistent with the prevailing species. Park strips shall be landscaped except in the downtown or in other high traffic pedestrian areas where the streets can be paved. Integral curbs, gutters and sidewalks are discouraged.

Policy CD-7.4 Business park development shall provide landscaping on portions of the property along public rights of ways that are not occupied by structures or used for pedestrian circulation or vehicle parking and circulation. A minimum 20-foot landscaped setback area shall also be provided between parking and circulation areas and sidewalks within the public right of ways.

Policy CD-7.5 New development along Highway 33, outside of the downtown, shall provide a minimum 20-foot landscaped setback between parking areas and the Highway 33 public right of way. New development within downtown and along Highway 33 shall be built adjacent and directly parallel to the sidewalk, consistent with the both the Downtown Revitalization Plan and the Highway 33 Specific Plan.

Policy CD-7.6 Parking lots intended for automobiles and small trucks shall include shade trees spaced at a minimum of one tree per five parking spaces and trees shall be evenly distributed throughout parking areas.

Policy CD-7.7 New four lane arterials shall include a median that includes both landscaping and trees.

Policy CD-7.8 Large scale development, including development within the Master Plan Subareas, shall include a master landscape and lighting district for the maintenance of street trees, landscape strips and street lights. These districts shall cover the entire development or, if the development is within a Subarea, the entire Master Plan Subarea, except in cases where a Subarea includes residential and business park uses. In these cases, a separate district could be created for the residential and business park portion of the Master Plan Subarea.

Policy CD-7.9 New large scale development, including all development within the Master Plan sub areas, shall locate and construct utilities underground.

Policy CD-7.10 New development along Highway 33, Stuhr Road, and Hills Ferry Road that is adjacent to the major entryway and gateway locations shown in Figure CD- 2 shall contribute towards the establishment of these distinctive gateway entrances and landmarks. The gateways and landmarks shall be developed using a unified concept that includes a combination of features such as landscaping, monuments and signing.

Newman Zoning Ordinance

As the Plan area is not currently located within the boundaries of the City of Newman, it has not yet been zoned by the City. The annexation process will include pre-zoning consistent with the proposed Plan. The proposed zoning and regulations presented in the Plan will be consistent with City of Newman zoning ordinance and General Plan.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines thresholds:

1. Would the Project physically divide an established community?
2. Would the Project conflict with any applicable land use plan, policy or regulation of an agency with jurisdiction over the Project adopted for the purpose of avoiding or mitigating an environmental effect?
3. Would the Project conflict with any applicable habitat conservation plan or natural community conservation plan?

DIVIDING ESTABLISHED COMMUNITY

Development of the Plan would involve construction of a mixed-use residential, retail, office, and industrial development at the outer edge of the City of Newman's Planning Area, adjacent to existing development within the city limits that has already occurred to the east and south of the site. The proposed Plan would result in additional public roadways and access through a site that is currently largely private property and would have *no impact* related to the division of an established community.

CONFLICT WITH PLANS AND POLICIES

Consistency with the Newman General Plan

In summary, the Plan as proposed is consistent with the policies of the Newman General Plan. City approval of a General Plan Amendment and of the Master Plan as proposed would ensure continued consistency.

The final determination of consistency with the City's General Plan can only be made by the City Council. The policies that would guide development of the proposed Master Plan are found in the Land Use Element, which addresses land use patterns and types of development. The relevant goals and policies are reproduced in the Regulatory Setting, above. The relationship of the proposed Master Plan to those General Plan goals and policies is discussed below.

Goals LU-1 and CD-1 and their supporting policies are intended retain the small-town character of Newman while increasing residents and employment. The proposed Master Plan is intended to be consistent with the character of Newman while proposing additional residential and employment opportunities. Additionally, consistent with LU-1.2, this is the only Master Plan that would be under development in Newman.

Goal LU-2 and its supporting policies are intended to ensure that the City grows in an orderly pattern that requires provision of appropriate infrastructure and services, including preparation and approval of Master Plans. Adoption of the proposed Master Plan and required financing plan addresses Goal LU-2.

As directed by Goal LU-4 and its supporting policies, the Master Plan provides for a range of residential densities and housing types.

Goals LU-5 and LU-6 and their supporting policies promote development of commercial uses and employment uses in appropriate locations and development. The Master Plan includes 94.8 acres of commercial, office, and business park uses and along Highway 33, which is a targeted location for such uses. When specific developments are proposed, consistency of specific policies will be considered.

Goals LU-7, PFS-1 to -3, PSF-5, PSF-7 to -11 and their supporting policies are intended to ensure adequate space for public, quasi-public uses and infrastructure are provided. The Master Plan has considered provision of such uses and includes roadways and utility lines, a school site, municipal well and associated infrastructure, and parks and open-space including storm-water treatment areas.

Goals TC-1, TC-2, TC-4, TC-6, and TC-7 relate to transportation and traffic. As discussed further in Chapter 18, the Master Plan is consistent with goals and policies related to transportation and traffic.

Goals PSF-6 and NR-1 and their supporting policies are intended to ensure continuing agricultural uses remain viable as development occurs. The Master Plan encourages systematic and orderly development within the Plan area and implementation of the right-to-farm ordinance ensuring continuing agriculture uses will be protected.

Goals RCR-1 and RCR-2 and their supporting policies require provision of parks, open spaces, and recreational facilities and opportunities. The Master Plan includes 38.5 acres of parks, which is a ratio of 8.37 acres of park per 1,000 residents – above the target of 5 acres per 1,000 residents. The Plan additionally proposed 8 acres of open space and identifies a 10-acre expansion of the park outside of the Plan area.

Goal NR-2 and its supporting policies are intended to ensure surface and ground water quality are protected. As discussed further in Chapter 12, the Master Plan is consistent with applicable rules and regulations that are protective of water quality.

Goal NR-3 and its supporting policies are intended to ensure biological resources are protected. As discussed further in Chapter 7, the Master Plan, with implementation of applicable mitigation measures, is consistent with applicable preservation policies that are protective of special-status species and habitat.

Goals NR-4 and NR-5 and their supporting policies are intended to protect air quality in Newman and the region and promote energy and water-efficient development. As discussed further in Chapters 6 and 10, the Master Plan is consistent with applicable regulations and policies or the air district and

under the building code that are protective of regional and local air quality and require energy and water efficiency.

Goal HS-1 and its supporting policies are intended to protect against dangers related to geologic and seismic hazards. As discussed further in Chapter 9, the Master Plan is consistent with applicable rules and regulations that protect against geologic and seismic dangers through requirement of site-specific geotechnical studies for specific development proposals.

Goal HS-2 and its supporting policies are intended to protect against dangers related to flooding. As discussed further in Chapter 12, the Master Plan is consistent with applicable rules and regulations that protect against flooding. The Master Plan includes space for construction of the chevron levee along the irrigation canal that forms the western boundary of the Plan area. Completion of the levee would protect the Plan area, and larger region, from flooding that has historically occurred along this canal. Development proposals in flood-prone areas prior to completion of the levee will be assessed to ensure they are not subject to regular flooding risk.

Goals HS-3 and HS-5 and their supporting policies are intended to protect against dangers related to fires and other emergencies. As discussed further in Chapter 17, the Master Plan is consistent with applicable rules and regulations related to appropriate construction and provision of fire and emergency services.

Goal HS-4 and its supporting policies are intended to protect against dangers related to hazardous materials. As discussed further in Chapter 11, the Master Plan is consistent with applicable rules and regulations that are protective against hazardous materials and would require environmental site assessments prior to specific development projects to assure the lack of hazardous materials or appropriate handling.

Goal HS-6 and its supporting policies are intended to ensure appropriate noise levels. As discussed further in Chapter 15, the Master Plan and identified mitigation measures require site-specific noise reduction in areas that have noise levels considered conditionally acceptable.

Goal CD-5 and its supporting policies are intended to ensure SR 33 is developed as an attractive high-quality corridor. The Master Plan is consistent with these goals and policies and specific development projects proposed along this corridor will be compared against applicable policies.

Goal CD-6 and its supporting policies are intended to ensure business park and commercial uses are compatible with surrounding uses. The Master Plan is consistent with these goals and policies and specific development projects will be compared against applicable policies.

Goal CD-7 and its supporting policies are intended to enhance Newman's landscape, streetscape and gateways. The Master Plan includes landscape and streetscape objectives consistent with these goals and policies and specific development projects proposed in the Plan area will be compared against applicable policies.

For the reasons discussed above, the proposed Master Plan is consistent with the applicable policies of the General Plan. Therefore, this impact is considered *less than significant*.

Consistency with Local Area Formation Commission Policies

LAFCO actions will be necessary in order to implement the proposed Master Plan, because it requires annexation to the City of Newman. In order to approve the annexation request, Stanislaus LAFCO would need to make a determination that the proposed Master Plan is consistent with its policies.

Therefore, a brief discussion of the relationship of the proposed Master Plan to relevant LAFCO objectives and policies is provided below. However, the final determination of consistency can be made only by LAFCO.

Policy 1—Purpose

The purpose of LAFCO includes discouraging urban sprawl, encouraging planned, well-ordered, efficient development patterns, as well as efficient and effective delivery of public services and a balance urban growth with the conservation of open space and primary agricultural lands. LAFCO also encourages cities to plan urban land use patterns that harmonize housing for residents and jobs provided by commercial and industrial development.

The proposed Master Plan provides for both housing and jobs and contributes to a balance between these (see Chapter 16).

The Plan area is contiguous with the City, and public utilities and services are available in proximity to the Plan area. A Master Plan has been prepared for the Plan area, indicating the amount and type of development, as well as the appropriate provision of services and utilities. For these reasons, the proposed Master Plan represents planned, well-ordered and efficient growth that can be efficiently and effectively served by public services and utilities.

The Plan area is within the Urban Growth Area and City's Sphere of Influence. The Plan area includes active agricultural land, and most of the acreage is designated Prime Farmland considered suitable for most crops (see Chapter 5, Agriculture). Therefore, the Master Plan would result in the loss of farmland. However, most of the land surrounding the City of Newman is also active Prime Farmland with similar soils, so development of other areas adjacent to the City would result in a similar loss of farmland. The proposed Master Plan would convert land adjacent to the City and identified in the General Plan for ultimate development and would be consistent with the City's plans for expansion.

For the above reasons, the proposed Master Plan is consistent with the overall intent of Policy 1.

Policy 5 - Rezoning for City Annexation.

Policy 5 requires rezoning of the site to be annexed. The City proposing the annexation is to be lead agency for environmental review of the annexation project. The Plan area will be rezoned, and the City of Newman is acting as lead agency for EIR certification, Master Plan approval and annexation. All appropriate documentation will be provided to LAFCO as part of the annexation request, once the City's environmental and approval processes have been completed. Therefore, the proposed Master Plan is consistent with Policy 5.

Policy 20 – Logical Boundaries

Policy 20 encourages the creation of logical boundaries that are orderly and will either improve or maintain the agency's logical boundary. The Plan area is within the City's Urban Growth Boundary and Sphere of Influence and adjacent to existing City development. Annexation would be a logical extension of the City limits. No islands, peninsulas, or corridors would be created by annexation of the Plan area. For these, reasons, the proposed Master Plan is consistent with Policy 20.

Policy 21 – Development of Vacant or Underutilized Land Prior To Annexation of Additional Territory

Policy 21 encourages development of vacant or underutilized land prior to annexation of additional territory. Further, the City is expected to demonstrate that urban development is imminent for all or a substantial portion of the proposal area; that urban development will be contiguous with existing or proposed development; and that a planned, orderly, and compact urban development pattern will result.

As discussed above, the proposed Master Plan provides for planned, orderly development. The Master Plan is consistent with the City's Urban Growth Boundary, Sphere of Influence, and General Plan. Most of the land within the City's existing limits is developed with urban uses. Almost all of the non-urbanized land is designated Prime Farmland, and/or used for agriculture or rural residential uses. Therefore, any development other than the limited opportunities for infill within the City's current boundaries would result in the loss of farmland. The proposed Master Plan is consistent with the overall intent of Policy 21.

For the reasons discussed above, the proposed Master Plan is consistent with the overall intent of applicable LAFCO policies. Therefore, this impact is considered *less than significant*.

Consistency with Zoning

As indicated above, the Plan area has not yet been zoned by the City of Newman, since it is not in the City's jurisdiction. With annexation to the City of Newman, the entire Plan area will be pre-zoned consistent with the Master Plan to establish land use types, intensities, and development standards. Pre-zoning consistent with the proposed Plan will be assured the Plan is consistent with the zoning and that the zoning is consistent with the proposed Newman General Plan designations.

INCOMPATIBLE LAND USES

The proposed Master Plan could result in land uses that are incompatible with adjacent agricultural land and operations surrounding the Plan area, which could impede agricultural operations. Compliance with the right-to-farm ordinance would ensure development does not result in conflicts.

This topic was also discussed in Chapter 5 of this document. To summarize, the proposed Master Plan would expand the City into areas that are active agricultural lands. It can be presumed that residents of the Plan area would continue to be in proximity to active agricultural operations as the Plan area develops.

As the Plan area develops, temporary adjacencies between developed areas and those continuing agricultural uses will be created. These temporary adjacencies would be corrected through build-out of the Plan area. Following build-out of the Plan area, residences would be separated from adjacent agricultural uses by roadways or waterways.

Plan area residents could be subject to noise, odors and other aspects of farming that they may find annoying or disruptive as the Plan develops and following build-out. Conversely, complaints and other actions from residents who do not accept the conditions that result from living in proximity to agricultural operations can impede agricultural activity. Although roadways would provide buffers between residences and agricultural activities following build-out, this would not be expected to fully avoid these impacts.

The City of Newman adopted a right-to-farm ordinance as section 5.23.140 of the Municipal Code, which declares farming operations not to be a nuisance and recognizes persons' and/or entities' right to farm. It is City policy to not act on complaints to normal and customary agricultural operations.

Compliance with the City's right-to-farm ordinance (section 5.23.140 of the Municipal Code) ensures the impact related to the adverse effect of new development on agricultural uses would be *less than significant*.

CONFLICT WITH CONSERVATION PLANS

There are no habitat conservation plans or natural community conservation plans currently in force within the City of Newman or Stanislaus County. The proposed Plan would have *no impact* related to possible conflicts with conservation plans adopted by either jurisdiction.

CUMULATIVE LAND USE AND PLANNING IMPACTS

Under cumulative conditions, planned, pending, approved, and reasonably foreseeable projects in the region have the potential to create land use conflicts with existing uses. As discussed above, development of the Plan could result in conflicts between urban development and existing agricultural uses, as could other area development on the boundary of agricultural areas. However, these impacts are generally site-specific and are mitigated through buffering included in the Plan and implementation of right-to-farm ordinance. Therefore, the project would have a *less than cumulatively considerable* contribution to land use impacts.

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MINERAL RESOURCES

INTRODUCTION

This chapter describes the mineral resources in the area as classified by the State Division of Mines and Geology and evaluates the potential for implementation of the Northwest Newman Master Plan to impact mineral resources.

ENVIRONMENTAL SETTING

MINERAL RESOURCES

Construction aggregate is the only type of important mineral deposits that has the potential to occur in the Plan area. Construction aggregate is a resource of great importance to the economy of any urbanizing area. Extensive areas of Stanislaus County, containing several billions of tons of sediments that have weathered from rocks in the Sierra Nevada and Coast Ranges, are classified by the State Geologist as Mineral Resource Zone (MRZ) 3 for aggregate. Some of the best aggregate deposits in the county are found around Newman. These extensive deposits are Coast Range alluvial fan debris and the San Joaquin River channel and its associated flood-basin deposits.⁵⁶

The Plan area is within the Orestimba Creek alluvial fan. Concrete-grade aggregate has been mined from Orestimba Creek since the early 1900s. Orestimba Creek is currently being mined near Newman, at Stuhr Road Pit West and Stuhr Road Pit East outside the Plan area. In addition to these active aggregate pits, there are additional areas along Orestimba Creek near the pits designated as Aggregate Resource Areas (i.e., areas that have been classified as MRZ-2 for concrete-grade aggregate and are available for mining).

All of the Plan area has been classified as MRZ-3 for aggregate deposits. Although there are no designated Aggregate Resources Areas or areas classified as MRZ-2, commercially mineable, high-quality, hard, durable and resistant concrete-grade aggregate is likely in the Plan area.

⁵⁶ All information on mineral resources and designated Mineral Resource Zones and Aggregate Resource Areas is from Division of Mines and Geology, 1993, *Mineral Land Classification of Stanislaus County, California 1993, Special Report 173*.

REGULATORY SETTING

SURFACE MINING AND RECLAMATION ACT

The California Surface Mining and Reclamation Act of 1975 (SMARA) was enacted in response to land use conflicts between urban growth and essential mineral production. SMARA requires the State Geologist to classify land according to the presence or absence of significant mineral deposits. Local governments must consider this information before land with important mineral deposits is committed to land uses incompatible with mining. If necessary, policies on mineral resources management must be incorporated into the general plan.⁵⁷

SMARA provides for the evaluation of an area's mineral resources using a system of MRZ classifications that reflect the known or inferred presence and significance of a given mineral resource.

- MRZ-1. Areas where adequate information indicates that no significant mineral deposits are present, or where it is judged that little likelihood exists for their presence.
- MRZ-2. Areas where adequate information indicates that significant mineral deposits are present, or where it is judged that a high likelihood for their presence exists.
- MRZ-3. Areas containing mineral deposits, the significance of which cannot be evaluated from available data.
- MRZ-4. Areas where available information is inadequate for assignment into any other MRZ.

There are no designated important mineral resources recovery areas in the Plan area.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project's environmental impacts are based on CEQA Guidelines thresholds:

4. Would the Project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?
5. Would the Project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

LOSS OF AVAILABILITY OF A MINERAL RESOURCE

Development in accordance with the proposed Northwest Newman Master Plan would not directly affect any designated Aggregate Resource Areas or areas classified as MRZ-2 for concrete-grade aggregate, since such areas are well outside where development would occur. These significant

⁵⁷ Information about the Surface Mining and Reclamation Act and about mineral resources and Mineral Resource Zone classifications in and around Newman is from Division of Mines and Geology, 1993, *Mineral Land Classification of Stanislaus County, California 1993, Special Report 173*.

aggregate resources would continue to be available for mining. The Plan area is classified by the State Geologist as MRZ-3, areas containing mineral deposits, the significance of which cannot be evaluated from available data. Development of the Plan area would preclude potential future mining by rendering this resource inaccessible or by establishing urban uses incompatible with mining operations. Known significant economic mineral deposits exist nearby, however, and are currently being mined along Orestimba Creek and the San Joaquin River. These areas would not be affected by development in the Plan area. Nearby areas contain mineral resources categorized the same as those in the Plan area and would remain available for potential mining, should these deposits be determined to be significant in the future. Therefore, implementation of the proposed Northwest Newman Master Plan would not result in the loss of availability of a known mineral resource or resource recovery site and impacts would be *less than significant*.

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INTRODUCTION

This chapter evaluates the potential significance of noise impacts that could result from the Northwest Newman Master Plan, including the noise and land use compatibility of proposed uses, as well as the potential for Plan-generated temporary, periodic, or permanent noise level increases at nearby sensitive receptors. The “Setting” section of this chapter presents the fundamentals of environmental noise, describes regulatory criteria that would be applicable in the Plan’s assessment, and summarizes the results of a noise monitoring survey made at the Plan area. The “Impact and Mitigation Measures” section describes the significance criteria used to evaluate Plan impacts, provides a discussion of each Plan impact, and presents mitigation measures necessary to provide a compatible Plan in relation to surrounding noise sources and sensitive land uses.

ENVIRONMENTAL SETTING

BACKGROUND INFORMATION ON NOISE

Noise is defined as unwanted sound. Noise is usually objectionable because it is disturbing or annoying. The objectionable nature of sound could be caused by its *pitch* or its *loudness*. Pitch is the height or depth of a tone or sound, depending on the relative rapidity (i.e., frequency) of the vibrations by which it is produced. Higher pitched signals sound louder to humans than sounds with a lower pitch. Loudness is the amplitude of sound waves combined with the reception characteristics of the ear. Amplitude may be compared with the height of an ocean wave.

In addition to the concepts of pitch and loudness, there are several noise measurement scales which are used to describe noise in a particular location. A *decibel* (dB) is a unit of measurement which indicates the relative amplitude of a sound. The zero on the decibel scale is based on the lowest sound level that the healthy, unimpaired human ear can detect. Sound levels in decibels are calculated on a logarithmic basis. An increase of 10 decibels represents a ten-fold increase in acoustic energy, while 20 decibels is 100 times more intense, 30 decibels is 1,000 times more intense, etc. There is a relationship between the subjective noisiness or loudness of a sound and its decibel level. Each 10-decibel increase in sound level is perceived as approximately a doubling of loudness over a fairly wide range of intensities. Technical terms are defined in **Table 15.1**.

There are several methods of characterizing sound. The most common in California is the *A-weighted sound level* (dBA). All sound levels discussed in this report utilize the A-weighting scale. This scale gives greater weight to the frequencies of sound to which the human ear is most sensitive. Representative outdoor and indoor noise levels in units of dBA are shown in **Table 15.2**. Because sound levels can vary markedly over a short period, a method for describing either the average character of the sound or the statistical behavior of the variations must be utilized. Most commonly, environmental sounds are described in terms of an average level that has the same acoustical energy as the summation of all the time-varying events. This *energy-equivalent sound / noise descriptor* is called L_{eq} . The most common averaging period is hourly, but L_{eq} can describe any series of noise events of arbitrary duration.

TABLE 15.1: DEFINITIONS OF ACOUSTICAL TERMS

<i>Term</i>	<i>Definitions</i>
Decibel, dB	A unit describing the amplitude of sound, equal to 20 times the base 10 logarithm of the ratio of the pressure of the sound measured to the reference pressure. The reference pressure for air is 20 micro Pascals.
Sound Pressure Level	Sound pressure is the sound force per unit area, usually expressed in micro Pascals (micro Newtons per square meter), where 1 Pascal is the pressure resulting from a force of 1 Newton exerted over an area of 1 square meter. The sound pressure level is expressed in decibels as 20 times the logarithm to the base 10 of the ratio between the pressures exerted by the sound to a reference sound pressure (e.g., 20 micro Pascals). Sound pressure level is the quantity that is directly measured by a sound level meter.
Frequency, Hz	The number of complete pressure fluctuations per second above and below atmospheric pressure. Normal human hearing is between 20 Hz and 20,000 Hz. Infrasonic sound are below 20 Hz and Ultrasonic sounds are above 20,000 Hz.
A-Weighted Sound Level, dBA	The sound pressure level in decibels as measured on a sound level meter using the A-weighting filter network. The A-weighting filter de-emphasizes the very low and very high frequency components of the sound in a manner similar to the frequency response of the human ear and correlates well with subjective reactions to noise.
Equivalent Noise Level, L_{eq}	The average A-weighted noise level during the measurement period. The hourly L_{eq} used for this report is denoted as dBA $L_{eq[h]}$.
Community Noise Equivalent Level, CNEL	The average A-weighted noise level during a 24-hour day, obtained after addition of 5 decibels in the evening from 7:00 PM to 10:00 PM and after addition of 10 decibels to sound levels in the night between 10:00 PM and 7:00 AM.
Day/Night Noise Level, L_{dn}	The average A-weighted noise level during a 24-hour day, obtained after addition of 10 decibels to levels measured in the night between 10:00 PM and 7:00 AM.
L_{01} , L_{10} , L_{50} , L_{90}	The A-weighted noise levels that are exceeded 1%, 10%, 50%, and 90% of the time during the measurement period.
Ambient Noise Level	The composite of noise from all sources near and far. The normal or existing level of environmental noise at a given location.
Intrusive	That noise which intrudes over and above the existing ambient noise at a given location. The relative intrusiveness of a sound depends upon its amplitude, duration, frequency, and time of occurrence and tonal or informational content as well as the prevailing ambient noise level.

Source: Illingworth & Rodkin

TABLE 15.2: TYPICAL NOISE LEVELS IN THE ENVIRONMENT

<i>Common Outdoor Noise Source</i>	<i>Noise Level (dBA)</i>	<i>Common Indoor Noise Source</i>
	120 dBA	
Jet fly-over at 300 meters		Rock concert
	110 dBA	
	100 dBA	
Pile driver at 20 meters		Night club with live music
	90 dBA	
Large truck pass by at 15 meters		
	80 dBA	
		Noisy restaurant
		Garbage disposal at 1 meter
Gas lawn mower at 30 meters	70 dBA	Vacuum cleaner at 3 meters
Commercial/Urban area daytime		Normal speech at 1 meter
Suburban expressway at 90 meters	60 dBA	
Suburban daytime		Active office environment
	50 dBA	
Urban area nighttime		Quiet office environment
	40 dBA	
Suburban nighttime		
Quiet rural areas	30 dBA	Library
		Quiet bedroom at night
Wilderness area	20 dBA	
	10 dBA	Quiet recording studio
Threshold of human hearing	0 dBA	Threshold of human hearing

Source: Illingworth & Rodkin

Since the sensitivity to noise increases during the evening and at night because excessive noise interferes with the ability to sleep, 24-hour descriptors were developed that incorporate artificial noise penalties added to quiet-time noise events. The Community Noise Equivalent Level (CNEL) is a measure of the cumulative noise exposure in a community, with a 5 dB penalty added to evening (i.e., 7:00 p.m. - 10:00 p.m.) noise levels and a 10 dB addition to nocturnal (10:00 p.m. - 7:00 a.m.) noise levels. The Day/Night Average Sound Level (L_{dn}) is essentially the same as CNEL, with the exception that the evening time period is dropped and all occurrences during this three-hour period are grouped into the daytime period.

BACKGROUND INFORMATION ON VIBRATION

Ground vibration consists of rapidly fluctuating motions or waves with an average motion of zero. Several methods are typically used to quantify the amplitude of vibration including Peak Particle Velocity (PPV) and Root Mean Square (RMS) velocity. PPV is defined as the maximum instantaneous positive or negative peak of the vibration wave. RMS velocity is defined as the average of the squared amplitude of the signal. PPV and RMS vibration velocity amplitudes are used to evaluate human response to vibration.

The reaction of humans and effects on buildings from continuous levels of vibration is shown on **Table 15.3**. As discussed previously, annoyance is a subjective measure and vibrations may be found to be annoying at much lower levels than those shown, depending on the level of activity or the sensitivity of the individual. To sensitive individuals, vibrations approaching the threshold of perception can be annoying.

Low-level vibrations frequently cause irritating secondary vibration, such as a slight rattling of windows, doors or stacked dishes. The rattling sound can give rise to exaggerated vibration complaints, even though there is very little risk of actual structural damage. In high noise environments, which are more prevalent where ground-borne vibration approaches perceptible levels, this rattling phenomenon may also be produced by loud airborne environmental noise causing induced vibration in exterior doors and windows.

Construction activities can cause vibration that varies in intensity depending on several factors. The use of pile driving and vibratory compaction equipment typically generate the highest construction related ground-borne vibration levels. Because of the impulsive nature of such activities, the use of the PPV descriptor has been routinely used to measure and assess ground-borne vibration and almost exclusively to assess the potential of vibration to induce structural damage and the degree of annoyance for humans.

The two primary concerns with construction-induced vibration, the potential to damage a structure and the potential to interfere with the enjoyment of life are evaluated against different vibration limits. Studies have shown that the threshold of perception for average persons is in the range of 0.2 to 0.3 mm/sec (0.008 to 0.012 inches/sec), ppv. Human perception to vibration varies with the individual and is a function of physical setting and the type of vibration. Persons exposed to elevated ambient vibration levels such as people in an urban environment may tolerate a higher vibration level.

Structural damage can be classified as cosmetic only, such as minor cracking of building elements, or may threaten the integrity of the building. Safe vibration limits that can be applied to assess the potential for damaging a structure vary by researcher and there is no consensus as to what amount of vibration may pose a threat for structural damage to the building. Construction-induced vibration that can be detrimental to the building is very rare and has only been observed in instances where the structure is at a high state of disrepair and the construction activity occurs immediately adjacent to the structure.

TABLE 15.3: REACTION OF PEOPLE AND DAMAGE TO BUILDINGS FOR CONTINUOUS VIBRATION LEVELS⁵⁸

Velocity Level, PPV (in/sec)	Human Reaction	Effect on Buildings
0.01	Barely perceptible	No effect
0.04	Distinctly perceptible	Vibration unlikely to cause damage of any type to any structure
0.08	Distinctly perceptible to strongly perceptible	Recommended upper level of the vibration to which ruins and ancient monuments should be subjected
0.1	Strongly perceptible	Virtually no risk of damage to normal buildings
0.3	Strongly perceptible to severe	Threshold at which there is a risk of damage to older residential dwellings such as plastered walls or ceilings
0.5	Severe - Vibrations considered unpleasant	Threshold at which there is a risk of damage to newer residential structures

REGULATORY SETTING

The State of California and the City of Newman establish guidelines, and regulations designed to limit noise exposure at noise sensitive land uses. These regulatory standards are presented in the Appendix G of the CEQA Guidelines, the State of California Building Code, and the City of Newman General Plan. The following describes applicable regulatory criteria used to evaluate the significance of noise impacts resulting from the proposed Plan.

STATE CEQA GUIDELINES

The CEQA contains guidelines to evaluate the significance of effects of environmental noise attributable to a proposed project. CEQA asks whether the proposed project would result in:

- a) Exposure of persons to or generation of noise levels in excess of standards established in the local General Plan or Noise Ordinance, or applicable standards of other agencies?
- b) Exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?
- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?
- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?
- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

⁵⁸ Transportation and Construction Vibration Guidance Manual, California Department of Transportation, September 2013.

- f) For a project in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

The primary noise issues concerning this Plan are the noise and land use compatibility of the residential and commercial land uses, the potential for permanent noise level increases due to Plan implemented traffic growth, and short-term impacts from construction noise and vibration. The City of Newman is not located within an airport plan or within 2 miles of any private airfields. Therefore, CEQA Checklist items e) and f) do not apply in this assessment.

CITY OF NEWMAN GENERAL PLAN

The City of Newman sets goals and polices in the Noise Element of the General Plan to provide compatible noise environments for new development and control sources of excessive noise.

Policies

- HS-6.1 As a guide for future planning and development decisions the City shall use the Noise and Land Use Compatibility Standards shown in **Figure 15.1**, the noise level performance standards indicated in **Table 15.4** and the projected future noise contours for the buildout of the General Plan, shown in Figure HS-6 (not shown).

TABLE 15.4: NOISE LEVEL PERFORMANCE STANDARDS FOR PROJECTS AFFECTED BY OR INCLUDING NON- TRANSPORTATION SOURCES

Noise Level Descriptor	Daytime (7 a.m. to 10 p.m.)	Nighttime (10 p.m. to 7 a.m.)
Hourly L_{eq} , dB	55	45
Maximum Level, dB	75	65
<p>Each of the noise levels specified shall be reduced by five dB for pure tone noises, noises consisting primarily of speech or music, or for recurring impulsive noises. Where measured ambient noise levels exceed the standards, the standards shall be increased to the ambient levels.</p> <p>The standards apply at residential or other noise sensitive land uses, and not on the property of a noise-generating land use. When determining the effectiveness of noise mitigation measures, the standards may be applied on the receptor side of noise barriers or other property line noise mitigation measures. These noise level standards do not apply to residential units established in conjunction with industrial or commercial uses (e.g., caretaker dwellings).</p>		

- HS-6.2 Noise increases at noise sensitive land uses resulting from new projects shall be minimized. Noise-sensitive uses include residential, hotel/motel, schools, libraries, museums, meeting halls, care facilities, churches and hospitals. Exterior noise levels would be measured in residential backyards, patios, outdoor instructional areas of schools, outdoor courtyards and play areas at care facilities or at the property line of undeveloped lands designated as noise-sensitive uses.

- HS-6.3 New non-transportation noise sources, including, but not limited to, industrial and commercial noise sources, mechanical equipment, amplified sound, and on-site truck circulation and deliveries, shall be mitigated so as not to exceed the noise level standards as indicated in **Table 15.4**.

- HS-6.4 Noise can be mitigated through site design, building design and materials, landscaping, hours of operation and other techniques. This policy does not apply to noise sources associated with operations on lands zoned for agricultural uses.

FIGURE 15.1: LAND USE COMPATIBILITY FOR COMMUNITY NOISE ENVIRONMENT

LAND USE CATEGORY	EXTERIOR NOISE EXPOSURE (L_{DN})					
	55	60	65	70	75	80
Single-Family Residential						
Multi-Family Residential, Hotels, and Motels		(a)				
Outdoor Sports and Recreation, Neighborhood Parks and Playgrounds						
Schools, Libraries, Museums, Hospitals, Personal Care, Meeting Halls, Churches						
Office Buildings, Business Commercial, and Professional						
Auditoriums, Concert Halls, Amphitheaters						

(a) Interior noise levels shall not exceed 45 L_{dn} in all new residential units (single- and multi-family). Development sites exposed to noise levels exceeding 60 L_{dn} shall be analyzed following protocols in Appendix Chapter 12, Section 1208, A, Sound Transmission Control, 2001 California Building Code.



NORMALLY ACCEPTABLE

Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction, without any special insulation requirements.



CONDITIONALLY ACCEPTABLE

Specified land use may be permitted only after detailed analysis of the noise reduction requirements and needed noise insulation features included in the design.



UNACCEPTABLE

New construction or development should generally not be undertaken because mitigation is usually not feasible to comply with noise element policies.

HS-6.5 The City shall minimize potential transportation-related noise through the use of setbacks, street circulation design, coordination of routing and other traffic control measures, the construction of noise barriers, and consider use of “quiet” pavements when resurfacing roadways.

HS-6.6 Where proposed new development of noise-sensitive uses is anticipated to exceed the noise level standards, an acoustical analysis shall be required so that noise mitigation may be included in the project design.

HS-6.7 New development of noise sensitive land uses shall not be permitted in noise impacted areas unless effective mitigation measures are incorporated into the project design to reduce exterior and interior noise levels to acceptable levels, as specified in Policy HS-6.1 and as follows:

- ◆ For new single-family residential development, maintain a standard of 60 L_{dn} (day/night average noise level) for exterior noise in private use areas.
- ◆ For new multi-family residential development maintain a standard of 65 L_{dn} in community outdoor recreation areas. Noise standards are not applied to private decks and balconies.
- ◆ Interior noise levels shall not exceed 45 L_{dn} in all new residential units (single- and multi-family). Development sites exposed to noise levels exceeding 60 L_{dn} shall be analyzed following protocols in Appendix Chapter 12, Section 1208, A, Sound Transmission Control, 2001 California Building Code. *These requirements were deleted in 2014 California Building Code, but would still apply within the City of Newman General Plan.*
- ◆ Where new residential units (single- and multi-family) would be exposed to intermittent noise levels generated during train operations, maximum railroad noise levels inside homes shall not exceed 50 dBA in bedrooms or 55 dBA in other occupied spaces. These single event limits are only applicable where there are normally 4 or more train operations per day.

HS-6.8 Where noise mitigation measures are required to achieve the noise level standards, the emphasis of such measures shall be placed upon site planning and project design. The use of noise barriers shall be considered after practical design related noise mitigation measures have been integrated into the project.

HS-6.9 During all phases of construction activity, reasonable noise reduction measures shall be utilized to minimize the exposure of neighboring properties to excessive noise levels.

Noise reduction measures could include, but would not be limited to:

- ◆ Construction activities shall normally be limited to the hours of 7 a.m. to 7 p.m. Monday through Friday, and 8 a.m. to 7 p.m. Saturday.
- ◆ Use available noise suppression devices and properly maintain and muffle loud construction equipment.
- ◆ Avoid staging construction equipment and unnecessary idling of equipment within 200 feet of noise sensitive land uses.

HS-6.10 No project shall be approved that would create noise levels at school sites that would exceed 55 dBA, measured at the property lines of the school site.

HS-6.11 Land uses that emit excessive noise shall not be located adjacent to schools and other sensitive uses unless noise levels can be mitigated to an acceptable level.

EXISTING NOISE ENVIRONMENT

The Northwest Newman Master Plan area is bordered by West Stuhr Road to the north, SR 33 to the east, the existing City boundary and Jensen Road to the south, and the CCID canal to the west. The primary sources of noise affecting the area are vehicular traffic along major roadways, including SR 33 and West Stuhr Road, intermittent railroad operations along the Union Pacific Railroad (UPRR), and industrial activities. A noise monitoring survey was conducted from May 13, 2014 to May 16, 2014 to quantify ambient noise levels in the Plan area. The noise monitoring survey consisted of 3 long-term (72-hour) noise measurements (LT-1, LT-2, and LT-3) and 4 short-term (10-minute) noise measurements (ST-1, ST-2, ST-3, and ST-4). **Figure 15.2** shows the approximate locations of noise measurement made during the noise monitoring survey.

The sites LT1, LT2, and LT3 were chosen to monitor noise levels along Jensen Road, Jensen Road/SR 33, and Stuhr Road, respectively. Sites ST-1, ST-2, and ST-3 were selected to measure ambient noise levels in areas away from the primary traffic noise sources in the project area. **Table 15.5** summarizes the measured noise level data. **Figures A-1 through A-9** show the variation in noise levels at LT-1, LT-2, and LT-3.

FIGURE 15.2: NOISE MEASUREMENT LOCATIONS



TABLE 15.5: SUMMARY OF NOISE MEASUREMENTS

Measurement Location	Measured Noise Levels, dBA				dBA, L _{dn}	Primary Noise Source
	L _{eq}	L ₁₀	L ₅₀	L ₉₀		
ST-1 – Corner of Helena Drive and Kaya Drive. (5/13/2014, 1:18 to 1:28 p.m.).	56	42	39	37	56*	Local birds and chickens, distant traffic
ST-2 – End of Real Avenue, about 750 feet from SR 33 (5/13/2014, 1:37 to 1:47 p.m.).	41	42	38	35	41*	Local birds and chickens, distant traffic
ST-3 – End of Fig Lane, north of residences. (5/13/2014, 1:53 to 1:58 p.m.).	53	58	48	40	53*	Chickens
ST-4 – SE of Stuhr Road and canal. (5/13/2014, 2:05 to 2:15 p.m.).	54	57	49	47	57*	Traffic on Stuhr Road, water pump
LT-1 – Jensen Road. Daytime Noise Level Range.	39-55	41-55	34-49	31-46	54-55	Local birds and chickens, distant traffic
LT-1 – Jensen Road. Nighttime Noise Level Range.	38-55	41-58	36-55	34-47		Local birds and chickens, distant traffic
LT-2 – Jensen Road, 750 feet west of SR 33. Daytime Noise Level Range.	57-67	50-72	44-55	39-48	63-65	Distant traffic from SR 33
LT-2 – Jensen Road, 750 feet west of SR 33. Nighttime Noise Level Range.	43-62	45-58	39-50	35-47		Distant traffic from SR 33
LT-3 – Stuhr Road. Daytime Noise Level Range.	61-70	58-73	45-58	41-48	71-72	Traffic on Stuhr Road
LT-3 – Stuhr Road. Nighttime Noise Level Range.	57-69	47-73	39-57	36-49		Traffic on Stuhr Road

* Estimated by correlation to representative long-term site. The hourly trend in the daily noise level measured at the most representative location is applied to the short-term measurements to estimate L_{dn}.

IMPACT AND MITIGATION MEASURES

THRESHOLDS OF SIGNIFICANCE

Based on the information in the Regulatory Setting section, the project would have a significant noise or vibration impact if:

- Non-transportation generated noise levels would exceed the noise limits presented in the noise element of the City's General Plan (**Table 15.4** in this section).
- Project-related traffic noise level increases would exceed 5 dB L_{dn} in residential areas where the noise level is less than 60 dBA L_{dn} , 3 dBA L_{dn} if the noise level is between 60 and 65 dBA L_{dn} and a 1.5 dBA L_{dn} if the noise level is greater than 65 dBA L_{dn} would be considered substantial. For cumulative scenarios, impacts are significant where these thresholds would be exceeded and the project would make a "cumulatively considerable" contribution to the overall noise increase. A "cumulatively considerable" contribution is defined as 1 dBA L_{dn} or more.
- Noise generated by construction activities would exceed 60 dBA L_{eq} and the ambient noise environment by at least 5 dBA L_{eq} at noise-sensitive uses in the project vicinity.
- Ground-borne vibration generated by construction activities would exceed 12.7 mm/sec (0.5 inches/sec), PPV for buildings structurally sound and designed to modern engineering standards, 5 mm/sec (0.2 inches/sec), PPV for buildings that are found to be structurally sound but structural damage is a major concern or 2 mm/sec (0.08 inches/sec), PPV for historic buildings or buildings that are documented to be structurally weakened.

TRANSPORTATION-RELATED EXCEEDENCES OF NOISE LIMITS

- New development would be exposed to transportation related exterior noise levels exceeding the noise levels presented in **Figure 15.1** (60 dBA L_{dn} for single-family residential and school development, 65 dBA L_{dn} for multi-family residential and recreational development, and 70 dBA L_{dn} for commercial development).
- Interior noise levels in new residential units (single- and multi-family) would exceed 45 dBA L_{dn} .
- New residential units (single- and multi-family) would be exposed to intermittent noise levels generated during train operations exceeding 50 dBA L_{max} in bedrooms or 55 dBA L_{max} inside other occupied spaces. These single event limits are only applicable where there are normally 4 or more train operations per day.

Although CEQA does not require an agency to consider the impact of existing conditions on future project users per recent case law⁵⁹, because the Plan contributes to transportation-related noise limits, this item is included as an impact of the Plan.

Impact Noise-1: New Land Uses in Areas Exceeding Noise Thresholds. New development could be exposed to outdoor noise levels and indoor noise levels that would exceed the City's established noise and land use compatibility thresholds.

⁵⁹ *CBIA v BAAQMD*, December 17, 2015.

Future noise levels along the major roadways within the Northwest Newman Master Plan area would exceed those considered compatible with their proposed land use. The Plan also proposes the development of new roadways within the Plan area where residential land uses would be developed. Future noise levels along some of these roadways would also exceed those considered compatible with their proposed land use.

Future noise levels along the major roadways within the Northwest Newman Master Plan area were calculated using the Federal Highway Administration's (FHWA) Traffic Noise Model version 2.5. Residential and recreational development is proposed along West Stuhr Road, Jensen Road, Fig Lane (extension proposed) and Harvey Lane (extension proposed). A school is proposed along Fig Lane (extension proposed). Roadside noise levels are anticipated to exceed 60 and 65 dBA L_{dn} along these roadways under cumulative with project conditions. Commercial uses are proposed along SR 33, where noise levels could exceed 70 dBA L_{dn} . **Table 15.6** summarizes the expected day/night average noise level at a distance of 50 feet from the center of the near lane of the roadway for both existing and proposed roadways within the project area, along with the distance to the 60, 65, and 70 dBA L_{dn} traffic noise contours.

TABLE 15.6: PROJECTED CUMULATIVE ROADWAY NOISE LEVELS (50 FEET TO CENTERLINE) AND CALCULATED DISTANCES TO NOISE CONTOURS FROM ROADWAY CENTERLINE

Roadway	Existing @ 50 Feet (dBA L_{dn})	Projected Cumulative + Project @ 50 Feet (dBA L_{dn})	Distance to Noise Contour, Feet		
			70 dBA L_{dn}	65 dBA L_{dn}	60 dBA L_{dn}
SR33	74	78	170	370	790
West Stuhr Road	63	73	80	170	370
Jensen Road	56	70	50	110	230
Fig Lane (Extension Proposed)	*	64	20	40	90
Harvey Lane (Extension Proposed)	*	64	20	40	90

* These roadways do not currently extend through the Plan area.

**For high-density residential/mixed use – outdoor standards only apply in common use areas.

Based on these calculations and without taking any shielding into account, noise levels would exceed those considered compatible with exterior single family residential land uses (60 dBA L_{dn}) within about 370 feet of the center of West Stuhr Road, 230 feet of the center of Jensen Road, and 90 feet of the center of Fig Lane or Harvey Lane. For exterior multi-family and recreational uses, noise levels would exceed those considered compatible for the land uses (65 dBA L_{dn}) within about 170 feet of the center of Stuhr Road, 110 feet of the center of Jensen Road, and 40 feet of the center of Fig Lane or Harvey Lane. Noise levels would exceed those considered compatible with commercial land uses (70 dBA L_{dn}) within about 170 feet of the center of SR 33, 80 feet of the center of Stuhr Road, and 50 feet of the center of Jensen Road. There are no schools, residential uses, or recreational uses proposed adjacent to SR 33. Noise standards are applied only at outdoor use areas and do not apply to non-noise sensitive areas, such as parking lots, nor to private decks and balconies of multi-family residences.

Where exterior noise levels would exceed 60 dBA L_{dn} at residential buildings (including multi-family), interior noise levels may also exceed the interior 45 dBA L_{dn} standard established in the City's General Plan Noise Element. Typical California construction provides approximately 15 dBA of noise reduction from exterior noise sources with windows partially open and approximately 20-25

dba of noise reduction with windows kept closed. Where exterior noise levels would not exceed 65 dBA L_{dn} , interior noise can be mitigated with standard wall and window construction and the inclusion of mechanical forced-air ventilation, acceptable to the City of Newman, to allow occupants the option of maintaining windows closed to control noise. Exterior noise levels at the residential land uses proposed along West Stuhr Road, Jensen Road, Fig Lane, and Harvey Lane could exceed 60 dBA L_{dn} , and interior noise levels within these residential units may not be sufficiently reduced to 45 dBA L_{dn} simply through typical construction methods.

High density residential land uses are proposed as close as 780 feet from the UPRR line that runs along SR 33. Planned mixed residential and school uses are located 1,200 feet or further from the UPRR line. Based on the City of Newman General Plan EIR Noise Section, two train trips occur per weekday along this line during daytime hours. Train movements typically generate maximum noise levels of about 90 dBA at a distance of 100 feet. Due to the low occurrence and moderate speeds of train movements, the 60 dBA L_{dn} noise contour would be located within 100 feet of the railroad tracks. Due to the low occurrence of operations, maximum noise thresholds would not apply. In addition, operations currently occur during daytime hours only and, assuming standard exterior to interior noise reduction of residential structures, maximum noise levels would meet the 50/55 dBA L_{max} threshold within all residences with windows in the closed position.

Specifics of grading, site planning, and construction techniques and materials will affect the ultimate noise levels experienced at developed land uses. Additional or enhanced noise reduction measures can be included into the design of development projects to reduce noise levels to acceptable levels.

Mitigation Measures

Noise-1a:

Site-Specific Noise Reduction – Single- and Multi-family Residential. In single and multi-family residential areas proposed within 370 feet of the center of West Stuhr Road, 230 feet of the center of Jensen Road, and 90 feet of the center of Fig Lane or Harvey Lane, a site-specific acoustical design will be required for development projects to demonstrate that site-specific noise reduction measures have been incorporated and will meet the City's noise standards (60 dBA L_{dn} for single family outdoor activity areas, 65 dBA L_{dn} for multi-family common outdoor use areas, and 45 dBA L_{dn} for interior residential areas). These measures may include, but are not limited to, some or all of the following:

- Use sound walls, or sound walls in combination with earthen berms where proposed, to reduce noise levels to 60 dBA L_{dn} or less in outdoor activity areas associated with proposed single family residential developments and 65 dBA L_{dn} or less in common outdoor activity areas associated with proposed multi-family residential developments. The final height and design of these walls would be completed during the site-specific review for these parcels when detailed site plans and grading plans are available.
- Utilize site planning to minimize noise in shared single-family residential areas by locating residences further from the centerline of the roadway or facing homes toward the roadway to shield backyard areas. Appropriate noise reduction would need to be demonstrated with site-specific acoustical analyses.
- Utilize site planning to minimize noise in shared residential outdoor activity areas by locating the areas behind the buildings, in courtyards, or orienting the terraces to alleyways rather than streets, whenever possible. Appropriate

noise reduction would need to be demonstrated with site-specific acoustical analyses.

- If 60 dBA L_{dn} or less is not achieved for exterior noise levels where residential units are proposed (e.g., at unshielded upper stories of single or multi-family homes), the City of Newman requires project-specific acoustical analyses to achieve interior noise levels of 45 dBA L_{dn} or lower. Building sound insulation requirements would need to include the provision of forced-air mechanical ventilation in noise environments exceeding 60 dBA L_{dn} so that windows could be kept closed at the occupant's discretion to control noise. Special building construction techniques (e.g., sound-rated windows and building facade treatments) may be required where exterior noise levels exceed 65 dBA L_{dn} . These treatments include, but are not limited to sound rated windows and doors, sound rated exterior wall assemblies, acoustical caulking, etc. The specific determination of what treatments are necessary will be conducted on a unit-by-unit basis during project design. Results of the analysis, including the description of the necessary noise control treatments, will be submitted to the City along with the building plans and approved prior to issuance of a building permit. Feasible construction techniques such as these would adequately reduce interior noise levels to 45 dBA L_{dn} or less.

Noise-1b:

Site-Specific Noise Reduction – Recreational and Park Uses. In recreational and park use areas proposed within about 170 feet of the center of Stuhr Road, 110 feet of the center of Jensen Road, and 40 feet of the center of Fig Lane or Harvey Lane, a site-specific acoustical design will be required for development projects to demonstrate that site-specific noise reduction measures have been incorporated and will meet the City's 65 dBA L_{dn} noise standard for common outdoor activity areas and noise sensitive recreational areas. These may include, but are not limited to, some or all of the following:

- Utilize site planning to minimize noise in noise sensitive recreational and park outdoor activity areas by locating the noise sensitive areas such as playgrounds, trails, activity areas, or picnic tables, further from the centerline of the roadway or in shielded areas. Appropriate noise reduction shall be demonstrated through site-specific acoustical analyses.
- If the City's noise standards are not able to be met through use of site planning as described above, sound walls, or sound walls in combination with earthen berms could also be used to reduce noise levels to 65 dBA L_{dn} or less. The final height and design of these walls shall be completed during the site specific regulatory review for these parcels when detailed site plans and grading plans are available.

Implementation of the mitigation measures **Noise-1a and -1b** would reduce the impact to a *less than significant* level by requiring measures to reduce noise at new residences, schools, and recreational uses to levels meeting applicable city standards.

NON-TRANSPORTATION-RELATED EXCEEDENCES OF NOISE LIMITS

Impact Noise-2: Potential Commercial Noise Conflicts with Residential. New commercial development proposed in the same building as residential development or

commercial development proposed adjacent to residential development could result in noise levels exceeding City standards.

The proposed Plan would introduce commercial uses adjacent to residential land uses and could result in noise levels exceeding City standards. New non-residential development could produce noise that could affect existing residences or other noise-sensitive land uses. For new commercial and office land uses, noise sources would likely include HVAC machinery, loading docks, etc.

New projects developed under the Northwest Newman Master Plan would be subject to the City's Noise Element of the General Plan, which sets limits for permissible noise levels during the day and night according to the noise level performance standards (see **Table 15.4**). Regulatory review would ensure that existing residences and other noise-sensitive land uses would not be exposed to excessive noise from these types of noise sources.

Mitigation Measure

Noise-2: Non-Residential Noise Studies and Measures. Noise levels at residential and school property lines from non-residential development shall be maintained within the City of Newman Noise Limits. Noise barriers, equipment screens, fan sound attenuators, and other standard controls shall be incorporated as necessary. A noise study shall be required for new noise-generating commercial uses adjacent to noise-sensitive areas as part of the project approval. The noise studies shall demonstrate how these new commercial uses, including loading docks, refuse areas, and ventilation systems, etc., would comply with General Plan noise policies and be consistent with the City's noise standards. A noise study shall also be required for new noise-generating industrial uses adjacent to noise-sensitive areas as part of the project approval. The noise studies shall demonstrate how these new industrial uses, including loading docks, refuse areas, and ventilation systems, etc., would comply with General Plan noise policies and be consistent with the City's noise standards.

Implementation of mitigation measure Noise-2 would reduce the impact to a *less than significant* level by requiring non-residential development to meet noise limits at residential or school boundaries.

PROJECT-RELATED TRAFFIC NOISE LEVEL INCREASES

Impact Noise-3: Increased Roadway Noise For Existing Uses. The Plan would increase traffic noise levels substantially at sensitive uses along project roadways in its vicinity. (*General Plan Significant Impact - No New Impact*)

Development facilitated by the Plan would increase traffic within and around the Master Plan area. Projected changes to traffic noise levels from existing levels, with and without the Plan, were reviewed to calculate where the project would generate a substantial increase in traffic noise. The increase in vehicular traffic noise was calculated by comparing existing and existing with project traffic volumes, where a doubling in traffic volumes corresponds to a 3 dB increase in traffic noise. This approach provides a credible worst-case estimate of the increase in vehicular traffic noise expected to result from implementation of the Master Plan.

The existing roadway sections with predicted noise level increases of 3 dBA of greater are shown in **Table 15.7**. The remaining roadways would experience traffic noise increases of 1 dBA or less resulting from project traffic. Project-generated traffic noise increases would affect both existing and future noise sensitive uses along these segments. This impact is considered significant along portions

of SR 33, south of West Stuhr Road, along developed portions of West Stuhr Road, along Jensen Road/Sherman Parkway, along Yolo Street/Orestimba Road, west of SR 33, and along Hardin Road, north of Orestimba Road. Noise sensitive receptors were not identified along large portions of West Stuhr Road.

TABLE 15.7: SUBSTANTIAL INCREASES TO TRAFFIC NOISE LEVELS IN THE NORTHWEST NEWMAN MASTER PLAN AREA AND VICINITY

Roadway Section	Existing Plus Project Noise Increase, (L_{dn} , dBA)
SR 33, South of Jensen Road through south of Yolo Street	4-5
West Stuhr Road, East Villa Manucha	6
West Stuhr Road, West of SR 33	6
West Stuhr Road, East and West of Draper Road	3
West Stuhr Road, East and West of Eastin Road	3
Jensen Road/ Sherman Parkway, East of SR 33	4
Jensen Road/ Sherman Parkway, West of SR 33 through Draper Road	12-14
Yolo Street/ Orestimba Road, West of Hardin Road to SR 33	4-5
Hardin Road, North of Orestimba Road	3

Existing development along these portions of SR33, West Stuhr Road, Jensen Road/Sherman Parkway, Yolo Street/Orestimba Road, and Hardin Road would be subject to increased noise levels associated with increased roadway capacity. Resulting noise levels along all of these roadways would exceed 60 dBA L_{dn} at a distance of 50 feet from the center of the near lane of traffic.

The EIR for the Newman General Plan recognized that this would be a significant and unavoidable impact (Impact NOI-1 in the General Plan EIR) and identified no feasible mitigation beyond policies already incorporated into the General Plan. While measures such as lowering the speed limit or traffic calming could help reduce impacts, on these roadways, the above measures are considered infeasible because of the need to preserve the ability of the roadways to act as an arterial and expressway. If feasible, the use of “quieter pavement” could reduce noise levels along these roadways, depending on the existing pavement type and condition. The costs for retrofit of existing roadways or developments could be prohibitively expensive and is entirely or partially outside the jurisdiction of the City of Newman and would therefore not be considered feasible. The impact of the Plan related to roadway noise would be fully within the scope of the impact previously identified. Pursuant to CEQA Guidelines section 15152, the site-specific and cumulative effects of increases in roadway noise include increases in and from development in the Plan area were adequately addressed in the prior General Plan EIR and are therefore not treated as a significant impact for purposes of this EIR. The Plan would result in no new impacts related to roadway noise.

CONSTRUCTION NOISE

Impact Noise-4: Construction Noise. Businesses and residences throughout the Northwest Newman Master Plan area would be intermittently exposed to high levels of noise throughout the plan horizon. Construction would elevate noise levels at adjacent businesses and residences by 15 dBA or more.

Residences are located along Jensen Road, Fig Lane, West Stuhr Road, and SR 33. Businesses are located along SR 33. These residences and businesses would be affected by construction noise during build-out of the Master Plan area. Construction noise impacts primarily result when construction activities occur during noise-sensitive times of the day (early morning, evening, or nighttime hours),

the construction occurs in areas immediately adjoining noise sensitive land uses, or when construction durations last over extended periods of time. Major noise generating construction activities would include removal of existing pavement and structures, site grading and excavation, building framing, paving and landscaping.

The highest construction noise levels would be generated during grading and excavation, with lower noise levels occurring during building construction. Large pieces of earth-moving equipment, such as graders, scrapers, and bulldozers, generate maximum noise levels of 85 to 90 dBA at a distance of 50 feet. Typical hourly average construction-generated noise levels are about 80 to 85 dBA measured at a distance of 50 feet from the site during busy construction periods. These noise levels drop off at a rate of about 6 dBA per doubling of distance between the noise source and receptor. Intervening structures would result in lower noise levels.

Although construction noise would be localized to the individual site locations, businesses and residences throughout the Northwest Newman Mater Plan area would be intermittently exposed to high levels of noise throughout the plan horizon. Construction would elevate noise levels at adjacent businesses and residences by 15 to 20 dBA or higher.

There are no quantitative noise limits for construction that would be applicable within the City of Newman. However, the General Plan does limit construction noise to the hours of 7 a.m. to 7 p.m. Monday through Friday, and 8 a.m. to 7 p.m. Saturday. In addition, the General Plan specifies that reasonable noise reduction measures shall be utilized to minimize the exposure of neighboring properties to excessive noise levels, including using available noise suppression devices, properly maintain and muffle loud construction equipment, and avoiding staging construction equipment and unnecessary idling of equipment within 200 feet of noise sensitive land uses.

Mitigation Measure

Noise-4: **Construction Noise Mitigation.** In addition to complying with construction noise controls outlined in the City of Newman General Plan, the following measures shall be implemented when applicable and feasible to reduce noise from construction activities:

- Ensure construction equipment is well maintained and used judiciously to be as quiet as practical.
- Equip all internal combustion engine-driven equipment with mufflers, which are in good condition and appropriate for the equipment.
- Utilize “quiet” models of air compressors and other stationary noise sources where technology exists.
- Locate stationary noise-generating equipment as far as feasible from sensitive receptors when sensitive receptors adjoin or are near a construction project area.
- Prohibit unnecessary idling of internal combustion engine.
- Construct solid plywood fences around construction sites adjacent to operational business, residences or noise-sensitive land uses, or erect temporary noise control blanket barriers as necessary. This mitigation would only be necessary if conflicts occurred which were irresolvable by proper scheduling.
- Route construction related traffic along major roadways and as far as feasible from sensitive receptors.

- Ensure that all construction activities (including the loading and unloading of materials and truck movements) are limited to the hours of 7:00 a.m. to 7:00 pm on weekdays and between the hours of 8:00 a.m. and 7:00 p.m. on Saturdays.
- Businesses, residences or noise-sensitive land uses adjacent to construction sites should be notified of the construction schedule in writing. Designate a “construction liaison” that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler) and institute reasonable measures to correct the problem. Conspicuously post a telephone number for the liaison at the construction site.

Although the above measures would reduce noise generated by the development of the Plan area, the impact would remain *significant and unavoidable* as a result of the extended period of time that adjacent receivers could be exposed to construction noise.

CONSTRUCTION VIBRATION

Residences and businesses near the Master Plan area could be exposed to construction related vibration during the excavation and foundation work of the buildings constructed in the Plan area. However, ground-borne vibration from construction would be short term and intermittent, and levels would be below those that could potentially damage structures.

Construction of projects within the Master Plan area would be located near other vibration sensitive uses, such as residences and businesses. Construction activities may include site preparation work, excavation of below grade levels, foundation work, and new building construction. It is assumed that pile driving will not be used as a construction method for the Northwest Newman Master Plan build-out.

Past studies conducted by Caltrans have established a peak vertical particle velocity of 0.2 inches per second as the lower limit that could potentially damage structures. Project construction activities, such as caisson drilling, the use of jackhammers, rock drills and other high-power or vibratory tools, and rolling stock equipment (tracked vehicles, compactors, etc.) may potentially generate substantial vibration in the immediate vicinity, but would generate levels well below those that could potentially damage structures.

As with any type of construction, vibration levels may at times be perceptible. However, construction phases that have the highest potential of producing vibration (use of jackhammers and other high power tools) would be intermittent and would only occur for short periods of time for any individual Plan area. This impact is considered *less than significant*.

CUMULATIVE TRAFFIC NOISE LEVEL INCREASES

Impact Noise-5: Cumulative Traffic Noise. The Plan in combination with the effects of buildout of the surrounding community would increase traffic noise levels substantially along roadways in its vicinity. (*General Plan Significant Impact - No New Impact*)

The cumulative noise impact associated with the implementation of the Master Plan would be increases in vehicular traffic noise on the street network. Cumulative traffic forecasts were prepared and presented in the traffic report. These data were reviewed along the major roadways in the project area. Cumulative traffic noise impacts are assessed in the same manner as traffic noise impacts

resulting from the Plan with respect to the City of Newman significance thresholds. Significant cumulative traffic noise impacts would occur along the same roadways as the roadways experiencing project impacts; portions of SR 33, West Stuhr Road, Jensen Road/Sherman Parkway, Yolo Street/Orestimba Road, and Hardin Road, as described in Impact Noise-3. Impacts would only be considered significant where noise sensitive receptors are located adjacent to the roadways.

Mitigation Measures Noise-1a, -1b, and -2 would reduce Impact Noise-5. These measures would reduce the impact of increased traffic noise resulting from the project in combination with cumulative development but similar to Impact Noise-3, the cost for retrofit of existing roadways or developments would be prohibitively expensive and is entirely or partially outside the jurisdiction of the City of Newman.

As discussed under Impact Noise-3, the impacts of cumulative traffic noise levels on offsite sensitive users was previously addressed in the General Plan EIR as a Significant and Unavoidable impact. The impacts related to Plan development would be fully within the previously-identified impact and therefore the Plan would have no new impact in this regard.

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POPULATION AND HOUSING

ENVIRONMENTAL SETTING

PROJECTIONS

The local association of governments, StanCOG, prepares population and employment forecasts and the Regional Transportation Plan. As shown in **Table 16.1**, the Stanislaus County population is expected to increase by approximately 165,000 people between 2010 and 2030, an increase of 32 percent. Over the same period, employment is expected to grow 32 percent, an increase of 52,000 jobs. These forecasts show large increases in both population and employment throughout Stanislaus County during the Master Plan buildout period.⁶⁰

TABLE 16.1: DEMOGRAPHIC FORECASTS IN STANISLAUS COUNTY

Indicator	Year 2010	Year 2030	% Change
Population	514,000	679,000	+32%
Housing Units	188,000	220,000	+17%
Employment	159,000	210,000	+32%

Source: StanCOG 2014 Regional Transportation Plan, Figure 3.4 Projected Growth Population, Housing, and Employment for Stanislaus County.

The State of California, Department of Finance, has estimated the population of Stanislaus County at 540,214 on January 1, 2016 and the City of Newman population at 10,840.⁶¹ The most recent Department of Finance estimates show 3,357 housing units located in Newman. Of these, an estimated 2,936 were single-family residential units, 421 multi-family residential units, and 66 group quarters. The number of persons per household was estimated at 3.38 persons.⁶²

⁶⁰ StanCOG 2014 Regional Transportation Plan, Figure 3.4 Projected Growth Population, Housing, and Employment for Stanislaus County.

⁶¹ State of California, Department of Finance, E-1 Population Estimates for Cities, Counties, and the State January 1, 2015 and 2016. Website accessed July 1, 2016 at: <http://www.dof.ca.gov/Forecasting/Demographics/>

⁶² State of California, Department of Finance, E-5 Population and Housing Estimates for Cities, Counties and the State, 2001-2010, with 2000 Benchmark. Sacramento, California, May 2010.

CITY OF NEWMAN GENERAL PLAN

The Primary Sphere of Influence distinguishes land that is expected to be annexed in the next 10 or so years and is an area that is sufficient to accommodate growth projected to occur over this period (the year 2016 in the case of the Newman General Plan). The Northwest Master Plan Area is within the LAFCO-adopted Primary Sphere of Influence. The remainder of the Sphere of Influence is generally anticipated to develop over a 20-year period.

The General Plan states that: “any development that occurs within one of the Master Plan subareas, shall be approved pursuant to an approved Master Plan.” An amendment to the Newman General Plan will be required to ensure consistency between the General Plan and this Master Plan.

IMPACT ANALYSIS

STANDARDS OF SIGNIFICANCE

The following thresholds for measuring a project’s environmental impacts are based upon CEQA Guidelines thresholds:

1. Would the Project induce substantial population growth in an area either directly for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?
2. Would the Project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?
3. Would the Project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

EFFECTS ON POPULATION GROWTH

Development of the Master Plan as proposed would result in the construction of up to 1,353 new residential units. The Master Plan would provide a mix of residential unit types consistent with that anticipated under the current General Plan.

The Master Plan increases the number of housing units in the City of Newman by approximately 40 percent over existing over the buildout of the Master Plan. According to the Master Plan, development in the Plan area is anticipated to occur by 2030, so over approximately 15 years and the population in the Plan Area would be 4,600 upon buildout, representing an annual growth rate of 2.5 percent. An annual average population growth rate of 7 percent city-wide was identified as the usual rate in the Newman General Plan. Thus, if the Plan area were to fully develop over the next 15 years, it could represent up to approximately 36 percent of the population growth expected throughout Newman each year. The anticipated Master Plan development would also represent 4 percent of the projected increase in housing units throughout Stanislaus County. However, this assumes a steady growth rate over the build-out of the Master Plan, which does not limit the amount of housing that could be developed each year. Additionally, actual city of Newman growth rates in recent years have not been as high as projected in the General Plan, so overall city growth may continue to be lower than projected. However, as discussed above, development under the Master Plan is consistent with local and regional growth planning.

Residential development within the Plan area is consistent with the General Plan, with city growth limits set by LAFCO and the City’s UGB, and is within the projected total amount and pace of residential development in the city and county.

Development of the Plan would also result in creation of jobs. While actual development proposals for these areas are not yet available, making it difficult to accurately estimate employment, **Table 16.2** shows a rough estimate of employment potential assuming full development of the area, totaling 2,345 jobs.

TABLE 16.2: ESTIMATED EMPLOYMENT POTENTIAL IN THE PLAN AREA

Land Use	LU Designation	Acres	Estimated Gross Sq. ft.	Sq. ft. per Employee ¹	Total Estimated Employees
Business Park	BP	59.2	902,563	540	1671
Community Commercial	CC	27.3	297,297	671	443
Professional Office	PO	8.3	90,387	350	258
Total		94.8	1,290,247		2372

¹ Source for square foot per employee: Planner's Estimating Guide (Planners Press, 2004)

This rough estimate is enough to show there would be a positive jobs-housing balance in the Plan area, with more jobs being created (2,345) than housing units constructed (1,353), and would therefore work toward General Plan goals to promote employment and correct the jobs-housing balance. This increase in employment would represent about 4.6 percent of the County's forecast employment growth to 2030.

Employment-generating uses within the Plan area are consistent with the General Plan, with city growth limits set by LAFCO and the City's Urban Growth Boundary, and is within the projected total amount of employment growth in the city and county.

Therefore, given the above, the Master Plan would be considered to have a *less than significant* direct impact on population growth.

Indirect impacts of construction or residences and employment-generating uses may result from increased traffic, conversion of agricultural land, the increase in demand for public services and facilities, etc. The secondary and tertiary impacts resulting from the designation of additional land for housing are discussed in the appropriate corresponding sections of this EIR.

DISPLACEMENT OF EXISTING HOUSING UNITS AND/OR PEOPLE

Residential ranchettes and single-family dwellings are generally located in the southern and central portions of the area with a mix of residential, highway serving commercial and light industrial uses fronting along SR 33. When specific development proposals are reviewed, the City of Newman will make an effort to adjust street alignments, subdivision design, and/or delay property acquisition to accommodate property owners who wish to retain their residential units, provided that the adjustment would not compromise the integrity of the Plan, or otherwise adversely affect a critical public facility.

Overall, the proposed Master Plan would not displace a substantial number of existing units or people and conversely provides for a substantial increase in the total number of dwelling units. Therefore, no housing would need to be constructed elsewhere to offset housing that is removed and the impact related to the displacement of people and/or housing would be *less than significant*.

CUMULATIVE POPULATION AND HOUSING IMPACTS

The cumulative setting for the Master Plan, as it relates to land use and planning, is the City of Newman and adjacent communities such as the City of Patterson, and unincorporated areas of Stanislaus County around the City of Newman. Growth envisioned by local city general plans and the Stanislaus County General Plan is also considered to be reasonably foreseeable development in the vicinity.

In addition to the Master Plan, there is substantial residential and commercial development assumed in the county by 2030 that has the potential to result in direct and indirect population growth. As discussed above, the proposed Plan will not individually have a significant impact on the City's population as it is consistent with population and employment projections on a city-wide and county-wide level and includes an approximate jobs-housing balance. The Plan would also not contribute significantly to displacement of existing housing units or people as existing homes could remain through development of the site. Therefore, the Plan's contribution to potential cumulative population and housing impacts would be less than cumulatively considerable.

PUBLIC SERVICES AND RECREATION

INTRODUCTION

This section evaluates the increased demand for public services, including fire protection, law enforcement, schools and parks under development of the proposed Plan.

FIRE PROTECTION

ENVIRONMENTAL SETTING

Fire service for the Plan area is currently provided by the West Stanislaus County Fire Protection District. The District shares a station and volunteer staffing with the Newman Fire Department, located at 1162 N Street. Ambulance and paramedic services are provided by the Westside Community Hospital District.

Upon annexation, the Plan area would receive fire protection services from the Newman Fire Department. The Newman Fire Department shares a volunteer staff with the West Stanislaus County Fire Protection District, although the Newman Fire Department has a full-time fire chief. The Fire Department is a 30-member volunteer force and recently received an ISO rating of 5.⁶³

Ambulance and paramedic services will continue to be provided by the Westside Community Hospital District upon completion of the annexation process.

The Newman Fire Department at 1162 N Street, Newman, California, 95360, which is about 0.3 to 2 miles from locations in the Plan area. The Newman General Plan notes that average response time by the Newman Fire Department is 3 to 5 minutes for locations within the city limits. There is no stated policy on expected response times though an industry standard is generally 4 minutes.

REGULATORY SETTING

Local

General Plan

The City of Newman General Plan contains the following goals and policies regarding fire protection.

Goal LU-2 Provide for orderly, well-planned and balanced growth consistent with the limits imposed

⁶³ City of Newman Fire Department Website, <http://www.cityofnewman.com/departments/fire.html>, accessed February 2016.

by the city's infrastructure and the city's ability to assimilate new growth.

Policy LU-2.1 The City will link the rate of growth in Newman to the provision of adequate services and infrastructure, including schools and District-wide school support facilities, roadways, police, fire and medical services, and water supply and wastewater treatment infrastructure. The City shall, through the Citywide Services Master Plan, ensure that growth occurs in an orderly fashion and in pace with the provision of public facilities and services. New development shall not negatively impact existing infrastructure and level of services.

Goal PFS-9 Provide an adequate level of fire service as new development occurs.

Policy PFS-9.3 The City shall continue to maintain its mutual aid agreement with the West Stanislaus County Fire Protection District and work collaboratively with the District to ensure that fire service is maintained and expanded as Newman and the west side grows.

Goal HS-3 Prevent the loss of life, injury and property damage due to fires.

Policy HS-3.1 The City shall require that new development provide all necessary water service, fire hydrants, and roads consistent with the City of Newman's standards.

Policy HS-3.4 All new development shall be constructed according to the fire safety and structural stability standards contained in the Fire and Building Codes as adopted and amended by the City of Newman. New development shall also be constructed in conformance with all related regulations.

Policy HS-3.6 The City shall ensure that new development provides for adequate fire equipment access and, where appropriate, includes the use of fire-resistant landscaping and building materials.

FIRE PROTECTION IMPACTS AND MITIGATION MEASURES

Standards of Significance

The project description used for this analysis includes annexation of the Plan area to the City of Newman for public safety services including fire protection. For purposes of this EIR, the proposed Master Plan would have a significant effect on fire protection services if:

- the Plan would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

Project-Specific Fire Protection Impacts

The Plan area is proposed to become part of Newman and would increase demand for fire protection services. The existing land uses, primarily agriculture, do not generate a large number of emergency calls. The proposed Master Plan would increase the amount of development in the Plan area, which would increase demand for Emergency Services.

Payment of the Development Fees would provide some of the funding for public safety equipment and ensure that fire protection services can be provided to the Plan area without degrading existing service levels. The impact is *less than significant*

Cumulative Fire Protection Impacts

The Newman Fire Department currently has sufficient fire protection rating for providing coverage for most of its service area, with an Insurance Services Office Class rating of 5.

Increased development in the City of Newman would increase demand for fire protection services. Additional staff and resources will need to be added to provide adequate fire protection and emergency medical services. Funding of these increased services is anticipated to come from Development Fees and taxes paid by new development.

While development of the Plan area would contribute incrementally to the need for additional facilities, it is anticipated the Plan area could be served from the existing station with adequate service levels throughout the City. The impact would be considered *less than significant*.

LAW ENFORCEMENT

ENVIRONMENTAL SETTING

Police protection in the Master Plan area is currently provided by the Stanislaus County Sheriff's Department, headquartered in Modesto, the County seat. The Department provides 24-hour patrol service to the southwestern portion of Stanislaus that includes all of the unincorporated portions of the County. Sheriff personnel are supported by the Newman Police Department that responds to emergency calls for Service based on a mutual aid agreement.

Upon annexation to the City of Newman, police protection would be provided by the Newman Police Department. The Newman Police Department currently has 13 sworn officers, 1.5 code enforcement officers, and 3 professional staff members. At a target police to resident ratio of 1.3 to 1.5 officers per 1,000 residents, the Master Plan notes that an additional 5 to 6 officers and support equipment will be required as land uses envisioned in the Master Plan build out.

REGULATORY SETTING

Local

General Plan

The City of Newman General Plan contains the following goals and policies regarding law enforcement.

Goal LU-2 Provide for orderly, well-planned and balanced growth consistent with the limits imposed by the city's infrastructure and the city's ability to assimilate new growth.

Policy LU-2.1 The City will link the rate of growth in Newman to the provision of adequate services and infrastructure, including schools and District-wide school support facilities, roadways, police, fire and medical services, and water supply and wastewater treatment infrastructure. The City shall, through the Citywide Services Master Plan, ensure that growth occurs in an orderly fashion and in pace with the provision of public facilities and services. New development shall not negatively impact existing infrastructure and level of services.

Goal PFS-9 Provide an adequate level of fire service as new development occurs.

Policy PFS-9.3 The City shall continue to maintain its mutual aid agreement with the West Stanislaus County Fire Protection District and work collaboratively with the District to ensure that fire service is maintained and expanded as Newman and the west side grows.

Goal PFS-8 Provide an adequate level of police service as new development occurs and promote the protection of people and property.

Policy PFS-8.1 The City shall, through adequate staffing and patrol arrangements, endeavor to maintain the minimum feasible response times for police calls. The goal for average response time for Priority 1 (emergency) calls shall be three minutes.

Policy PFS-8.2 The Police Department shall continually monitor response times and report annually on the results of the monitoring.

Policy PFS-8.3 The Police Department shall provide neighborhood security and crime prevention information and training to neighborhood groups and homeowners' associations.

Policy PFS-8.4 The City shall encourage the use of physical site planning as an effective means of preventing crime. Criminal activity can be discouraged through physical site planning by locating walkways, open spaces, landscaping, parking lots, parks, play areas and other public spaces in areas that are visible from buildings and streets.

LAW ENFORCEMENT IMPACTS AND MITIGATION MEASURES

Standards of Significance

The project description used for this analysis includes annexation of the Plan area to the Newman Police Department, detachment from the Stanislaus County Sheriff's Office. For purposes of this EIR, the proposed Master Plan would have a significant effect on law enforcement services if:

- the Plan would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

Project-Specific Law Enforcement Impacts

The Plan area will become the jurisdiction of the Newman Police Department and will increase demand for law enforcement services from that agency. The existing land uses, primarily agriculture, do not generate a large number of emergency calls. The proposed Master Plan would increase the amount of development in the Plan area, which would increase demand for Emergency Services, including law enforcement, at an estimate demand for an additional 5 or 6 officers.

Payment of the Development Fees would provide some of the funding for public safety equipment and ensure that police protection services can be provided to the Plan area without degrading existing service levels. The impact is *less than significant*.

Cumulative Law Enforcement Impacts and Mitigation Measures

Increased development in the City of Newman would increase demand for law enforcement services. Additional staff and resources will need to be added to provide adequate law enforcement services. Funding of these increased services is anticipated to come from Development Fees and annual taxes paid by new development.

While development of the Plan area would contribute incrementally to the need for new stations, personnel and equipment, a new station is proposed in the Plan area. The impact would be considered *less than significant*.

EDUCATION

ENVIRONMENTAL SETTING

Public education facilities in the City of Newman and the Master Plan area are provided by the Newman-Crows Landing Unified School District (NCLUSD), headquartered in Newman. The District provides kindergarten through 12th grade classes. While NCLUSD may redraw attendance zones to accommodate changes in attendance, schools currently serving students in the Master Plan area include:

- Hunt Elementary School, located at 907 R Street in Newman. Hunt School provides K-5 classes. The estimated capacity of this school is estimated at 530 students and has a current enrollment of 335 students. Hunt School is deemed by District officials at capacity, since existing facilities would need to be modernized and upgraded to allow for increased enrollment and funding for this is not available.
- Yolo Middle School, located at 901 Hoyer Road has an estimated capacity of 700 students with an estimated current enrollment of 616 students. Yolo Elementary provides sixth through eighth grade classes.
- Orestimba High School is located at 707 Hardin Road. Orestimba High has an estimated capacity of 850 students (which includes portable units) with an estimated current enrollment of 710 students.

The Plan depicts one approximately 10.2-acre school site in the approximate center of the Master Plan area. This is anticipated to be a future Elementary School that that is anticipated to be designed and constructed by the NCLUSD.

REGULATORY SETTING

State

Senate Bill 50

SB 50 (Chapter 407, Statutes of 1998) is a school construction measure that was approved by the voters on the November 3, 1998 ballot. It authorized the expenditure of State general obligation bonds, primarily for the modernization and rehabilitation of older school facilities and the construction of new school facilities related to new growth.

SB 50 also implemented significant fee reform by amending the laws governing developer fees and school mitigation in a number of ways:

It establishes the base (statutory) amount (indexed for inflation) of allowable developer fees at \$1.93 per square foot for residential construction and \$0.31 per square foot for commercial construction.

It prohibits school districts, cities, and counties from imposing school impact mitigation fees or other requirements in excess of or in addition to those provided in the statute.

SB 50 prohibits local agencies from imposing school impact fees in excess of those provided by the statute in connection with approval of a proposed project. Additionally, a local agency cannot require participation in a Mello-Roos for school facilities; however, the statutory fee is reduced by the amount of any voluntary participation in a Mello-Roos. SB 50 has resulted in full State preemption of school mitigation. Satisfaction of the statutory requirements by a developer is deemed to be “full and complete mitigation.” The new law does identify certain circumstances under which the statutory fee can be exceeded. These include preparation and adoption of a “needs analysis,” eligibility for State funding, and satisfaction of two of four requirements identified in the law including year-round enrollment, general obligation bond measure on the ballot over the last four years that received 50 percent plus one of the votes cast, 20 percent of the classes in portable classrooms, or specified outstanding debt.

Assuming a district can meet the test for exceeding the statutory fee, the law establishes ultimate fee caps of 50 percent of costs where the State makes a 50 percent match, or 100 percent of costs where the State match is unavailable. All fees are levied at the time the building permit is issued. District certification of payment of the applicable fee is required before the City or County can issue the building permit.

Local

General Plan

The City of Newman General Plan contains the following goals and policies regarding schools.

Goal LU-2 Provide for orderly, well-planned and balanced growth consistent with the limits imposed by the city’s infrastructure and the city’s ability to assimilate new growth.

Policy LU-2.1 The City will link the rate of growth in Newman to the provision of adequate services and infrastructure, including schools and District-wide school support facilities, roadways, police, fire and medical services, and water supply and wastewater treatment infrastructure. The City shall, through the Citywide Services Master Plan, ensure that growth occurs in an orderly fashion and in pace with the provision of public facilities and services. New development shall not negatively impact existing infrastructure and level of services.

Policy LU-2.4 The City shall only approve a Master Plan after making a finding that the students to be generated by the Plan’s development can be accommodated in existing or planned School Facilities of the NCLUSD.

Goal LU-7 Provide adequate land for development of public and quasi-public uses to support existing and new residential, commercial, and industrial land uses.

Policy LU-7.1 The City shall designate adequate, appropriately located land for City and County facilities and School Facilities, particularly through the Master Plan process.

Policy LU-7.3 The City shall promote the clustering of public and quasipublic uses such as schools, parks, child care facilities and community activity centers. Joint-use of public facilities shall be promoted, and agreements for sharing costs and operational responsibilities among public service providers shall be encouraged.

Policy LU-7.4 The City shall designate adequate, appropriately located land for quasi-public uses such as medical facilities, churches, private school facilities and utility uses.

Goal PFS-10 Maintain the highest possible level of educational services, School Facilities and education programs for all Newman residents, regardless of socioeconomic status or place of residence in Newman.

Policy PFS-10.1 The City shall cooperate with the Newman-Crows Landing Unified School District in the development of District Facilities. To this end, the City shall assist the Newman-Crows Landing Unified School District in locating, designating and reserving appropriate sites for new schools.

Policy PFS-10.4 The City shall cooperate with and support the Newman-Crows Landing Unified School District in its efforts to ensure adequate financing of new School Facilities. To this end, the City shall cooperate with and support the School District in the collection of school facility development fees and voluntary financing from new residential and nonresidential development. The City and the School District shall identify, establish and implement additional measures to fully mitigate the impacts of new development on the school system.

Policy PFS-10.5 The City shall work with the Newman-Crows Landing Unified School District to ensure that school facilities are planned and constructed and that funding mechanisms are in place, pursuant to state guidelines and policies, to meet future student population needs.

Policy PFS-10.6 The City shall include the Newman-Crows Landing Unified School District in the City's development review process for new residential developments, providing the District with adequate time to supply relevant data and to review and evaluate residential proposals that could impact School Facilities and services.

Policy PFS-10.7 The planning and design of School Facilities shall be based on the policies and requirements of the Newman-Crows Landing Unified School District and the requirements and/or guidelines of the State of California (e.g. classroom size and site size). Schools shall be designed in conformance with the School District's lifecycle policies to insure that the quality of schools are maintained over time. In the planning and design of schools, it shall be ensured that schools have adequate site access/egress, sufficient utilities, and sufficient off-site public infrastructure provided to the property lines of designated school sites.

Policy PFS-10.8 The City shall coordinate with the Newman-Crows Landing Unified School District on the siting and design of school sites in order to facilitate private and public transportation vehicle access and pedestrian and bicycle routes which promote safe and hazard-free access and egress to schools.

Policy PFS-10.9 New development shall be responsible for the construction of School Facilities and/or provision of public and/or private financing, as necessary, to fund the costs of developing School Facilities, to the extent permitted by State law.

Policy PFS-10.10 School Facilities and District-wide support facilities shall be sited, financed, and developed in accordance with the District's Facilities Master Plan then in effect.

Goal CD-4 Create new residential neighborhoods that preserve and enhance the existing community character and fabric of Newman, create a sense of place, provide a high quality living environment and emphasize pedestrian access.

Policy CD-4.4 Each neighborhood should have at least one clear focal point, such as a park, school, or other open space and community facility. Focal points shall have ample public spaces, and shall be within ¼ mile from any point in a neighborhood.

Policy CD-4.12 Elementary and middle schools shall be encouraged to be located and designed to be compatible with residential neighborhoods as a means to foster the concept of neighborhood schools, minimize bussing of students, and encourage neighborhood identity.

EDUCATION IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed Master Plan would have a significant effect on schools if:

- the Plan would result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives.

The NCLUSD student generation rates shown in **Table 17.1**, were multiplied with the number of residential units that could be constructed within the Plan area.

TABLE 17.1: NCLUSD PLAN AREA STUDENT GENERATION

	Units	Student Rate	Projected Enrollment
Elementary	1,353	0.40	541
Middle	1,353	0.016	22
High	1,353	0.13	176
Total			739

Based on the above generation factors, build-out of the Master Plan would generate an estimated 739 students for all grade levels.

The NCLUSD currently charges school impact fees of \$3.48 per square foot for residential dwellings and \$0.5456 per square foot for commercial and industrial uses (effective 4/11/16).

The Master Plan includes one approximately 10-acre school site in the approximate center of the Master Plan area. This is anticipated to be a future Elementary School that that is anticipated to be designed and constructed by the NCLUSD.

School impact fees collected by the NCLUSD are anticipated to be used to upgrade or expand capacities at Yolo Middle School and Orestimba High School to accommodate students generated

Project-Specific Education Impacts to NCLUSD (assuming Plan area is NCLUSD)

The Plan area is located within the attendance boundaries for Yolo Middle School (6-8), and Orestimba High (9-12), the former of which would have adequate existing capacity but the latter of which would be above capacity with full build out of the Plan area. A new elementary school is proposed in the Plan area that would serve elementary school students in the Plan area.

School impact fees collected by the NCLUSD are anticipated to be used to upgrade or expand capacities at Yolo Middle School and Orestimba High School to accommodate students generated within the Master Plan area as a result of planned development. Funds would be needed for constructing and staffing new schools. School funding typically has a number of sources, such as

property tax, State General Funds, special taxes and developer fees. As discussed above, the assessment of developer fees is regulated through the State Government Code. Because the proposed Master Plan would pay school mitigation fees, consistent with State law, potential impacts due to increased school enrollment would be *less than significant*.

Cumulative Education Impacts

Increased development in the City of Newman would increase cumulative demand for education services. As growth occurs throughout the NCLUSD, the District will construct new schools as necessary. The construction of new schools will have environmental impacts. Actual impacts cannot be determined until a school location and design is proposed, but are anticipated to include the loss of agricultural land, air pollutant emissions associated with traffic, erosion and noise. Construction of the new elementary school in the Plan area is included in this analysis of the Master Plan. Any additional new schools proposed in the future would subject to the CEQA process, so potential impacts and appropriate mitigation would be identified at that time. Plan area development would pay school mitigation fees, which, according to California Government Code Section 65996, SB 50, represents mitigation for the impacts on schools. Therefore, the proposed Master Plan area's contribution to the cumulative demand for school services would be *less than significant*.

PARKS AND RECREATION

ENVIRONMENTAL SETTING

The City of Newman maintains a number of local, neighborhood-oriented parks, including a number of mini-parks. These include:

- Alfred "Bush" Rose Park, located on Park Circle in the Stephens Ranch subdivision. The park is improved with a play structure and turf playfield.
- Joe Borba Park serves the Lucas Ranch neighborhood and includes a play structure and half basketball court.
- Janet Carlsen Park is located adjacent to Von Renner Elementary School on Canyon Drive.
- Copeland Park is a mini-park with a number of picnic tables adjacent to SR 33 at Yolo Street.
- Yancey Park is improved with a play structure and is located on Duck Blind Circle in the Lucas Ranch neighborhood.
- Charles F. Klehn Park contains a play structure and open space.
- Hurd Barrington Park, located in Lucas Ranch, is adjacent to Barrington Elementary School. The park contains two baseball fields, a playground, basketball court, and covered eating area.
- Lions Park on Hardin Road contains the City's Youth Center, Baseball Field (Matteri Field) and Skate Park.
- Harold Densmore Park is bordered by R, S, Kern and Mariposa Streets. The park is home to the Newman Co-Op Preschool, Newman Library and two baseball fields.
- Pioneer Park is located in the heart of historic Newman bordered by Q, R, Fresno and Tulare Streets. The park contains a playground, restrooms, covered eating area, gazebo, BBQ pit and many shade trees.

- William Rae Sherman Park is located in Sherman Ranch and is the City's largest park to date. The park has two playgrounds, covered eating area, basketball court and serves as the City's soccer fields during soccer season.
- Howard B. Hill Jr. Park is located adjacent to the future aquatic Center on Merced Street. The park contains a playground, picnic tables and off-street parking.

In addition, a dog park with areas for small and large dogs to run off leash is included in the Master Plan.

A number of larger, regional park facilities are located near Newman. These include:

- Frank Raines Off-Highway Vehicle Park is located west of Interstate 5 in Del Puerto Canyon in Stanislaus County, approximately 31 miles northwest of Newman. The park offers hiking, biking and picnicking.
- Hagaman County Park is located approximately 11 miles east of Newman in Merced County and provides boating, fishing and picnicking adjacent to the Merced River.
- The George Hatfield State Recreation Area offers camping, boating, hiking and similar recreational opportunities on the Merced River about 5 miles east of Newman,
- The CDFW North Grasslands Wildlife Area - China Island Unit offers wetlands, riparian habitat and uplands approximately 1.5 miles east of Newman.
- Newman is near the San Luis National Wildlife Refuge approximately 15 miles to the south. The Refuge contains more than 40,000 acres and provides opportunities for wildlife observation and limited hunting.

The City of Newman has adopted a standard of 5 acres of parkland per 1,000 residents.

REGULATORY SETTING

State

Quimby Act

California Government Code Section 66477, Subdivision Map Act, referred to as the Quimby Act, permits local jurisdictions to require the dedication of land and/or the payment of in-lieu fees solely for park and recreation purposes. The required dedication and/or fee are based upon the residential density, parkland cost, and other factors. Land dedicated and fees collected pursuant to the Quimby Act may only be used for developing new, or rehabilitating existing, park or recreational facilities. The maximum dedication and/or fee allowed under current State law is equivalent to providing three acres of park land per 1,000 persons, unless the park acreage of a municipality exceeds that standard, in which case the maximum dedication is five acres per 1,000 residents.

Local

General Plan

The City of Newman General Plan contains the following goals and policies regarding parks.

Goal RCR-1 Establish and maintain a system of public parks, open spaces and recreation facilities suited to the needs of Newman residents.

Policy RCR-1.1 The City shall strive to maintain a standard of five acres of developed park land per 1,000 residents.

Policy RCR-1.2 New development shall contribute to meeting the City standard of five acres per 1,000 residents by dedicating land, dedicating improvements or paying in-lieu fees, or a combination of these, to the maximum extent authorized by law.

Policy RCR-1.3 The City shall acquire land or options on land for future parks and recreation facilities at the earliest practical time, to take advantage of lower land costs. Such properties may be land banked for future park development.

Policy RCR-1.4 Master plans for each Master Plan Subarea shall include the distribution and location of parks, recreational facilities and trails.

Policy RCR-1.5 Neighborhood parks shall be integrated into, and become focal points of, all neighborhoods.

Policy RCR-1.6 All parks shall be designed to be accessible to all ages and disabled persons.

Policy RCR-1.7 The City shall develop a community park in Newman. This park should include athletic complexes such as baseball and soccer fields and areas with natural qualities for outdoor recreation such as walking, running and picnicking. The park should also include playground equipment, concession facilities, water and sanitary facilities and group-use facilities or a community center.

Policy RCR-1.9 Parks shall be located, oriented and designed to facilitate security, policing and maintenance.

Policy RCR-1.10 New high-activity-level parks and parks intended for night use shall be designed to buffer existing and planned surrounding residential uses from excessive noise, light and other potential nuisances.

Policy RCR-1.11 The City shall design and maintain park and recreation facilities to minimize water, energy and chemical (e.g. pesticides and fertilizer) use, preserve wildlife habitat where appropriate, and incorporate native plants and drought resistant turf.

Policy RCR-1.14 The City shall pursue development of a citywide network of pedestrian and bicycle ways that is coordinated with the future Park and Recreation Master Plan. Within the Master Plan Subareas, pedestrian and bicycle pathways shall be provided within linear open space corridors. The pedestrian and bicycle ways system should be designed to directly link residential neighborhoods, parks, schools, downtown, neighborhood shopping centers and employment centers.

Goal RCR-2 Provide private recreational facilities and opportunities for Newman's residents.

Policy RCR-2.1 The City shall promote the provision of private open space and recreation facilities in large-scale residential developments. Private facilities shall be in addition to the public park land dedication requirements to maintain the City standard of five acres per 1,000 residents.

Policy RCR-2.2 The drainage detention facilities developed in conjunction with major new developments shall be designed to incorporate recreational opportunities.

Policy RCR-2.3 The City shall promote the development of commercial recreational facilities that meet community needs and complement public parks, facilities and programs.

PARKS AND RECREATION IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed Master Plan would have a significant effect on parks if it would:

- result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which would cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives;
- increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated; or
- include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

Project-Specific Parks and Recreation Impacts and Mitigation Measures

The proposed Master Plan would increase demand for parks. The General Plan target ratios were used to determine how much parkland would be required to serve the proposed Master Plan population. This demand was compared to the parkland that is provided within the proposed Master Plan to determine if proposed parks are adequate.

At the City of Newman standard of 5 acres of parkland per 1,000 residents, the Plan area is required to provide 23 acres of parkland. The Plan includes 38.5 acres of parkland plus an additional 8 acres of trails and open space. An additional 12.1 acres of parkland are identified outside but adjacent to the Plan area.

The amount of parkland at build-out of the Master Plan will exceed City of Newman park standards. Development will dedicate this parkland and/or pay in lieu fees to meet requirements of City ordinance. Therefore, the impact on parks would be *less than significant*.

Cumulative Parks and Recreation Impacts and Mitigation Measures

According to the Newman General Plan, with provision of at least five acres of parkland for every new 1,000 residents, there would be adequate provision of parks in Newman and increased usage would not deteriorate existing facilities.

Development of the proposed Plan would provide both parks and open spaces consistent with City targets and requirements. Therefore, the proposed Master Plan would not contribute to cumulative deficiencies in the park system and this would be a *less than significant* cumulative impact.

TRANSPORTATION AND TRAFFIC

INTRODUCTION

This section presents an evaluation of potential impacts related to utilities and service systems. In addition to the Northwest Master Plan, the discussion is based on:

- (1) April 2014, Northwest Newman Master Plan Traffic Impact Study, prepared for the City of Newman, prepared by KD Anderson & Associates.

This chapter summarizes the effects on the near-term and future transportation and circulation system resulting from vehicle trips associated with the proposed Master Plan and identifies measures to mitigate significant impacts.

ENVIRONMENTAL SETTING

EXISTING ROADWAY SYSTEM

Regional access to Newman is provided by SR 33, Stuhr Road and Hills Ferry Road. Primary local access to the Northwest Newman Master Plan project site would be provided by N Street (SR 33), Stuhr Road, and extensions of Harvey Lane, Jensen Road / Sherman Parkway, Hardin Road, and Fig Lane.

N Street (State Route 33)

SR 33 is a major roadway providing important north/south circulation through Newman while also linking the community with the City of Patterson to the north and the Merced County community of Gustine to the south. Inside the Newman City limits, SR 33 is N Street and is a two-lane arterial street with a center left-turn lane and parallel on-street parking. The Newman General Plan indicates that SR 33 will eventually need to be widened to four lanes, and in 1996 the City adopted the Highway 33 Specific Plan which identified the limits of planned improvements.

The most recent daily traffic counts reported by the Caltrans indicate that SR 33 carried an Annual Average Daily Traffic (AADT) volume of 6,300 vehicles per day south of Jensen Road, 6,500 vehicles per day between Jensen Road and Stuhr Road, and 3,650 vehicles per day north of Stuhr Road.

Stuhr Road

Stuhr Road is an east-west two-lane roadway that provides both regional access and local access to the project site. The western terminus is at an interchange with Interstate 5 (I-5). The eastern terminus is at Hills Ferry Road. Stuhr Road is the northern boundary of the Northwest Newman Master Plan

area, and the intersection of Stuhr Road and SR 33 is the northeast corner of the Plan area. The Newman 2030 General Plan designates Stuhr Road as a two-lane arterial.

Hills Ferry Road

Hills Ferry Road is a roadway aligned in a southwest-northeast direction that provides the City of Newman with regional access across the San Joaquin River to the northeast. The southwest terminus is at SR 33, where it continues as Merced Street. The northeast terminus is at a crossing of the San Joaquin River, where it splits into River Road and Kelly Road. Hills Ferry Road is two lanes wide, with a center two-way left-turn lane along some portions. The Newman 2030 General Plan designates Hills Ferry Road as a four-lane arterial.

Harvey Lane

Harvey Lane is currently a narrow unpaved roadway west of the City of Newman. It is aligned in a north-south direction with a northern terminus at Hoyer Road and a southern terminus at Hallowell Road. The Northwest Newman Master Plan shows Harvey Lane traversing the western portion of the Plan area. The Newman 2030 General Plan designates Harvey Lane as a two-lane arterial. Portions of this roadway are referred to as Harvey Road.

Jensen Road / Sherman Parkway

Jensen Road is currently a narrow paved roadway west of SR 33, with a varying pavement width of 12 to 14 feet. It is generally aligned in an east-west direction with some horizontal curves. The western terminus is near the CCID canal and the eastern terminus is at SR 33. Jensen Road extends east of SR 33 as Sherman Parkway. The eastern terminus of Sherman Parkway is at Hills Ferry Road. Sherman Parkway is a recently paved roadway with a pavement width of 30 to 40 feet. The Northwest Newman Master Plan shows Jensen Road traversing the southern portion of the Plan area. The Newman 2030 General Plan designates Jensen Road and Sherman Parkway as four-lane arterials.

Hardin Road

Hardin Road is a two-lane north-south roadway south of the Plan area. The northern terminus of Hardin Road is approximately 450 feet south of Jensen Road. The southern terminus is at Yolo Street. Hardin Road extends south of Yolo Street as T Street. Hardin Road provides direct access to Orestimba High School. The Northwest Newman Master Plan shows Collector Road B as a north-south roadway traversing the central portion of the Plan area. The southern terminus of Collector Road B would be at Hardin Road; the northern terminus would be at Stuhr Road. The Newman 2030 General Plan designates Hardin Road and T Street as major collector roadways.

Fig Lane

Fig Lane is a two-lane roadway with a generally north-south alignment. The northern terminus of Fig Lane is approximately 600 feet north of Jensen Road. The southern terminus is at Yolo Street. Fig Lane extends south of Yolo Street as Q Street. The Northwest Newman Master Plan shows Fig Lane traversing the eastern portion of the Plan area, with a northern terminus at Stuhr Road. The Newman 2030 General Plan designates Fig Lane and Q Street as major collector roadways.

PUBLIC TRANSIT

Public transit service in the Newman area is provided by StaRT. StaRT provides both fixed route and dial-a-ride service Monday through Saturday. Fixed route service is provided by Route 45 West,

which operates from 5:30 a.m. to 9:18 p.m. on weekdays, and 5:45 a.m. to 8:37 p.m. on Saturday. The Newman Dial-a-Ride service operate from 7:00 a.m. to 6:00 p.m. on weekdays, and 8:00 a.m. to 4:30 p.m. on Saturday.

BICYCLE FACILITIES

The Newman 2030 General Plan denotes the planned bicycle system to serve the community of Newman. The GP bicycle plan identifies both Class I (separated path) and Class II (bicycle lanes) facilities. Class I paths are planned in the following locations:

- Jensen Road,
- Sherman Parkway from the CCIG canal to McClintock Road,
- along the CCID canal,
- Hoyer Road between Harvey Road and Upper Road,
- Prince Street between Inyo Avenue and Shiells Road,
- along the railroad corridor east of SR 33, and
- Canal School Road south of Hills Ferry Road.

On street bicycle lanes (Class II) are planned along new collector / arterial streets and along major streets through Newman, including Kern Street, Driskell Avenue, Inyo Avenue, Fig Lane, and T Street.

APPROVED PROJECTS IN THE AREA

For the purposes of this traffic impact study, other land use development projects already approved, under construction, or likely to be considered for approval in the near-term future, are assumed to have been occupied under the Existing Plus Approved Projects (EPAP) condition. This scenario includes projects in the Newman area that may have an effect on study intersections and study roadway segment. This scenario is intended to provide information on the extent of roadway improvements that might be needed in the near-term future.

The selection of projects to include in the EPAP No Project condition was made in consultation with City of Newman staff (Ocasio pers. comm.). Where available, trip generation and trip distribution estimates for each of the projects was based on information from traffic impact studies prepared for each project; detailed information on each project is available in the traffic impact studies. The following describes the projects assumed in the EPAP No Project condition.

Souza Industrial Park

In 2008, the City of Newman approved the Souza Industrial Park, and this development has been assumed in the EPAP No Project condition. This 50-acre project is located south of Inyo Avenue near the intersection of Canal School Road and Brazo Road. This project would generate 2,988 daily trips, with 380 trips generated in the a.m. peak hour and 386 trips in the p.m. peak hour.

AutoZone Project

The AutoZone project is a 6,700-square-foot automobile parts retail store. The project is located northwest of the intersection of SR 33 and Inyo Avenue. The project is estimated to generate 353 net

new vehicles trips per day, with 13 trips generated in the a.m. peak hour and 63 trips in the p.m. peak hour. The estimate of net new trips does not include pass-by trips.

Dollar General Project

The Dollar General project is located southeast of the intersection of SR 33 and Inyo Avenue. A traffic impact study specific to this project site was not available. Trip generation estimates for this project were based on traffic impact studies prepared for other Dollar General projects located in the Central Valley.

Riddle Surface Mining Project

The Riddle Surface Mining project had been proposed and was actively under consideration by the County of Stanislaus at the time of preparation of the traffic study and was therefore included in this study. The project as proposed was on a 463-acre site south of Stuhr Road between the City of Newman and I-5 and was estimated to generate 581 vehicles trips per day, with 130 trips generated in the a.m. peak hour and 9 trips in the p.m. peak hour.

The project is no longer being actively proposed or considered. While it remains a part of the development assumed in the traffic study, KD Anderson & Associates determined that inclusion of the project results in a conservative analysis of Plan impacts and removal of the project would not change any conclusions of this analysis.

EXISTING TRAFFIC VOLUMES

To quantify existing traffic conditions, traffic volume count data were collected at study intersections and study roadway segments. Traffic volume count data reports are presented in the Technical Appendix of the traffic impact study (**Appendix E**).

Study Intersections

Weekday a.m. and p.m. peak hour intersection turning movement count data were collected at study intersections.

At the following seven study intersections, peak hour traffic count data were collected in May 2011 when seasonal agricultural traffic occurred and area schools were in session. These peak hours were selected as being representative of “worst case” background traffic conditions, based on review of daily traffic counts in the City of Newman, and based on the highest hour of project trip generation.

1. SR 33 & Stuhr Road
2. SR 33 & Jensen Road / Sherman Parkway
3. SR 33 & Yolo Street
4. Stuhr Road & Draper Road
5. Jensen Road & Fig Lane
6. Orestimba Road / Yolo Street & Hardin Road
7. Fig Lane / Q Street & Yolo Street

(Intersections 8 through 14 are proposed as new intersections under the Master Plan, so do not yet exist for counts to be taken.)

At the following two study intersections, traffic count data were collected in January 2014.

15. Stuhr Road & Eastin Road
16. Stuhr Road & Villa Manucha Road

Annual traffic count data reported by Caltrans were reviewed to determine whether traffic count data from 2011 were still valid. During a relatively long-term 18-year period from 1994 to 2012, the traffic volume on SR 33 has decreased 12 percent to 19 percent. During a relatively short-term three-year period from 2009 to 2012, the traffic volume on SR 33 has decreased six percent to 21 percent. The Caltrans data indicate both long-term and short-term trends in traffic volume are decreasing. Therefore, the use of traffic volume count data from 2011 is considered valid for this traffic impact study.

Study Roadway Segments

Weekday daily roadway segment traffic volume count data were collected at study roadway segments.

Traffic volume count data for the following three roadway segments are from Caltrans (California Department of Transportation 2014):

1. SR 33 - Lundy Road to Stuhr Road
2. SR 33 - Stuhr Road to Jensen Road
3. SR 33 - Jensen Road to Yolo Street

At the following six study roadway segments, traffic count data were collected in May 2011. As noted earlier in this traffic impact study, these data were collected when seasonal agricultural traffic occurred and area schools were in session.

4. Stuhr Road - Fig Lane to SR 33
5. Stuhr Road - SR 33 to Hills Ferry Road
6. Draper Road - Stuhr Road to Orestimba Road
9. Sherman Parkway - SR 33 to Balsam Drive
11. Yolo Street - Hardin Road to Fig Lane
13. Hardin Road - Orestimba Road to Angelina Avenue

At the following four study roadway segments, traffic count data were collected in May 2005.

7. Fig Lane - Jensen Road to Yolo Street
8. Jensen Road - Fig Lane to SR 33

10. Orestimba Road - Draper Road to Hardin Road
12. Yolo Street - Fig Lane to SR 33

(Road Segments 14 through 25 are proposed as new intersections under the Master Plan, so do not yet exist for counts to be taken.)

At the following three study roadway segments, traffic count data were collected in January 2014.

26. Eastin Road - Stuhr Road to Anderson Road
27. Stuhr Road - Draper Road to Eastin Road
28. Stuhr Road - Eastin Road to Interstate 5

As noted earlier in this traffic impact study, annual traffic count data reported by Caltrans indicate both long-term and short-term trends in traffic volume are decreasing. Therefore, the use of roadway segment traffic volume count data listed above is considered valid for this traffic impact study.

EXISTING OPERATIONS

Intersection Level of Service

Based on the traffic volumes and methods described above, existing LOS at study intersections was determined. To avoid redundancy of data presentation, the existing LOS results can be found with the discussion of Projected LOS under the impact discussion later in this chapter, in **Table 18.2**. Turning movement volumes at study intersections can be found in the traffic study included as Appendix E.

All existing study intersections are operating within acceptable conditions and no intersection improvements are recommended under existing conditions. All but one of the existing study intersections operate at LOS A, B, or C during both the a.m. peak hour and p.m. peak hour. The intersection of SR 33 & Jensen Road/Sherman Parkway operates at LOS D during both the a.m. peak hour and the p.m. peak hour. As noted above in the Standards of Significance section, LOS D is considered acceptable at this intersection.

Roadway Operations

Based on the traffic volumes and methods described above, all 16 existing study roadway segments operate at LOS A. This operating condition is considered to be excellent and no roadway segment improvements are recommended under existing conditions. To avoid redundancy of data presentation, the existing roadway operations results can be found with the impact discussion later in this chapter, in **Table 18.2**.

REGULATORY SETTING

Existing transportation policies, plans, laws, and regulations that would apply to the Plan are summarized below. This information provides a context for the impact discussion related to the Plan's consistency with applicable regulatory conditions.

STATE

Caltrans

Caltrans is responsible for planning, design, construction, and maintenance of all state highways. Caltrans' jurisdictional interest extends to improvements to these roadways at the interchange ramps serving area freeways. Any federally funded transportation improvements are subject to review by Caltrans staff and the California Transportation Commission.

The Guide for the Preparation of Traffic Impact Studies (Caltrans, 2002) provides consistent guidance for Caltrans staff who reviews local development and land use change proposals as well as inform local agencies of the information needed for Caltrans to analyze the traffic impacts to State highway facilities including freeway segments, on- or off-ramps, and signalized intersections.

Caltrans plans and policies for state highways are also presented in a series of "transportation concept report" (TCR) documents. Each TCR document is specific to a state route in an individual Caltrans district. The *State Route 33 Transportation Concept Report* (Caltrans 2003) applies to SR 33 in Newman. As described in the SR 33 TCR, the "2020 Concept Level of Service" for SR 33 through Stanislaus County is LOS D.

REGIONAL

Stanislaus Council of Governments

StanCOG is the countywide transportation planning agency responsible for the preparation of the RTP. The most recent RTP is a guiding document for future transportation improvements and investments based on specific goals, objectives, policies and strategies defined by the community and its elected officials. The project prioritization process is based on evaluating each project for need, feasibility, and adherence to federal and state transportation laws and policies requiring comprehensive, cooperative, and continuous transportation, safety and environmental planning. Stated goals of the RTP's include:

- **Mobility & Accessibility:** Improve the ability of people and goods to move between desired locations; and provide a variety of transportation choices.
- **Social Equity:** Promote and provide equitable opportunities to access transportation services for all populations and ensure all populations share in the benefits of transportation improvements and provide a range of transportation and housing choices.
- **Economic and Community Vitality:** Foster job creation and business attraction, retention, and expansion by improving quality of life through new and revitalized communities.
- **Sustainable Development Pattern:** Provide a mix of land uses and compact development patterns; and direct development toward existing infrastructure, which will preserve agricultural land, open space, and natural resources.
- **Environmental Quality:** Consider the environmental impacts when making transportation investments and minimize direct and indirect impacts on clear air and the environment.
- **Health & Safety:** Operate and maintain the transportation system to ensure public safety and security; and improve the health of residents by improving air quality and providing more transportation options.
- **System Preservation:** Maintain the transportation system in a state of good repair, and protect the region's transportation investments by maximizing the use of existing facilities.

To coordinate local planning efforts with other regional, state, and federal agencies, and to monitor and respond to policies that will affect the development and implementation of the RTP, StanCOG prioritizes transportation projects in a Transportation Improvement Program for federal and state funding. The process is based on each project for need, feasibility, and adherence to federal transportation policies.

The RTP's Regional Road network includes SR 33 through Newman. Newman area Tier I projects (i.e., projects that have a funding source) include traffic signals at various locations and improving the north portion of SR 33 to four lanes for 2,700 feet north of the Yolo Street intersection. Unfunded Tier II projects include reconstruction of Stuhr Road to the north city limits and SR 33 to Hills Ferry Road, as well as widening of Inyo Avenue to four lanes for 1,750 feet south of Inyo Avenue to Yolo Street. Tier I bicycle projects include improvements at various locations.

StanCOG administers the Regional Transportation Impact Fee (RTIF).

Stanislaus County

The Stanislaus County General Plan notes that Stanislaus County is directly responsible for the construction and maintenance of all roads in the county except for those within the nine incorporated cities (including Newman), interstate highways, and state routes. Caltrans is responsible for all state routes and interstates.

Level of Service Standards

Stanislaus County strives to maintain LOS C on all facilities located within rural areas of the County. LOS D has been identified as an acceptable LOS within urban areas within the sphere of influence of cities with an LOS D standard.

Plan Lines

Official Plan Lines have been prepared for a number of roads in the County and adopted by the Board of Supervisors. Adoption of Official Plan Lines shows the intent of the County to widen these streets to a specified width along a specified alignment or build a new road at some future time. Official Plan Lines are often used when it is undesirable or impractical to widen a road by requiring legal dedication on both sides of the existing center line. Official Plan Lines are established to prevent any unnecessary removal of buildings or important natural features when the County is ready to build the road. Once adopted, building activity is prohibited inside the established setback lines although existing buildings may remain. Identified ultimate road widths and alignments for the eventual widening or construction of a road have the important advantage of minimizing the cost to the County in the future. If new structures are permitted to be constructed in the proposed right-of-way, the County will be obligated to purchase portions of buildings and land lying within the proposed street line. It is also hoped that the disruption and dislocation of privately owned improvements would be minimized to reduce impacts on property owners. Adoption of Official Plan Lines or identification of ultimate street width requires foresight because the entire process of developing a transportation corridor is a slow one. A number of years may elapse before the last building, or even a majority of the buildings, are set back to the adopted line. Building setbacks may cause hardships to the first buildings that are required to be set back of the new line because they appear to be placed at the back of a parcel with old buildings projecting in front of them on both sides.

In the Newman area, a plan line has been adopted for Stuhr Road from I-5 to SR 33.

LOCAL

The Newman 2030 General Plan includes the following goals, policies and actions related to transportation and circulation.

Roadways

The following are goals, policies, and actions related to roadways.

Goal TC-1 Create and maintain a roadway network that provides for the safe and efficient movement of people and goods throughout the City while maintaining the quality of life for residents.

Policy TC-1.1 The City shall endeavor to maintain a LOS “C” as defined by the 2000 Highway Capacity Manual or subsequent revisions, on all streets and signalized intersections within the City except on Merced Street downtown, Kern Street between Main Street and Highway 33, and Highway 33, where a level of service lower than “C” is acceptable.

Policy TC-1.2 To identify the potential impacts of new development on traffic service levels, the City shall require the preparation of traffic impact analyses at the sole expense of the developer for developments determined to be large enough to have potentially significant traffic impacts. All development proposals shall be reviewed to assure consistency with the circulation policies and standards contained in the General Plan.

Policy TC-1.3 Streets shall be dedicated, widened, extended and constructed according to City standards as shown in Sections B, C, D and E of this Transportation and Circulation Element. Dedication and improvements of full right-of-ways shall not be required in existing developed areas where the City determines that such improvements are either infeasible or undesirable. The City may allow other deviations if the City Engineer determines that safe and adequate public access and circulation are preserved by such deviations.

Policy TC-1.4 The City shall encourage the development of a grid pattern of collector and local streets in newly developing areas. Development of paved alleys may be allowed in conjunction with grid street patterns. Development of cul-de-sacs that do not provide for through bicycle and pedestrian connections shall be discouraged.

Policy TC-1.5 The City shall provide for the phased development of an arterial grid street system to facilitate travel around the existing developed portion of the City and ensure access to new areas of the city as it expands. The arterial street system shall be constructed with a sufficient number of lanes to satisfy traffic volumes through 2030, although right-of-way may be reserved for traffic volumes beyond 2030. Arterial streets may be widened subsequently (after 2030) to respond to increased traffic volumes.

Policy TC-1.6 Street widths for new or improved arterials, collector and local streets shall be limited to the minimum width necessary to adequately carry the volume of anticipated traffic and meet the City’s Level of Service Policy of C while allowing for adequate bicycle and pedestrian facilities and emergency access.

Policy TC-1.7 Traffic calming measures shall be incorporated into the design and construction of new roadways to discourage speeding of motor vehicles. On arterials and collectors, traffic calming measures could include intersection and mid-block bulb-outs, large canopy street trees, pedestrian refuge islands, and narrower street widths, consistent with Policy TC-1.5 above. On local streets,

traffic calming measures could include also include street trees, bulb-outs and narrower streets widths or other measures approved by the City.

Policy TC-1.8 The City shall cooperate with the County and Caltrans in monitoring traffic volumes on Highway 33 and at the Stuhr Road interchange at Interstate 5. The City shall support appropriate actions and improvements to maintain adequate levels of service on Highway 33 to the extent feasible and adequate levels of service at the Stuhr Road/I-5 interchange.

Policy TC-1.9 The City shall provide for the southern extension of Main Street south of Inyo Avenue into the West Side shopping center as shown in Figure TC-5, with an additional connection to Prince Street. As an interim measure a pedestrian only connection might be established from Prince Street to the shopping center.

Policy TC-1.10 The City shall prohibit development of private streets in new residential projects, except in extraordinary circumstances.

Policy TC-1.11 On-street truck parking shall be prohibited in residential areas and where such parking restricts adequate sight distances or otherwise poses a potentially hazardous situation. The City shall maintain appropriate truck routes. Industrial and commercial development shall be planned so that truck access through residential areas is minimized.

Policy TC-1.12 New development shall ensure that safe and efficient emergency vehicle access is provided.

Policy TC-1.13 The City shall ensure through a combination of traffic impact fees and other funding mechanisms that new development pays its share of the costs of circulation improvements. The total cost of required improvements shall be paid for by new development.

Action TC-1.1 Establish plan lines for the arterial roadways included in the Circulation Plan Diagram.

Action TC-1.2 Develop and adopt a Street Master Plan for arterial, collector and local streets. The Plan will include standard cross sections for each category that, in addition to curb to curb standards, will include standards for sidewalks and planting or park strips.

Action TC-1.3 Establish and maintain a master list of the most recent available traffic counts. The master list shall be updated with traffic counts taken in conjunction with project traffic studies and special counts conducted by the City.

Action TC-1.4 Update the Municipal Code to reflect the truck routes shown on Figure TC-3.

Action TC-1.5 Work with the Public Utilities Commission (PUC) and the Union Pacific Railroad to develop the grade crossings at Driskell Avenue and Merced Street into four vehicle lane grade crossings with bicycle lanes in each direction. Also work with the UPRR and the PUC to improve the existing grade crossing at Stanislaus Street and develop a new grade crossing for the future South Parkway.

Action TC-1.6 As part of the planning process for Master Plan Subareas 1 and 2, work with the PUC and the UP to explore the possibility of developing an additional grade crossings between Sherman Parkway and Stuhr Road to serve the planned business park uses on the eastern side of the railroad.

Action TC-1.7 As the City grows, evaluate the need for improvements and/or the need to redesign the intersection of Merced Street/Inyo Avenue/Upper Road/Hoyer Road to improve traffic flow.

Improvements could include making Inyo Avenue, at the intersection with Merced Street, right turn only in the westbound direction, in conjunction with development of a connection from westbound Inyo Avenue to westbound Merced Avenue at “S” Street. A traffic signal or roundabout intersection will be needed to accommodate left turns.

Action TC-1.8 Update the traffic fee mitigation program to provide a mechanism by which new development will pay for identified needed traffic and circulation improvements. This update shall include the costs of improving railroad grade crossings and will include improvements needed to Merced and Stanislaus County roadways that are impacted by growth within Newman.

Public Transit

The following are goals, policies and actions related to public transit.

Goal TC-2 Promote and maintain public and private transit systems that are responsive to the needs of Newman residents.

Action TC-2.1 The City shall work with the Stanislaus Regional Transit (START) to maintain and expand van and bus service to Newman.

Action TC-2.2 Periodically evaluate the need for the establishment of private taxi service in Newman and shall encourage such establishment when sufficient demand exists.

Action TC-2.3 Cooperate with Stanislaus County and other transportation agencies in exploring the long-term possibility of developing commuter rail service on the West Side.

Ridesharing and Telecommuting

The following are goals, policies and actions related to ridesharing and telecommuting.

Goal TC-3 Promote ridesharing and telecommuting.

Policy TC-3.1 The City shall encourage and support programs which will increase ridesharing.

Policy TC-3.2 The City shall cooperate with Caltrans and local agencies in the development of park-and-ride facilities.

Policy TC-3.3 New residential development in the Master Plan Subareas and areas designated with a Planned Mixed Residential Land Use Designation shall be developed with a structured cabling system to allow for modern telephone and computer connections as a means to promote and facilitate telecommuting.

Roadway Impacts to Air Quality and Noise

The following are goals, policies and actions related to roadway impacts to air quality and noise.

Goal TC-4 Minimize air quality and noise impacts on surrounding land uses resulting from new roadway projects and improvements to existing roadways.

Policy TC-4.1 To the extent feasible, the City shall provide for separation of residential and other noise sensitive land uses from major roadways to reduce noise and air pollution impacts.

Intergovernmental Coordination and Communication

The following are goals, policies and actions related to intergovernmental coordination and communication.

Goal TC-5 Promote intergovernmental communication and cooperation concerning transportation-related issues.

Policy TC-5.1 The City shall continue to participate in state, regional, and local transportation planning efforts to ensure coordination of the expansion and improvement of the region's transportation system.

Policy TC-5.2 The City shall continue to maintain formal and informal lines of communication between adjacent jurisdictions to ensure cooperation in the development of transportation systems that cross jurisdictional boundaries. In particular, the City will work with Merced County to develop improvements to Canal School Road, Brazo Road and Highway 33 north of its intersection with Canal School Road. Potential intersection improvements specifically include signalization of the intersections of Highway 33 and Brazo Road, Brazo Road and Canal School Road, Highway 33 and Sanchez Road and Sanchez Road and Canal School Road. Potential roadway improvements specifically include development of Brazo Road and Canal School Road into arterial roads in Merced County.

Policy TC-5.3 The City shall continue to work with Stanislaus County and other cities in the county to maintain and implement the County's Congestion Management Plan.

Action TC-5.1 Request that the County update the Regional Traffic Mitigation Fee to reflect needed improvements to regional facilities, including capital improvements that could be needed to ensure adequate access between Newman and Interstate 5 as the City and the region grows.

Parking. The following are goals, policies and actions related to parking.

Goal TC-6 Ensure the adequate provision of both on- and off street parking.

Policy TC-6.1 If future growth in traffic volumes necessitates removal of on-street parking places to provide additional traffic lanes, the City should ensure that the lost on-street spaces are replaced with an equal number of off-street spaces within the same vicinity.

Policy TC-6.2 The City shall require provision of adequate off-street parking in conjunction with all new developments. Shared parking arrangements shall be encouraged. To the maximum extent possible, downtown parking shall be located behind buildings, out of direct view from Main Street. Primary access to parking shall be via "N," Kern, Tulare, Fresno, Merced and Stanislaus Streets. For a conceptual diagram illustrating where parking shall be located in the downtown refer to Figure TC-6.

Policy TC-6.3 In the design of new or reconfiguration of existing streets, the City shall balance the need for improved traffic flow with need for on-street parking. On-street parking not only provides public parking opportunities, but also provides a barrier between pedestrians and through vehicular traffic, thereby creating a more pedestrian friendly environment. The Street Master Plan shall develop criteria for developing on-street parking by street type.

Action TC-6.1 Review and revise, as necessary, the parking requirements of the Zoning Ordinance to ensure adequate parking for new development.

Action TC-6.2 Investigate, as the downtown grows and additional parking is needed, the purchase of vacant lots downtown for the development of additional public parking lots.

Action TC-6.3 Explore the creation of a parking assessment district in the downtown commercial core.

Bicycles and Pedestrians

The following are goals, policies and actions related to bicycles and pedestrians.

Goal TC-7 Provide a bicycle and pedestrian network to encourage bicycling and walking for both transportation and recreation.

Policy TC-7.1 The City shall create and maintain a safe and convenient system of pedestrian and bicycle facilities that encourages walking or bicycling as an alternative to driving. These routes should directly link residential neighborhoods, parks, schools, downtown, neighborhood shopping centers public facilities and employment centers. New development shall be required to develop and/or contribute to the development of these facilities.

Policy TC-7.2 The City shall promote development and street patterns that encourage walking, bicycling and other forms of non-motorist transportation.

Policy TC-7.3 The City shall require installation of sidewalks and/or walking paths along all city streets in newly developing areas.

Policy TC-7.4 New development shall meet the requirements of the ADA to further facilitate the mobility of persons with accessibility needs.

Policy TC-7.5 Within the Master Plan Subareas a system of pedestrian trails shall be developed within linear open space corridors linking residential neighborhoods, downtown, shopping areas, employment centers, and parks, schools and other public facilities.

Policy TC-7.6 Bicycle facilities shall be developed on all new arterials and collectors and on all existing arterials and collectors, where feasible. Bicycle facilities on arterials should consist of either Class I (Bike Path) or Class II (Bike Lane) facilities. On collector streets, Bicycle facilities should consist of Class II bike lanes. Figure TC-2, the Bicycle Network Diagram, shows the ultimate location of Class I and Class II bicycle facilities in Newman.

Policy TC-7.7 The City shall require inclusion of bicycle parking facilities at all new major public facilities and commercial and employment sites.

Policy TC-7.8 Bicycle and pedestrian safety shall be considered when designing and implementing improvements for automobile traffic operations. Improvements for motor vehicle circulation shall not detract from or degrade the pedestrian and bicycle circulation systems.

Policy TC-7.9 The City shall work with Stanislaus County, Merced County, the cities of Patterson and Gustine, the community of Crows Landing and other West Side communities in an effort to develop a regional bike path along the railroad right-of-way, the CCID canal and the Delta Mendota Canal linking Newman with other West Side communities.

Action TC-7.1 Prepare and adopt a Bikeways and Trails Master Plan that identifies the general location and design of multi-use and pedestrian trails within the Master Plan Subareas and identifies

specific improvements that are needed to implement the Class I and Class II Bikeway Network shown in Figure TC-2.

Action TC-7.2 Evaluate the need to the existing street and sidewalk system to be ADA responsive. Prioritize identified improvements needed, identify funding and implement improvements as funding becomes available.

Action TC-7.3 Continue to coordinate with the Newman-Crows Landing Unified School District in developing a program for school crossings and safe routes to schools.

ANALYSIS METHODOLOGIES AND LEVEL OF SERVICE CRITERIA

To quantitatively evaluate traffic conditions and to provide a basis for comparison of operating conditions with and without project-Generated traffic, LOS was determined at study intersections and roadway segments.

INTERSECTION LEVEL OF SERVICE

Level of service is a quantitative measure of traffic operating conditions. A letter grade “A” through “F” is assigned to an intersection. LOS A through F represents progressively worsening traffic conditions. LOS E and F are associated with severe congestion and delay.

Caltrans District 10, which is responsible for SR 33, specifies that intersection LOS analysis be conducted using the Synchro software package, and be based on methods presented in the Highway Capacity Manual. Therefore, Synchro and the Highway Capacity Manual were used in the analysis of the following study intersections on SR 33. These methods were applied to both unsignalized and signalized intersections. SR 33 is considered to operate acceptably at LOS D or better.

1. SR 33 & Stuhr Road (existing)
2. SR 33 & Jensen Road / Sherman Parkway (existing)
3. SR 33 & Yolo Street (existing)
10. SR 33 & Business Park Industrial Access (future)
11. SR 33 & North Commercial Access (future)
12. SR 33 & South Commercial Access (future)

Consistent with methods used in the traffic analysis presented in the Newman 2030 General Plan EIR, methods presented in the Highway Capacity Manual were applied to the remaining following intersections using the Traffix software package. These methods were applied to both unsignalized and signalized intersections. Intersections in Newman (or in Stanislaus County) are considered to operate acceptably at LOS C or better.

4. Stuhr Road & Draper Road (existing)
5. Jensen Road & Fig Lane (existing)
6. Orestimba Road / Yolo Street & Hardin Road (existing)

7. Fig Lane / Q Street & Yolo Street (existing)
8. Stuhr Road & Harvey Lane (future)
9. Stuhr Road & Fig Lane (future)
13. Stuhr Road & Collector Road B (future)
14. Jensen Road & Collector Road B (future)
15. Stuhr Road & Eastin Road (existing)
16. Stuhr Road & Villa Manucha Road (existing)

Intersection LOS calculation worksheets for all intersections under all scenarios analyzed for this traffic impact study are presented in the full Traffic Study included as Appendix E.

SIGNAL WARRANTS

Traffic signal warrants are a series of standards which provide guidelines for determining if a traffic signal is appropriate. Signal warrant analyses are typically conducted at intersections of uncontrolled major streets and stop sign-controlled minor streets. If one or more signal warrants are met, signalization of the intersection may be appropriate. However, a signal should not be installed if none of the warrants are met, because installation of signals would increase delays on the previously uncontrolled major street, resulting in an undesirable increase in overall vehicle delay at the intersection. Signalization may also increase the occurrence of certain types of accidents. Therefore, if signals are installed where signal warrants are not met, the detriment of increased accidents and overall delay may be greater than the benefit in traffic operating conditions on the single worst movement at the intersection. Signal warrants, then, provide an industry-standard basis for identifying when the adverse effect on the worst movement is substantial enough to warrant signalization.

For the analysis conducted for this traffic impact study, available data at unsignalized intersections are limited to a.m. and p.m. peak hour volumes. Thus, unsignalized intersections were evaluated using the Peak Hour Warrant (Warrant Number 3) from the California Department of Transportation document California Manual on Uniform Traffic Control Devices. This warrant was applied where the minor street experiences long delays in entering or crossing the major street for at least one hour of the day. The Peak Hour Warrant itself includes several components. Some of the components involve comparison of traffic volumes and vehicle delay to a series of standards. Another component involves comparison of traffic volumes to a nomograph.

Even if the Peak Hour Warrant is met, a more detailed signal warrant study is recommended before a signal is installed. The more detailed study should consider volumes during the eight highest hours of the day, volumes during the four highest hours of the day, pedestrian traffic, and accident histories.

ROADWAY SEGMENT LEVEL OF SERVICE

Levels of service on roadway segments were calculated for this traffic impact study using methods applied in the Newman 2030 General Plan. These methods are based on daily roadway segment traffic volume capacities for various types of facilities and numbers of lanes. The methods identify traffic volume thresholds for each LOS. The ranges of traffic volumes, and volume-to-capacity (V/C) ratios, associated with each LOS for each type of facility is shown in Table 3 of Appendix E.

As noted above in the Regulatory Setting section of this traffic impact study, agencies adopt minimum acceptable LOS standards for their roadway facilities. In the Master Plan project study area, three different agencies are responsible for the study facilities:

- Caltrans has set LOS D as the “concept LOS” for SR 33. The concept LOS will be used in this traffic impact study as the minimum acceptable LOS.
- LOS C has been set as the minimum acceptable LOS by the County of Stanislaus and the City of Newman.

Because Caltrans has set LOS D as the minimum acceptable LOS for SR 33, LOS D is used in this traffic impact study as the minimum acceptable LOS for the following intersections:

1. SR 33 & Stuhr Road (existing)
2. SR 33 & Jensen Road / Sherman Parkway (existing)
3. SR 33 & Yolo Street (existing)
10. SR 33 & Industrial Access (future)
11. SR 33 & North Commercial Access (future)
12. SR 33 & South Commercial Access (future)

LOS D is also applied to the following roadway segments:

1. SR 33 - Lundy Road to Stuhr Road
2. SR 33 - Stuhr Road to Jensen Road
3. SR 33 - Jensen Road to Yolo Street

Because the County of Stanislaus and City of Newman have set LOS C as the minimum acceptable LOS, LOS C is used in this traffic impact study as the minimum acceptable LOS for all other study facilities.

ROADWAYS

As with the intersection analysis, LOS for roadways is used as a qualitative measure of the effect of a number of factors, including speed and travel time, traffic interruptions, freedom to maneuver, driving comfort and convenience. Levels of service for roadway links were estimated using a planning methodology that is based on the Highway Capacity Manual (HCM). The capacity of a roadway is based on the number of signalized intersections per mile, number of lanes, presence of left-turn lanes and medians, and other factors from the HCM method. This methodology uses peak hour traffic volumes to determine levels of service for general planning applications. General LOS descriptions and LOS classifications based on peak hour traffic volumes in urban areas can be found in the full traffic study included as Appendix E.

FREEWAY MAINLINE SEGMENTS

HCM procedures were used to calculate average peak hour capacities for each LOS threshold from A to F for freeway segments. The LOS was determined using density given an estimated free-flow speed of 70 miles per hour for all the freeway segments, which is the base free-flow speed for urban areas from the HCM. Density is the number of passenger car per mile per lane for a transportation facility. Freeway mainline density thresholds can be found in the full traffic study included as Appendix E.

FREEWAY MERGE/DIVERGE AREAS

HCM procedures were used to analyze the freeway ramp merge / diverge areas. Freeway ramp operating conditions are dependent upon traffic volumes and the ramp characteristics. These characteristics include the length and type of acceleration / deceleration lanes; free-flow speed of the ramps; number of lanes; grade; and types of facilities that the ramps interconnect. Freeway merge/diverge area density thresholds can be found in the full traffic study included as Appendix E. The basic criterion used to determine Freeway Ramp LOS is vehicle density in the merge or diverge area, however, the 2000 Highway Capacity Manual requires that several additional criteria be considered so that LOS F is automatically attained for a ramp if:

At an on-ramp, volume exceeds capacity ($V > C$) in:

- The segment of a freeway downstream, or
- The merge-area defined by the on-ramp and the two adjacent freeway lanes,

At an off-ramp, volume exceeds capacity ($V > C$) in:

- The segment of a freeway upstream OR downstream,
- The off-ramp itself, or
- The diverge-area defined by the two adjacent freeway lanes approaching the ramp

IMPACT ANALYSIS

The analysis includes an evaluation of existing circulation conditions in the area based on recent data. Project impacts have been evaluated within the context of existing background traffic and under a near-term future EPAP scenario that assumes other proposed and approved land use development projects.

To address cumulative impacts, this study considers long term conditions occurring in year 2030 under the Newman 2030 General Plan. The long term cumulative analysis is based on the results of the travel demand forecasting model developed for the Newman 2030 General Plan EIR.

The potential impacts on the roadway system, transit service, bicycle and pedestrian facilities under EPAP and Future Year 2030 Cumulative conditions are evaluated to determine if the Project would result in significant impact. The significance criteria used for this analysis, the procedures used to estimate Project generated trips, and the impact analysis are presented in this section.

SIGNIFICANCE CRITERIA

Signalized Intersections

The project will be considered to have a significant impact on signalized intersections when the project would:

- result in a signalized intersection operating at an acceptable LOS without the project to deteriorate to an unacceptable LOS with the project, or
- increase the delay by more than five seconds at a signalized intersection that is operating at an unacceptable LOS without the project.

See LOS standards for the various agencies/intersections under Analysis Methodologies and Level of Service Criteria above.

Unsignalized Intersections

The project will be considered to have a significant impact on unsignalized intersections when the project would:

- result in an unsignalized intersection movement or approach operating at an acceptable LOS without the project to deteriorate to an unacceptable LOS with the project, and also cause the intersection to meet a peak hour signal warrant; or
- for an unsignalized intersection that meets a peak hour signal warrant, increase the delay by more than five seconds at a movement/approach that is operating at an unacceptable LOS without the project.

See LOS standards for the various agencies/intersections under Analysis Methodologies and Level of Service Criteria above.

Roadway Segments

The project will be considered to have a significant impact on roadway segments when the project would:

- result in a roadway segment operating at an acceptable LOS without the project to deteriorate to an unacceptable LOS with the project, or
- increase the V/C ratio by more than 0.05 at a roadway segment that is operating at an unacceptable LOS without the project.

See LOS standards for the various agencies/intersections under Analysis Methodologies and Level of Service Criteria above.

Transit System

The Project impact is considered significant if any of the following occurs:

- The Project disrupts existing transit services or facilities. This includes disruptions cause by proposed Project driveways on transit streets, impacts to transit stops/shelters, and impacts to transit operations from traffic improvement proposed or resulting from the Project;

- The Project interferes with planned transit services or facilities;
- The Project creates demand for public transit services above that which is provided or planned;
- The Project conflicts or creates inconsistencies with adopted transit system plans, guidelines, policies or standards.

Bicycle Facilities

The Project impact is considered significant if any of the following occurs:

- The Project disrupts existing bicycle facilities;
- The Project interferes with planned bicycle facilities such as failure to dedicate right-of-way for planned on- and off-street bicycle facilities included in an adopted bicycle master plan;
- The Project conflicts or creates inconsistencies with adopted bicycle system plans, guidelines, policies or standards.

Pedestrian Facilities

The Project impact is considered significant if any of the following occurs:

- The Project disrupts existing pedestrian facilities such as adding new vehicular, pedestrian or bicycle traffic to an area experiencing pedestrian safety concerns such as an adjacent crosswalk, school or railroad crossings.
- The Project interferes with planned pedestrian facilities;
- The Project conflicts or creates inconsistencies with adopted bicycle system plans, guidelines, policies or standards.

Site Access and Internal Circulation

The Project impact is considered significant if any of the following occurs:

- A substantial left-turn demand at an unsignalized intersection from the side street onto a roadway with more than four lanes near the site;
- Lack of or an insufficient ingress left-turn lane length at a driveway, causing the ingress left-turn vehicle queue to spill out onto the street's adjacent through travel lane;
- Lack of or an insufficient ingress right-turn lane length at a driveway, causing the ingress vehicle queue to spill out onto the streets adjacent through travel lane.

PROJECT TRIP GENERATION

Development of the proposed project would generate new vehicle trips and potentially affect traffic operations at the study intersections and study roadway segments. The number of vehicle trips that are expected to be generated by development of the proposed project has been estimated using typical trip generation rates that have been developed based on the nature and size of project land uses.

To quantify the amount of vehicular traffic generated by the proposed project, daily and a.m. peak hour, and p.m. peak hour trip generation rates presented in the ITE publication Trip Generation Manual 9th Edition, were employed. An adjustment to reflect “pass-by” trips has been applied to the trip generation estimates for retail commercial land use.

As shown in **Table 18.1**, the proposed project is expected to generate 35,661 new trips on a daily basis, with 2,664 new trips in the a.m. peak hour, and 3,337 trips in the p.m. peak hour.

TABLE 18.1: TRIP GENERATION

Trip Generation Land Use Category	Amount	Daily	AM Peak Hour			PM Peak Hour			
			In	Out	Total	In	Out	Total	
Non-Residential Uses									
Business Park	902.56	ksf	11,229	1,074	190	1,264	297	839	1,136
Community Commercial	297.29	ksf	12,694	179	107	286	529	574	1,103
Professional Office	8.3	acres	1,619	196	17	213	35	200	235
Residential Uses									
High Density Residential	180	du	1,197	18	74	92	72	40	112
Planned Mixed Residential	1,118	du	10,302	202	609	811	678	394	1,072
Very Low Density Residential	55	du	524	10	31	41	35	20	55
Total Plan Trips			37,565	1,679	1,028	2,707	1,646	2,067	3,713

Notes: Totals may not equal the sum of components due to rounding.

A more complete breakdown by area and residential density can be found in the traffic study.

Source: KD Anderson & Associates, 2014.

PROJECT TRIP DISTRIBUTION AND ASSIGNMENT

Project-related trips were geographically distributed over the study area roadway network. The geographical distribution of trips is based on the relative attractiveness or utility of possible destinations. Trip distribution percentages are presented in detail in the traffic study.

The travel demand forecasting model developed for the City General Plan was used to estimate trip distribution percentages. The travel demand model is considered to be a valid source for the trip distribution percentages because it directly addresses:

- the location of destinations of project-related trips,
- the magnitude of land uses that would attract project-related trips, and
- the quality of access to the destinations via the roadway network.

A “select link” analysis was conducted using the travel demand model to determine the geographic distribution of project-related travel. The select link analysis identifies vehicle trips associated with the proposed project site, and identifies the direction of travel to and from the project site. Adjustment of the raw results from the travel demand models was needed.

Using the trip generation and distribution assumptions described above, the trips generated by the proposed project were assigned to the study area street system. Peak hour volumes associated with development of the proposed project can be found in the full traffic study as Figure 1 of Appendix E.

PLANNED IMPROVEMENTS

There are no currently under-construction or planned near-term improvements that would impact this analysis. Because the Cumulative No Project condition is a long-term future scenario, it assumes future circulation system improvements in Newman. Consistent with the Newman 2030 General Plan, and in consultation with City staff, the Cumulative condition assumes SR 33 and Sherman Parkway will be widened to four lanes (two lanes in each direction).

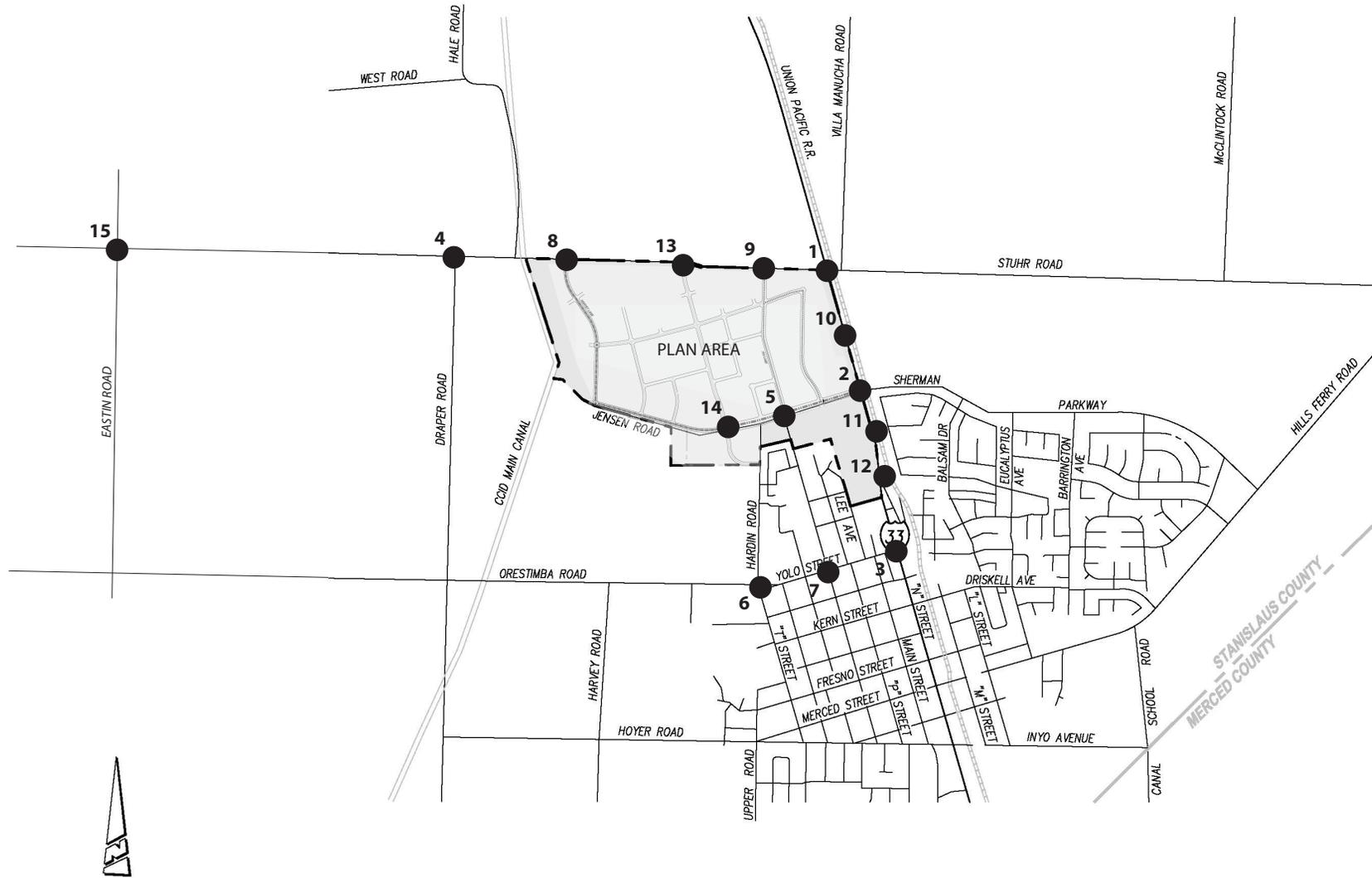


Figure 18.1: Traffic Study Locations

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PROJECT-SPECIFIC IMPACTS

Existing plus Project Conditions

For the Existing plus Project conditions, full development of the proposed Plan is assumed to occur “instantaneously.” In this manner, the traffic and impacts associated with the Plan can be directly compared to known and measurable conditions.

Intersection Operations

The results of the intersection LOS analysis are summarized in **Table 18.2** and the corresponding level of service calculation worksheets can be found in **Appendix E**.

Impact Traf-1: Addition of Vehicles to Existing Conditions. at Most Plan Area Intersections. Twelve of the sixteen study intersections would operate at LOS C or better during both the a.m. peak hour and p.m. peak hour. These LOS are considered acceptable. The impact of the proposed Plan at these intersections is considered *less than significant*, and no mitigation measures are required.

The remaining four intersections and the related impacts under the existing condition are discussed below.

Impact Traf-2: SR 33 & Jensen Road / Sherman Parkway. The addition of Plan traffic to this intersection would degrade the LOS from C in the a.m. peak hour and D in the p.m. peak hour, both of which are considered acceptable, to an unacceptable LOS F during both peak hours. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the intersection of SR 33 & Jensen Road / Sherman Parkway would operate at LOS F with 85.8 seconds of delay during the a.m. peak hour and LOS F with 174.1 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-2: SR 33 & Jensen Road / Sherman Parkway. The intersection should be improved as described below:

- Add an exclusive northbound through lane.
- Add an exclusive southbound through lane.
- Split the eastbound combined through/right-turn lane into an exclusive eastbound through lane and an exclusive eastbound-to-southbound right-turn lane.
- Set the signal timing of the eastbound-to-southbound right-turn movement to overlap.
- Prohibit northbound-to-southbound U-turns.

The addition of northbound and southbound through lanes at this intersection would be consistent with the roadway segment mitigation measure described below.

TABLE 18.2: INTERSECTION LEVEL OF SERVICE – EXISTING AND EXISTING PLUS PROJECT

Study Intersections	Existing Conditions						Existing Plus Project					
	Inters Contr	Sig Warr	AM Peak		PM Peak		Inters Contr	Sig Warr	AM Peak		PM Peak	
		Met?	LOS	Delay	LOS	Delay		Met?	LOS	Delay	LOS	Delay
1 SR 33 & Stuhr Road	AWSC	No	B	11.7	B	11.0	Signal		C	25.3	C	24.9
2 SR 33 & Jensen Rd/ Sherman Parkway	Unsig	No	C	25.0	D	30.7	Signal		F	85.8	F	174.1
3 SR 33 & Yolo Street	Unsig	No	C	22.7	C	17.7	Unsig	Yes	F	Ovrflw	F	Ovrflw
4 Stuhr Road & Draper Road	Unsig	No	A	9.2	A	9.3	Unsig	No	A	9.7	B	10.0
5 Jensen Road & Fig Lane	Unsig	No	A	9.4	A	9.1	Signal		C	30.7	C	32.7
6 Orestimba Rd/Yolo St & Hardin Rd	AWSC	No	A	9.5	A	7.7	AWSC	No	B	12.0	A	9.4
7 Fig Lane / Q Street & Yolo Street	Unsig	No	B	12.5	B	10.2	Unsig	Yes	F	54.1	F	60.9
8 Stuhr Road & Harvey Lane	--		--		--		Signal		B	13.8	B	13.6
9 Stuhr Road & Fig Lane	--		--		--		Signal		C	22.6	C	24.3
10 SR 33 & Industrial Access	--		--		--		Signal		A	2.6	A	4.6
11 SR 33 & North Commercial Access	--		--		--		Unsig	Yes	E	47.7	F	300.3
12 SR 33 & South Commercial Access	--		--		--		Signal		A	5.8	C	23.9
13 Stuhr Road & Collector Road B	--		--		--		Unsig	No	A	9.1	A	9.1
14 Jensen Road & Collector Road B	--		--		--		Round		A	3.3	A	2.8
15 Stuhr Road & Eastin Road	Unsig	No	B	10.2	B	10.3	Unsig	No	B	11.0	B	11.5
16 Stuhr Road & Villa Manucha Road	Unsig	No	A	8.9	A	9.2	Unsig	No	A	9.7	B	10.2

Notes: SR = State Route. LOS = Level of Service. "Inters Contr" = Type of intersection control. "Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control. "AWSC" = All-way stop-sign control. "Sig Warr" = Signal Warrants. "Round" = Roundabout. At unsignalized stop-sign controlled intersections, delay and LOS are shown for the worst approach, not the intersection average. "Ovrflw" = Overflow, indicates demand exceeds capacity. **Bold** font indicates unacceptable level of service. Dashes (- -) indicate the intersection would not be present under this scenario. Delay is measured in seconds per vehicle.

With these improvements, this intersection would operate at LOS D (47.4 seconds of delay) during the a.m. peak hour and LOS C (31.9 seconds of delay) during the p.m. peak hour. LOS D and C are considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-3: SR 33 & Yolo Street. The addition of Plan traffic to this intersection would degrade the LOS from an acceptable C in the a.m. and p.m. peak hours to an unacceptable LOS F during both peak hours. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the intersection of SR 33 & Yolo Street would operate at LOS F with overflow conditions during both the a.m. peak hour and p.m. peak hour. This unsignalized intersection would meet peak hour signal warrants. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-3: SR 33 & Yolo Street. The intersection should be improved as described below:

- Signalize the intersection.
- Add an exclusive northbound through lane.
- Add an exclusive southbound through lane.

The addition of northbound and southbound through lanes at this intersection would be consistent with the roadway segment mitigation measure described below.

Signalization of this intersection would be consistent with the Newman 2030 General Plan EIR.

With these improvements, this intersection would operate at LOS C during the a.m. and p.m. peak hours (22.3 and 24.7 seconds of delay, respectively) during the p.m. peak hour. LOS C is considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-4: Fig Lane / Q Street & Yolo Street. The addition of Plan traffic to this intersection would degrade the LOS from an acceptable B in the a.m. and p.m. peak hours to an unacceptable LOS F during both peak hours. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the intersection of Fig Lane / Q Street & Yolo Street would operate at LOS F with 54.1 seconds of delay during the a.m. peak hour and LOS F with 60.9 seconds of delay during the p.m. peak hour. This unsignalized intersection would meet peak hour signal warrants. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-4: Fig Lane / Q Street & Yolo Street. The intersection should be improved as described below:

- Signalize the intersection.

Signalization of this intersection would be consistent with the Newman 2030 General Plan EIR. Additional approach lanes would not be needed.

With these improvements, this intersection would operate at LOS B during the a.m. and p.m. peak hours (10.7 and 11.0 seconds of delay, respectively) during the p.m. peak hour. LOS B is considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-5: SR 33 & North Commercial Access. This intersection would be created by the Plan and would operate at unacceptable LOS E and F during the a.m. and p.m. peak hours, respectively. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the intersection of SR 33 & North Commercial Access would operate at LOS F with 47.7 seconds of delay during the a.m. peak hour and LOS F with 300.3 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable, and this is considered a significant impact.

This intersection would meet peak hour signal warrants, and signalization of this intersection was considered as a mitigation measure. However, signalization is not recommended because this intersection is approximately 400 feet south of the signalized intersection of SR 33 & Jensen Road/Sherman Parkway. Signalizing the intersection of SR 33 & North Commercial Access would result in distances between signalized intersections which are considered inadequate. With inadequate distances between signalized intersections, queues from one intersection may interfere with the operation of other intersections.

To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-5: SR 33 & North Commercial Access. The intersection should be improved as described below:

- Prohibit eastbound-to-northbound left-turn movements at this intersection.
- Add an exclusive northbound through lane.
- Add an exclusive southbound through lane.

The addition of northbound and southbound through lanes at this intersection would be consistent with the roadway segment mitigation measure described below.

With these improvements, this intersection would operate at LOS B (10.3 seconds of delay) during the a.m. peak hour and LOS C (15.8 seconds of delay) during the p.m. peak hour. LOS B and C are considered acceptable and this impact would be reduced to *less than significant*.

Roadway Segments

The results of the intersection LOS analysis are summarized in **Table 18.2** and the corresponding level of service calculation worksheets can be found in Appendix E.

Impact Traf-6: Addition of Vehicles to Existing Conditions. Twenty-seven of the 28 roadway segments would operate at LOS A, which is considered acceptable. The impact

of the proposed Plan at these intersections is considered *less than significant*, and no mitigation measures are required.

The remaining one segment and the related impact under the existing condition is discussed below.

Impact Traf-6: Roadway Segment SR 33 - Jensen Road to Yolo Street. The addition of Plan traffic to this roadway segment would degrade the LOS from an acceptable A to an unacceptable LOS F. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the roadway segment of SR 33 from Jensen Road to Yolo Street would operate at LOS F with a V/C ratio of 1.04. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-6: SR 33 & Jensen Road / Sherman Parkway. Widen the roadway segment of SR 33 from Jensen Road to Yolo Street to four lanes (two lanes in each direction).

Widening this roadway segment to four lanes would be consistent with the Newman 2030 General Plan.

With this improvement, this roadway segment would operate at LOS A and a V/C ratio of 0.52, which are considered acceptable and this impact would be reduced to *less than significant*.

Pedestrian and Bicycle Facilities

Implementation of land use development included in the Northwest Newman Master Plan would result in an increase in demand for pedestrian and bicycle facilities. The Plan also includes:

- Class I bikeways on SR 33 and Jensen Road;
- Class II bikeways on Stuhr Road, Harvey Lane, and Fig Lane; and
- pedestrian walkways on, Harvey Lane, Fig Lane, Collector Road B, Collector Road C, and other minor and major collector roads within the proposed project site.

Construction of the pedestrian and bicycle facilities listed above is considered to adequately serve the Plan-related increase in demand for pedestrian and bicycle facilities. Therefore, the Plan would have no impact in this regard and no mitigation measures are needed.

Existing Plus Approved Projects

This section of the traffic impact study describes traffic operating conditions under EPAP No Project conditions. This development scenario serves as a background condition for determining the impacts of the Northwest Newman Master Plan in the near-term future.

Intersection Operations

The results of the intersection LOS analysis are summarized in **Table 18.3** and the corresponding level of service calculation worksheets can be found in Appendix E.

TABLE 18.3: INTERSECTION LEVEL OF SERVICE – EPAP NO PROJECT AND EPAP PLUS PROJECT

Study Intersections	EPAP No Project						EPAP Plus Project					
	Inters Contr	Sig Warr	AM Peak		PM Peak		Inters Contr	Sig Warr	AM Peak		PM Peak	
		Met?	LOS	Delay	LOS	Delay		Met?	LOS	Delay	LOS	Delay
1 SR 33 & Stuhr Road	AWSC	No	B	11.7	B	11.0	Signal		C	23.1	C	30.7
2 SR 33 & Jensen Rd/ Sherman Parkway	Unsig	No	C	25.0	D	30.7	Signal		F	117.4	F	183.4
3 SR 33 & Yolo Street	Unsig	No	C	22.7	C	17.7	Unsig	Yes	F	Ovrflw	F	Ovrflw
4 Stuhr Road & Draper Road	Unsig	No	A	9.4	A	9.3	Unsig	No	A	9.9	B	10.1
5 Jensen Road & Fig Lane	Unsig	No	A	9.4	A	9.1	Signal		C	30.7	C	32.7
6 Orestimba Rd/Yolo St & Hardin Rd	AWSC	No	A	9.5	A	7.7	AWSC	No	B	12.0	A	9.4
7 Fig Lane / Q Street & Yolo Street	Unsig	No	B	12.5	B	10.2	Unsig	Yes	F	54.1	F	60.9
8 Stuhr Road & Harvey Lane	--		--		--		Signal		B	12.9	B	13.5
9 Stuhr Road & Fig Lane	--		--		--		Signal		C	21.7	C	24.3
10 SR 33 & Industrial Access	--		--		--		Signal		A	3.3	A	3.9
11 SR 33 & North Commercial Access	--		--		--		Unsig	Yes	F	67.8	F	576.4
12 SR 33 & South Commercial Access	--		--		--		Signal		A	6.1	C	28.1
13 Stuhr Road & Collector Road B	--		--		--		Unsig	No	A	9.2	A	9.1
14 Jensen Road & Collector Road B	--		--		--		Round		A	3.3	A	2.8
15 Stuhr Road & Eastin Road	Unsig	No	B	10.9	B	10.4	Unsig	No	B	12.0	B	11.6
16 Stuhr Road & Villa Manucha Road	Unsig	No	A	8.9	A	9.2	Unsig	No	A	9.7	B	10.2

Notes: SR = State Route. LOS = Level of Service. "Inters Contr" = Type of intersection control. "Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control. "AWSC" = All-way stop-sign control. "Sig Warr" = Signal Warrants. "Round" = Roundabout. At unsignalized stop-sign controlled intersections, delay and LOS are shown for the worst approach, not the intersection average. "Ovrflw" = Overflow, indicates demand exceeds capacity. **Bold** font indicates unacceptable level of service. "EPAP" = Existing Plus Approved Projects. Dashes (- -) indicate the intersection would not be present under this scenario. Delay is measured in seconds per vehicle.

Impact Traf-7: Addition of Vehicles to EPAP Conditions. Twelve of the sixteen study intersections would operate at LOS C or better during both the a.m. peak hour and p.m. peak hour. These LOS are considered acceptable. The impact of the proposed Plan at these intersections is considered *less than significant*, and no mitigation measures are required.

The remaining four intersections and the related impacts under the existing condition are discussed below.

Impact Traf-8: SR 33 & Jensen Road / Sherman Parkway, EPAP. The addition of Plan traffic to this intersection would degrade the LOS from C in the a.m. peak hour and D in the p.m. peak hour, both of which are considered acceptable, to an unacceptable LOS F during both peak hours. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the intersection of SR 33 & Jensen Road / Sherman Parkway would operate at LOS F with 85.8 seconds of delay during the a.m. peak hour and LOS F with 174.1 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measures

Traf-2 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to partially mitigate Impact Traf-8.

Traf-8: **SR 33 & Jensen Road / Sherman Parkway, EPAP.** In addition to improvements in Mitigation Measure Traf-2, the intersection should be improved as described below:

- Split the westbound combined through/right-turn lane into an exclusive westbound through lane and an exclusive westbound-to-northbound right-turn lane.

The addition of northbound and southbound through lanes at this intersection would be consistent with the roadway segment mitigation measure described below.

With these improvements, this intersection would operate at LOS D (46.3 seconds of delay) during the a.m. peak hour and LOS C (30.7 seconds of delay) during the p.m. peak hour. LOS D and C are considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-9: SR 33 & Yolo Street, EPAP. The addition of Plan traffic to this intersection would degrade the LOS from an acceptable C in the a.m. and p.m. peak hours to an unacceptable LOS F during both peak hours. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the intersection of SR 33 & Yolo Street would operate at LOS F with overflow conditions during both the a.m. peak hour and p.m. peak hour. This unsignalized intersection would meet peak hour signal warrants. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-3 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to mitigate Impact Traf-9.

The addition of northbound and southbound through lanes at this intersection would be consistent with the roadway segment mitigation measure described below.

Signalization of this intersection would be consistent with the Newman 2030 General Plan EIR.

With these improvements, this intersection would operate at LOS C during the a.m. and p.m. peak hours (23.2 and 26.3 seconds of delay, respectively) during the p.m. peak hour. LOS C is considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-10: Fig Lane / Q Street & Yolo Street, EPAP. The addition of Plan traffic to this intersection would degrade the LOS from an acceptable B in the a.m. and p.m. peak hours to an unacceptable LOS F during both peak hours. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the intersection of Fig Lane / Q Street & Yolo Street would operate at LOS F with 54.1 seconds of delay during the a.m. peak hour and LOS F with 60.9 seconds of delay during the p.m. peak hour. This unsignalized intersection would meet peak hour signal warrants. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-4 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to mitigate Impact Traf-10.

Signalization of this intersection would be consistent with the Newman 2030 General Plan EIR. Additional approach lanes would not be needed.

With these improvements, this intersection would operate at LOS B during the a.m. and p.m. peak hours (10.7 and 11.0 seconds of delay, respectively) during the p.m. peak hour. LOS B is considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-11: SR 33 & North Commercial Access, EPAP. This intersection would be created by the Plan and would operate at unacceptable LOS E and F during the a.m. and p.m. peak hours, respectively. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the intersection of SR 33 & North Commercial Access would operate at LOS F with 67.8 seconds of delay during the a.m. peak hour and LOS F with 576.4 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable, and this is considered a significant impact.

This intersection would meet peak hour signal warrants, and signalization of this intersection was considered as a mitigation measure. However, signalization is not recommended because this intersection is approximately 400 feet south of the signalized intersection of SR 33 & Jensen Road/Sherman Parkway. Signalizing the intersection of SR 33 & North Commercial Access would result in distances between signalized intersections which are considered inadequate. With inadequate distances between signalized intersections, queues from one intersection may interfere with the operation of other intersections.

To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-5 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to mitigate Impact Traf-11.

The addition of northbound and southbound through lanes at this intersection would be consistent with the roadway segment mitigation measure described below.

With these improvements, this intersection would operate at LOS B (11.1 seconds of delay) during the a.m. peak hour and LOS C (16.7 seconds of delay) during the p.m. peak hour. LOS B and C are considered acceptable and this impact would be reduced to *less than significant*.

Roadway Segments

The results of the intersection LOS analysis are summarized in **Table 18.3** and the corresponding level of service calculation worksheets can be found in Appendix E.

Impact Traf-12: Addition of Vehicles to Existing Conditions. Twenty-seven of the 28 roadway segments would operate at LOS A, which is considered acceptable. The impact of the proposed Plan at these intersections is considered *less than significant*, and no mitigation measures are required.

The remaining one segment and the related impact under the existing condition is discussed below.

Impact Traf-13: Roadway Segment SR 33 - Jensen Road to Yolo Street. The addition of Plan traffic to this roadway segment would degrade the LOS from an acceptable A to an unacceptable LOS F. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the roadway segment of SR 33 from Jensen Road to Yolo Street would operate at LOS F with a V/C ratio of 1.14. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-6 includes measures identified to improve the operation of this roadway segment under existing conditions, which would also serve to mitigate Impact Traf-13.

Widening this roadway segment to four lanes would be consistent with the Newman 2030 General Plan.

With this improvement, this roadway segment would operate at LOS A and a V/C ratio of 0.57, which are considered acceptable and this impact would be reduced to *less than significant*.

Cumulative

This section of the traffic impact study describes traffic operating conditions under Cumulative conditions. This development scenario serves as an analysis of far-term future conditions. The analysis of Cumulative Plus Project conditions assumes improvements associated with both the City General Plan and the Plan.

Intersection Operations

The results of the intersection LOS analysis are summarized in **Table 18.4** and the corresponding level of service calculation worksheets can be found in Appendix E.

Impact Traf-14: Addition of Vehicles to Cumulative Conditions. Eight of the sixteen study intersections would operate at LOS C or better during both the a.m. peak hour and p.m. peak hour. These LOS are considered acceptable. The impact of the proposed Plan at these intersections is considered *less than significant*, and no mitigation measures are required.

The remaining eight intersections and the related impacts under the existing condition are discussed below.

Impact Traf-15: SR 33 & Stuhr Road, Cumulative. The addition of Plan traffic to this intersection would degrade the LOS from C in the a.m. peak hour and D in the p.m. peak hour, both of which are considered acceptable, to an unacceptable LOS F during both peak hours. This is a *significant impact* of the Plan.

Under Cumulative Plus Project conditions, the intersection of SR 33 & Stuhr Road would operate at LOS E with 55.3 seconds of delay during the a.m. peak hour and LOS E with 58.6 seconds of delay during the p.m. peak hour. LOS E is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-15: SR 33 & Stuhr Road, Cumulative. The intersection should be improved as described below:

- Split the eastbound combined through/right-turn lane into an exclusive eastbound through lane and an exclusive eastbound-to-southbound right-turn lane.
- Split the southbound combined through/right-turn lane into an exclusive southbound through lane and an exclusive southbound-to-westbound right-turn lane.
- Split the northbound combined through/right-turn lane into an exclusive northbound through lane and an exclusive northbound-to-eastbound right-turn lane.

With these improvements, this intersection would operate at LOS D (48.5 seconds of delay) during the a.m. peak hour and LOS C (30.5 seconds of delay) during the p.m. peak hour. LOS D and C are considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-16: SR 33 & Jensen Road / Sherman Parkway, Cumulative. The addition of Plan traffic to this intersection would worsen the already unacceptable LOS from unacceptable F in the a.m. and p.m. peak hour with overflow conditions. This is a *significant impact* of the Plan.

TABLE 18.4: INTERSECTION LEVEL OF SERVICE – CUMULATIVE NO PROJECT AND CUMULATIVE PLUS PROJECT

Study Intersections	Cumulative No Project						Cumulative Plus Project					
	Inters Contr	Sig Warr Met?	AM Peak		PM Peak		Inters Contr	Sig Warr Met?	AM Peak		PM Peak	
			LOS	Delay	LOS	Delay			LOS	Delay	LOS	Delay
1 SR 33 & Stuhr Road	AWSC	Yes	F	77.5	F	67.5	Signal		E	55.3	E	58.6
2 SR 33 & Jensen Rd/ Sherman Parkway	Unsig	Yes	F	Ovrflw	F	Ovrflw	Signal		F	278.6	F	276.2
3 SR 33 & Yolo Street	Unsig	Yes	F	Ovrflw	E	47.0	Unsig	Yes	F	Ovrflw	F	Ovrflw
4 Stuhr Road & Draper Road	Unsig	Yes	F	Ovrflw	F	769.3	Unsig	Yes	F	677.7	F	324.1
5 Jensen Road & Fig Lane	Unsig	No	A	9.3	A	9.5	Signal		C	28.7	C	34.2
6 Orestimba Rd/Yolo St & Hardin Rd	AWSC	No	E	46.9	D	33.2	AWSC	No	D	25.1	C	24.5
7 Fig Lane / Q Street & Yolo Street	Unsig	Yes	F	Ovrflw	F	Ovrflw	Unsig	Yes	F	Ovrflw	F	Ovrflw
8 Stuhr Road & Harvey Lane	--		--		--		Signal		C	30.3	C	30.0
9 Stuhr Road & Fig Lane	--		--		--		Signal		B	13.8	B	16.6
10 SR 33 & Industrial Access	--		--		--		Signal		A	1.0	A	1.8
11 SR 33 & North Commercial Access	--		--		--		Unsig	Yes	F	Ovrflw	F	Ovrflw
12 SR 33 & South Commercial Access	--		--		--		Signal		A	6.1	C	29.3
13 Stuhr Road & Collector Road B	--		--		--		Unsig	No	B	11.2	B	11.2
14 Jensen Road & Collector Road B	--		--		--		Round		A	4.0	A	3.8
15 Stuhr Road & Eastin Road	Unsig	No	F	451.0	F	333.1	Unsig	No	F	Ovrflw	F	680.0
16 Stuhr Road & Villa Manucha Road	Unsig	No	B	11.5	B	10.8	Unsig	No	B	13.5	B	12.5

Notes: SR = State Route. LOS = Level of Service. "Inters Contr" = Type of intersection control. "Signal" = Signalized light control. "Unsig" = Unsignalized stop-sign control. "AWSC" = All-way stop-sign control. "Sig Warr" = Signal Warrants. "Round" = Roundabout. At unsignalized stop-sign controlled intersections, delay and LOS are shown for the worst approach, not the intersection average. "Ovrflw" = Overflow, indicates demand exceeds capacity. **Bold** font indicates unacceptable level of service. Dashes (-) indicate the intersection would not be present under this scenario. Delay is measured in seconds per vehicle.

Under Existing Plus Project conditions, the intersection of SR 33 & Jensen Road / Sherman Parkway would operate at LOS F with 278.6 seconds of delay during the a.m. peak hour and LOS F with 276.2 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-2 and Traf-8 includes measures identified to improve the operation of this intersection under existing and EPAP conditions. Traf-16 would modify the intersection different than the improvements identified in these mitigation measures.

Traf-16: **SR 33 & Jensen Road / Sherman Parkway, Cumulative.** The intersection should be improved as described below:

- Split the eastbound combined through/right-turn lane into an exclusive eastbound through lane and an exclusive eastbound-to-southbound right-turn lane.
- Split the southbound combined through/right-turn lane into an exclusive southbound through lane and an exclusive southbound-to-westbound right-turn lane.
- Add a second northbound-to-westbound left-turn lane.
- Split the northbound combined through/right-turn lane to include an exclusive northbound through lane and a free northbound-to-eastbound right-turn lane.
- For the free northbound-to-eastbound right-turn lane, add an eastbound departure lane that merges into the eastbound departure. The length of the departure lane should be per the California Manual on Uniform Traffic Control Devices - FHWA's MUTCD 2009 Edition as amended for use in California – 2012 Edition (Caltrans 2012).
- Add a second westbound-to-southbound left-turn lane.

These improvements would substantially reduce the delay at this intersection associated with Plan development. The intersection would operate at LOS F during the a.m. and p.m. peak hours (114.2 and 83.3 seconds of delay) during the p.m. peak hour, improved from the LOS F with overflow (i.e., demand exceeds capacity) Cumulative No Project condition. Although LOS F is considered unacceptable, the mitigated conditions represent an improvement over already unacceptable LOS F under Cumulative No Project conditions. Therefore, the impacts of the Plan, including contribution to cumulative impacts would be mitigated to *less than significant*.

Impact Traf-17: **SR 33 & Yolo Street, Cumulative.** The addition of Plan traffic to this intersection would degrade the LOS from unacceptable F with overflow conditions in the a.m. peak hour and unacceptable E in the p.m. peak hours to an unacceptable LOS F during both peak hours. This is a *significant impact* of the Plan.

Under Cumulative Plus Project conditions, the intersection of SR 33 & Yolo Street would operate at LOS F with overflow conditions during both the a.m. peak hour and p.m. peak hour. This

unsignalized intersection would meet peak hour signal warrants. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact, but not to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-3 includes measures identified to improve the operation of this intersection under existing and EPAP conditions. Traf-17 would modify the intersection different than the improvements identified in these mitigation measures.

Traf-17: **SR 33 & Yolo Street, Cumulative.** The intersection should be improved as described below:

- Signalize the intersection.
- Split the southbound combined through/right-turn lane into an exclusive southbound through lane and an exclusive southbound-to-westbound right-turn lane.
- Split the eastbound single-lane approach into exclusive eastbound-to-northbound left-turn lane and an eastbound combined through/right-turn lane.

Signalization of this intersection would be consistent with the Newman 2030 General Plan EIR.

With these improvements, this intersection would operate at LOS F during the a.m. and p.m. peak hours (123.3 and 175.3 seconds of delay) during the p.m. peak hour. LOS F is considered unacceptable, however, the mitigated conditions represent an improvement over Cumulative No Project conditions during the a.m. peak hour under which the intersection would operate at LOS F with overflow conditions. During the p.m. peak hour, the LOS would degrade from LOS E to LOS F even with the above mitigation. No other improvements at this intersection are considered feasible. Therefore, this impact is considered *significant and unavoidable*.

Impact Traf-18: Stuhr Road & Draper Road, Cumulative. The addition of Plan traffic to this intersection would degrade the LOS from unacceptable F in the a.m. and p.m. peak hour with overflow conditions, to an unacceptable LOS F during both peak hours. This is a *less than significant impact* of the Plan.

Under Cumulative Plus Project conditions, this intersection would operate at LOS F with 677.7 seconds of delay during the a.m. peak hour and LOS F with 324.1 seconds of delay during the p.m. peak hour. This unsignalized intersection would meet peak hour signal warrants. LOS F is considered unacceptable. However, vehicle delay at this intersection under Cumulative Plus Project conditions would be lower than under Cumulative No Project conditions. Therefore, based on the approach described in the Standards of Significance section of this traffic impact study, the impact at this intersection is considered *less than significant* and no mitigation measures required.

Impact Traf-19: Orestimba Road/Yolo Street & Hardin Road, Cumulative. The addition of Plan traffic to this intersection would degrade the LOS from unacceptable F in the a.m. and p.m. peak hour with overflow conditions, to an unacceptable LOS F during both peak hours. This is a *less than significant impact* of the Plan.

Under Cumulative Plus Project conditions, this intersection would operate at LOS D with 25.1 seconds of delay during the a.m. peak hour and LOS C with 24.5 seconds of delay during the p.m. peak hour. LOS D is considered unacceptable. However, vehicle delay at this intersection under

Cumulative Plus Project conditions would be lower than under Cumulative No Project conditions. Therefore, based on the approach described in the Standards of Significance section of this traffic impact study, the impact at this intersection is considered *less than significant* and no mitigation measures required.

Impact Traf-20: Fig Lane / Q Street & Yolo Street, Cumulative. The addition of Plan traffic to this intersection would worsen already unacceptable LOS F with overflow conditions in the a.m. and p.m. peak hours. This is a *significant impact* of the Plan.

Under Cumulative Plus Project conditions, the intersection of Fig Lane / Q Street & Yolo Street would operate at LOS F with overflow conditions during the a.m. and p.m. peak hours. This unsignalized intersection would meet peak hour signal warrants. LOS F is considered unacceptable, and this is considered a significant impact. To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-4 includes measures identified to improve the operation of this intersection under existing conditions, which would also serve to mitigate Impact Traf-20.

Signalization of this intersection would be consistent with the Newman 2030 General Plan EIR. Additional approach lanes would not be needed.

With these improvements, this intersection would operate at LOS C during the a.m. and p.m. peak hours (24.6 and 26.6 seconds of delay, respectively) during the p.m. peak hour. LOS C is considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-21: SR 33 & North Commercial Access, Cumulative. This intersection would be created by the Plan and would operate at unacceptable LOS F with overflow conditions during the a.m. and p.m. peak hours, respectively. This is a *significant impact* of the Plan.

Under Cumulative Plus Project conditions, the intersection of SR 33 & North Commercial Access would operate at LOS F with overflow conditions during the a.m. and p.m. peak hours. LOS F is considered unacceptable, and this is considered a significant impact.

This intersection would meet peak hour signal warrants, and signalization of this intersection was considered as a mitigation measure. However, signalization is not recommended because this intersection is approximately 400 feet south of the signalized intersection of SR 33 & Jensen Road/Sherman Parkway. Signalizing the intersection of SR 33 & North Commercial Access would result in distances between signalized intersections which are considered inadequate. With inadequate distances between signalized intersections, queues from one intersection may interfere with the operation of other intersections.

To reduce this impact to a less than significant level, the following mitigation measure should be implemented.

Mitigation Measure

Traf-5 includes measures identified to improve the operation of this intersection under existing and conditions. Traf-21 would modify the intersection different than the improvements identified in these mitigation measures.

Traf-21: SR 33 & North Commercial Access, Cumulative. The intersection should be improved as described below:

- Restrict turn movements at this intersection to through movements and right-turn movements. Prohibit left-turn movements at this intersection.
- Convert the exclusive eastbound-to-southbound right-turn lane into a free eastbound-to-southbound right-turn lane. Add a southbound departure lane to accept vehicles from the free right-turn movement that merges into the southbound departure. The length of the departure lane should be per the California MUTCD.

With these improvements, this intersection would operate at LOS A during the a.m. and p.m. peak hours (0.0 seconds of delay). LOS A is considered acceptable and this impact would be reduced to *less than significant*.

Impact Traf-22: Stuhr Road & Eastin Road, Cumulative. The addition of Plan traffic to this intersection would contribute to unacceptable LOS conditions in the a.m. and p.m. peak hours. This is a *less than significant impact* of the Plan.

Under Cumulative Plus Project conditions, the intersection of Stuhr Road & Eastin Road would operate at LOS F with overflow conditions during the a.m. peak hour and the LOS F with 680.0 seconds of delay during the p.m. peak hour. LOS F is considered unacceptable and this is considered a significant impact. This intersection would not meet peak hour signal warrants. Traffic volumes on the Eastin Road approaches to this intersection are below the levels which would be needed to meet peak hour signal warrants. Therefore, signalization of this intersection is not recommended.

The significance thresholds for unsignalized intersections require that signal warrants be met for the impact to be determined significant. Because this intersection would not meet peak hour signal warrants, the impact of the Plan at this intersection is considered less than significant. No mitigation measures are required.

Roadway Segments

The results of the intersection LOS analysis are summarized in **Table 18.4** and the corresponding level of service calculation worksheets can be found in Appendix E.

Impact Traf-23: Addition of Vehicles to Cumulative Conditions. Twenty-five of the 28 roadway segments would operate at LOS A, B or C, which are considered acceptable. The impact of the proposed Plan at these intersections is considered *less than significant*, and no mitigation measures are required.

The remaining three segment and the related impact under the existing condition is discussed below.

Impact Traf-24: Roadway Segment SR 33 - Jensen Road to Yolo Street. The addition of Plan traffic to this roadway segment would degrade the LOS D to an unacceptable LOS F. This is a *significant impact* of the Plan.

Under Existing Plus Project conditions, the roadway segment of SR 33 from Jensen Road to Yolo Street would operate at LOS F with a V/C ratio of 1.13. LOS F is considered unacceptable, and this is considered a significant impact.

Mitigation Measure

Traf-6 includes measures identified to improve the operation of this roadway segment under existing conditions, which would also serve to mitigate Impact Traf-24.

Widening this roadway segment to four lanes (Mitigation Measure Traf-6) would be consistent with the Newman 2030 General Plan. Consistent with the Newman 2030 General Plan EIR, achieving acceptable LOS (D or above) on this roadway segment would require widening the roadway to six lanes. Widening this roadway segment to six lanes would require demolition of existing land use development, and would be considered to result in this roadway dividing the City. Therefore, widening this roadway segment to six lanes is considered not feasible. As a result, this impact is considered to be *significant and unavoidable*.

Impact Traf-25: Roadway Segments Stuhr Road - Draper Road to Eastin Road and Eastin Road to Interstate 5. The addition of Plan traffic to these roadway segments would degrade the LOS from an unacceptable D to an unacceptable LOS E. This is a *significant impact* of the Plan.

Under Cumulative Plus Project conditions, the roadway segment of Stuhr Road from Draper Road to Eastin Road and the roadway segment of Stuhr Road from Eastin Road to Interstate 5 would operate at LOS E with a V/C ratio of 0.92. As noted in the Standards of Significance section of this traffic impact study, LOS E is considered unacceptable on these roadway segments.

The Newman 2030 General Plan EIR (City of Newman 2006b) describes these roadway segments as being part of the interregional street system, and forecasts these roadway segments operating at an unacceptable LOS. The General Plan EIR notes:

While the inter-regional street system is not the sole responsibility of the City of Newman, the City should investigate mechanisms for City development to participate on a “fair share” basis in the costs of maintaining and improving roads outside of the City limits. Stanislaus County and east-side communities such as Oakdale, Riverbank, Hughson and Waterford are currently working towards a mechanism to address impacts to roads in that end of the County. However, while a similar mechanism should be pursued by the City of Newman, Merced County and Stanislaus County, and Caltrans, because no mechanism currently exists, this impact is considered *significant and unavoidable*.

UTILITIES AND SERVICE SYSTEMS

INTRODUCTION

This section presents an evaluation of potential impacts related to utilities and service systems. In addition to the Northwest Master Plan, the discussion is based on:

- (1) July 2013, Water Supply Assessment Report for Master Plan Area 3, City of Newman, prepared by NV5, Inc.

This chapter evaluates the ability of local utilities to provide domestic water, wastewater conveyance and treatment, storm drainage and solid waste disposal services to the Plan area.

GENERAL UTILITIES AND SERVICE SYSTEMS REGULATORY SETTING

CITY OF NEWMAN GENERAL PLAN

The City of Newman General Plan contains the following goals, policies, and actions regarding utilities and service systems.

Goal LU-2: Provide for orderly, well-planned and balanced growth consistent with the limits imposed by the city's infrastructure and the city's ability to assimilate new growth.

Policy LU-2.1: The City will link the rate of growth in Newman to the provision of adequate services and infrastructure, including schools and District-wide school support facilities, roadways, police, fire and medical services, and water supply and wastewater treatment infrastructure. The City shall, through the Citywide Services Master Plan, ensure that growth occurs in an orderly fashion and in pace with the provision of public facilities and services. New development shall not negatively impact existing infrastructure and level of services.

Policy LU-2.2: The City shall, through the use of Master Plans, ensure that growth and development occur in an orderly and contiguous manner. Development shall be considered contiguous if it meets the following three Criteria;

- ◆ All permanent services and facilities, including roads, sewer, water, storm drainage, and utilities have been extended for the area proposed to be developed, accepted by the City, and are available for use consistent with the Citywide Services Master Plan....

Goal PFS-1: Maintain and provide an adequate and sufficient level of public facilities and services to meet the needs of existing and future development prior to or concurrent with new development.

Policy PFS-1.1: In all newly developing areas, the City shall require detailed public facility planning as part of required Master Plans.

Policy PFS-1.2: The City shall ensure, insofar as possible, that public facilities and services are developed, and operational, as they are needed to serve new development.

Policy PFS-1.3: Existing public facilities and services shall be upgraded as they become deteriorated, obsolete or have inadequate capacity.

Policy PFS-1.4: New development shall not be permitted at the expense of the deterioration, over-utilization or obsolescence of existing public facilities and services.

Policy PFS-1.5 The City shall ensure, through the Citywide Services Master Plan and through review of private development projects, that City service level standards are maintained. The City shall consider denial of development projects that would result in service levels falling below City standards.

Policy PFS-1.6: The City shall, when approving Master Plans or entitlements for large scale development proposals, ensure that the public infrastructure, facilities and services needed to serve proposed developments are consistent with the plans of public or quasi-public service agencies responsible for their provision.

Policy PFS-1.7: The City shall establish and regularly monitor levels of service of Newman's public facilities and services.

Policy PFS-1.8: The City shall ensure, through a combination of development fees and other funding mechanisms, that new development pays its fair share of the costs of developing new facilities and services.

Policy PFS-1.9: The City shall provide for oversizing, as appropriate, of infrastructure to serve the long-term plans for development.

Policy PFS-1.10: The City shall ensure that adequate rights-of-way are provided for the extension of public utilities to all properties in the city.

Action PFS-1.1: Prepare and periodically update a Citywide Services Master Plan (CSMP). The CSMP shall include public facilities and services master plans, including water, wastewater collection and treatment, storm drainage, streets, parks and recreation, public safety, other city services (e.g., administration, community center, senior center), library, health services, other utilities, and schools as provided by the Newman-Crows Landing Unified School District. The CSMP shall also include a Capital Improvement Program and development fee programs for mitigation of impacts on city services and schools.

Action PFS-1.2: Prepare, adopt, and periodically update a long-term Capital Improvements Program (CIP), including traffic, water, wastewater, drainage, parks, fire, police, and other facility improvements.

Action PFS-1.3: Update and annually review a development fee schedule to pay for improvements necessitated by new development, which may include, but is not limited to, traffic improvements, water, wastewater, drainage, parks, fire, police, and city administration facilities. The City will annually review and adjust, as necessary, its development fee schedule.

WATER

ENVIRONMENTAL SETTING

Existing Water Service

In the Plan area, most agricultural land is irrigated with water from the CCID from an existing open irrigation ditch on the west side of the Master Plan area. Existing residences and business within the Master Plan area are served by private water wells.

City of Newman Water System

Upon annexation to the City of Newman, water to the Master Plan area would be available from the City of Newman. The City owns and operates a municipal water system to serve all uses within the community. Individual property owners and developers would be expected to install necessary water facilities to serve future development.

Groundwater has historically been the only source of potable water for the City. Currently, groundwater is provided through four operational wells, which withdraw water from the alluvial deposits underlying the City. Groundwater near the City is also used by the CCID as well as private domestic and irrigation wells. CCID utilizes groundwater to supplement their surface water supplies.

Groundwater is currently pumped from four active wells with a total pumping capacity of 6,800 gallons per minute. Firm capacity is calculated by assuming the largest well may go out of service. Firm capacity is calculated at 4,300 gallons per minute (6.2 million gallons per day). Generally, well water is potable and all water supplies are chlorinated at the wellhead, prior to being discharged to the City's distribution system. Water supply facilities also include a 100,000-gallon elevated storage tank located on Fresno Street west of Q Street and water pipelines up to 12 inches in diameter.

The Water Supply Assessment (WSA) prepared for the Master Plan noted that aquifers in the vicinity of the City can produce 7,500 acre-feet per year (2,400 million gallons per year) without causing poor quality groundwater located east and northeast to migrate to City wells. Except for two periods of drought, a slight increase in water level was observed. Water levels in the aquifers have increased slightly from the early 1960s to the late 1990s (except during periods of drought), which indicates that the aquifers are not in a condition of overdraft. In 2012 (the most recent year available for the WSA), groundwater production by the City of Newman was 850 million gallons.

PLANNED WATER SYSTEM IMPROVEMENTS

The City is currently planning a new municipal well in the southwestern portion of the Master Plan area. When the new well comes on-line, the City of Newman has determined that an adequate long-term water supply will be available for domestic and fire-fighting purposes, including the demand in the Master Plan area. The City will require construction of a water storage tank near the new well, to be determined once the pumping capacity of the new well is determined.

The Master Plan includes planned water lines and related facilities for build-out within the Master Plan area. Planned facilities include a combination 12- and 14-inch diameter water line in Jensen Road, 10-inch diameter water lines within the rights-of-way of SR 33, Stuhr Road, Harvey Road and

the unnamed central north-south minor collector road. Local residential roads would each have an 8-inch diameter water line to serve future land uses.⁶⁴

At the present time, there is limited possibility of using treated wastewater effluent (recycled water) for irrigation purposes. This is due to the distance of the City's wastewater plant from the Master Plan area and the current need to dilute wastewater effluent to reduce salt and chemical loading into the groundwater. The City is instead considering the use of shallow wells in parks to irrigate with untreated groundwater (instead of recycled water) as an alternate method of conserving the potable water supply.

REGULATORY SETTING

Federal

The federal Clean Water Act establishes regulatory requirements for potable water supplies including raw and treated water quality criteria. The federal safe Drinking Water Act establishes standards for contaminants in drinking water supplies. Maximum contaminant levels or treatment techniques were established for each of the contaminants. The listed contaminants include metals, nitrates, asbestos, total dissolved solids, and microbes.

State

California Safe Drinking Water Act

The California Department of Public Health enforces the California Safe Drinking Water Act. Title 22 of the California Administrative Code sets forth standards for drinking water quality.

In 2002, the State enacted SB 610 (California Water Code Sections 10910 through 10915), which requires coordination between lead agencies and public water suppliers to ensure that existing and/or planned water supplies are adequate to serve proposed development. Upon request by a lead agency, a water supplier is required to prepare a WSA that characterizes existing and planned water supply and demand, with and without the proposed Specific Plan, for five-year increments, and for average, dry and multiple dry years. The WSA must make a determination regarding the adequacy of existing and planned supplies to meet demand for water from the project under consideration. The lead agency considers the WSA, as well as any other information regarding water supply in the administrative record, in deciding whether to approve or deny a project. The WSA prepared for this project can be found in **Appendix F** of this EIR.

SB 221 (Chapter 642, Statutes of 2001) also is intended to ensure that water supply is adequate by prohibiting approval of a tentative map, a parcel map, and/or a development agreement for a subdivision of property of more than 500 dwelling units, unless the City or County obtains written verification from the applicable public water system that a sufficient water supply is available or will be available prior to completion of the project.

California Urban Water Management Planning Act

The Urban Water Management Planning Act (California Water Code Sections 10610-10656) requires that all urban water suppliers with at least 3,000 customers prepare urban water management plans

⁶⁴ City of Newman, Northwest Master Plan, prepared by Jerry Haag, June 23, 2015, Figure 5.1.

and update them every 5 years. The act requires that urban water management plans include a description of water management tools and options used by that entity that will maximize resources and minimize the need to import water from other regions. Specifically, urban water management plans must:

- Provide current and projected population, climate, and other demographic factors affecting the supplier’s water management planning;
- Identify and quantify, to the extent practicable, the existing and planned sources of water available to the supplier;
- Describe the reliability of the water supply and vulnerability to seasonal or climatic shortage;
- Describe plans to supplement or replace that source with alternative sources or water demand management measures;
- Describe the opportunities for exchanges or transfers of water on a short-term or long-term basis (associated with systems that use surface water);
- Quantify past and current water use;
- Provide a description of the supplier’s water demand management measures, including schedule of implementation, program to measure effectiveness of measures, and anticipated water demand reductions associated with the measures;
- Assess the water supply reliability.

The City of Newman adopted the *City of Newman Water Master Plan* in March 2008 (prepared by ECO:Logic Consulting Engineers) with an updated Urban Water Master Plan in June 2016. The City of Newman was not previously required to prepare an Urban Management Plan because it served less than 3,000 customers.

Local

Newman General Plan

The City of Newman General Plan contains the following goals, policies, and actions regarding water supply.

Goal PFS-3: Maintain an adequate level of service in the City's water system to meet the needs of existing and future development.

Policy PFS-3.1: The City shall approve new development only if adequate water supply to serve such development is demonstrated.

Policy PFS-3.7: New development shall provide looped water systems to provide greater water supply and pressure.

Policy PFS-3.8: Recycled water piping systems (“purple pipe”) shall be constructed in all Master Plan Subareas and large development projects to facilitate the distribution and use of recycled water for landscape irrigation. The specific location and size of the recycled water systems shall be determined during the development review process.

Policy PFS-3.9: The City will, as funding becomes available, develop recycled water systems, including pipelines, pump stations and storage facilities, to serve parks and other City owned facilities, schools and new large-scale developments, including development in the Master Plan

Subareas. The City's recycled water system will be designed to hook up to the recycled water systems constructed as part of large new developments within the Master Plan Subareas or elsewhere.

Policy PFS-3.10: The City shall require the use of drought-tolerant plant species and drip irrigation systems in the landscaping of new public and private open space areas, common areas and parks. Where the recycled water ("purple pipe") system is developed and available for hook up, recycled water shall also be used to irrigate these landscaped areas.

Action PFS-3.1: Investigate acquisition of surface water rights from the Central California Irrigation District and other sources to decrease the city's dependence on groundwater as its primary source of water.

Action PFS-3.2: Develop a Recycled Water Master Plan that identifies the infrastructure needed to provide recycled water to City facilities and new development, including new development in the Master Plan Subareas. The Plan should also identify funding mechanisms to pay for the development of this system.

Proposed under the Northwest Master Plan

The Northwest Master Plan includes the following actions related to water (Chapter 10 of the Master Plan):

WATER CONSERVATION: Wise use of limited water resources is of paramount importance to the City of Newman. Accordingly, future development projects in the Master Plan area are required to comply with state and local water conservation requirements. Some of these provisions include:

The following actions shall be taken to minimize impacts on water supplies.

1. Yard plantings shall be limited to low water use species, preferably native species. In lieu of plantings, attractive hardscaping shall be used to the extent feasible.
2. Low flow plumbing fixtures shall be used to reduce water use.
3. The utilization of collected water (via shallow wells) for parks and landscaping.

WATER IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed Specific Plan would have a significant effect on water supply if it would:

- Have insufficient water supplies available to serve the proposed plan from existing resources, such that new or expanded supplies must be developed;
- Require or result in the construction of new water treatment and/or conveyance facilities, or expansion of existing facilities, the construction of which would cause significant environmental impacts

Water Impact Analysis

Water Supplies

The proposed Master Plan would convert current agricultural uses to residential, retail, office, Business Park and park and open space uses. As agricultural land is converted to urban uses, there is a reduction in agricultural water use (provided by CCID) and an increase in urban water use (provided by City of Newman). Existing residences and businesses would transition from private wells to the City of Newman water services as well.

Utilizing unit water demands as presented in the City of Newman Water Master Plan, the total estimated demand for buildout of the Plan is 1,254,020 gallons per day.⁶⁵

The WSA concluded that with addition of one (at least 1,700 gallon per minute) well and associated infrastructure, the City water supply and system capacity would be adequate to serve through buildout of the Master Plan area. As noted in the setting above, a new municipal well is proposed in the southwestern portion of the Master Plan area. The City of Newman has determined that an adequate long-term water supply will be available for domestic and fire-fighting purposes, including the demand in the Master Plan area, with the addition of the proposed well. The City may require construction of a water storage tank near the new well.

In addition, the Master Plan includes the following actions to minimize impacts on water supplies:

1. Yard plantings shall be limited to low water use species, preferably native species. In lieu of plantings, attractive hardscaping shall be used to the extent feasible.
2. Low flow plumbing fixtures shall be used to reduce water use.
3. The utilization of collected water (via shallow wells) for parks and landscaping.

Note that use of recycled water was considered not likely to be feasible in the Master Plan area due to the treatment requirements and distance from the City's wastewater plant. As identified in list item 3 above, the City is instead considering the use of shallow wells in parks to irrigate with untreated groundwater (instead of recycled water) as an alternate method of conserving the potable water supply.

As part of standard requirements for issuance of building permits, applicants of development projects, will be required to obtain a “will serve” letter from the City, which would be issued only if adequate capacity and pressure are available.

With construction of a new well (and water storage tank) in the Master Plan area, compliance with actions in the Master Plan, and compliance with existing regulations requiring will serve letters, the proposed Master Plan would have sufficient water supply and a *less than significant* impact related to increases in demand for water supply.

⁶⁵ City of Newman, Northwest Master Plan, prepared by Jerry Haag, June 23, 2015, Table 5.1.

Construction of New Water Infrastructure

Construction of the new well (and potentially water storage tank) and infrastructure required to serve the Plan area has been analyzed as part of the Project. Construction would generate air emissions, erosion and noise, which are analyzed and mitigated in the relevant chapters of this EIR. This impact would be *less than significant*.

Cumulative Water Impacts

The City of Newman has concluded that there is sufficient groundwater in the basin, provided water quality is maintained through treatment, to maintain supply through buildout of the Master Plan area (by 2025). The potential for drought conditions are recognized in water planning in California and additional conservation efforts during droughts are assumed as part of the planning process. (Also see Newman Municipal Code chapter 11.05A detailing mandatory water conservation phases for all development.)

The proposed Master Plan will satisfy Plan area demand for water through construction of a new well (and potentially water storage tank) within the Master Plan area to be added to the Newman Water Service system.

The WSA notes that a water treatment plant with additional capacity (6 million gallons per day) may be required beyond buildout of the Master Plan area (by 2030) to also accommodate other growth within Newman. This depends on the rate and level of growth in Newman and effectiveness of ongoing water conservation requirements and efforts. Initial connection fees and ongoing service fees are intended to fund required water facility upgrades over time and ongoing system maintenance.

Because the future supply would be adequate to serve future demand per the discussion above, the cumulative impact would also be *less than significant* as discussed above.

WASTEWATER

ENVIRONMENTAL SETTING

Existing Wastewater Facilities

In the Plan area, wastewater generated from existing uses is treated by private septic systems maintained by landowners.

City of Newman Wastewater System

Upon annexation to the City of Newman, wastewater would be handled by the City of Newman. The City operates a wastewater treatment facility northwest of the city on Hills Ferry Road adjacent to the San Joaquin River. The facility provides primary and secondary treatment. Treated effluent disposal is via irrigation of crops. During winter months, treated effluent is stored in a system of storage ponds, irrigation ditches and other facilities.

The City's wastewater treatment plant is permitted to treat up to 1.69 million gallons per day (mgd) by the RWQCB during dry weather conditions. The Plant currently processes approximately 1.37 mgd.

PLANNED WASTEWATER SYSTEM IMPROVEMENTS

The City of Newman will provide wastewater services to development in the Plan area. As development occurs, existing septic systems will need to be abandoned per local and state requirements once those properties connect to the city's wastewater system.

The proposed infrastructure expansion of the Newman wastewater system into the Master Plan area is shown on **Figure 3.6**. Generally, wastewater will gravity flow through a series of underground pipes ranging from 10 to 15 inches in diameter to connect with an existing 15-inch diameter pipe southeast of the Master Plan area in Sherman Parkway for transport to the City's wastewater plant. The City may be required to make minor upgrades to the wastewater treatment plant as well as secure additional properties to dispose of treated effluent to meet RWQCB permit requirements.

REGULATORY SETTING

Federal and State

The owner or operator of facilities that discharge any waste to surface waters must obtain Waste Discharge Requirements from the State RWQCB.

The wastewater treatment plant must comply with Title 40 of CFR Part 503, Title 23 California Code of Regulations and standards established by the Central Valley RWQCB that regulate disposal of biosolids.

The wastewater treatment plant must also comply with Title 22 of the California Code of Regulations, which regulates the use of treated wastewater for irrigation. In most cases, only disinfected tertiary water may be used on food crops where the recycled water would come into contact with the edible portion of the crop. Disinfected secondary treatment may be used for food crops where the edible portion is produced above ground and will not come into contact with the edible portion of the crop. Lesser levels of treatment are required for other types of crops, such as orchards, vineyards and fiber crops. Standards are also prescribed for the use of treated wastewater for irrigation of parks, playgrounds, landscaping, and other non-agricultural irrigation.⁶⁶

Local

The City of Newman General Plan contains the following goals, policies, and actions regarding wastewater treatment:

Goal PFS-4 Maintain an adequate level of service in the City's wastewater collection and treatment system to meet the needs of existing and future development.

Policy PFS-4.1 The City shall expand and develop wastewater collection and treatment facilities to accommodate the needs of existing and planned development.

Policy PFS-4.2 The City will maintain a regular program for replacing and upgrading older and undersized wastewater lines to reduce inflow and infiltration into the system.

⁶⁶ California Code of Regulations, Title 22, Division 4, Chapter 3, Article 3, Section 60304.

Action PFS-4.1 Develop and implement a plan to phase out septic systems on private properties within the City Limits by providing wastewater hook ups to these properties.

Water minimization and conservation requirements (see Water Supply Regulatory Setting, above), could also reduce the amount of wastewater generated by reducing potable water use.

WASTEWATER IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed Master Plan would have a significant effect on wastewater if it would:

- Increase demand for wastewater treatment, conveyance and/or disposal to the extent that expanded and/or new facilities are required.

Wastewater Impact Analysis

Impact Util-1: Increased Wastewater Generation. The proposed Master Plan would increase demand for wastewater collection, treatment and disposal, within the capacity of the existing wastewater collection system and treatment plant, though cumulative demand may require minor upgrades to the wastewater treatment plant to meet regulatory requirements (*less than significant with mitigation*).

Project-Specific Wastewater Impacts and Mitigation Measures

In order to determine whether the proposed Specific Plan would trigger the expansion of the wastewater treatment plant, the amount of wastewater to be generated is estimated and compared to existing and planned capacity of the plant. Utilizing unit wastewater generation rates as presented in the City of Newman Draft Wastewater Master Plan, the total estimated wastewater generation for buildout of the Plan is 304,119 gallons per day.⁶⁷

The City's wastewater treatment plant is permitted to treat up to 1.69 mgd by the RWQCB during dry weather conditions. The Plant currently processes approximately 1.37 mgd. The Master Plan area demand for 0.3 mgd capacity could be accommodated within the estimated capacity of the wastewater treatment plant. This impact would be *less than significant*.

Construction of New Wastewater Infrastructure

Construction of the new wastewater pipes required to serve the Plan area has been analyzed as part of the Project. Construction would generate air emissions, erosion and noise, which are analyzed and mitigated in the relevant chapters of this EIR. This impact would be *less than significant*.

Cumulative Wastewater Impacts and Mitigation Measures

Additional demand could also be generated by other cumulative projects, potentially requiring additional infrastructure and capacity. As noted in the Master Plan, the City may be required to make minor upgrades to the wastewater treatment plant as well as secure additional properties to dispose of treated effluent to meet RWQCB permit requirements.

⁶⁷ City of Newman, Northwest Master Plan, prepared by Jerry Haag, June 23, 2015, Table 5.2.

New development would be required to pay Public Facilities Fees, which are intended to fund improvements in facilities and services. The City is in the process of updating its Wastewater Master Plan, and once that study is complete, the City's Public Facilities Fees program will likely be updated as well. Development projects in the Plan area will be required to pay the Public Facilities Fees in place at the time of new development.

Mitigation Measure

Util-1: Demonstration of Wastewater System Capacity. Prior to issuance of building permits, applicants of development projects in the Plan area shall coordinate with the City Engineer to demonstrate adequate wastewater treatment and disposal capacity will be available to support the development proposed.

Development would not be allowed to proceed without coordinating with the City Engineer to ensure the availability of adequate wastewater service (mitigation measure Util-1). This would prevent any potential temporary impacts that could result from development prior to potentially required wastewater treatment plant treatment and disposal increases. With implementation of mitigation measure Util-1, the cumulative impact related to wastewater will be reduced to a *less than significant* level.

STORM DRAINAGE FACILITIES

ENVIRONMENTAL SETTING

Existing Stormwater Facilities

Existing drainage in the Master Plan area is by sheet flow and a number of private drainage and irrigation ditches that flow in a southeastern direction. No City drainage facilities have been built in the Master Plan area.

As more fully discussed in Chapter 12: Hydrology and Water Quality, properties along the eastern portion of the Master Plan area are subject to flooding during a 100-year storm event. This flooding is part of an area-wide problem that occurs as a result of the elevated railroad tracks east of the Master Plan area impounding stormwater runoff from Orestimba Creek to the north, which then backs up into the area west of the tracks. A levee is currently proposed, and if constructed, would run along an approximately 111-foot-wide corridor on the west side of the Master Plan area and continue to the north and south. While the feasibility study and accompanying environmental assessment have been approved, funding for the levee has not yet been identified.

City of Newman Stormwater System

The City of Newman maintains and services all storm drains within the city. In addition to the storm drains, some agricultural ditches used for irrigation supply and tailwater runoff are also located within and adjacent to the city. These ditches are maintained by the CCID.

Drainage within the city generally flows from west to east. Storm runoff is collected in underground pipes and the CCID ditches and piped to a pump station at Inyo Avenue and Canal School Road. Stormwater drainage from a majority of the city feeds into a major pipe underneath Inyo Avenue. The storm drainage system also includes seven lift stations to pump stormwater. This pump system is currently operating below capacity.

PLANNED STORM DRAINAGE SYSTEM IMPROVEMENTS

Proposed stormwater drainage facilities are shown on **Figure 3.7**. Storm drain facilities includes a combination of surface stormwater flows within the curb and gutter area of in-tract local streets into a series of underground pipes ranging in size between 18 and 42 inches in diameter. Ultimately, storm drain lines within the Master Plan area will connect to the existing City of Newman storm drain system to the east located within Sherman Parkway.

Critical components of the Master Plan drainage system are one or more drainage basins located on the north side of Jensen Road. These are generally depicted on **Figure 3.7**, but the sizes and locations of the drainage basins may change based on future, more detailed engineering analyses and hydrology standards.

Storm water basins are intended to intercept peak stormwater flows and temporarily detain peak flows to ensure that the local and regional drainage system is not overburdened. Stormwater basins are used for parks and playfields during the non-winter months of the year.

REGULATORY SETTING

Federal and State

Federal Water Pollution Control Act (Clean Water Act)

The Clean Water Act, initially passed in 1972, regulates the discharge of pollutants into watersheds throughout the nation. Section 402(p) of the Act establishes a framework for regulating municipal and industrial stormwater discharges under the NPDES Program. Section 402(p) requires that stormwater associated with industrial activity that discharges either directly to surface waters or indirectly through municipal separate storm sewers must be regulated by a NPDES permit. On December 8, 1999, the EPA circulated Phase II regulations for non-point sources requiring permits for stormwater. Permits will be required for discharges from small MS4 operators. The municipal sewer system for the City of Newman will not be considered an MS4 until the City's population grows to 10,000 persons, at which point the City will require a general permit. In California, the NPDES Program is administered by the State (see below).

State Water Resources Control Board

The SWRCB is responsible for implementing the Clean Water Act and does so through issuing NPDES permits to cities and counties through regional water quality control boards. Federal regulations allow two permitting options for stormwater discharges – individual permits and general permits. The SWRCB elected to adopt a statewide general permit (Water Quality Order No. 2003-0004-DWQ) for MS4s covered under the Clean Water Act to efficiently regulate numerous stormwater discharges under a single permit. Permittees must meet the requirements in Provision D of the General Permit, which require development and implementation of a SWMP with the goal of reducing the discharge of pollutants to the maximum extent practicable.

Regional Water Quality Control Board

The State's Porter-Cologne Water Quality Control Act outlines the specific responsibilities of the RWQCBs, and the procedures for coordinating with the SWQCB to meet federal Clean Water Act standards. Stanislaus County falls within the Central Valley Region, which is the largest in the State, stretching from the Oregon border south to Los Angeles County. It encompasses 60,000 square miles,

or about 40 percent of the State's total area, and includes 38 of the State's 58 counties. The Central Valley RWQCB headquarters are in Sacramento with branch offices in Redding and Fresno.

The mission of the Central Valley RWQCB is to "preserve and enhance the quality of California's water resources for the benefit of present and future generations." This duty is carried out by formulating and adopting water quality control plans for specific ground and surface water basins and by prescribing and enforcing requirements on waste discharges. As mentioned above, jurisdictions submit various water quality and stormwater plans to the regional and State boards for approvals.

Local

General Plan

The City of Newman General Plan contains the following goals, policies, and actions regarding storm drainage.

Goal PFS-5 Maintain an adequate level of service in the City's storm drainage system to accommodate runoff from existing and future development and to prevent property damage due to flooding.

Policy PFS-5.1 The City shall expand and develop storm drainage facilities, including storm drains and detention ponds, to accommodate the needs of existing and planned development.

Policy PFS-5.2 Future drainage system discharges shall comply with applicable State and federal pollutant discharge requirements.

Policy PFS-5.3 The City shall maintain a regular program for replacing and upgrading older and undersized storm drains.

Policy PFS-5.4 The City shall encourage the reduction of impervious surface areas in new development projects as a means to reduce storm water runoff.

Action PFS-5.1 Consistent with the National Pollutant Discharge Elimination System (NPDES) requirements, obtain a Phase II NPDES stormwater discharge permit when the City population reaches 10,000 people and develop a stormwater management program.

Municipal Code

The City of Newman Municipal Code Chapter 11.12 contains regulations implementing the City's NPDES Phase II Stormwater Permit, establishing minimum storm water management requirements and controls for project in Newman.

STORM DRAINAGE IMPACTS AND MITIGATION MEASURES

Standards of Significance

The proposed Master Plan would have a significant effect on stormwater if it would:

- Increase demand for storm water conveyance and/or disposal to the extent that expanded and/or new facilities are required.

Storm Drainage Impact Analysis

Project-Specific Wastewater Impacts and Mitigation Measures

The proposed Specific Plan would urbanize a largely agricultural area, which would increase the potential for stormwater runoff. The Plan proposes an entirely on-site stormwater system that would ensure that the peak post-development flows are attenuated to the pre-development peak flows through the use of retention basins consistent with existing regulations. (See also discussion of changes in peak runoff in Chapter 12, Hydrology.) Therefore, the impact on the City's storm drainage system and regional flood control facilities would be ***less than significant***.

Construction of New Stormwater Infrastructure

Construction of the new stormwater infrastructure required to serve the Plan area has been analyzed as part of the Project. Construction would generate air emissions, erosion and noise, which are analyzed and mitigated in the relevant chapters of this EIR. This impact would be ***less than significant***.

Cumulative Water Impacts and Mitigation Measures

Because the Plan proposes an entirely on-site stormwater system that would ensure peak post-development flows are attenuated to the pre-development peak flows, the contribution to a cumulative impact would not be considerable and would be considered ***less than significant***. Other future projects in the area would also be required to comply with existing regulations and therefore would not be likely to have a considerable contribution to cumulative impacts.

SOLID WASTE

ENVIRONMENTAL SETTING

Solid Waste Disposal and Recycling

Solid waste and recycling services to residential, commercial, industrial and other uses within Newman is provided by Bertolotti Disposal Company. Residential household and business waste is collected on a weekly basis and transported to the Fink Road Sanitary Landfill facility operated by Stanislaus County. This facility is located at 4000 Fink Road in Crows Landing. Bertolotti Disposal Company also collects recycled material from households in Newman on a bi-weekly basis. Collection services are funded by refuse service fees based on container sizes.

Solid waste is taken to the Stanislaus County Fink Road landfill and Stanislaus Resource Recovery Facility (SRRF). The Fink Road Landfill has a permitted total capacity of approximately 14,640,000 cubic yards, of which approximately 56 percent was remaining in 2012. The facility is permitted to receive a maximum of 2,400 tons/day. The Fink Road landfill has current permits from the State of California through the year 2023.⁶⁸ The Newman General Plan noted that the Fink Road landfill would be expected to undergo a permitting process with the County to expand its site westward on a

⁶⁸ California Department of Resources Recycling and Recovery, Solid Waste Information System (SWIS) Facility/Site Listing for Fink Road Landfill, <http://www.calrecycle.ca.gov/SWFacilities/Directory/50-AA-0001/Detail/>, accessed January 2015.

portion of the 2,700 acres owned by the County to increase capacity and extend the operational year past 2023.

According to the Newman General Plan EIR, approximately seventy percent of the solid waste entering the landfill is burned at the SRRF, a waste-to-energy facility located near the landfill. The SRRF operates under a separate permit, and can process up to 800 tons per day. Appropriate types of waste are diverted to the SRRF, which reduces the amount of waste requiring landfilling.⁶⁹

The City does not report annual waste disposal and diversion rates to California Department of Resources Recycling and Recovery, but according to the Newman General Plan EIR, in 2000, Newman disposed of 3,344 tons of household waste, and the residential daily disposal rate was 3 pounds per resident per day. Business waste disposal in 2000 was 3,480 tons, and the employee daily disposal rate was 12.7 pounds per day.⁷⁰

PLANNED SOLID WASTE DISPOSAL AND RECYCLING

Plan Area

Solid waste generated from development in the Plan area will be collected by Ceres Bertolotti Disposal consistent with existing collection in the City.

REGULATORY SETTING

Federal Regulations

The federal government regulates the location, operation, design, groundwater monitoring and closure of landfills through the RCRA (Volume 40 of the CFR, Part 258).

State Regulations

The California Integrated Waste Management Act of 1989 (PRC 41780, also called AB 939) was designed to increase the life of landfills and conserve other resources through increased recycling. AB 939 requires counties to prepare Solid Waste Management Plans to implement AB 939, particularly the goal of diverting approximately 50 percent of solid waste by 2000. AB 939 also requires that cities and counties prepare Source Reduction and Recycling Elements in their General Plans. The Source Reduction and Recycling Element is intended to develop programs to achieve landfill diversions goals, stimulate local recycling in manufacturing and stimulate the purchase of recycled products.

The State agency charged with the permitting of solid waste facilities is the California Integrated Waste Management Board.

⁶⁹ Stanislaus Resource Recovery Facility website, <http://www.stancountywte.com/process.html>, accessed January 2015.

⁷⁰ City of Newman, prepared by DC&E, Newman General Plan EIR, October 4, 2006, p. 4.14-16

Local Regulations

The Stanislaus County Integrated Waste Management Plan (IWMP) is designed to reduce the amount of solid waste that is generated and/or requires disposal through a variety of programs, including source reduction, recycling and composting and safe transformation and land disposal of solid wastes. The IWMP is also intended to ensure the safe transformation and land disposal of solid waste.

City of Newman General Plan

The Newman General Plan contains the following goals, policies, and actions addressing solid waste disposal and recycling.

Goal PFS-7: Provide for the collection and disposal of solid waste while minimizing the generation of waste.

Policy PFS-7.1: The City shall continue to comply with the City's State approved Source Reduction and Recycling Element and will update this element as necessary.

Policy PFS-7.2: The City shall provide appropriate waste collection, recycling and disposal services throughout the incorporated area.

Policy PFS-7.3: The City shall coordinate with the Stanislaus County Public Works Department concerning the city's continuing use of the Stanislaus Resource Recovery Facility and Fink Road Landfill and capacity projections for these facilities.

Policy PFS-7.4: The City shall meet or exceed all state laws relative to waste management and reductions.

Action PFS-7.1: Work with the County and private solid waste handlers to distribute public education materials on solid waste source reduction, recycling and composting and the proper handling of household hazardous waste.

Action PFS-7.2: Educate the public on the importance of disposing of hazardous household wastes at the County's permanent collection site in Modesto or at one of the County's periodic mobile collection service in Newman to reduce the amount of hazardous waste disposed of improperly.

SOLID WASTE IMPACTS AND MITIGATION MEASURES

Standards of Significance

For the purposes of this EIR, the increase in solid waste is considered significant if the proposed Specific Plan would:

- Be served by a landfill with insufficient permitted capacity to accommodate the plan's solid waste disposal needs; or
- Be inconsistent with federal, state or local statutes related to solid waste.

Solid Waste Impact Analysis

Project-Specific Solid Waste Impacts and Mitigation Measures

Uses in the Master Plan area would be required to comply with applicable regulations related to solid waste and recycling as discussed in the setting section above.

Residential development in the Plan area would be expected to result in 6.9 tons of solid waste per day. While the specifics of the commercial, office and business park development could result in variations to the solid waste generation and the density of that waste, an estimate of 14.9 tons per day was used for this analysis based on employee waste generation factors.

This is equal to about five percent of the remaining daily permitted capacity of the Fink Road Landfill. As the solid waste generated by the Master Plan would be less than 1 percent of the daily permitted amount and the current landfill has capacity until 2023, or longer if it is expanded as assumed, the proposed General Plan would not exceed the capacity of the landfill. Recycling efforts and the diversion to the SRRF would significantly reduce the amount of waste requiring landfilling. Because the Fink Road landfill has adequate capacity to serve the proposed Master Plan, the impact is considered *less than significant*.

Cumulative Solid Waste Impacts and Mitigation Measures

Growth within Stanislaus County, including the Master Plan area, would contribute to the need for adequate solid waste disposal facilities in the region. As discussed for the project-level analysis, the Fink Road landfill has capacity until at least 2023, and is planning for additional expansions to meet the regional demand for solid waste disposal.

The cumulative population growth within the County was considered and will continue to be considered when evaluating the lifespan of the facility and planning for future expansions. As a result, it can be concluded that there would be adequate capacity to support regional increases in population, and a significant cumulative impact would not occur.

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OTHER CEQA CONSIDERATIONS

CUMULATIVE IMPACTS

CEQA requires the analysis of impacts due to cumulative development that would occur independent of, but during the same timeframe as, the project under consideration, or in the foreseeable future. By requiring an evaluation of cumulative impacts, CEQA attempts to minimize the potential that large-scale environmental impacts would be ignored due to the project-by-project nature of project-level analyses contained in EIRs.

Cumulative analyses need not be undertaken in the same manner as those aimed at evaluating the project under consideration. According to Section 15130(b) of the CEQA Guidelines:

The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as great detail as provided of the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness, and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact. The following elements are necessary to an adequate discussion of cumulative impacts:

CUMULATIVE CONTEXT

Cumulative analyses included in this EIR are based on an understanding of anticipated growth within the region that would affect the severity of project impacts identified in this EIR, based on adopted plans (e.g., General Plans) for Newman, surrounding cities and the county. Different analyses use different cumulative development scenarios, because the location of future growth that affects cumulative impacts differs by the type of resource. As an example, the appropriate cumulative development base would be growth throughout the San Joaquin Valley Air Basin, because growth throughout the air basin contributes to air pollution.

SUMMARY OF CUMULATIVE IMPACTS

The potential for cumulative impacts are discussed within the analysis chapters 4 through 19. In summary, development of the Plan area as proposed would contribute to a cumulative increase in impacts related to aesthetics, air quality, disturbance of special-status species, soil erosion, hazardous materials, utilities, and some of the impacts related to increases in traffic. However, the Project's contribution to these cumulative effects would be *less than significant* or would be reduced to a level of less than cumulatively considerable through implementation of any project-specific mitigation measures.

Development of the Plan area as proposed would contribute to a cumulative increase in impacts related to regional air quality emissions, GHG emissions, traffic noise, traffic (intersection-specific) for which no feasible mitigation has been identified that would reduce these cumulative effects to less than significant levels, and they would remain *significant and unavoidable*.

GROWTH INDUCING IMPACTS

An EIR must discuss the ways in which a proposed project could foster economic or population growth or the construction of additional housing in the vicinity of the project and how that growth would in turn, affect the surrounding environment (CEQA Guidelines Section 15126 [g]). Growth can be induced in a number of ways, including through the elimination of obstacles to growth, or through the stimulation of economic activity within the region. The discussion of the removal of obstacles to growth relates directly to the removal of infrastructure limitations or regulatory constraints that could result in growth unforeseen at the time of project approval.

Several factors must be considered when assessing the growth-inducing effects of a project. These include the following:

Elimination of Obstacles to Growth: The extent to which infrastructure capacity provided to the plan area or a change in regulatory structure would allow additional development in the Newman community; and

Promotion of Economic Expansion: The extent to which development of the proposed development could cause increased activity in the local or regional economy. Economic effects can include such effects as:

- **Increased Indirect Demand:** The extent to which the proposed Master Plan could generate secondary or indirect effects on other employment industries in the region.
- **Increased Pressure on Land Use Intensification:** The extent to which the proposed Master Plan would increase pressure on the City of Newman and/or cities or other counties in the Central Valley to redesignate land to higher land use intensities.

ELIMINATION OF OBSTACLES TO GROWTH

The elimination of either physical or regulatory obstacles to growth is considered to be a growth-inducing effect. A physical obstacle to growth typically involves the lack of public service infrastructure. The extension of public service infrastructure, including roadways, water mains, and sewer lines, into areas that are not currently provided with these services would be expected to support new development. Similarly, the elimination or change to a regulatory obstacle, including existing growth and development policies, could result in new growth.

While new infrastructure would be required to serve the proposed Master Plan, this infrastructure will be sized to serve the proposed Master Plan, as growth is not anticipated outside the SOI/annexed area. Any new development would occur in the Plan area. Therefore, the provision of infrastructure is only one aspect of enabling growth of the City to occur.

PROMOTION OF ECONOMIC EXPANSION

The proposed Master Plan would increase economic activity. Construction would increase employment opportunities temporarily. Once occupied, new residential development typically generates a secondary or indirect demand for other services, such as grocery stores, dry cleaners, banking, and communications. This demand is anticipated to be met by planned commercial area in the Plan area as well as existing commercial areas in other parts of Newman and the surrounding communities.

Increased economic activity can increase demand for new construction, and create pressure to either expand into undeveloped areas or increase the density of development within urban areas. This pressure would also increase as a result of residents encroaching on areas traditionally used for farming.

In summary, the proposed Master Plan would contribute to economic activity in Stanislaus County and surrounding region, and could induce growth. Direct effects on growth, that is, the increased population due to residents living in the proposed Master Plan, is the subject of this DEIR. The indirect growth due to increased demand for goods and services, combined with encroachment into an agricultural area, could result in pressure to expand the development area and/or develop additional housing elsewhere in the City or County. However, the rate of growth would be dependent on market forces, and how it would affect housing development elsewhere in the County is not known at this time.

SIGNIFICANT AND UNAVOIDABLE IMPACTS

According to CEQA Guidelines [Section 15126, subd. (b); Section 21000, subd. (b)], a DEIR must include a description of those impacts identified as significant and unavoidable should the proposed action be implemented. These impacts are unavoidable because it has been determined that either no mitigation, or only partial mitigation, is feasible. The final determination of significance of impacts and of the feasibility of mitigation measures would be made by the Newman City Council as part of certification action.

The potential environmental impacts that would result from the proposed Master Plan are summarized in **Table 2.1**. In most cases, impacts that have been identified would be less than significant after incorporation of the mitigation measures described in **Table 2.1**. Those impacts that cannot be feasibly mitigated to a less than significant level would remain as significant unavoidable adverse impacts, and are summarized in Chapter 2 of this document.

SIGNIFICANT IRREVERSIBLE ENVIRONMENTAL EFFECTS

Under CEQA, an EIR must analyze the extent to which a project's primary and secondary effects would commit resources to uses that future generations will probably be unable to reverse [CEQA Guidelines Section 15126.2(c); 15127].

Implementation of the proposed Master Plan would result in the long-term commitment of resources to Plan area development. Specific long-term effects of the proposed Master Plan could include:

- Increased ambient noise;
- Irreversible commitment of municipal resources to the provision of service and infrastructure for future urban and suburban development;
- Irreversible consumption of goods and services associated with urban development;
- Increased traffic volumes on existing roadways; and
- Irreversible consumption of natural resources.

Those impacts that could be significant are addressed throughout this Draft EIR. See, for example, the chapters of this document discussing Transportation and Circulation, Noise, and Utilities.

Development of the Plan area as proposed could result in the commitment of nonrenewable resources (e.g., gravel and petroleum products) and slowly renewable resources (e.g., wood products) used in construction. The maintenance of structures in the Plan area would also require further commitment of energy resources (e.g., petroleum products for vehicle operations, natural gas and electricity for lighting, heating, and cooling). Although the Project would result in the irreversible commitment of resources, it would provide benefits, such as increasing the supply of housing and providing job opportunities.

The proposed Project would commit future generations to development in the Plan area, since it is unlikely to be economically feasible or prudent to restore the site to its pre-development agricultural condition once development there has taken place.

The Plan area is currently in agricultural use, and the development in the Plan area would require additional electric and gas service for the foreseeable future. However, these additional services are expected to be within the capabilities of the utility providers, and no major delivery upgrades for these utility systems are expected to be necessary as a result of Project development. In addition, resources would be necessary for the construction of structures at the Project site, most of which could not be readily recovered once committed to construction.

The proposed development of the Plan area would result in a permanent, irreversible change in the visual appearance of the site. The placement of impermeable surfaces in the Plan area (e.g., structures, parking areas, roadways) would also be regarded as a significant irreversible change associated with development of the proposed Plan.

ALTERNATIVES

INTRODUCTION

The primary intent of the alternatives evaluation in an EIR, as stated in Section 15126(d) of the CEQA Guidelines, is to "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain 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." Further, the Guidelines state that "the discussion of alternatives shall focus on alternatives capable of eliminating any significant adverse environmental effects or reducing them to a level of insignificance, even if these alternatives would impede to some degree the attainment of the project objectives, or would be more costly." An EIR must describe a range of reasonable alternatives to a proposed project that could feasibly attain most of the basic objectives of the project.

The following alternatives are evaluated in this chapter:

1. **Alternative 1, No Project/No Development:** Assumes that no new development would occur in the Plan area, which would remain largely in agricultural use.
2. **Alternative 2, Reduced Intensity:** Assumes that the Plan area would develop according to a reduced intensity development plan that increases the amount of area for residential and reduces the amount of area for commercial while still preserving a mix of uses.
3. **Alternative 3, Reduced Footprint:** Assumes that the total area for Plan development would be reduced by about half, with the plan for development in the eastern half being retained and the western half (proposed under the Plan as residential and park development) remaining in agricultural use. Under this plan, the remaining Plan area would develop with a mix of residential, business park, community commercial, office, and parks uses, while reducing the total residential acreage available for development under the Plan.

Each of the alternatives is described in more detail, below. In addition to the description provided for each alternative, this chapter provides a comparative analysis of the potential environmental effects resulting from each alternative and the extent to which each alternative supports the statutory objectives and stated purpose of the proposed Master Plan.

ALTERNATIVES CONSIDERED AND ELIMINATED FROM FURTHER ANALYSIS

The requirement that an EIR evaluate alternatives to a proposed project or alternatives to the location of a proposed project is a broad one, since the primary intent of the alternatives analysis is to disclose other ways that the objectives of the project could be attained while reducing the magnitude of, or avoiding, the environmental impacts of the proposed project. However, the Public Resources Code and the CEQA Guidelines direct that the EIR need "set forth only those alternatives necessary to

permit a reasoned choice." The CEQA Guidelines provide definition for "a range of reasonable alternatives" and, thus, limit the number and type of alternatives that may need to be evaluated in a given EIR. According to the CEQA Guidelines: "The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project. Of those alternatives, the EIR need examine in detail only the ones that the lead agency determined could potentially feasibly attain most of the basic objectives of the project."⁷¹ Finally, an EIR is not required to analyze alternatives when the effects of the alternative "cannot be reasonably ascertained and whose implementation is remote and speculative."⁷²

The CEQA Guidelines do not provide specific direction regarding the methodology of comparing alternatives and the proposed project. Each project must be evaluated for the issues and impacts that are most important; this will vary depending on the project type and the environmental setting. Issue areas that are generally given more weight in comparing alternatives are those with significant long-term impacts. Impacts that are short-term (e.g., construction-related impacts) or those that can be mitigated to less than significant levels are generally considered to be less important.

The following alternatives were considered briefly, but eliminated from further analysis as discussed below.

Reducing Residential Intensity

Reducing the intensity of residential development was considered as a way to reduce or avoid significant and unavoidable traffic and regional emissions impacts by lowering the number of new trips. As discussed under the alternatives below, a 20% reduction in new vehicle trips would be required to affect impact conclusions. Under this alternative, proposed high density residential uses would become mixed density and some of the mixed density residential (area PMR 1 adjacent to the proposed VLDR) would become very low density residential. However, most of the new vehicle trips come from non-residential uses. By focusing on reduced residential density, this alternative would achieve only an approximately 1,500-vehicle trip reduction, with a remaining 6,000 trip reduction still necessary. The General Plan limits the amount of very low density residential in the master plan area to 10% of the units, so it would not be allowed to change all the proposed area to very low residential. Therefore, reducing the residential intensity would not substantially reduce impacts and was not evaluated further as an alternative.

Alternative Location

The Plan area considered in this EIR matches exactly a Master Plan area identified in the City's General Plan. Other General Plan identified Master Plan areas would be considered separately as separate projects. As an identified Master Plan area with no constraints on order of Master Plans or relative timing of the Master Plans, there is no reason under CEQA to consider development of a different identified Master Plan area instead of that proposed as a part of this EIR.

Further Reducing Footprint and/or Intensity

Alternatives were chosen for assessment in this EIR based on ability to address one or more significant impacts. The traffic consultants assessed the potential for reduced traffic to result in reduced impacts, as detailed in the traffic alternatives analysis included as **Appendix G**. A reduction

^{71.} State of California, CEQA Guidelines, Section 15126(d)(5).

^{72.} State of California, CEQA Guidelines, Section 15126(d)(5)(C).

of approximately 20% of daily trips was determined to reduce the project-specific impact on the SR 33 roadway segment from Jensen Road to Yolo Street below significance levels. Impacts to intersections would require even more substantial trip reductions that were determined not to result in feasible alternatives. Due to cumulative traffic increases, cumulative traffic impacts would occur with or without development in the Plan area. Therefore, further reduced alternatives were not included in this analysis.

ALTERNATIVES TO THE PROPOSED PROJECT

As discussed in Chapter 3, the purpose of the proposed Master Plan is to develop the Plan area to meet the existing and anticipated future needs of the expanding Newman community, with the following objectives:

1. Develop land uses that will enhance and complement the small-town character of Newman.
2. Program land uses in response to current and future market conditions in and around the City of Newman.
3. Develop the commercial and employment potential of the SR 33 corridor along the Plan area.
4. Provide a diversity of active and passive parks and open space.
5. Locate land uses and roadway and walkway networks to support walking and bicycling.
6. Provide a safe and efficient neighborhood circulation network that promotes connectivity and access for motorists, pedestrians, bicyclists and transit throughout the Plan area.
7. Provide a sufficient system of public facilities and services that accommodate the needs of future residents within the Plan area and does not diminish current levels of public facilities and services.
8. Promote a high-quality residential area for move-up homes in the community.
9. Provide for public safety for future dwellings and residents, especially from flooding hazards.
10. Help to provide adequate and available sites for all forms of housing consistent with the Housing Element of the Newman General Plan.

The significant and unavoidable impacts of the proposed Master Plan are:

- Construction-related particulate dust and other pollutant emissions (Impact Air-1)
- Operational ozone and particulate matter emissions (Impact Air-2)
- Construction and operational cumulative contributions to ozone and particulate matter emissions (Impact Air-4)
- Increases in greenhouse gas emissions (Impact Climate-1)
- Construction noise over an extended period (Impact Noise-4)
- Increased traffic on the SR 33 & Yolo Street intersection (Impact Traf-17) and roadway segment SR 33 - Jensen Road to Yolo Street (Impact Traf-24), for which no feasible mitigation has been identified to reduce the impacts to less than significant.
- Increased traffic on the Stuhr Road–Draper Road to Eastin Road and Eastin Road to Interstate 5 roadway segments (Impact Traf-25), for which no mechanism currently exists for City

development to participate on a “fair share” basis in the costs of maintaining and improving roads outside of the City limits.

- Additionally, the General Plan EIR previously identified impacts related to loss of agricultural land and traffic noise impacts related to build-out including in this Master Plan area. These would not be new impacts under the proposed Plan.

This alternatives analysis focuses on each alternative’s ability to avoid or reduce these significant and unavoidable impacts.

ALTERNATIVE 1: NO PROJECT/NO DEVELOPMENT

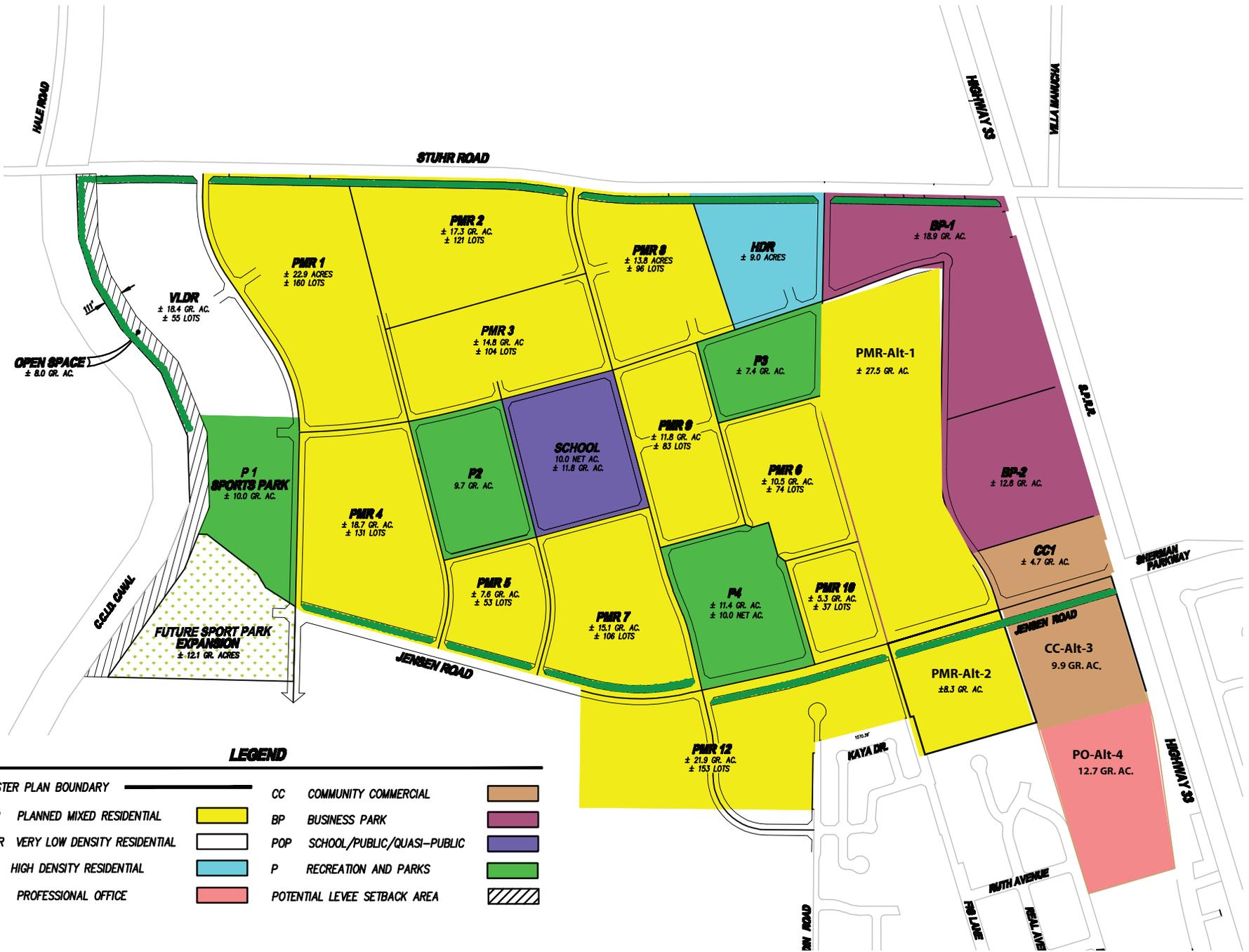
CEQA requires that a “No Project” alternative be evaluated. The purpose of the No Project alternative is to allow decision makers to compare the impacts of a proposed project with the impacts of not approving the project [CEQA Guidelines Section 15126.6(e)(1)]. One potential outcome from a decision not to approve the project would be a no development scenario. In the case of a revision to an existing land use plan, such as the General Plan or a Community Plan, the No Project alternative is the continuation of the existing plan [CEQA Guidelines Section 15126.6(e)(3)(A)].

Under a “no development” alternative, the Plan area would remain within the City’s Sphere of Influence, but would not be annexed into its municipal boundary. The current mix of agricultural uses (primarily row crops), ranchettes (single-family dwellings on larger lots) and single-family residences, highway-oriented commercial, and light industrial land uses would remain unchanged. A No Project/No Development alternative would not meet any of the project objectives, because it would not annex the Plan area to the City of Newman, and no new development would occur. There would be no impacts on the environment, because no new development would occur within the Plan area.

Although rejecting development of this site could transfer the growth to another location, which would likely result in impacts similar to those seen with the proposed Plan in a different location, a different location has not been identified, and therefore such a comparison would be speculative and is not included in this analysis.

ALTERNATIVE 2: REDUCED INTENSITY

Under Alternative 2, the Plan area would be annexed into the City of Newman, but it would develop according to a reduced density development plan that increases residential development, slightly increases office development, and reduces business park and community commercial development, while maintaining a mix of uses in the Plan area. Alternative 2 replaces 35.8 acres of non-residential uses with residential uses, specifically by replacing the 27.5-acre area BP-3 with PMR, replacing 8.3-acre area PO with PMR. To retain office uses, the 12.7-acre southern two parcels of CC2 would be replaced with PO. As shown in **Table 21.1**, the total number of acres to be developed would be the same as under the proposed Master Plan. **Figure 21.1** shows generally what this alternative could look like.



LEGEND

MASTER PLAN BOUNDARY		CC COMMUNITY COMMERCIAL	
PMR PLANNED MIXED RESIDENTIAL		BP BUSINESS PARK	
VDR VERY LOW DENSITY RESIDENTIAL		POP SCHOOL/PUBLIC/QUASI-PUBLIC	
HDR HIGH DENSITY RESIDENTIAL		P RECREATION AND PARKS	
PO PROFESSIONAL OFFICE		POTENTIAL LEVEE SETBACK AREA	

Figure 21.1: Conceptual Alternative 2

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TABLE 21.1: COMPARISON OF ALTERNATIVE 2 TO THE PROPOSED PLAN

Land Use	Proposed Plan			Alternative 2		
	Acreage	Max Yield	Daily Trips	Acreage	Max Yield	Daily Trips
Business Park (BP)	59.2	902,563 sf	11,229	31.7	483,298 sf	6,013
Community Commercial (CC)	27.3	297,297 sf	12,694	14.6	158,994 sf	6,789
Professional Office (PO)	8.3	90,387 sf	1,619	12.7	138,303 sf	2,477
<i>Total Non-residential Uses</i>	<i>94.8</i>	<i>1,290,247 sf</i>	<i>25,542</i>	<i>59</i>	<i>780,595 sf</i>	<i>15,279</i>
<i>Total Employees</i>	<i>2,372 employees</i>			<i>1,527 employees</i>		
High Density Residential (HDR)	9	180 units	1,197	9	180 units	1,197
Planned Mixed Residential (PMR)	159.5	1,118 units	10,302	159.5	1,369 units	12,611
Very Low Residential (VLR)	18.4	55 units	524	18.4	55 units	524
<i>Total Residential Uses</i>	<i>186.9</i>	<i>1,353 units</i>	<i>12,023</i>	<i>222.7</i>	<i>1,604 units</i>	<i>14,332</i>
<i>Total Residents</i>	<i>4,573 residents</i>			<i>5,422 residents</i>		
Roads, Parks, School, etc.	80.1			80.1		
Total	361.8		37,565	361.8		29,611

Utility infrastructure may be sized for reduced capacity demanded under Alternative 2, but would otherwise be similar to the proposed Plan.

Although difficult to quantify, a reduction in intensity of development in the Plan area could ultimately lead to development elsewhere to meet demand and therefore ultimately development of a greater amount of land.

Applicable policies, implementation measures and guidelines of the Master Plan would be implemented under this alternative.

RELATIONSHIP OF ALTERNATIVE 2 TO PROJECT OBJECTIVES

Alternative 2 would meet the following project objectives:

- Develop land uses that will enhance and complement the small-town character of Newman.
- Provide a diversity of active and passive parks and open space.
- Locate land uses and roadway and walkway networks to support walking and bicycling.
- Provide a safe and efficient neighborhood circulation network that promotes connectivity and access for motorists, pedestrians, bicyclists and transit throughout the Plan area.

- Provide a sufficient system of public facilities and services that accommodate the needs of future residents within the Plan area and does not diminish current levels of public facilities and services.
- Promote a high-quality residential area for move-up homes in the community.
- Provide for public safety for future dwellings and residents, especially from flooding hazards.
- Help to provide adequate and available sites for all forms of housing consistent with the Housing Element of the Newman General Plan.

Due to reductions in non-residential uses, however, Alternative 2 would meet to a reduced degree the commercial and employment potential of the SR 33 corridor along the Plan area. As a result, this alternative would not necessarily respond to current and future market conditions in and around the City of Newman.

ENVIRONMENTAL ANALYSIS

Agriculture

Implementation of Alternative 2 would result in the same amount of conversion of farmland (Impact Ag-1) as under the proposed Plan. This is not a new impact, but one identified in the City of Newman General Plan EIR, which would remain the same with the Plan or Alternative 2.

Air Quality

Construction dust impacts (Impacts Air-1 and Air-4) would be similar to the proposed Master Plan because the same acreage of land disturbed for new development and would remain significant and unavoidable under Alternative 2.

Although Alternative 2 would increase traffic and associated operational vehicle emissions (Impacts Air-2 and Air-4), it would do so to a lesser degree (20% fewer daily vehicle trips) than under the proposed Plan. These impacts would be marginally reduced under Alternative 2, because vehicle trip emissions would be reduced as compared with the Plan. However, emissions would remain above GAMAQI significance thresholds, and these impacts would remain significant and unavoidable under Alternative 2.

Greenhouse Gas Emissions

Although new development in the Plan area under Alternative 2 will result in increased GHG emissions (Impact Climate-1), it would do so to a lesser degree (20% fewer daily vehicle trips) than under the proposed Plan. These impacts would be marginally reduced under Alternative 2, because vehicle trip emissions would be reduced as compared with the Plan. Implementation of mitigation measure Climate-1 would reduce GHG emissions, but these emissions would remain above GAMAQI significance thresholds, and these impacts would remain significant and unavoidable under Alternative 2.

Land Use

Alternative 3 would generally satisfy General Plan requirements for planning this Master Plan area and would not result in conflicts. Conclusions would remain generally the same as under the proposed Plan.

Noise

Implementation of Alternative 2 would increase traffic noise levels substantially at sensitive uses along project roadways in its vicinity (Impacts Noise-3 and Noise-5), similar to although to a lesser degree (20% fewer daily vehicle trips) than under the proposed Plan. This is not a new impact, but one identified in the City of Newman General Plan EIR, which would remain the same with the Plan or Alternative 2.

Construction noise impacts (Impact Noise-4) would be similar to the proposed Master Plan because development would occur over the entire area and would remain significant and unavoidable under Alternative 2.

Transportation and Traffic

The addition of Plan traffic to intersections and roadway segments would be reduced 20% under Alternative 2 as compared with the proposed Plan. This would marginally reduce significant and unavoidable and less than significant impacts identified under the proposed Plan for intersections and roadway segments but not change significance conclusions except for the following.

The SR 33 roadway segment from Jensen Road to Yolo Street (Impact Traf-6) would be less than significant under Alternative 2, whereas it was significant and unavoidable under the proposed Plan. However, note that significant and unavoidable cumulative impacts along this segment (Impact Traf-24) would still occur with addition of cumulative traffic and MM Traf-6 would need to be funded to reduce, but not fully mitigate, impacts along this segment.

Other Impacts

Because the same total area would be disturbed and developed under Alternative 2 as under the proposed Plan, all other impacts would remain the same or similar to those identified for the proposed Plan and the identified mitigation measures would be required to reduce impacts to less than significant levels.

ALTERNATIVE 3: REDUCED FOOTPRINT

Under Alternative 3, the footprint of the Plan area would be substantially reduced such that it no longer coincided with the Master Plan Area 3 identified in the General Plan. Under this alternative, the Plan area would be roughly halved such that the western half would be removed from the Plan area. Because the western portion of the Plan area is proposed for residential uses, this would have the effect of resulting in substantially fewer residential units to be developed over a smaller area. As shown in **Table 21.2**, non-residential uses—such as business park, community commercial, and office uses—would remain unchanged under this alternative as these are in the retained eastern portion of the Plan area. Under this alternative, the western half of the area would not be included in the Master Plan or annexed into the city. **Figure 21.2** shows generally what this alternative could look like.

TABLE 21.2: COMPARISON OF ALTERNATIVE 3 TO THE PROPOSED PLAN

Land Use	Proposed Plan			Alternative 3		
	Acreage	Max Yield (sf)	Daily Trips	Acreage	Max Yield (sf)	Daily Trips
Business Park (BP)	59.2	902,563	11,229	59.2	902,563	11,229
Community Commercial (CC)	27.3	297,297	12,694	27.3	297,297	12,694
Professional Office (PO)	8.3	90,387	1,619	8.3	90,387	1,619
<i>Total Non-residential Uses</i>	<i>94.8</i>	<i>1,290,247</i>	<i>25,542</i>	<i>94.8</i>	<i>1,290,247</i>	<i>25,542</i>
<i>Total Employees</i>		<i>2,372</i>			<i>2,372</i>	
High Density Residential (HDR)	9	180	1,197	0	0	0
Planned Mixed Residential (PMR)	159.5	1,118	10,302	72.2	505	4,657
Very Low Residential (VLR)	18.4	55	524	0	0	0
<i>Total Residential Uses</i>	<i>186.9</i>	<i>1,353</i>	<i>12,023</i>	<i>72.2</i>	<i>505</i>	<i>4,657</i>
<i>Residents</i>		<i>4,573</i>			<i>1,707</i>	
Roads, Parks, School etc.	80.1			36		
Total	281.7	2,643,247	37,565	203	1,795,247	30,199

Alternative 3 achieves an approximate 20% reduction in vehicle trips through the reduction in the area available to develop residential uses.

Utility infrastructure would be sized for reduced capacity demanded under Alternative 3.

Although difficult to quantify, a reduction in the area and intensity of development in the Plan area could ultimately lead to development elsewhere to meet demand and therefore ultimately development of a greater amount of land.

Applicable policies, implementation measures and guidelines of the Master Plan would be implemented under this alternative.

RELATIONSHIP OF ALTERNATIVE 3 TO PROJECT OBJECTIVES

Alternative 3 would meet the following project objectives:

- Develop land uses that will enhance and complement the small-town character of Newman.
- Develop the commercial and employment potential of the SR 33 corridor along the Plan area.
- Locate land uses and roadway and walkway networks to support walking and bicycling.

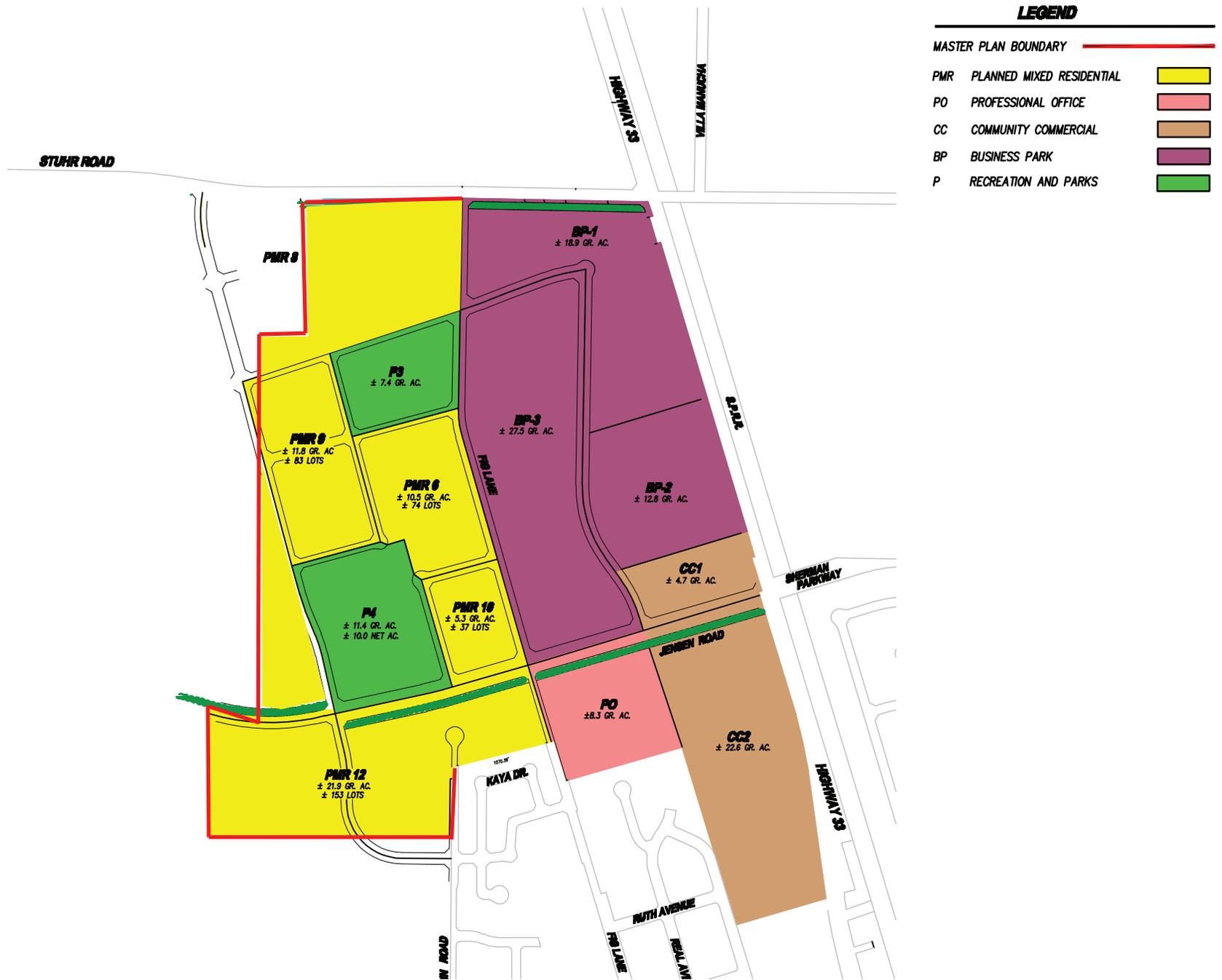


Figure 21.2: Conceptual Alternative 3

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- Provide a safe and efficient neighborhood circulation network that promotes connectivity and access for motorists, pedestrians, bicyclists and transit throughout the Plan area.
- Provide for public safety for future dwellings and residents, especially from flooding hazards.
- Help to provide adequate and available sites for all forms of housing consistent with the Housing Element of the Newman General Plan.

Due to reductions in the footprint for developing residential and non-residential uses, however, Alternative 3 would meet to a reduced degree the provision of a diversity of active and passive parks and open space, the provisions of sufficient system of public facilities and services that accommodate the needs of future residents, and potentially the promotion of a high-quality residential area for move-up homes. As a result, this alternative would not necessarily respond to current and future market conditions in and around the City of Newman.

ENVIRONMENTAL ANALYSIS

Agriculture

Implementation of Alternative 3 would disturb roughly half the area and therefore, would result in direct conversion of approximately half the amount of farmland (Impact Ag-1) as under the proposed Plan. This is not a new impact, but one identified in the City of Newman General Plan EIR, and while the area directly converted would be reduced under Alternative 3, significance conclusions for plan-specific and cumulative loss of agricultural land under the General Plan development would remain unchanged.

Air Quality

Construction dust impacts (Impacts Air-1 and Air-4) would be reduced from the proposed Master Plan by roughly 50% because of the reduced acreage of land disturbed for new development. However, emissions would remain above GAMAQI significance thresholds, and these impacts would remain significant and unavoidable under Alternative 3.

Although Alternative 3 would increase traffic and associated operational vehicle emissions (Impacts Air-2 and Air-4), it would do so to a lesser degree (20% fewer daily vehicle trips) than under the proposed Plan. These impacts would be marginally reduced under Alternative 3, because vehicle trip emissions would be reduced as compared with the Plan. However, emissions would remain above GAMAQI significance thresholds, and these impacts would remain significant and unavoidable under Alternative 3.

Greenhouse Gas Emissions

Although new development in the Plan area under Alternative 3 will result in increased GHG emissions (Impact Climate-1), it would do so to a lesser degree (20% fewer daily vehicle trips) than under the proposed Plan. These impacts would be marginally reduced under Alternative 3, because vehicle trip emissions would be reduced as compared with the Plan. Implementation of mitigation measure Climate-1 would reduce GHG emissions, but these emissions would remain above GAMAQI significance thresholds, and these impacts would remain significant and unavoidable under Alternative 3.

Land Use

Alternative 3 would not be fully consistent with Goal LU-2 of the General Plan, which relies on comprehensive planning of identified Master Plan areas to promote balanced development of residences and employment. It would also meet to a lesser degree Goals LU-1 and LU-4 of the General Plan because of the considerable reduction in residential development proposed under this alternative and inclusion of only PMR-type residential. Incomplete planning of the identified Master Plan area, such as that represented by Alternative 3, would represent a conflict with the General Plan.

Noise

Implementation of Alternative 3 would increase traffic noise levels substantially at sensitive uses along project roadways in its vicinity (Impacts Noise-3 and Noise-5), similar to although to a lesser degree (20% fewer daily vehicle trips) than under the proposed Plan. This is not a new impact, but one identified in the City of Newman General Plan EIR, which would remain the same with the Plan or Alternative 3.

Construction noise impacts (Impact Noise-4) would be reduced from the proposed Master Plan by roughly 50% because of the reduced acreage of land disturbed for new development. However, construction noise would still be prolonged and would remain significant and unavoidable under Alternative 3.

Transportation and Traffic

The addition of Plan traffic to intersections and roadway segments would be reduced 20% under Alternative 3 as compared with the proposed Plan. This would marginally reduce significant and unavoidable and less than significant impacts identified under the proposed Plan for intersections and roadway segments but not change significance conclusions except for the following.

The SR 33 roadway segment from Jensen Road to Yolo Street (Impact Traf-6) would be less than significant under Alternative 3, whereas it was significant and unavoidable under the proposed Plan. However, note that significant and unavoidable cumulative impacts along this segment (Impact Traf-24) would still occur with addition of cumulative traffic and MM Traf-6 would need to be funded to reduce, but not fully mitigate, impacts along this segment.

Other Impacts

Because only roughly half the area would be disturbed under Alternative 3 as under the proposed Plan, impacts related to disturbance such as those related to biological resources, cultural resources, geology and soil, hydrology, etc., would also be reduced, though identified mitigation would still be required and significance conclusions would remain unchanged. Similarly, impacts related to increased population and development, such as those related to population, public services, and utilities would also be reduced, though again, identified mitigation would still be required and significance conclusions would remain unchanged.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

This section of the alternatives analysis provides a discussion of the environmentally superior alternative. **Table 21.3** lists each alternative and topic areas with potential impacts, and indicates whether or not that alternative would have impacts less than, the same as, or greater than the proposed project for each topic area. Note that, as discussed in the analysis above, in the case of this project the terms “similar/greater” and “similar/less” indicate differences in the extent of resulting impact

without changes in the resulting significance of the impact. Therefore, “similar/less” impact does not equate to being “substantially less.” The terms “less” or “greater” are used to indicate substantial changes in the impact or in the resultant level of significance of an impact.

An EIR is required to identify the environmentally superior alternative from among the range of reasonable alternatives that are evaluated. CEQA Section 15126(d)(2) states that if the environmentally superior alternative is the No Project Alternative, the EIR shall also identify an environmentally superior alternative from among the other alternatives.

Resulting in no change from existing conditions and therefore no environmental impacts, the No Project/No Development Alternative (Alternative 1) would be the environmentally superior alternative. However, this alternative would fail to meet all of the project objectives.

TABLE 21.3: ALTERNATIVE COMPARISON

Impact Topic Areas	Alternative 1	Alternative 2	Alternative 3
Aesthetics	Less	Same	Similar/Less
Agricultural Resources	Less	Same	Similar/Less
Air Quality	Less	Similar/Less	Similar/Less
Biological Resources	Less	Same	Similar/Less
Cultural Resources	Less	Same	Similar/Less
Geology and Soils	Less	Same	Similar/Less
Greenhouse Gas Emissions	Less	Similar/Less	Similar/Less
Hazards and Hazardous Materials	Less	Same	Similar/Less
Hydrology and Water Quality	Less	Same	Similar/Less
Land Use and Planning	Less	Same	Greater
Mineral Resources	Less	Same	Same
Noise	Less	Similar/Less	Similar/Less
Population and Housing	Less	Similar/Less	Similar/Less
Public Services and Recreation	Less	Similar/Less	Similar/Less
Transportation and Traffic	Less	Less	Less
Utilities and Services Systems	Less	Same	Similar/Less

Following the No Project/No Development Alternative (Alternative 1), the Reduced Footprint Alternative (Alternative 3) would be considered the environmentally superior alternative. However, several of the project objectives would remain unmet under Alternative 3 as this alternative does not meet General Plan requirements for comprehensive planning of the entire identified Master Plan area.

Alternative 2, representing reduced intensity of development (through more residential and less non-residential uses) would also be environmentally superior to the proposed Plan and would generally meet General Plan requirements and most project objectives. However, note that the one impact that would be substantially reduced under both Alternatives 2 and 3, the plan-specific contribution of traffic to a SR-33 roadway segment, would only be reduced below threshold levels when considering development in the Plan area only. Cumulative increases in traffic in the region would still result in this segment operating below acceptable operation levels under future conditions, so the impact to this segment would not ultimately be avoided through either alternative.

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ACRONYMS AND TERMS

AADT	annual average daily traffic
AB	Assembly Bill
ACOE	U.S. Army Corps of Engineers
AIA	air quality impact assessment
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CALGreen	California Green Building Standards Code
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCID	Central California Irrigation District
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNEL	community noise equivalent level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CRHR	California Register of Historical Resources
CRMP	Cultural Resources Management Plan
dB	decibel
dBA	A-weighted decibel
DDT	dichlorodiphenyltrichloroethane
DEIR	Draft Environmental Impact Report

DOT	Department of Transportation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
EPAP	Existing Plus Approved Projects
ESA	Endangered Species Act
ETRIP	Employer Trip Reduction Implementation Plan
FEIR	Final Environmental Impact Report
FHWA	Federal Highway Administration
FMMP	Farmland Mapping and Monitoring Program
GAMAQI	Guide for Assessing and Mitigating Air Quality Impacts
GHG	greenhouse gas
GWP	global warming potential
HAP	hazardous air pollutant
HCM	Highway Capacity Manual
I-5	Interstate 5
IPCC	Intergovernmental Panel on Climate Change
ISR	Indirect Source Review
ITE	Institute of Transportation Engineers
IWMP	Integrated Waste Management Plan
L _{dn}	Day / Night Average Sound Level
L _{eq}	equivalent noise level
LAFCO	Local Agency Formation Commission
LCFS	low carbon fuel standard
LOS	level of service
µg/m ³	micrograms per cubic meter

MBTA	Migratory Bird Treaty Act
mgd	million gallons per day
MS4	Municipal Separate Storm Sewer System
MSAT	mobile source air toxics
MMTCO ₂ e	million metric tons carbon dioxide equivalent
mpg	miles per gallon
MRZ	Mineral Resource Zone
NAAQS	National Ambient Air Quality Standards
NCLUDS	Newman-Crows Landing Unified School District
NEV	neighborhood electric vehicles
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOP	Notice of Preparation
NPDES	National Pollution Discharge Elimination System
NPS	nonpoint source
NRCS	Natural Resource Conservation Service
NRHP	National Register of Historic Places
NSR	New Source Review
O ₃	ozone
OHP	Office of Historic Preservation
OPR	Office of Public Research
OSHA	Occupational Safety and Health Administration
Pb	lead
Plan	Northwest Newman Master Plan
PM _{2.5}	particulate matter, 2.5 micrometers or less
PM ₁₀	particulate matter, 10 micrometers or less
ppm	parts per million

PPV	peak particle velocity
PRC	Public Resources Code
PUC	Public Utilities Commission
RCRA	Resource Conservation and Recovery Act
RMS	root mean square
ROG	reactive organic gas
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SCS	Sustainable Communities Strategy
SIP	State Implementation Plan
SJVAPCD	San Joaquin Valley Air Basin
SJVAPCD	San Joaquin Valley Air Pollution Control District
SMARA	Surface Mining and Reclamation Act
SO ₂	sulfur dioxide
SR 33	State Route 33 / Highway 33
StanCOG	Stanislaus Council of Governments
StaRT	Stanislaus Regional Transit
SWMP	Storm Water Management Plan
SWQCB	State Water Quality Control Board
SWPPP	Stormwater Pollution Prevention Plan
TAC	toxic air contaminant
TCR	transportation concept report
UGB	urban growth boundary
UNFCCC	United Nations Framework Convention on Climate Change
UPRR	Union Pacific Railroad

USC	United States Code
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
V/C	volume to capacity
WSA	Water Supply Assessment